

Revision of Regulatory Regimes for Fixed-Mobile Convergence

Consultation Paper 21 September 2005

INTRODUCTION

Currently, fixed and mobile services are two distinct classes of services, provided by separate operators, through separate networks, and with separate charging mechanisms. With the advent of new technologies, fixed and mobile services will converge. Convergent technologies will enable voice, data and multimedia applications to be provided over common core networks, delivered through a range of wireline and wireless customer access networks and accessible from common end-user devices which are usable irrespective of whether the users are at fixed locations or on the move.

2. Fixed-Mobile Convergence (“FMC”) is imminent. As a matter of fact, FMC services are already emerging in the commercial market. There are FMC services in the United Kingdom, which enable users to make (or receive) fixed-line calls and mobile calls with the same handset. Calls made (or received) at home are routed via a short-range wireless means (e.g. Bluetooth/WiFi) to a hub installed within the household and attached to the fixed network chosen by the user. When the user moves out of the range of the hub, the handset will switch seamlessly to wide-area cellular mobile networks (e.g. GSM/3G) or to other public wireless local area networks that are within range.

3. In Hong Kong, telecommunications operators have yet to offer any FMC service at present. However, certain aspects of FMC such as market convergence and terminal equipment convergence are emerging. For instance, some telecommunications operators have offered fixed and mobile services in bundled packages and equipment manufacturers have started to supply the market with dual mode phones for fixed and mobile services (e.g. WiFi/GSM).

In 2006, Broadband Wireless Access (“BWA”) services will be licensed. Initially, BWA will be offered as a wireless extension of the broadband fixed network service with limited mobility. The on-going enhancement of BWA standards is expected to bring about full mobility with commercial products available in the market in the next two to three years. In 2007, the two incumbent terrestrial television broadcasters will launch Digital Terrestrial Television (“DTT”) services capable of supporting fixed and mobile reception. With the DTT platforms, these broadcasters, currently licensed as fixed carriers, will also be able to offer their customers with mobile multimedia and datacasting services. It is foreseeable that FMC services will be made available in Hong Kong in the near future.

4. With FMC ahead, regulators need to develop proactively policies and regulations that will address the issues relating to FMC in a timely and flexible manner. In fact, some overseas economies are in the process of revising their regulatory frameworks to address the issues pertinent to FMC. In Hong Kong, the existing regulatory framework applies differential regulatory treatments to fixed and mobile services. However, such demarcation between “fixed” and “mobile” will become increasingly blurred in the environment of FMC. The Telecommunications Authority (“TA”) is therefore minded to examine whether the current regulatory regimes will continue to facilitate technological applications, infrastructure investment, market development and enhancement of consumer benefits in the environment of FMC.

5. This consultation paper discusses the following major areas of the regulatory framework which may need to be revised in view of the development of FMC:

- (i) Licensing regime;
- (ii) Certain rights and obligations which are currently applied differentially to the fixed and mobile carriers;
- (iii) Interconnection charging arrangement between fixed and mobile services;

- (iv) Local access charge arrangement;
- (v) Fixed/mobile number portability; and
- (vi) Numbering plan.

6. The purpose of this consultation paper is principally to invite views and comments on the possible revisions on issues (i) and (ii) relating to the development of FMC. As explained latter in this paper, separate consultations will be conducted in due course in relation to issues (iii), (iv), (v) and (vi). Preliminary views on and proposed approaches to various issues relating to the subject are expressed in this paper for the purpose of discussion and consultation only. Nothing in this consultation paper represents or constitutes a determination, direction or decision made by the TA. Nothing in this paper should be construed as indicating that the TA has formed any opinion or decision on these issues.

UNIFIED LICENSING FRAMEWORK

Is a Unified Licensing Framework Needed?

7. Fixed services are currently licensed under fixed telecommunications network services (“FTNS”) licences or fixed carrier licences¹ while mobile services are licensed under public radiocommunications services (“PRS”) licences or mobile carrier licences. The two services are subjected to two separate regulatory regimes with different rights and obligations imposed on the licensees. In the environment of FMC, it may become difficult, if not impossible, to classify a service in the market as a fixed or a mobile service, and a carrier as a fixed carrier or mobile carrier, as the service may be used by customers at fixed locations at some times and in motion at other times. It is therefore opportune to review the existing separate licensing frameworks for

¹ Before 1 April 2001, the operation of FTNS was regulated under the FTNS licensing regime. After the carrier licence regime came 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.

fixed and mobile carrier services, and to examine the need of regulatory convergence, that is, the development of a unified licensing framework that suits all forms of carriers and services.

8. The scope of service under a unified licence may be fixed, mobile, or both fixed and mobile services, depending on the scope of services proposed by the licensees in their applications. Unified carrier licensees operating different types of services may be granted different rights and may be required to fulfil different obligations. However, the demarcation between fixed and mobile services may become blurred in the environment of FMC and restricting the scope of service under a unified carrier licence to either fixed or mobile services only might become difficult in the future. Accordingly, the TA will keep monitoring the market situation and may, when the need arises and in consultation with the industry, consider lifting such restrictions and authorise all unified carrier licensees to provide both fixed and mobile services in the future.

9. It may be argued that operators who wish to provide converged services (i.e. services that have the attributes of both fixed and mobile services) can apply for both fixed carrier licence and mobile carrier licence, and therefore there is no need to adopt the unified licensing framework. However, a converged service will at the same time be subjected to the two separate regulatory regimes with different rights and obligations imposed on the service provider. Uncertainty would arise as to which set of rights and obligations is pertinent to a particular regulatory issue that may arise from the provision of the converged service. Accordingly, the TA is of the preliminary view that it is appropriate to adopt a unified licensing framework which clearly sets out the rights and obligations to be imposed on a licensee providing both fixed and mobile services. This should enhance the transparency of the licensing and regulatory framework of converged services and be conducive to technological advancement and market development of such services.

10. Noting that converged services will be available in the market in the

near future, it may be appropriate to commence the study of the unified licensing framework as soon as possible such that we may respond to the issues raised by FMC in a timely manner.

Question (1): Is there any need for a unified licensing framework? Should we commence the detailed formulation of the unified licensing framework now? If not, when should it be commenced?

Transition to a Unified Licensing Framework

11. Under the existing licensing framework, fixed and mobile services are separately licensed under fixed carrier (or FTNS) licences and mobile carrier (or PRS) licences respectively. The TA is of the view that, once the unified licensing framework is in place, the existing fixed carrier licence or mobile carrier licence would no longer be issued to new entrants or to existing licensees whose licences are due for renewal². Under a unified licensing framework, the scope of service of a unified carrier licence may be (i) fixed services; (ii) mobile services; or (iii) both fixed and mobile services. If a carrier licence applicant intends to operate fixed (or mobile) services only, it may apply for a unified carrier licence whose scope of service is restricted to fixed (or mobile) services only. If the licensee subsequently wishes to operate mobile (or fixed) or converged services, it can apply to expand the scope of service of the unified carrier licence.

12. After the unified licensing framework is implemented, existing fixed or mobile carriers may have the discretion to convert their existing licences to a unified carrier licence which covers the *existing* scope of service. If the existing fixed or mobile carriers decide not to apply for unified carrier licence, they should be entitled to continue to operate under their existing fixed carrier (or FTNS) licence or mobile carrier licence for the full term of their current licences. In other words, no fixed or mobile carriers would be forced to

² For the avoidance of doubt, other than the fixed carrier licence and the mobile carrier licence, the TA will continue to issue the fixed carrier (restricted) licence, the mobile carrier (restricted) licence and the space carrier licence after the unified carrier licence is in place.

surrender their existing licences while the licences remain valid. As a matter of fact, it is a business decision for an FTNS licensee to make as to whether or not to surrender its FTNS licence in exchange for a fixed carrier licence. Similarly, it is also a business decision for an FTNS or fixed carrier licensee to make as to whether or not to surrender its existing licence in exchange for a fixed carrier licence which implements the *ex post* regulation of tariffs. Accordingly, the TA is of the preliminary view that the conversion of the existing fixed or mobile carrier licence to unified carrier licence would be implemented on a voluntary basis only.

13. Existing fixed (or mobile) carriers who wish to provide converged services may apply for a separate unified carrier licence with the scope of service appropriately tailor-made to cover the provision of the new converged services, and continue to provide the existing fixed (or mobile) services under their current licences. When their current fixed (or mobile) licences expire, they may apply to expand the scope of service of the unified carrier licence to cover the provision of their existing fixed (or mobile) services.

14. Pursuant to a comprehensive review exercise conducted by the Government, which was completed in early 2005, the GSM900 and GSM1800 operators have accepted the offer of new licences in the form of mobile carrier licences when their current licences expire. However, when the unified carrier licensing regime is in place, it is proposed that these operators should also have the discretion to apply to the TA for a unified carrier licence instead of a mobile carrier licence.

15. When an existing fixed or mobile carrier licence expires, the TA is minded to renew the licence in the form of a unified carrier licence. When all the fixed and mobile carrier licences expire, the differentiation between fixed and mobile licensing regimes would be entirely removed.

Question (2): Do you agree that once the unified licensing framework is implemented, the TA should issue unified carrier licence in lieu of the fixed or

mobile carrier licence?

Question (3): After the unified licensing framework is implemented, should the conversion of the existing fixed or mobile carrier licence to unified carrier licence be implemented on a voluntary basis?

Period of Validity of the Unified Carrier Licence

16. Pursuant to Telecommunications (Carrier Licences) Regulation (“Regulation”), both fixed and mobile carrier licences have a validity period of 15 years. It is proposed that the unified carrier licence shall also be valid for 15 years.

Conversion of Existing Fixed or Mobile Carrier Licences to the New Unified Carrier Licences

17. An existing fixed or mobile carrier licensee may wish to convert its licence to a unified carrier licence. Concerning the validity period of the unified carrier licence granted in such case, the TA proposes the following:-

Scenario 1: where there is no change in the scope of service

18. Where an existing fixed or mobile carrier licensee surrenders its licence to the TA in return for a unified carrier licence under which the scope of service is equivalent to the existing licence, the period of validity of the converted unified carrier licence shall expire at the expiration of the period of validity of the existing licence.

19. Under this scenario, the licence conditions of the draft unified carrier licence in Annex A would be imposed on the licensee. In addition, any relevant conditions under the existing fixed (or mobile) carrier licence would also be transplanted to the unified carrier licence.

Scenario 2: where the licensee proposes to expand the scope of service

20. Where an existing fixed or mobile carrier licensee surrenders its licence to the TA in return for a unified carrier licence under which the scope of service is to be expanded (e.g. if an existing fixed (or mobile) carrier wishes to convert its existing licence to be a unified licence and to provide both fixed and mobile service), there will be two options available.

Option (a) - The licensee submits proposals on the new services (but not on the existing services)

21. Under this option, since the licensee does not submit proposals on the existing services, it is not applying for a new carrier licence for the existing services which are currently covered by the existing licence. In such a case, the TA considers it inappropriate to grant a unified carrier licence with a validity period of 15 years to the licensee because it would virtually extend the validity period of the existing carrier licence beyond 15 years. The extension of the existing carrier licence should more appropriately be considered in a separate exercise, perhaps together with the extension of other carrier licences which will expire at around the same time. Accordingly, the period of validity of the converted unified carrier licence shall expire at the expiration of the period of validity of the existing licence.

22. The licence conditions of the draft unified carrier licence in Annex A would be imposed on the licensee. In addition, any relevant conditions under the existing fixed (or mobile) carrier licence would also be transplanted to the unified carrier licence.

Option (b) - The licensee makes a new application for the unified carrier licence and submit proposals on both the fixed and mobile services

23. Under this option, the TA will assess the applications of the licensee in operating not only the new services but also the existing services. The

licensee is effectively proposing to relinquish its existing carrier licence. If the TA is satisfied that the applications in respect of both the existing and new services meet the licensing criteria, a unified carrier licence will be granted - the validity period of the unified carrier licence for the operation of both services should be 15 years from the licence issue date. However, such period of validity of the unified carrier licence shall not prejudice the period for which any spectrum has been assigned to the licensee under the existing licence – the spectrum right with the same validity period will simply be transferred to the new licence.

24. The licence conditions of the draft unified licence in Annex A would be imposed on the licensee. As the TA will grant a new unified carrier licence to the licensee, the TA will not transplant any licence rights under the existing fixed (or mobile) carrier licence to the unified carrier licence if these licence rights are no longer present in a fixed (or mobile) carrier licence that the TA will issue as a new licence today. For example, under their existing FTNS/fixed carrier licences, the four fixed carriers which have their licences issued in June 1995 (the “1995 fixed carriers”) are not required to bear the costs incurred for facilitating mobile number portability (MNP) and therefore have the right to levy MNP charges on the mobile carriers for each and every mobile number ported as well as for database interrogation service. On the other hand, fixed carrier licences which were issued after 1 April 2001 require the licensees to facilitate MNP at their own expenses³. If the 1995 fixed carriers surrender their existing FTNS/fixed carrier licences and apply for the new unified carrier licences, their rights to levy the MNP charge will not be transplanted to the new licences.

25. While the licence *rights* under the existing fixed (or mobile) carrier licence will not be transplanted to the unified carrier licence if these licence rights are no longer present in a fixed (or mobile) carrier licence that the TA

³ Pursuant to SC 4.6 of the fixed carrier licences issued after 1 April 2001, the licensee shall, in such manner as the TA may direct and at its own expenses, facilitate the portability of numbers assigned to any customer of any PRS licensed under the PRS licence or mobile carrier licence granted under the Ordinance so that any number so assigned may be used by that customer should it cease to be a customer of any such entity and become a customer of any PRS.

will issue as a new licence today, it should be noted that the licence *obligations* under the existing fixed (or mobile) carrier licence will be transplanted to the unified carrier licence if the TA is of the view that these licence obligations remain relevant to the licensee. Some specific examples are quoted below for reference.

(i) Currently, under the mobile carrier licence, 3G licensees are subject to some specific licence conditions, e.g. terms for payment of spectrum utilisation fee (“SUF”), open network access requirement, anti-avoidance provisions (to restrict the licensees from engaging in transactions which have the purpose of minimising the network turnover for the purpose of calculating SUF), etc. These specific licence conditions may not be relevant to other classes of licensees, e.g. licensees offering fixed services only. As such, for the purpose of this consultation exercise, these conditions should not be included in the draft unified carrier licence as attached in Annex A. However, since these conditions remain relevant to the 3G licensees even after they convert their existing mobile carrier licences to the new unified carrier licences, the TA is of the view that these conditions should be transplanted to the new licences.

(ii) Under SC 3.4 of the fixed carrier licence issued to PCCW-HKT Telephone Limited (“PCCW-HKTC”) on 13 January 2005, any amendment to any published tariff of the licensee for interconnection, which was in force at 1 December 2004 and continues in force, must first be approved by the TA in writing. As explained above, this specific licence condition may not be relevant to other licensees and therefore should not be included in the draft unified carrier licence. However, if PCCW-HKTC converts its existing fixed carrier licence to the new unified carrier licence, this condition should be transplanted to the new licence.

26. The TA’s preliminary view is to keep both Option (a) and Option (b) open and let the interested parties to make their own commercial decision and judgement.

Question (4): If an existing fixed (or mobile) carrier applies for a unified carrier licence under which the scope of service is to be expanded (i.e. Scenario (2) as depicted above), should Option (a), Option (b) or both options be made available for determining the expiry date of the unified carrier licence?

RIGHTS AND OBLIGATIONS UNDER UNIFIED CARRIER LICENCE

Full Market Liberalisation

27. The fixed market has been fully liberalised since January 2003 and there is no pre-set number of carriers in the fixed services market. In the mobile services market, the number of carriers is determined by the availability of frequency spectrum. Accordingly, the TA does not intend to set any limitation on the number of unified carrier licences to be issued.

Restriction on Full Mobility Services

28. In the second consultation paper on “Licensing Framework for Deployment of BWA” issued on 31 August 2005, it is proposed that the future BWA operators may not operate service of full mobility before 1 January 2008. Specific to the BWA licence, which will deploy a unified carrier licence as its licensing vehicle, a provision, which may be in the form of a special condition or may be specified in the schedule on scope of service, will be added to the licence restricting the provision of services of full mobility using the BWA spectrum before a specified date.

Performance Commitments

29. While it is important to minimize artificial and unnecessary barriers to entry, the TA considers that it is necessary to ensure that unified carrier licences are to be granted to applicants with genuine plans to invest in network

infrastructure in Hong Kong. Accordingly, in line with the existing licensing criteria for granting fixed carrier licences, the TA will not consider granting any unified carrier licences to applicants who intend to rely primarily on the infrastructure of other carriers to roll out their network or provide their services. Furthermore, the TA will not consider granting any unified carrier licences to applicants who intend to supply transmission facilities primarily to itself or its affiliated companies. In order to ensure that a licensee will carry out what it has proposed in the applications for infrastructure rollout, the licensee will be required to be bound by those parts of the applications relevant to infrastructure rollout. Such parts of the applications will be incorporated into a special condition and/or schedules of the unified carrier licence and the licensee may not deviate from these commitments without the prior approval of the TA. In line with the policy since full market liberalisation, such commitments need not be backed up by performance bonds, but failure to meet the commitments may be treated as breach of licence conditions.

30. There may also be arguments that, given the limited supply of frequency spectrum, operators with spectrum resources are granted with “privilege” and they should be required to commit a performance bond to ensure that they utilize the spectrum efficiently. To address these concerns, the TA is minded to impose special conditions on unified carrier regarding the use of spectrum, to the effect that the TA may:

- (i) withdraw any frequency spectrum previously assigned to the licensee if in the opinion of the TA the licensee is not making efficient use of that frequency; and
- (ii) specify rollout requirements in relation to the use of the frequency spectrum.

Question (5): Should unified carriers be required to make any performance commitments?

Right of Access into Buildings

31. The four 1995 fixed carriers and HKCTV have been granted with right of access into common parts of buildings under section 14(1) of the Telecommunications Ordinance. Wireless FTNS operators which entered the market in year 2000 and fixed carriers which entered the market after full market liberalization in 2003 are granted with such rights on a case-by-case basis. Such rights enable the fixed carriers to gain access to common parts of buildings to install “telecommunications line”. In exercising the power under section 14(1), account will be taken of whether the installation concerned is placed solely for serving the residents and occupiers of the buildings to which access is sought or for providing a service to a public place. Incorporated owners, building management offices and owners of buildings are not supposed to impose any fees for the access to the buildings by the FTNS operators or fixed carriers granted with such rights. On the other hand, mobile carriers do not have right of access into buildings under section 14(1). However, they are entitled to request for the TA authorization under section 14(1A) for placing and maintaining radiocommunications installations for the purpose of providing a radiocommunications service to a public place, subject to a fee levied by a person having a lawful interest in the land concerned.

32. In the environment of FMC, a unified carrier licensee may be granted both section 14(1) and section 14(1A) rights. Each licensee must ensure that the right is exercised strictly in accordance with the scope of right defined in the authorisation. The section 14(1) right of access into buildings should be used for the installation of “telecommunications lines” (as defined specifically in the authorisation, which may include ancillary equipment). Following the existing practice, a section 14(1) authorisation will likely be limited to authorising installation in the common parts of buildings for the purpose of providing services to the residents and occupiers of the building concerned, but will unlikely be extended to installation for the purpose of providing services to areas outside the building concerned.

33. Since the full liberalization of the FTNS market, there is no pre-set number of carriers in the market and the TA has not set any artificial quota on the number of authorisations granted under section 14(1) of the Ordinance. The access to common parts in buildings is currently subject to the coordination mechanism facilitated by the TA. In his view, the mechanism has in general been operating satisfactorily. To follow the existing practice, the TA proposes that right of access into buildings under section 14(1) should be granted to the unified carriers on a case-by-case basis only and the authorised unified carriers should be subject to the same coordination mechanism as the existing fixed carriers.

34. As with mobile carriers, unified carriers should be entitled to request for the TA authorisation under section 14(1A) of the Ordinance for placing and maintaining radiocommunications installations for the purpose of providing a radiocommunications service to a public place, subject to a fee levied by a person having a lawful interest in the land concerned.

Question (6): Do you agree that the existing policy, namely the right of access into a building under section 14(1) of the Ordinance should be granted to a unified carrier only if the installation of telecommunications lines or equipment inside that building is prerequisite for the provision of services by the unified carrier to the residents and occupants of that building, should continue and be maintained?

Road Opening Right

35. Under the FTNS and fixed carrier licences, the licensee is obliged under a licence condition to coordinate and cooperate with any other fixed carrier or FTNS licensee under the Ordinance and any other authorised person in respect of road openings and to comply with any guidelines issued by the TA after consultation. Pursuant to the TA Statement entitled “Implementation of the Full Liberalization of the Local Fixed Telecommunications Network Services Market from 1 January 2003”, local wireline-based fixed carriers who

entered the market after 2003 are required to seek the TA's approval on a case-by-case basis on the road opening works of the duct routes in the master plan of the block licence granted by the Lands Department, as part of the coordination. Further, all fixed carriers and FTNS licensees are required to follow the coordination mechanism as set out in the Guidelines for Road Opening for Telecommunications/Broadcasting Operators ("the Road Opening Guidelines").

36. Due to space availability underneath public streets or unleased Government land in Hong Kong, coordination is necessary. As such, the same licence condition will be transplanted to the unified carrier licence. For coordination purposes, all unified carriers should be subject to the TA's approval on the road opening works on a case-by-case basis and the coordination mechanism set out in the Road Opening Guidelines. The existing coordination mechanism may be refined to include consideration on the constraint imposed by the availability of road space to accommodate the ducts and the feasibility of duct sharing where physical constraints exist to restrict further road opening.

Question (7): Do you agree that all unified carriers should be subject to the TA's approval on the road opening works on a case-by-case basis and the coordination mechanism set out in the Road Opening Guidelines?

Any-to-any Connectivity

37. According to the "Code of Practice Relating to the Use of Numbers and Codes in the Hong Kong Numbering Plan", one of the assignment principles says that all numbers and codes in the Hong Kong Numbering Plan should allow any-to-any communications, i.e. a calling party can reach a called party by dialling the number or code of the called party irrespective of the network used by the calling party or the called party. Fixed and mobile carriers are required to comply with this requirement. The TA does not see any reason for a unified carrier to deviate from the requirement of any-to-any

connectivity.

Question (8): Do you agree that unified carriers should comply with the requirement of any-to-any connectivity?

Operator Number Portability (“ONP”), and Mobile Number Portability (“MNP”) and Fixed/Mobile Number Portability (“FMNP”)

38. Currently, FTNS licensees and fixed carriers are directed to facilitate both ONP and MNP and have access to both databases. On the other hand, mobile carriers are directed to facilitate MNP only and have until quite recently had access to MNP database only. In November 2004, the TA advised the fixed and mobile carriers that the latter may also have access to ONP database through a fixed carrier as the maintenance agent so that they may route calls from mobile customers to the fixed networks in a more efficient manner.

39. The holder of a unified carrier licence which authorises the provision of both fixed and mobile services should be directed to facilitate both ONP and MNP, and should have the rights to access to both the ONP and MNP databases.

40. In the environment of FMC, telecommunications users of converged services may be assigned with a single subscriber number for access to both fixed and mobile services. It may not be easy to classify portability of such a subscriber number as ONP or MNP. As such, FMNP which enables porting of subscriber numbers between fixed and mobile networks would be needed. The issue of FMNP will be further addressed in Annex C.

Question (9): Do you agree that unified carriers should be directed to facilitate both ONP and MNP, and should have access to ONP and MNP databases?

Directory Services

41. Currently, FTNS and fixed carrier licensees are required to provide directory services (which include the printed directory and directory enquiry service⁴) free of charge to all of the licensees' customers. The printed directory shall be a unified printed directory and the directory enquiry service shall be a unified directory enquiry service and shall utilise a unified directory database, containing directory information on all customers of all FTNS and fixed carrier licensees, except for those customers who request that directory information about them not be disclosed. To establish and maintain the unified directory database, FTNS and fixed carrier licensees shall provide, and regularly update, raw directory information about their customers to each other. On the other hand, mobile carriers are not required under their existing PRS licences to provide printed directory or directory enquiry service to their customers utilising a database containing directory information on all customers of all mobile carrier licensees. Similarly, under the new mobile carrier licences for 3G and 2G services, licensees are not subjected to such obligations unless directed by the TA. Furthermore, mobile carriers currently do not provide raw directory information of their customers to each other or to fixed carriers, and the aforementioned unified directory database therefore does not include raw directory information of mobile customers.

42. The above arrangement on directory services has been in place in Hong Kong for many years and it seems that the public is generally content with the arrangement. Consumers generally regard their mobile numbers to be “personal” information and do not wish to have the information released in directory services. As such, the TA is of the preliminary view that the *status quo* should be maintained in the new unified regime in which a unified carrier will not be obliged to provide directory services for services that are clearly “mobile” in nature, e.g. 2G and 3G mobile services (i.e. the carrier will not be obliged to provide directory services to customers of these services, and the information on these customers will not be included in any directory databases),

⁴ It is referred to as “telephonic directory service” in licence conditions.

unless directed by the TA.

43. However, the question remains on whether the *status quo* arrangement on directory services remains feasible and meaningful in the environment of FMC. When the provision of converged services with limited mobility or full mobility is permitted under unified carrier licence, it may not be easy to decide if a number is being deployed for a fixed or a mobile service. Questions of whether the provider of converged services should be required to provide directory enquiry services to their customers and whether the numbers assigned for converged services should be included in the unified directory database arise. The TA proposes that before January 2008, the converged services with limited mobility would be assigned with numbers from the numbering blocks for fixed services. It would seem more straightforward for the requirements for directory services for such services to be the same as those for “fixed” services. However, some may argue that the numbers for these converged services (albeit with limited mobility) would be “personal” in nature and therefore their treatment in the provision of directory services should be the same as mobile services. The problem would be exacerbated after January 2008 when the converged services will have fully mobility capabilities.

44. Furthermore, with the availability of FMNP, a number assigned to a subscriber of a fixed service (which therefore exists in the unified directory database) may be deployed for mobile service if that subscriber requests to port the number from a fixed network to a mobile network. Directory information of that subscriber would then be removed from the unified directory database. Therefore, users of the directory services may find it confusing if a subscriber that previously was included in the unified directory database cannot be searched from the database. It is envisaged that it may not be appropriate in the foreseeable future to maintain differential treatments on fixed carriers and mobile carriers in the aspect of directory services. Accordingly, the TA will continue to monitor the market situation and where necessary may conduct a consultation to review the obligations of fixed, mobile and unified carriers to provide directory enquiry services.

45. Under the licence condition of the existing FTNS and fixed carrier licences, licensees are required to provide a printed directory (or “White Pages” as is commonly known)⁵ which provides the names, addresses and telephone numbers of their customers. As compared to operator-assisted directory enquiry service (and directory service provided over Internet by some licensees), the public may find it less convenient to search for the required telephone numbers from the White Pages. Furthermore, it becomes less common for customers to collect the White Pages from an operator and keep them on their premises. Given that the obligation to provide directory enquiry service is still maintained, it may not be essential to require a licensee to provide White Pages to its customers. To have a better idea of the actual demand for White Pages, the TA now invites FTNS and fixed carrier licensees to supply data and statistics on the number of White Pages distributed to customers over the past 3 years. If there is evidence showing that the actual demand for White Pages is minimal, the TA may consider waiving the obligation to provide White Pages.

Question (10): Do you agree that the status quo on the obligation to provide directory enquiry services should be maintained in the new unified regime in which a unified carrier will not be obliged to provide directory enquiry services to customers of 2G and 3G mobile services and the directory information of these customers should not be included in any directory databases?

Question (11): Do you agree that converged services with limited mobility should be treated like “fixed” services in the requirements for the provision of directory services?

Question (12): Do you consider it appropriate to continue to require fixed carriers to provide White Pages?

⁵ For the avoidance of doubt, the provision of Yellow Pages (which provides much more commercial information of the business customers, classification and advertisements) is not required under any licence condition.

Implementation of *ex post* Regulation of Tariffs

46. Under the *ex ante* regulatory regime, a licensee is required to seek prior approval from the TA of the prices and discounts of its services which have not yet been declared by the TA as non-dominant. However, during the past decade, competition in the fixed services market has become more firmly established and therefore the prior approval requirement has become disproportionate in the current market situation. With a view to ensuring that the level of regulation is commensurate with the effectiveness of market competition, the TA announced in January 2005 the implementation of *ex post* regulation of the tariffs of PCCW-HKTC by means of an *ex post* fixed carrier licence. Other fixed carriers or FTNS licensees may also surrender their existing licence in exchange for the *ex post* fixed carrier licence.

47. Under the *ex post* fixed carrier licence, the licensee is no longer required to seek prior approval from the TA of its tariffs or discounts. On the other hand, the licensee may be directed to notify the TA of discounts to its published tariffs. The TA may take into account whether the services would raise any competition concerns when he considers whether to issue such direction. This notification regime serves to contribute to the transparency of actual market prices and will not operate as a vetting process of the kind in the original *ex ante* regime.

48. It is considered that the *ex post* regulation reflects the international best practice and allows regulatory measures to be imposed on a proportionate basis. This will be conducive to further development on the telecommunications industry led by market forces and will ultimately benefit consumers. Accordingly, the TA is of the preliminary view that the unified carrier licence to be issued should adopt the *ex post* regulatory regime.

Question (13): Do you agree that the unified carrier licence to be issued should adopt the ex post regulatory regime?

Requirement for Publication of Tariffs

49. Currently, fixed carriers and mobile carriers are subject to different requirements on tariff publication.

	Fixed carriers other than PCCW-HKTC	PCCW-HKTC	2G mobile carriers	3G mobile carriers
(1) Publish tariffs in the Hong Kong Government Gazette	Yes	Yes	Yes ⁶	-
(2) Provide a copy of tariffs to the TA	Yes	Yes	Yes ⁷	Yes
(3) Place a copy of tariffs in a publicly accessible part of the principal place of business and other business premises of the licensee as specified by the TA	Yes	Yes	Yes ⁸	Yes
(4) Supply a copy of tariffs to any person who may request it at a charge no greater than that which is necessary to cover the reasonable costs of supplying the copy	Yes	Yes	Yes ⁹	Yes
(5) Publish on the licensee's website	-	Yes ¹⁰	Yes	Yes
(6) Publish in the newspapers	-	-	-	Yes

50. Some operators commented that publication in the newspapers is in fact more expensive than publication in the Gazette. Furthermore, it is more difficult to keep track of the published tariffs if they are published in the newspapers than in the Gazette. Accordingly, the TA is minded to require unified carriers to comply with requirements (1)-(5) for tariff publication. However, the TA will monitor the market situation and review the publication

⁶ Under the mobile carrier licence for 2G services, the licensee is not required to comply with requirement (1) if the tariffs have been published on its website.

⁷ No need to comply with requirement (2) if the tariffs have been published on the licensee's website.

⁸ No need to comply with requirement (3) if the tariffs have been published on the licensee's website.

⁹ No need to comply with requirement (4) if the tariffs have been published on the licensee's website.

¹⁰ The requirement on PCCW-HKTC to publish tariffs on its website was added when its FTNS licence was converted to a fixed carrier licence on 14 January 2005.

requirements if he considers necessary. A new special condition is added in the draft unified carrier licence to the effect that the TA may direct that either one or any combination of requirements (1)-(5) shall not apply to the licensee. This new special condition will provide the flexibility to the TA for future review on the publication requirements and, if appropriate, to align the publication requirements for fixed and mobile carriers. However, the TA would like to point out that the tariff publication requirements apply to standard tariffs (i.e. maximum price) only. Currently, none of the operators are required to publish their actual discounts and promotion plans in the Gazette or newspapers.

Question (14): Do you agree that the aforementioned requirements (1)-(5) for tariff publication should be imposed on unified carriers and that the TA may by direction waive some of the requirements if he considers appropriate?

General Conditions (“GC”) and Special Conditions (“SC”) of Unified Carrier Licence

51. A draft unified carrier licence (including GCs, SCs and schedules) is given in Annex A. GCs for the draft unified carrier licence are based on the GCs for the existing carrier licences prescribed by the Secretary in section 3 of the Regulation. If it is decided that FMC be implemented, recommendation would be made to the Secretary for the finalised form of GCs to be prescribed by the Secretary in the Regulation under section 7(2) of the Ordinance after seeking representation of the public under section 7(3) of the Ordinance. In accordance with section 7A of the Ordinance, the TA is empowered to attach SCs to a carrier licence in addition to the prescribed GCs. The SCs of the draft unified carrier licence are based on the rights and obligations of the existing fixed and mobile carriers, modified in accordance with the discussions above. The TA invites comments on the SCs and schedules of the draft licence.

FEE OF UNIFIED CARRIER LICENCE

Licence Fee of Existing Fixed and Mobile Network Operators

52. Currently, the licence fee schedules applicable to fixed and mobile network operators are different ¹¹. According to the nature of these fee components, they can be broadly classified into three categories, namely (i) fixed fee component, (ii) subscriber-based fee components and (iii) non-subscriber-based fee component.

Licence	Fixed fee component	Subscriber-based fee components	Non-subscriber-based fee components
Fixed Carrier/ FTNS Licence	Annual fee (\$1million - local service \$0.2million - external service)	Customer connection fee (\$7 per connection)	Spectrum management fee (*)
Mobile Carrier/ PRS Licence	Nil	Mobile station fee (\$18 per mobile station)	Spectrum management fee (*) Base station fee (*)

(*) calculated according to pre-defined formulae.

Note: The terms “customer connection fee”, “mobile station fee”, “spectrum management fee”, etc. are shorthand to denote the components of the licensee fee to cover the administrative costs of OFTA which are related to the number of customer connections, number of mobile stations, width of spectrum managed, etc.

Proposed Licence Fee for Unified Carrier Licence

53. It is considered that the above three categories of fee components can generally reflect the nature of costs to be incurred by OFTA in administering and regulating the new unified carrier licence and therefore should be maintained for the new licence.

Fixed fee component – annual fee

¹¹ The licence fee schedules applicable to the fixed carrier and mobile carrier are set out under Schedule 3 of the Telecommunications (Carrier Licences) Regulation (Cap. 106V) whereas those of the FTNS licensees and PRS licensees are set out under Schedule 1 of the Telecommunications Regulation (Cap 106A).

54. A unified carrier is required to pay an annual fee of \$1 million if it is authorized to provide local service under the licence. However, if the unified carrier licence permits the provision of external services only, the annual fee is \$200,000.

Subscriber-based fee component – customer connection fee

55. Currently, fixed and mobile network operators are subject to different levels of subscriber-based fee, i.e. the customer connection fee payable by fixed network operators at \$7 per connection and the mobile station fee payable by mobile network operators at \$18 per station. It is foreseen that in the FMC era, it may become very difficult, if not impossible, to classify a service in the market as a fixed or a mobile service. As such, it is proposed to set a unified rate for the subscriber-based customer connection fee for unified carriers, regardless of whether the service is fixed or mobile in nature, or whether the subscriber is connected to the service by wireline or wireless connection.

56. In setting the level of fee, the relevant consideration is to recover the administrative costs of OFTA in administering the licence. Having reviewed the costs of administering the local FTNS/fixed carrier licences and mobile carrier licences, it is considered that there is room to increase the licence fee for local fixed network operators and on the other hand decrease the fee for mobile network operators. The TA accordingly proposes to set the customer connection fee for unified carriers at \$8 per connection.

Non-subscriber-based fee component – number fee

57. Currently, OFTA's costs for management of numbers are embedded in the subscriber-based fee components. However, with a view to encouraging the efficient use of numbers, it is proposed to levy a fee based on the quantity of numbers allocated to the licensee, regardless of whether the numbers have

been assigned to end customers or not. In other words, the more number resources the licensee has, the higher the number fee the licensee is liable to. Having considered the need to recover administrative costs of OFTA, the TA is of the preliminary view that the number fee should be set at \$3 per number.

Non-subscriber-based fee component – spectrum management fee and base station fee

58. The formulae for calculating the spectrum management fee and base station fee for unified carriers will remain the same as those for fixed and mobile network operators.

59. The TA's proposed licence fee for the new unified carrier licence is given in Annex B. It should be noted that the new fee schedule is applicable to unified carriers only. Fixed and mobile carrier licensees as well as FTNS and PRS licensees are still subject to the existing licence fee schedules as prescribed in the Telecommunications (Carrier Licences) Regulation (Cap. 106V) and the Telecommunications Regulation (Cap 106A).

Question (15): Do you agree with the proposed components and level of licence fee of the unified carrier licence as given in Annex B?

OTHER ISSUES PERTINENT TO FMC AND CONSULTANCY STUDY

60. With emergence of the FMC, there are other relevant regulatory arrangements, such as interconnection charging arrangement, local access charge arrangement, fixed/mobile number portability and numbering plan, which may need to be revised. Before any change to or consultation for these regulatory regimes, the TA considers that it is important to assess the consumer benefits and economic efficiency associated with any possible change for a responsive regulatory framework in relation to FMC. These regulatory regimes and the planned consultancy study are addressed in Annex C.

INVITATION FOR COMMENTS

61. The TA would like to solicit views from the industry and other interested parties on the issues of Unified Licensing Framework and Rights and Obligations under Unified Carrier Licence raised in this consultation paper. Separate public consultations will be conducted on the issues of fixed/mobile interconnection charges and fixed/mobile number portability after the relevant economic studies have been completed. Views and comments should reach the TA, preferably in electronic form, on or before 21 November 2005.

62. Any person who submits views and comments should also give the supporting information or justifications and should note that the TA may publish all or part of the submission received and disclose the identity of the source in such manner as the TA sees fit. Any part of the submission, which is considered commercially confidential, should be clearly marked together with the reasons for such claim. The TA will take such markings into account in making his decision as to whether to disclose such information or not. Submissions should be addressed to:

Office of the Telecommunications Authority
29/F Wu Chung House
213 Queen's Road East
Wan Chai
Hong Kong
[Attention: Senior Regulatory Affairs Manager (R13)]

Comments may also be sent by fax to 2834 1501 or by email to fmc@ofta.gov.hk

Office of the Telecommunications Authority

21 September 2005

DRAFT

**TELECOMMUNICATIONS ORDINANCE
(Chapter 106)**

UNIFIED CARRIER LICENCE

DATE OF ISSUE: []

[Company Name]

.....

of [Address]

.....

(the “licensee”) is licensed, subject to the following conditions set out in this licence-

- (a) to provide a public telecommunications network service (the “service”), the scope of which is described in Schedule 1;
- (b) to establish and maintain a telecommunications network (the “network”) described in Schedule 2 to provide the service;
- (c) to possess and use the radiocommunications installations described in Schedule 3 to provide the service; and
- (d) to deal in, import and demonstrate, with a view to sale in the course of trade or business, such apparatus or material for radiocommunications as may be necessary to supply customers of the service.

GENERAL CONDITIONS

1. DEFINITIONS AND INTERPRETATION

- 1.1 In this licence, except as hereinafter provided or unless the context otherwise requires, words or expressions shall have the meanings assigned to them in the Telecommunications Ordinance (Cap. 106) (the “Ordinance”) and, as the case may be, the Interpretation and General Clauses Ordinance (Cap. 1). For the purposes of interpreting this licence, headings and titles shall be disregarded.
- 1.2 This licence shall not be construed as granting an exclusive right to the licensee to provide the service.
- 1.3 This licence replaces any licence or any exemption from licensing, however described, which the Authority may have granted to the licensee for providing the service.
- 1.4 The grant of this licence does not authorize the licensee to do anything which infringes any exclusive licence granted under the Ordinance or any exclusive right to operate and provide telecommunications networks, systems, installations or services granted under any other Ordinance.

2. TRANSFER

- 2.1 The licensee may, only with the prior written consent of the Authority and subject to such reasonable conditions as the Authority thinks fit, transfer this licence or any permission, right or benefit under this licence. In giving his consent the Authority will have regard to such matters as he thinks fit including but not limited to the effect which the transfer will have on market structure and the financial and technical competence and viability of the transferee.

3. INTERNATIONAL CONVENTIONS

3.1 The licensee shall at all times perform and observe the requirements of the Constitution and Convention of the International Telecommunication Union and the regulations and recommendations annexed to it, as are stated to be applicable to Hong Kong, and any other international convention, agreement, protocol, understanding or the like to the extent that the instruments described in this General Condition 3.1 impose obligations on Hong Kong of which the Authority gives notice to the licensee, except to the extent that the Authority may in writing exempt the licensee from such compliance.

3.2 Where the Government has been consulted about or is involved in the preparation or negotiation of an international convention, agreement, protocol or understanding or the like or amendments thereto which are on the subject-matter of telecommunications or which relate to another subject-matter but which the Government anticipates could have a material impact on the provision of the service under this licence, the Government will, where practicable, provide the licensee with a reasonable opportunity to make a submission stating its views on the matter.

4. COMPLIANCE GENERALLY

4.1 The licensee shall comply with the Ordinance, regulations made under the Ordinance, licence conditions or any other instruments which may be issued by the Authority under the Ordinance.

5. PROVISION OF SERVICE

5.1 The licensee shall, subject to Schedule 1 to this licence and any special conditions of this licence relating to the provision of the service, at all times during the validity period of this licence operate, maintain and provide a good, efficient and continuous service in a manner satisfactory to the Authority. The Authority may, on application in writing by the licensee, exempt a part or parts of the service from the requirement of continuous provision.

6. CUSTOMER CHARTER

- 6.1 Unless a waiver in writing is granted by the Authority, the licensee shall prepare a customer charter which sets out the minimum standards of service to the licensee's customers and gives guidance to the employees of the licensee in their relations and dealings with customers.

7. CONFIDENTIALITY OF CUSTOMER INFORMATION

- 7.1 The licensee shall not disclose information of a customer except with the consent of the customer, which form of consent shall be approved by the Authority, except for the prevention or detection of crime or the apprehension or prosecution of offenders or except as may be authorized by or under any law.

- 7.2 The licensee shall not use information provided by its customers or obtained in the course of provision of service to its customers other than for and in relation to the provision by the licensee of the service.

8. RECORDS AND PLANS OF NETWORK

- 8.1 The licensee shall keep records and plans (including overall network plans and cable route maps) of the telecommunications installation (including radiocommunications installation) and telecommunications nodes and exchanges, if any, provided under this licence and any other details concerning the network as may be reasonably required by the Authority, including but not limited to information from operational support systems, traffic flow information, and database information relating to the manner in which the network treats any communication (“network information”).

- 8.2 As required by the Authority, the licensee shall make the network information available, within reasonable time, to the Authority or to a person authorized in writing by the Authority for inspection for the Authority's own purposes.

9. CONTROL OF INTERFERENCE AND OBSTRUCTION

9.1 The licensee shall take reasonable measures to install, maintain and operate the service and the network in such a manner as not to cause any harmful interference or physical obstruction to any lawful telecommunications service, or cause any physical obstruction to the installation, maintenance, operation, adjustment, repair, alteration, removal or replacement of the facilities of any lawful telecommunications or utility service provider.

9.2 The licensee shall take reasonable measures to ensure that the customers of the service do not cause harmful interference to lawful telecommunications services or utility services through use of the service.

9.3 The Authority may give such reasonable directions as he thinks fit to avoid harmful interference or physical obstruction referred to in General Condition 9.1. The licensee shall comply with the directions.

10. RESTRICTIONS ON ATTACHMENT TO PUBLIC BUILDINGS AND TREES

10.1 No part of the network shall be attached to any Government building except with the prior written consent of the Government Property Administrator, or to any tree on any Government land except with the prior written consent of the Director of Agriculture, Fisheries and Conservation, or the Director of Leisure and Cultural Services.

11. COMPLIANCE

11.1 If the licensee employs any person under contract for the purpose of the service, or for the installation, maintenance or operation of the network (a “contractor”), the licensee shall continue to be responsible for compliance with the conditions of this licence, and the performance thereof, by any contractor.

12. REQUIREMENTS OF RADIOCOMMUNICATIONS INSTALLATION

- 12.1 Each radiocommunications installation operated by or on behalf of the licensee shall be used only at the location and with emissions and at the frequencies and of the classes and characteristics specified in Schedule 3 to this licence and with such power and aerial characteristics as are specified in that Schedule in relation to the class and characteristics of the emission in use.
- 12.2 The apparatus comprised in each radiocommunications installation shall at all times comply with such technical standards as may be issued by the Authority.
- 12.3 The apparatus comprised in a radiocommunications installation shall be of a type approved by the Authority and shall be so designed, constructed, maintained and operated that its use shall not cause any interference to any radiocommunications.
- 12.4 A radiocommunications installation shall be operated only by the licensee or a person authorized by the licensee. The licensee shall not allow an unauthorized person to have access to the apparatus comprised in a radiocommunications installation. The licensee shall ensure that persons operating each radiocommunications installation shall at all times observe the conditions of this licence.
- 12.5 The licensee shall not make a change –
- (a) to any radiocommunications installation; or
 - (b) of the location of any radiocommunications installation,
- without the prior written approval of the Authority.
- 12.6 If any telecommunications installation (including radiocommunications installation) crosses above or may fall or be blown onto any overhead power wire (including electric lighting and tramway wires) or power apparatus it shall be guarded to the reasonable satisfaction of the owner of the power wire or power apparatus concerned.

13. USE OF FREQUENCIES

13.1 The radiocommunications installation operated by or on behalf of the licensee shall only be operated on such frequencies as the Authority may assign.

14. SAFETY

14.1 The licensee shall take proper and adequate safety measures for the safeguarding of life and property in connection with all installations, equipment and apparatus operated or used, including safeguarding against exposure to any electrical or radiation hazard emanating from the installations, equipment or apparatus operated or used under this licence.

14.2 The licensee shall comply with the safety standards and specifications as may from time to time be prescribed by the Authority and any directions of the Authority in relation to any safety matter.

15. PROHIBITION OF CLAIMS AGAINST GOVERNMENT

15.1 The licensee shall have no claim against the Government in tort or in contract in respect of any disturbance or interruption to any part of the network due to works carried out by or on behalf of the Government which result in disturbance to the network.

16. INDEMNITY

16.1 The licensee shall indemnify the Government against any losses, claims, charges, expenses, actions, damages or demands which the Government incurs or which may be made against the Government as a result of or in relation to the activities of the licensee or any employee, agent or contractor of the licensee in relation to the provision of the service or the installation, maintenance and operation of the network.

17. CONTRAVENTION BEYOND LICENSEE'S CONTROL

17.1 The licensee shall not be liable for any breach of this licence where it is

able to demonstrate, to the reasonable satisfaction of the Authority, that the breach was caused by circumstances beyond its control and that it has taken all reasonable steps open to it to rectify that breach.

- 17.2 Where the circumstances referred to in General Condition 17.1 are such that there is an outage or interruption in the service affecting a significant number of the licensee's customers for a period of more than 7 days, the licensee shall provide the Authority with a full report in writing detailing the reasons for the breach and indicating when, or if, it will be able to continue to provide the service.
- 17.3 If the Authority is, after considering a report provided under General Condition 17.2, of the reasonable belief that the licensee would be able to provide the service within a reasonable period of time despite the circumstances outlined in that report, the Authority may direct that the licensee recommence the service within such reasonable period as the Authority may in writing direct. The licensee shall comply with such direction.

18. PUBLICATION OF LICENCE

- 18.1 The licensee, or the Authority, may at their discretion make the terms and conditions of this licence, including any specific conditions, publicly available in any manner they think fit.

SPECIAL CONDITIONS

1. COMPLIANCE WITH CODES OF PRACTICE

1.1. The licensee shall comply with such guidelines or Codes of Practices which may be issued by the Authority as in his opinion are suitable for the purpose of providing practical guidance on any particular aspect of any conditions of this licence.

1.2 Without limiting or affecting in any way the licensee's obligations under any other Condition, the licensee shall comply with any code of practice or guideline which may be issued by the Authority from time to time for the purpose of providing practical guidance to the licensee in respect of:

- (a) the provision of satisfactory service;
- (b) the protection of customer information;
- (c) the protection and promotion of the interests of consumers of telecommunications goods and services; and
- (d) calling line identification and other calling line identification related services.

1.3 Before issuing any code of practice or guideline referred to in Special Condition 1.2, the Authority shall carry out such consultation as is reasonable in all the circumstances of the case.

1.4 Without limiting the generality of Special Condition 1.2(d), the code or practice or guideline issued under that Special Condition may require the licensee to validate the calling line identification against the authenticated customer in order to prevent fraud and spam.

2. PURCHASE OF ASSETS

2.1 If a licensee is subject to a universal service obligation specified under

the Ordinance, the Government may elect to take over the licensee's undertaking and purchase all or part of its assets if any of the following circumstances occur –

- (i) this licence expires;
- (ii) this licence is revoked;
- (iii) the licensee goes into liquidation; or
- (iv) the licensee ceases to carry on business,

provided that if the Government elects to do so, it shall give notice in writing not later than 90 days in advance of the expiry of this licence, or immediately upon revocation of this licence or within a reasonable time of the happening of the events at Special Condition 2.1(iii) or 2.1(iv).

- 2.2 The selling price shall be agreed between the Government and the licensee on the basis of the fair market value of those assets at the time of acquisition determined on the basis that this licence remains in force and that the network is continuing to be used for the provision of the service. If no agreement can be reached between the Government and the licensee, the matter shall be settled by arbitration in accordance with the provisions of the Arbitration Ordinance (Cap. 341).

3. REQUIREMENTS FOR INTERCONNECTION

- 3.1 The licensee shall, where directed by the Authority, interconnect its service and network with telecommunications networks and services of a type mentioned in section 36A(3D) of the Ordinance.
- 3.2 The licensee shall use all reasonable endeavours to ensure that interconnection is effected promptly, efficiently and on terms, conditions and at charges which are based on the licensee's reasonable relevant costs attributable to interconnection.
- 3.3 The licensee shall provide facilities and services reasonably necessary for the prompt and efficient interconnection of the service and the

network with the telecommunications networks or services of the other entities referred to in Special Conditions 3.1. Such facilities and services include –

- (a) carriage services for the delivery of codes, messages or signals or other communication across and between the interconnected networks;
- (b) those necessary to establish, operate and maintain points of interconnection between the licensee's network and the networks of the other entities, including , without limitation, the provision of sufficient transmission capacity to connect between the licensee's network and networks of the other entities;
- (c) billing information reasonably required to enable the other entities to bill their customers;
- (d) facilities specified by the Authority pursuant to section 36AA of the Ordinance; and
- (e) ancillary facilities and services required to support the above types of interconnection facilities and services.

4. NUMBERING PLAN AND NUMBER PORTABILITY

- 4.1 The licensee shall comply with the numbering plan made or approved by the Authority and any directions given by the Authority in respect of the numbering plan.
- 4.2 The licensee shall at the request of the Authority or otherwise consult the Authority about the arrangements for the allocation and reallocation of numbers and codes within the numbering plan.
- 4.3 Where requested by the Authority, the licensee shall prepare and furnish to the Authority proposals for developing, adding to or replacing the numbering plan relating to the service.

- 4.4 The licensee shall, in such manner as the Authority may direct, facilitate the portability of numbers assigned to any customer of any unified carrier licensee, fixed carrier or fixed telecommunications network service licensee, mobile carrier licensee, public mobile radiotelephone services licensee, personal communications services licensee, mobile virtual network operator or services-based operator, so that any number so assigned may be used by that customer should it cease to be a customer of any such entity and become a customer of any other unified carrier licensee, fixed carrier or fixed telecommunications network service licensee, mobile carrier licensee, public mobile radiotelephone services licensee, personal communications services licensee, mobile virtual network operator or services-based operator, as the case may be.
- 4.5 Directions by the Authority under Special Condition 4.4 include reasonable directions concerning compliance with Special Condition 4.4 by the licensee at the licensee's own expenses, or by equitably sharing all relevant costs associated with providing portability of numbers as between the licensee, any other unified carrier licensee, fixed carrier or fixed telecommunications network services licensee, mobile carrier licensee, public mobile radiotelephone services licensee, personal communications services licensee or mobile virtual network operator, as the case may be.
- 4.6 For the purposes of this Special Condition, "portability of numbers" means the function of the network and the service which enables a customer of the service of a unified carrier licensee, fixed carrier or fixed telecommunications network services licensee, mobile carrier licensee, public mobile radiotelephone services licensee, personal communications services licensee, mobile virtual network operator or services-based operator to become a customer of another unified carrier licensee, fixed carrier or fixed telecommunications network services licensee, mobile carrier licensee, public mobile radiotelephone services licensee, personal communications services licensee, mobile virtual network operator or services-based operator without changing the number assigned to that customer.

5. ACCOUNTING PRACTICES

5.1 Where directed by the Authority in writing, the licensee shall implement such accounting practices as specified by the Authority. Such accounting practices are to be consistent with generally accepted accounting practices, where applicable, and may include (but are not limited to) accounting practices which allow for the identification of the costs and charges for different services or types or kinds of services.

6. REQUIREMENT TO FURNISH INFORMATION TO THE AUTHORITY

6.1 The licensee shall furnish to the Authority, in such manner and at such times as the Authority may request in writing, such information relating to the business run by the licensee under this licence, including financial, technical and statistical information, accounts and other records, as the Authority may reasonably require in order to perform his functions under the Ordinance and this licence. Information referred to in this condition includes but is not limited to such information as is listed in Schedule 4.

6.2 Subject to Special Condition 6.3 the Authority may use and disclose information to such persons as the Authority thinks fit.

6.3 Where the Authority proposes to disclose information obtained and the Authority considers that the disclosure would result in the release of information concerning the business or commercial or financial affairs of a licensee which disclosure would or could reasonably be expected to adversely affect the licensee's lawful business or commercial or financial affairs, the Authority will give the licensee a reasonable opportunity to make representations on the proposed disclosure before the Authority makes a final decision whether to disclose the information.

7. TARIFFS

7.1 The licensee shall publish and charge no more than the tariffs for the

service operated under this licence. The tariffs shall include the terms, as defined under section 7F(2) of the Ordinance, for the provision of the service.

7.2 Publication of a tariff shall be effected by –

- (a) publication in the Hong Kong Government Gazette on or before the date on which the tariff becomes effective;
- (b) publication in the website of the licensee on or before the date on which the tariff becomes effective;
- (c) the Authority receiving a copy of the tariff on or before the date as specified by the Authority;
- (d) placing a copy of the tariff in a publicly accessible part of the principal place of business and other business premises of the licensee as specified by the Authority; and
- (e) supplying a copy of the relevant details to any person who may request it, at a charge no greater than is necessary to recover reasonable costs of making and supplying the copy.

7.3 The Authority may by direction in writing, for such period and on such conditions as the Authority may determine, direct that either one or any combination of Special Condition 7.2(a), (b), (c), (d) and (e), either completely or as to particular obligations imposed under them, shall not apply to the licensee.

8. NOTIFICATION OF DISCOUNTS

8.1 Where directed by the Authority, the licensee shall notify the Authority of any discount to its published tariffs offered for any of the services operated under this licence.

8.2 Notification of a discount shall be effected upon the Authority's receipt

of a copy of the discount to a tariff, including such information prescribed in Schedule 5, at least one day before the discount becomes effective.

8.3 The Authority may publish any discount that the licensee notifies under Special Condition 8.1 after the discount becomes effective, if the Authority considers that it is in the public interest to do so.

8.4 For the purposes of this Special Condition, “discount” means the amount of any payment, credit, rebate, waiver, allowance, gift, or other benefit, directed to a customer, other than:

- (a) an amount in repayment of an amount overpaid to the licensee by that customer;
- (b) an amount in settlement of a disputed amount billed to that customer by the licensee;
- (c) an amount payable pursuant to a service level or service quality obligation of the licensee to the customer; or
- (d) the amount payable by a customer upon termination of service to that customer.

9. METERING ACCURACY

9.1 The licensee shall take all reasonable steps to ensure that any metering equipment used in connection with the service is accurate and reliable.

9.2 At the written request of the Authority or at regular intervals to be specified by the Authority, the licensee shall conduct tests on metering equipment to assess its accuracy, reliability and conformity to the technical standards, if any, specified by the Authority. The licensee shall submit the test result to the Authority within 14 days after the date of the relevant test or such other longer period as the Authority may determine.

9.3 The licensee shall keep such records of any metering equipment in such form as may be specified by the Authority and shall supply such records to the Authority as soon as reasonably practical following a written request from the Authority.

10. PROVISION OF SERVICE

10.1 The licensee shall, subject to Schedule 1 and any special conditions of this licence relating to the provision of the service, provide the service on its published terms and conditions and at the tariff published in accordance with Special Condition 7 (as applicable) and at the discount notified to the Authority in accordance with Special Condition 8 (as applicable), on request of a customer whether or not the customer intends the service to be available for its own use or intends to utilize the service to provide a lawful telecommunications service to third parties.

10.2 Subject to Schedule 1 and any special conditions relating to the provision of the service, the licensee shall comply with a customer request for the service as tariffed by the licensee in accordance with Special Condition 7 where the service can reasonably be provided by the licensee to the customer utilizing the licensee's network in place at the time of the request.

10.3 The licensee shall not unreasonably delay or refuse to provide the service, or impose onerous conditions on the provision of the service, to any customer who owns or operates apparatus of a type which is approved by the Authority and conforms with the technical and performance standards specified in Schedule 3 to this licence. In particular (but without limiting the generality of the foregoing), the licensee shall not discriminate against any customer whose apparatus was acquired other than from the licensee.

11. DIRECTORY INFORMATION AND DIRECTORY INFORMATION SERVICE

11.1 For the purposes of this Special Condition –

- (a) “directory information” means information obtained by the licensee in the course of the provision of services under this licence concerning or relating to all or any of the name, address, business and telephone numbers of each of its customers; and
- (b) “raw directory information” means the licensee’s directory information held in a basic format relating to all of its customers other than its customers who request that directory information about them not be disclosed.

11.2 This Special Condition applies only in respect of standard printed directories and other directory databases and services which include all of the names of a licensee’s customers listed in alphabetical order and does not apply to classified directories where customers are listed by business or trade category or to other business or specialised directories.

11.3 Subject to compliance with the Personal Data (Privacy) Ordinance (Cap. 486), General Condition 7 and any applicable law, the licensee shall –

- (a) where and as directed by the Authority, publish or arrange at least biennially for the publication of directory information in a printed or other form approved by the Authority, relating to all its customers, other than its customers who request not to be included in a directory to be published (“the printed directory”); and
- (b) where and as directed by the Authority, establish, maintain and operate, or arrange for the establishment, maintenance or operation of a telecommunications service whereby customers may, upon request, be provided with directory information other than that of its customers who request the information relating to them not to be disclosed (“the telephonic directory service”).

11.4 The printed directory and the telephonic directory service provided

under Special Condition 11.3 shall be made available free of charge to all of the licensee's customers and shall be provided in a manner satisfactory to the Authority.

- 11.5 The licensee is permitted to make commercial arrangements with one or more of the unified carrier licensees, fixed carrier or fixed telecommunications network services licensees, mobile carrier licensee, public mobile radiotelephone services licensee, personal communications services licensee or mobile virtual network operator to co-operate in the provision jointly by them of either or both of the printed directory and the telephonic directory service which the licensee is required to provide under Special Condition 11.3.
- 11.6 The licensee's printed directory shall be a unified printed directory and the licensee's telephonic directory service shall be a unified telephonic directory service and shall utilise a unified directory database, containing directory information as directed by the Authority, except for those customers who request that directory information about them not be disclosed. Subject to compliance with the Personal Data (Privacy) Ordinance (Cap. 486), General Condition 7 and any applicable law, the licensee shall provide, and regularly update, raw directory information as directed by the Authority to other licensees as directed by the Authority, for which the licensee will be able to impose a reasonable charge, if applicable, to fairly compensate it for providing the raw directory information. The licensee shall endeavour to agree with each of the other licensees on a reasonable mode of exchange and transmission format for the raw directory information.
- 11.7 Where the licensee is unable to agree with another licensee pursuant to Special Condition 11.6 on what amounts to fair compensation for provision of, or the reasonable mode of exchange and transmission format of, raw directory information, the matter at issue may be referred by either licensee to the Authority for determination.
- 11.8 Except with the prior written approval of the Authority, the licensee shall not make use of raw directory information provided by another licensee other than for discharging its obligations under this Special

Condition.

11.9 This Special Condition does not apply to the services described in Schedule 6 provided that -

- (a) the licensee (and where appropriate its agents, contractors and resellers) declares such service, in all promoting, marketing or advertising materials concerning such service, as a “Class 2 service” (where the materials are in English text) (or “第二類服務” where the materials are in Chinese text); or
- (b) the licensee complies with such conditions as may be specified by the Authority in a direction that may be issued by the Authority.

12. EMERGENCY CALL SERVICE

12.1 Where the licensee provides the services described in Schedule 6, the licensee shall provide a public emergency call service by means of which any member of the public may, at any time and without incurring any charge, by means of compatible apparatus connected to the network of the licensees, communicate as quickly as practicable with the Hong Kong Police Emergency Centre or other entities as directed by the Authority to report an emergency.

12.2 The licensee shall not charge for the use of the public emergency services described in Special Condition 12.1.

12.3 Unless otherwise directed by the Authority, emergency messages sent by a person using compatible apparatus connected to the network of the licensee shall be treated by the licensee on an equal basis irrespective of whether or not such apparatus has been registered as that of a customer of the licensee.

12.4 Where the licensee provides a public emergency call service pursuant to Special Condition 12.1 and the location of the customer making the call is potentially nomadic, the licensee shall in such manner as may be specified by the Authority maintain the most up-to-date location

information of customers and provide free of charge to the Police Force, the Fire Service Department and other relevant Government agencies handling the emergency call service the relevant information relating to the location of a customer calling the emergency service described in Special Condition 12.1 for the sole purpose of responding to that call and (as appropriate) identification that the location of the customer making the call is potentially nomadic. Unless otherwise directed by the Authority, the licensee shall provide a mechanism whereby the customers can update their location information and remind the customers to update their location information whenever they change the location from which the service is used.

13. RECORDS AND PLANS OF THE NETWORK

13.1 The Authority may disclose the network information in accordance with section 7I(3) of the Ordinance.

13.2 The licensee shall, at the reasonable request of any other licensee under the Ordinance if so authorized by the Authority, give reasonable access to its network information for the facilitation of network planning, maintenance and reconfiguration required for the purposes of Special Condition 4 and section 36AA of the Ordinance. The licensee shall be permitted to charge the requesting party so as to be fairly compensated for the reasonable relevant costs incurred in the provision of such network information.

13.3 Where the licensee and any other licensee that has requested access to the network information in accordance with Special Condition 13.2 are unable to agree what amounts to reasonable access (including confidentiality requirements and fair compensation for the reasonable relevant costs incurred) or a reasonable request, the matter at issue may be referred by either the licensee, the other licensee to the Authority for determination.

14. NETWORK LOCATION

14.1 The licensee shall obtain the consent in writing of the Director of Lands before the commencement of any installation works for its

network under, in, over or upon any unleased Government land.

- 14.2 The licensee shall keep accurate records of the location of the network installed under, in, over or upon any land.
- 14.3 The licensee shall record the information referred to under Special Condition 14.2 on route plans drawn on an Ordnance Survey Map background of a scale to be determined by the licensee in consultation with the Director of Highways and the Director of Lands.
- 14.4 The licensee shall, at the request of the Director of Highways, the Director of Lands, the Authority or any person who intends to undertake works in the vicinity of the network and who is authorized to do so by the Director of Highways, the Director of Lands or the Authority, provide free of charge information about the location of the network in diagrammatic or other form. The licensee shall make trained staff available on site to indicate the location and nature of the network to the Director of Highways, the Director of Lands, the Authority or any person authorized by the Director of Highways, the Director of Lands or the Authority.
- 14.5 The licensee shall mark or otherwise identify every wire laid or telecommunications installation installed by the licensee or any contractor on its behalf throughout the course of the wire, or at the location of the installation, so as to distinguish it from any other wire or telecommunications installation laid or installed in Hong Kong.
- 14.6 The licensee shall provide, at such intervals as the Authority may determine, distinguishable surface markers of the underground position of the network.

15. CHANGES TO THE NETWORK

- 15.1 For the purposes of this licence, a change in the network is a material change where the implementation of the change would result in the network no longer being in compliance with any relevant technical standard which the Authority has power to issue.

15.2 The licensee shall notify the Authority of any proposals for material changes to the network and provide him with such information as the Authority reasonably requires.

15.3 The licensee shall not, without the prior consent in writing of the Authority, make any material changes which might reasonably be anticipated by the licensee to affect -

(a) any telecommunications service or installation connected to the network;

(b) a person producing or supplying telecommunications apparatus for connection to the network;

(c) a licensee under the Ordinance;

(d) a licensee under the Broadcasting Ordinance (Cap. 562); or

(e) a customer or a consumer of goods and services provided by any person or entity,

if the change is in the opinion of the Authority likely to require modifications or replacements to, or cessation in the production or supply of any of the telecommunications apparatus involved, or if the proposed alteration would require substantial network reconfiguration or rerouting.

15.4 The licensee shall prepare and publish, after consultation with the Authority, its procedures for consulting with and giving notice to persons likely to be affected materially by changes to its network which are required to be notified in accordance with Special Condition 15.2 and any other changes required to be notified pursuant to any technical standard which the Authority has power to issue. Subject to approval of the Authority, the notification procedures to each of the classes of persons likely to be affected under Special Condition 15.3

may differ having regard to the practicality and costs of notifying them.

16. REQUIREMENTS FOR ROAD OPENING

16.1 The licensee shall co-ordinate and co-operate with any other unified carrier licensee, fixed carrier or fixed telecommunications network services licensee under the Ordinance and any other authorized person in respect of road openings and shall, after being consulted by the Authority, comply with any guidelines issued by the Authority.

17. REQUIREMENTS OF INSTALLATION OF LINES OR CABLES

17.1 The network, or any part of it, if installed under, in, over or upon any public street or other unleased Government land, shall be at such depth, course, route and position as may be determined by the Director of Lands or the Director of Highways.

17.2 Without prejudice and in addition to the provisions of any law or Ordinance, in the course of providing, establishing, operating, adjusting, altering, replacing, removing or maintaining the network for the purposes of this licence, or any part of it, the licensee shall –

(a) exercise all reasonable care, and cause as little inconvenience as possible to the public and as little damage to property as possible; and

(b) make good any physical damage caused to any person having a lawful interest in the land or being lawfully thereon and reinstate the land within a reasonable time in good and workmanlike manner. When it is not practicable to make good any damage or to reinstate the land to the condition in which it existed prior to the damage, the licensee shall pay, promptly and fully, compensation for any damage caused to any person having an interest or right in the land affected.

18. WORKS IN PUBLIC STREETS

18.1 Where in the course of installing or maintaining the network the licensee needs to open or break up any public street the licensee shall –

- (a) apply to the Director of Highways or the Director of Lands for permission to open or break up the public streets;
- (b) complete the works for which the licensee has opened or broken up the public street with all due speed and diligence, fill in the ground and remove all construction related refuse caused by its works;
- (c) maintain the site of the works in a safe manner including the fencing of the site and the installation of adequate warning lighting at night; and
- (d) reinstate the street immediately after the completion of the works to the satisfaction of the Director of Highways or the Director of Lands.

18.2 If the licensee fails, within any period specified by the Director of Highways or the Director of Lands, to observe any of the requirements of Special Condition 18.1, the Director of Highways or the Director of Lands may take action to remedy the failure. The licensee shall reimburse the Government any such sum as may be certified by the Director of Highways or the Director of Lands to be reasonable cost for executing any works under the terms of this Special Condition 18.2.

19. INTERFERENCE WITH WORKS OF OTHERS

19.1 Where in the course of installing or maintaining the network, the licensee after obtaining the approval of the Director of Highways breaks up or opens any public street it shall not remove, displace or interfere with any telecommunications line, any gas pipe or water pipe

or main or any drain or sewer or any tube, casing, duct, wire or cable for the carriage of electrical current and ancillary installations installed by any other person without that other person's consent.

- 19.2 In the case where the other person holds a licence under the Land (Miscellaneous Provisions) Ordinance (Cap. 28), any consent referred to in Special Condition 19.1 is refused, or cannot be obtained for any reason, the licensee may request the consent to proceed from the relevant authority in accordance with the terms of any licence issued to such other person under the Land (Miscellaneous Provisions) Ordinance, if any.

20. LICENSEE TO ALTER NETWORK ON NOTICE

- 20.1 The licensee shall, within such reasonable time and in such manner as may be directed by notice in writing by the Director of Highways or the Director of Lands, and at its own expense, alter the course, depth, position or mode of attachment of any apparatus forming part of the network.

- 20.2 Where the Director of Highways or the Director of Lands gives a direction under Special Condition 20.1, Special Condition 18 shall apply as if such alteration were part of the installation or maintenance of the network.

21. WITHDRAWAL AND RETURN OF FREQUENCIES

- 21.1 Without prejudice to the generality of section 32H of the Ordinance, the Authority may by notice in writing withdraw any frequency previously assigned to the licensee if in the opinion of the Authority the licensee is not making efficient use of that frequency.
- 21.2 The licensee may, subject to prior consent of and conditions specified by the Authority, return any frequency previously assigned to it.

22. UNIVERSAL SERVICE CONTRIBUTION

- 22.1 Where directed by the Authority, the licensee shall pay to PCCW-HKT

Telephone Limited, or other licensees, as the case may be, its relevant share of the universal service contribution to assist PCCW-HKT Telephone Limited, or those licensees, to meet their universal service obligations, if any.

22.2 Any universal service contribution shall be subject to annual review by the Authority as to description and quantum and the licensee shall pay its relevant share of such universal service contribution as the Authority may direct following a review. On the completion of an annual review, the Authority will supply the licensee such information as the Authority is reasonably able to supply, and subject to any duty of confidentiality, as to the basis on which the universal service contribution is calculated.

22.3 For the purpose of this Special Condition 22, the following definitions shall apply:

(a) Universal service contribution is that sum calculated in accordance with a formula adopted annually by the Authority, to ensure that PCCW-HKT Telephone Limited, where it has a universal service obligation, and any other licensee with such an obligation, as the case may be, receives a fair contribution from other fixed telecommunications network services licensees towards the costs, net of attributable revenue, of serving customers with basic service whom would otherwise not be served because it is not economically viable to do so but who are required to be served under the universal service obligation.

(b) Universal service obligation is the obligation to provide, maintain and operate the relevant network in such manner as to ensure that a good, efficient and continuous basic service is reasonably available, subject to the Ordinance, to all persons in Hong Kong and to provide that basic service in such manner.

23. CIRCUMSTANCES OUTSIDE LICENSEE'S CONTROL

23.1 For the avoidance of doubt, General Condition 17.1 of the licence shall

apply to these special conditions and the Authority may at his discretion, and on such conditions as he thinks fit, extend any time period within which the obligations of the licensee under these special conditions may be met.

- 23.2 In exercising his discretion under Special Condition 23.1 with respect to any of the special conditions of the licence, the Authority shall take into account including, without limitation, whether circumstances are such that it would be unreasonable to require compliance by the licensee with the relevant special condition.

24. INSURANCE

- 24.1 Throughout the currency of this licence, the licensee shall have and maintain a valid insurance policy with a reputable insurance company to cover its third party liabilities in respect of personal injury, death and damage to property, arising out of or in connection with the installation, maintenance and operation of the network or provision of the service. The amount of insurance shall be at least HK\$10,000,000 per occurrence or such sum as the Authority may notify in writing in future.

25. UNSOLICITED ADVERTISING

- 25.1 The licensee shall not use the service, and shall endeavour to prevent the service from being used by any user, for the transmission of messages or communications comprised in any unsolicited advertising or unsolicited promotional information and comply with all codes of practice which may be issued by the Authority from time to time concerning unsolicited advertising or unsolicited promotional information.

26. LOCATION SERVICES

- 26.1 Without affecting the generality of General Condition 7, “information of a customer” referred to in General Condition 7.1 and “information provided by its customers or obtained in the course of provision of service to its customers” referred to in General Condition 7.2 shall

include any information concerning the locations of customers obtained in the course of provision of the service.

26.2 Where the licensee provides services to customers using the information concerning the locations of the customers obtained in the course of provision of the service, the licensee shall ensure that:

(a) no such services are provided without the prior consent of the relevant customers; and

(b) the customers are capable of suspending the use of the information from time to time.

27. PROVISION OF SERVICE TO SUSPECTED STOLEN RADIOCOMMUNICATIONS APPARATUS

27.1 The licensee shall, where directed by the Authority, refuse to provide the service to any person who possesses or uses a radiocommunications apparatus which is stolen or suspected stolen goods.

28. BACKUP POWER SUPPLY

28.1 The licensee shall conform to any guideline or code of practice issued by the Authority in respect of the provision of backup power supply to the service.

28.2 Unless there is backup power supply available in such manner as may be specified by the Authority to maintain continuity of the service without any deterioration in quality of the service during interruption of mains power supply on the customer's premises, to the network, or to any system or equipment delivering the service to the customer, the licensee shall not provide the service to users whose "lifeline devices" are connected to the service.

28.3 In this Special Condition, a "lifeline device" means a medical alarm or any other device for an elderly, infirm or invalid to summon assistance

in the event of an emergency without having to dial manually the telephone number of the emergency service.

29. PUBLICATION OF ACCOUNTING RATES AND SETTLEMENT RATES

29.1 The Authority may at his discretion publish any information obtained from the licensee concerning international accounting rates, settlement rates or any other relevant information concerning the charge paid by the licensee to overseas carriers or service providers for delivery of external traffic.

30. PROVISION OF INFORMATION TO CUSTOMERS FOR PREPAID TELECOMMUNICATIONS SERVICES

30.1 Without prejudice to the other terms and conditions of this licence, where the licensee receives prepayment for the telecommunications services offered to customers, the licensee shall provide or make available the following information to the customers when such services are offered:

- (a) Name of the licensee;
- (b) Licence number of the licensee under this licence;
- (c) Customer service hotline number(s);
- (d) Where applicable, the access code(s) or number(s) (including any access password) used for obtaining prepaid telecommunications services;
- (e) Instructions on how to access the prepaid telecommunications services;
- (f) The tariffs under which the prepaid telecommunications services are offered;

- (g) Expiry date or validity period of the prepaid telecommunications services; and
- (h) Expiry date or validity period of the prepaid telecommunications services after replenishment of the prepayment.

30.2 For the purpose of Special Condition 30.1,

“Deposit” means a payment which is:

- i. made to the licensee by a customer in the form of security;
- ii. applied to settle outstanding charges only when the customer defaults in payment; and
- iii. refundable when the customer terminates the service.

“Prepayment” means a payment that is made to the licensee in advance of the delivery of the telecommunications services concerned. For the avoidance of doubt, Deposit is not a Prepayment and “prepaid” shall be construed accordingly.

31. ROLLOUT OF NETWORK

- 31.1 Save with the prior approval of the Authority in writing, the licensee shall roll out the network to achieve a coverage not less than, and at a time not later than, what is specified in the following parts of its application for this licence dated []:
- [relevant parts of the applications to be listed]
- [The need and wording of this special condition will be decided on a case-by-case basis after reviewing the applicant's application.]*

32. INTERPRETATION

- 32.1 For the avoidance of doubt and for the purposes of these Special Conditions:

“mobile virtual network operator” means the holder of public non-exclusive telecommunications services licence for provision of mobile virtual network operator services;

“personal communications services licensee” means the holder of a public radiocommunications service licence for the provision of public radiocommunications services using cellular technology in the 1.7 - 1.9 GHz band; and

“public mobile radiotelephone services licensee” means the holder of a public radiocommunications service licence for the provision of public radiocommunications services using cellular technology in the 800/900 MHz band.

“services-based operator” means the holder of a service-based operator licence for providing internal fixed telecommunications services for carrying real-time voice communications which may integrate with other types of communications and are interconnected with systems and services under unified carrier licences, fixed carrier licences or fixed telecommunications network services licences.

- 32.2 Any reference to an ordinance or a regulation, whether the word is used by itself or as part of any title to an ordinance or a regulation, shall mean that ordinance or regulation for the time being in force as well as any modification or substitution of that ordinance or regulation, in whole or in part, and all subsidiary legislation, regulations, directions, codes of practice and instruments made under that ordinance or regulation and for the time being in force.
- 32.3 The singular includes the plural and vice versa.

SCHEDULE 1
SCOPE OF THE SERVICE

SCHEDULE 2
DESCRIPTION OF NETWORK

SCHEDULE 3
TECHNICAL PARTICULARS OF RADIO STATIONS FOR
THE PROVISION OF THE SERVICE

SCHEDULE 4

REGULATORY ACCOUNTING AND INFORMATION PROVISION REQUIREMENTS

1. Accounting information according to the practices as directed by the Authority under Special Condition 6 for each service provided under this licence or as specified by the Authority.

SCHEDULE 5

TERMS OF DISCOUNT TO PUBLISHED TARIFFS

1. Prices of service after discount.
2. Duration of discount.
3. Duration of offer.
4. General description of promotion plan including but not limited to eligible customers and tie-in period.
5. Conditions governing premature termination.
6. Others as specified by the Authority.

SCHEDULE 6
DESCRIPTION OF SERVICES
REFERRED TO IN SPECIAL CONDITIONS 11 AND 12

An internal telecommunications service

- (a) for carrying real-time voice communications (which may be integrated with other types of communications) to and from parties assigned with numbers from the numbering plan of Hong Kong as stipulated in Special Condition 4.1; and
- (b) to which customers are assigned numbers from the numbering plan of Hong Kong as stipulated in Special Condition 4.1 by the licensee.

DRAFT

FEES PAYABLE FOR UNIFIED CARRIER LICENCE

1. A fee of \$1,000,000 shall be payable on the issue of a unified carrier licence and, in each year while the licence remains in force, on the anniversary of the issue of the licence. If the licence permits the provision of external services only, the fee is \$200,000.

2. A fee of \$800 shall be payable on each anniversary of the issue or the renewal of a unified carrier licence for each 100 customer connections, made by telecommunications line or radiocommunications means, to the network established and maintained under the licence. If the licence permits the provision of external services only, no such fee is payable.

3. A fee of \$3 shall be payable on each anniversary of the issue or the renewal of a unified carrier licence for each subscriber number in the Numbering Plan of Hong Kong within numbering blocks allocated by the TA to the licensee (net of those numbers subsequently ported out from the licensee's network) and for each subscriber number in the Numbering Plan of Hong Kong ported in to the licensee's network.

4. A fee for the management of base stations installed for the service shall be payable on the issue and on each anniversary of the issue of the unified carrier licence concerned and calculated as follows:

- | | | |
|-----|---|-------------------------|
| (a) | for the 1st to the 50th base station installed for the service | \$1000 per base station |
| (b) | for the 51st to the 100th base station installed for the service | \$500 per base station |
| (c) | for the 101st base station installed for the service and any additional base stations | \$100 per base station |

For the purpose of determining the fees payable under this section, the number of stations shall be those authorized or in service at the time when the unified carrier licence concerned is issued or on the anniversary of the issue.

5. Subject to sections 6, a fee for the management of radio frequency assigned shall be payable on the issue and on each anniversary of the issue of the unified carrier licence concerned and calculated as follows-

- (a) where the radio frequency is assigned exclusively to the licensee-
 - (i) \$50 for every 1 kHz or part thereof of frequency then assigned below 1 GHz;
 - (ii) $\$(50-4F)$ for every 1 kHz or part thereof of frequency then assigned within 1 GHz to 10.999 GHz, where F is the frequency rounded down to the nearest GHz in the band then assigned;
 - (iii) $\$(20-F)$ for every 1 kHz or part thereof of frequency then assigned within 11 GHz to 18.999 GHz, where F is the frequency rounded down to the nearest GHz in the band then assigned;
 - (iv) \$1 for every 1 kHz or part thereof of frequency then assigned at or above 19 GHz;
- (b) where any part of the radio frequency is assigned to the licensee on a non-exclusive or shared basis, the fee calculated in accordance with the formula set out in paragraph (a) shall be proportionally reduced by a reduction factor-
 - (i) equal to the number of users authorized or reserved by the Authority to use that particular part of the radio frequency;
 - (ii) determined on the date on which the fee is payable.

6. No fee is payable under section 5 for the management of radio frequency within any of the following frequency bands-

6.765 – 6.795 MHz

13.553 – 13.567 MHz

26.957 – 27.283 MHz

40.66 – 40.7 MHz

2400 – 2500 MHz
5.725 – 5.875 GHz
24.0 – 24.25 GHz
61 – 61.5 GHz
122 – 123 GHz
244 – 246 GHz

**OTHER ISSUES PERTINENT TO
FIXED-MOBILE CONVERGENCE**

INTRODUCTION

Besides the unified licensing framework proposed in the Consultation Paper, there are other regulatory regimes which may need to be revised with the emergence of FMC. They include:

- (i) Interconnection charging arrangement between fixed and mobile services;
- (ii) Local access charge arrangement;
- (iii) Fixed/mobile number portability; and
- (iv) Numbering plan.

**INTERCONNECTION CHARGING ARRANGEMENT BETWEEN
FIXED AND MOBILE NETWORKS**

2. The TA is mindful of the need to review the appropriateness of the existing regulation on the charging arrangement for interconnection between fixed and mobile networks (“Fixed-Mobile Interconnection”) in relation to the market development of FMC. Specifically, the TA has asked the following questions in the Consultation Paper “Review of the Need for Regulation, and Methodologies for the Calculation, of Interconnection Charges for Interconnection between Local Fixed Carriers and Value-Added Services and Mobile Services” of 24 June 2005:

- (i) *Whether to regulate?* In light of the current and foreseeable market environment, is there a need to continue the regulation of the Fixed-Mobile Interconnection Charges?

- (ii) *Whom to regulate?* If there is a need to continue the regulation of the charges, should the charges of PCCW-HKTC only be regulated, or should the charges of all local fixed carriers be regulated?
- (iii) *Whose costs?* If the charges of PCCW-HKTC only are to be regulated, should the charges be based on the costs of PCCW-HKTC? If the charges of all local fixed carriers are to be regulated, which operators' costs should be used as the basis of the regulated charges?
- (iv) *What methodology?* Having decided which operator's cost should be used as the basis for regulation, what methodology should be used to calculate the charges?

3. At present, for every call made from a fixed line to a mobile phone, or from a mobile phone to a fixed line, the mobile network operator pays an interconnection charge to the fixed network operator. This regime is called "mobile-party-pays" ("MPP"). This arrangement is different from the symmetrical arrangement for interconnection between fixed networks. For each call between fixed networks, the originating network operator pays a termination charge to the terminating network operator. This regime is called "calling-party-pays" ("CPP"). On the other hand, calls between two mobile networks are currently not regulated. The mobile operators negotiate the settlement arrangements commercially. The TA understands from the market that, due to relatively balanced traffic flow, no interconnection charge applies between mobile networks. This arrangement is known as "sender keeps all".

4. Local fixed voice service has traditionally been charged at a flat rate long before the introduction of mobile service in the 1980s. Arguably, the level of flat rate charge may not take into account of the cost of interconnecting mobile service. On the other hand, mobile network operators have, since the inception of the service, charged their customers on a usage basis for calls made from and received by mobile phones. Mobile network operators should have included Fixed-Mobile Interconnection charges payable to fixed network operators in the charges to their mobile customers. In recent years, however, mobile operators are widely observed to offer flat monthly charges that include

more and more traffic minutes. Therefore, the distinction between fixed and mobile services on the basis of rate structure is blurring.

5. Some critics argue that the regime was reasonable in the past when the scale of mobile services was relatively small in comparison with fixed voice services. Now the customer base of mobile services is even much larger than that of fixed services and the level of charges for mobile services has been substantially lowered since the 1980s. Mobile network operators are now advocating a CPP regime. They suggest that CPP is a deterrent to the unsolicited promotional calls, in particular the calls originated from fixed networks and terminated on mobile phones, which arouses public concern recently. They further argue that the current asymmetrical regime (i.e. MPP) would be a barrier to FMC.

6. Since the introduction of mobile services in the market, Fixed-Mobile Interconnection charge has been a cost item in the operation of mobile services. This cost should have been taken into account when the mobile service operators set their prices. Therefore although mobile services are currently charged at a much lower level compared with the past, it may not be said that the prices have not covered the cost of interconnection. On the contrary, the pricing of fixed services have probably taken into account the revenue rather than the cost of interconnection with mobile networks. If the interconnection charge arrangement is changed to a symmetrical one or CPP, the cost structure of fixed network and mobile network business will likely be altered. Subject to market forces, fixed network operators may have to consider increasing their charges while mobile network operators may consider lowering their prices. As most people in Hong Kong are customers for both fixed and mobile services, the change may not significantly affect the absolute amount that telecommunications users actually pay in aggregate.

7. Under the environment of FMC, the distinction between fixed and mobile networks will become increasingly blurred. Differential treatments to fixed and mobile network operators may not be sustainable or enforceable.

However, any change to the existing arrangement will involve a redistribution of benefits between fixed network operators and mobile network operators, and ultimately consumers. Therefore whether it is justified to make the change to the existing interconnection charging arrangement requires a detailed assessment of the consumer benefit and economic efficiency associated with such a change. As such, the TA will commission a consultancy study in parallel with this consultation. OFTA will conduct a public consultation on whether and how the interconnection charging arrangement should be modified after the completion of the economic study.

LOCAL ACCESS CHARGE ARRANGEMENT

8. Local Access Charge (“LAC”) is the charge paid by external telecommunications service (“ETS”) operators to fixed network operators for conveying external telecommunications traffic through local fixed networks. As the flat rate charge for fixed line services is supposed not to cover the cost of delivering external telecommunications traffic, the LAC is to cover the cost of the traffic riding on local fixed networks.

9. Currently, the LAC imposed by mobile carriers on ETS operators for conveying external telecommunications traffic (“mobile LAC”) is not regulated by the TA. Whether mobile LAC is charged, and if yes, the level of mobile LAC, are determined on a commercial basis. It has been stated by the TA in his Statement “Review of Methodologies for Calculation of Interconnection Charges for Value-Added Services and Public Mobile Radiotelephone Services and Local Access Charges” of 25 October 2000 that mobile LAC does not warrant regulatory determination and can therefore be subject to market force. The consultancy study mentioned in paragraph 14 will also include a study of the issues relating to LAC. The TA will conduct a public consultation on whether the LAC arrangement for the fixed and the mobile industry should be aligned after the completion of the economic study.

FIXED/MOBILE NUMBER PORTABILITY

10. Currently, a fixed-line user can request for porting his/her telephone number (i.e. numbers in levels “2”, “3” and “8(1-9)”) from a fixed network to another fixed network. It is known as ONP (or Operator Number Portability). Similarly, a mobile telecommunications user can request for porting his/her mobile phone number (i.e. numbers in levels “6” and “9(1-8)”) from a mobile network to another mobile network. It is known as MNP (or Mobile Number Portability). It is technically feasible to make necessary arrangements enabling porting of subscriber numbers across services, that is, from a fixed network to a mobile network or vice versa. It is known as intermodal number portability or FMNP. Although FMNP is not in place in Hong Kong, it has been implemented in the United States with the rules of “local number portability” issued by the Federal Communications Commission (“FCC”) in late 2003. It enables fixed/mobile porting if the coverage area of fixed and mobile networks overlaps.

11. OFTA has so far not conducted any detailed study on the need for FMNP. However, when FMC service is introduced, a telecommunications user may be assigned with a single subscriber number for access to both fixed and mobile services depending on his/her location of use. FMNP which enables porting of subscriber number (i.e. numbers in levels “2”, “3”, “6”, “8(1-9)” and “9(1-8)”) from a fixed network to a mobile network, or vice versa, may therefore be needed.

12. Technically, FMNP requires the merging of the separate platforms for ONP and MNP, and development of a new integration database keeping all records of ported fixed telephone numbers and mobile numbers. It is also likely that the current approach of deploying distributed databases will no longer be sustainable. Implementing FMNP will therefore involve additional cost burdens on the industry and the procedures for implementation also need to be developed. In the consultancy study that OFTA will commission, the consultant will be

asked to propose a long-term sustainable and cost-effective solution for FMNP. In the proposed unified carrier licence, the relevant licence condition has been worded in such a way that the TA may by direction mandate FMNP if it is decided after consultation that FMNP should be implemented.

CHANGE OF NUMBERING PLAN

13. In accordance with the current numbering plan, the numbering level is used to denote the service type, with “2”, “3” and “8(1-9)” allocated for fixed services, and “6” and “9(1-8)” allocated for mobile services. In the era of FMC, such numbering arrangement may not continue. A natural development as a result of the FMC is that the future fixed, mobile and nomadic services may have to share the use of numbers in levels “2”, “3”, “6”, “8(1-9)” and “9(1-8)”. The use of numbers of converged services will be the subject of consultation in the Telecommunications Numbering Advisory Committee in due course.

CONSULTANCY ON THE ECONOMIC EFFICIENCY OF A CONVERGED REGULATORY FRAMEWORK

14. Before proceeding to the revision of the existing regulatory framework, a more fundamental issue should first be examined – “what are the impacts of FMC on all stakeholders of the telecommunications industry (including but not limited to consumers, operators, regulator, etc.)?” The TA considers that it is important not only to assess the driving factor behind a converged framework and to grasp the appropriate timing for implementation, but also to assess the consumer benefits and economic efficiency associated with such a framework. While some overseas economies have started the process of revising their regulatory frameworks in relation to FMC, it is of paramount importance to take into account the unique market situations and circumstances of Hong Kong’s telecommunications industry when considering whether this is the appropriate timing for Hong Kong to start the process or

whether we should not start the process at all if the implementation costs exceed the benefits. As such, OFTA is arranging to commission a consultancy study which will address these issues. In particular, the study will cover:

- (i) Possible change from the existing asymmetrical to symmetrical interconnection charging arrangement between fixed and mobile networks;
- (ii) Possible expansion of the existing fixed (operator) number portability and mobile number portability to intermodal number portability; and
- (iii) Other aspects of the regulatory frameworks considered to be relevant, including but not limited to the numbering plan and the local access charge arrangement.

15. The TA intends to conduct another public consultation for the revisions of these regulatory regimes in relation to FMC after completion of the consultancy study and analysis of the recommendations to be given in the consultancy report.
