

**Consultation Paper  
on the Creation of A Unified Carrier Licence  
under the Telecommunications Ordinance**

**Foreword**

This document sets out the Secretary for Commerce and Economic Development's proposals on the creation of a Unified Carrier Licence under the Telecommunications Ordinance.

Please send your comments on the proposals to the Communications and Technology Branch of the Commerce and Economic Development Bureau by 20 February 2008 by any of the following means:

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## **Executive Summary**

With market and technological developments, fixed-mobile convergence (“FMC”) is emerging which blurs the distinction between fixed and mobile networks. To ensure that the regulatory environment remains conducive to the emergence of FMC, the Telecommunications Authority (the “Authority”) conducted two public consultation exercises in 2005 and 2006 respectively. As a conclusion of the regulatory review on FMC, the Authority recommended, among the others, the introduction of the UCL to facilitate the provision of converged telecommunications services.

2. Before the making of regulation to create the UCL, the Secretary for Commerce and Economic Development (“Secretary”) is required to carry out a consultation under section 7(3) of the Telecommunications Ordinance (“Ordinance”). This consultation covers the proposed general conditions (GCs), period of validity and fees for the UCL. In parallel, the Authority will conduct a separate consultation on the special conditions (SCs) to be attached to UCLs which may be granted by the Authority so as to enable the industry to have a full picture of the new licensing regime.

3. Under the existing Telecommunications (Carrier Licences) Regulation (Cap 106V) (“the Regulation”), there are five types of carrier licences, namely fixed carrier licence (“FCL”), fixed carrier (restricted) licence (“FCRL”), mobile carrier licence (“MCL”), mobile carrier (restricted) licence (“MCRL”) and space station carrier licence (“SSCL”). As a general licensing vehicle for carrier services, it is proposed that the scope of UCL should cover all types of fixed, mobile and converged telecommunications services under the FCL, FCRL, MCL and MCRL except for the SSCL which should be maintained by its distinctive nature.

4. To facilitate migration to the unified licensing regime, it is proposed that UCLs will be issued for new applications and replacement of the existing carrier licences upon their expiry. Furthermore, existing carrier licensees may choose to convert their licences to UCLs on a voluntary basis.

5. The validity period of a UCL issued for a new application or replacement of an existing carrier licence upon its expiry would be set at 15 years for all types of services which may be authorized under the

licence. If an existing carrier licensee applies to convert its licence to UCL without any change in the scope of service, the validity period of the UCL should be the same as the remaining term of its original carrier licence. For all other cases of conversion, they would be treated as if UCLs are applied for replacement of the existing carrier licence(s) and the UCLs which may be granted will have a full validity period of 15 years.

6. For avoidance of doubt, the spectrum right assigned and the validity period specified in the existing licence will be transferred upon the granting of the new UCL. Spectrum rights have to be acquired separately from the licence and existing licence holder should not have any expectation of the spectrum rights being renewed automatically upon expiry of assignment even if the UCL has not expired.

7. It is proposed that the same set of GCs for the existing carrier licences as specified in the Regulation will continue to apply for UCLs.

8. The licence fees for the UCL will basically adopt the similar structure of fee components in the existing carrier licences, and the level of fees will be set to recover the costs of OFTA in administering the licences. A UCL licensee is required to pay a fixed annual fee of \$1 million if it is authorized to provide fixed local services or mobile services or both; while a lesser amount of \$100,000 will apply if it provides fixed external services and/or mobile services other than land mobile services only. There will be a subscriber-based fee component of \$8 per customer connection payable per annum under the UCL. As any proposal for extending the existing 8-digit plan to longer digit plan will have wide implications, in terms of cost and convenience, to existing consumer and the business sector, more efficient use of telecommunications numbers by the operators is encouraged. Therefore, an annual fee of \$3 for each subscriber number allocated to the UCL licensee is proposed, regardless of whether the number has been assigned to end customers or not. As regards the calculation of spectrum management fee and base station/land station fee under the UCL, they will remain at the same level as that under the existing carrier licences.

## **Introduction**

With dynamic market and technological developments, the distinction between fixed and mobile networks and services is becoming increasingly blurred. This phenomenon is commonly referred to as “Fixed-Mobile Convergence” (“FMC”). To ensure that the regulatory environment remains conducive to the emergence of FMC, the Telecommunications Authority (the “Authority”) conducted two public consultation exercises in 2005 and 2006 respectively. In his statement issued in April 2007, the Authority recommended, among the others, the introduction of the Unified Carried Licence (“UCL”) to facilitate the provision of converged telecommunications services.

2. The Secretary for Commerce and Economic Development (the “Secretary”) is empowered under section 7(2) of the Telecommunications Ordinance (the “Ordinance”) to make regulations to prescribe the general conditions, including the period of validity, as well as the annual licence fees of a carrier licence. Before making such a regulation, the Secretary is required under section 7(3) to, by notice in the Gazette, invite members of the public who are interested to make representations.

3. This consultation paper sets out the Secretary’s proposals to introduce the UCL, including the general conditions, the period of validity and the fees for the UCL. In parallel with this consultation, the Authority is conducting a separate consultation in respect of the special conditions (SCs) to be attached to the UCL so as to enable the interested parties to have a full picture of the new licensing regime. The consultation paper on the SCs is available in the website of the Office of the Telecommunications Authority ([www.ofta.gov.hk](http://www.ofta.gov.hk)).

4. The Government welcomes comments on the proposals in this consultation paper. All the views expressed in this consultation paper are for the purpose of discussion and consultation with the public and industry only. Nothing in this consultation paper represents or constitutes any decision made by the Secretary, the Authority or the Government and the consultation contemplated by this paper is without prejudice to the exercise of their powers under the Ordinance or any subsidiary legislation.

## **Review of the Existing Licensing Framework for Fixed and Mobile Telecommunications Services**

5. Currently, fixed and mobile telecommunications services are two distinct services which are provided by the respective operators using dedicated networks. Under the existing licensing regime, fixed telecommunications services are licensed under fixed telecommunications network services (“FTNS”) licence or fixed carrier licence (“FCL”)<sup>1</sup> (unless the context otherwise required, reference to FCL in this consultation paper hereafter includes reference to FTNS licence) while mobile telecommunications services are licensed under mobile carrier licence (“MCL”)<sup>2</sup>. The fixed and mobile telecommunications services are subjected to two regulatory regimes with different rights and obligations imposed on the two types of licensees.

6. In addition to FCL and MCL, there are three other types of carrier licences, namely:

- (a) fixed carrier (restricted) licence (“FCRL”), which is a restricted form of FCL and only entitles the licensee to establish or maintain a telecommunications network for carrying television programmes within the meaning of section 2(1) of the Broadcasting Ordinance (Cap 562) ;
- (b) mobile carrier (restricted) licence (“MCRL”), which is a mobile carrier licence issued for radiocommunications where moving stations primarily for use in locations other than on land are used; and
- (c) space station carrier licence (“SSCL”), which allows the licensee to establish, possess, maintain, use and operate a space station or earth station for telemetry, tracking,

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<sup>1</sup> 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 FCL has been used to license the operation of FTNS, while the FTNS licences already issued will continue to be in force until expiry. The applicable general conditions, validity period and licence fees of FTNS licence and FCL are prescribed in the Telecommunications Regulations (Cap. 106A) and the Telecommunications (Carrier Licences) Regulation (Cap. 106V) respectively.

<sup>2</sup> Before 1 April 2001, the operation of mobile carrier services was regulated under the Public Radiocommunication Service Licence (PRSL). After the carrier licence regime came into force on 1 April 2001, the MCL has been used to license the operation of mobile carrier services, while the PRSL already issued would continue to be in force until expiry. There is now only one PRSL issued for mobile carrier (restricted) services remaining and which will expire in 2011.

control and monitoring of a space object and for space radiocommunications.

7. With the advent of technologies, fixed and mobile networks/services are converging, thereby making the current licensing regime no longer effective to meet the market need. Convergence will enable voice, data and multimedia applications to be provided over common core networks and delivered to end-users through a range of wireline and wireless customer access networks. Users can access the converged services using the same device irrespective of whether they are stationary at fixed locations or on the move. On the other hand, new technologies are capable of evolving from a fixed or limited mobility setting to a full mobility setting nowadays. One typical example is the broadband wireless access (“BWA”) technology which supports wireless extension of broadband service of the fixed networks as well as nomadic and full mobility broadband services. Another example is the recent launch of an integrated third generation (“3G”) cum Wi-Fi service by one of the local telecommunications operators. It is foreseen that more and more FMC services would be developed in the near future.

8. In the FMC environment, it will become difficult, if not impossible, to classify a service as a fixed or a mobile telecommunications service or to identify a network as a fixed network or mobile network, as the same network may provide fixed and/or mobile service to a customer. Neither FCL nor MCL alone would be suitable for covering these services. There is therefore a need for a more harmonised licensing regime in the form of the proposed UCL.

### **Creation of a Unified Licensing Framework**

9. In the light of the Authority’s recommendations, the Secretary **proposes to create a UCL to be the common licensing vehicle for all types of fixed, mobile and converged telecommunications services. It shall be wide and general enough to encompass all carrier services, including those covered under the existing FCL, FCRL, MCL and MCRL but except for SSCL.** As such, the proposed UCL can allow operators to provide different services under a single and flexible licensing framework which paves the way for FMC. With a harmonized set of rights and obligations and licence fee structure under the UCL,

operators, irrespective of provision of fixed or mobile services, may compete with each other under a level playing field. To create the UCL, the Secretary will prescribe the statutory framework for the new UCL **by making an amendment regulation** to amend the existing Telecommunications (Carrier Licences) Regulation (Cap 106V) (“the Regulation”).

10. Apart from covering of FCL and MCL according to the original proposal of the Authority, it is considered appropriate for the scope of UCL to be extended to cover FCRL and MCRL as well while SSCL would be excluded. The reasons for additional covering of FCRL and MCRL but not SSCL are given below:

- (a) the scope of service for FCRL covers the establishment and operation of a transmission network and ancillary telecommunications facilities for the distribution and/or transmission of television and associated sound and data signals<sup>3</sup>. FCRL is a sub-set of FCL but the period of validity for FCRL is not more than 12 years, which is three-year shorter than that of FCL (i.e. 15-years). With the convergence of broadcasting and telecommunications services, there is no justification to continue distinguishing the carriage of broadcasting and telecommunications signals. In addition, a number of fixed carriers are already carrying, inter-alia, broadcasting signals under their FCLs<sup>4</sup>. There does not seem to be sufficient justification to provide for two licensing vehicles for the similar type of service;
- (b) the existing scope of service of MCRL basically covers mobile services other than land mobile services, including maritime mobile satellite, land mobile satellite, aeronautical mobile satellite, maritime mobile and aeronautical mobile services. So far, the Authority has

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<sup>3</sup> So far, the Authority has granted only one FCRL. The only FCRL licensee is TVB Pay Vision Limited.

<sup>4</sup> For example, Asia Television Limited and Television Broadcasts Limited both hold a FCL which authorizes each of them to transmit television and associated sound and data signals for the distribution of the television programme service licensed under the domestic free television programme service licence(s) held by them; and to provide public telecommunications services as approved by the Authority.

granted only two MCRLs<sup>5</sup>. Similar to that of MCL, MCRL has the same period of validity of 15 years and a holder of MCRL is also essentially a facilities-based operator. MCRL is basically a subset of MCL, and therefore it should be covered by the UCL as a general licensing vehicle for all fixed and mobile carrier services. A holder of MCRL, upon conversion to UCL, should be given the flexibility to expand its service scope to provide other types of mobile / fixed telecommunications services using wireline or wireless means, without requiring it to apply for a separate carrier licence which is otherwise required under the present arrangement.

- (c) unlike other types of carrier licences such as FCL or MCL, SSCL does not cater for the provision of telecommunications services to customers but for radiocommunications services related to the operation of space objects (i.e. satellites). The period of validity for SSCL is 20 years which is notably longer than that of other carrier licences. Given the specific nature of the SSCL which is different from the other types of carrier licences, it is considered that the SSCL should be maintained as a distinct type of carrier licence.

11. When the proposed unified licensing framework is in place, the Authority will no longer issue any of the existing fixed and mobile carrier licences (see also paragraphs 15 – 16) to any applicants. However, **after the introduction of UCL, all the existing FCLs, FCRLs, MCLs and MCRLs issued will remain valid until such time they have been phased out**, i.e. the existing fixed and mobile carrier licences have either expired, replaced by UCLs after expiry of the original carrier licences, or converted to UCLs before expiry of the original carrier licences.

12. Services authorized under a UCL may initially be fixed services only<sup>6</sup>, external fixed services only, mobile services only, mobile services

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<sup>5</sup> The two MCRL licensees are Reach Networks Hong Kong Limited (“Reach”) and Hong Kong Aviation Data Communication Corporation Limited (HKAVC). Reach provides maritime mobile-satellite, aeronautical mobile-satellite and land mobile-satellite services, while HKAVC provides aeronautical mobile and aeronautical mobile-satellite services.

<sup>6</sup> According to paragraph 10(a), the existing restricted type of fixed service under the fixed carrier (restricted) licence for broadcast transmission will be subsumed as fixed service under the UCL.



other than land mobile services only, or a combination of them. If the holder of a UCL subsequently wishes to operate other types of services outside the initial scope of the service authorized, it can apply to the Authority for expansion of the scope of service under the UCL. If a holder of FCL, FCRL, MCL or MCRL applies for conversion to UCL, he should also be given the flexibility to expand its service scope to provide other types of fixed/mobile telecommunications services. For example:

- a UCL which allows fixed services only may be expanded to include mobile services;
- a UCL which allows mobile services only may be expanded to include fixed services; or
- a UCL which allows external fixed services (such as the operation of overland/submarine cable and satellite facilities) may be expanded to include mobile services other than land mobile services, such as maritime/aeronautical mobile services.

13. For the avoidance of doubt, a holder of UCL will not be automatically granted spectrum right which shall be acquired separately. If a unified carrier licensee wishes to provide mobile or wireless carrier services requiring the use of radio spectrum, it should acquire the right to use spectrum through an open, competitive bidding or tendering process where there is competing commercial demand for the spectrum<sup>7</sup> or make application to the TA for assignment of the spectrum where there is no competing demand<sup>8</sup>.

14. Under the Ordinance, the Authority may specify the scope of service and all relevant special conditions for the carrier licence. The

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<sup>7</sup> Under the Spectrum Policy Framework promulgated by the Government in April 2007 (<http://www.cedb.gov.hk/ctb/eng/legco/pdf/spectrum.pdf>), a guiding principle in spectrum management by the Authority is that a market-based approach will be used for management of spectrum wherever the Authority considers that there are likely to be competing demands from providers of non-Government services, unless there are overriding public policy reasons to do otherwise. The market-based approach means methods relying on market forces (e.g. an open, competitive bidding or tendering process) to ensure the efficient use of spectrum as a public resource.

<sup>8</sup> In accordance with the Spectrum Policy Framework, the TA will publish and regularly update information on unassigned spectrum for which supply exceeds demand, and which can readily be made available for assignment upon application.

exact scope of service and the relevant special conditions for the provision of services under the UCL will be subject to the application proposal for UCL submitted by an applicant and they will be set out in the licence to be granted by the Authority. In association with this consultation, the Authority is conducting a separate consultation in respect of the special conditions for the UCL in order to give the industry a full picture on the granting of UCL.

*Q1. The Secretary invites comments on the proposal of creating the UCL as detailed in paragraphs 9-13.*

### **Migration to the UCL**

15. Respondents to the two FMC consultations showed general support for migration of the existing fixed and mobile carrier licences to the UCL on a gradual and voluntary basis. To facilitate migration to the new unified licensing regime, **the Secretary proposes that the Authority should not issue FCL, FCRL, MCL and MCRL to new entrants or to existing licensees whose licences expire and should be replaced by new licences. Instead, the UCL will be issued for new applications and replacement of the existing carrier licences upon their expiry after the unified licensing framework has been implemented.**

16. The existing holders of FCL, FCRL, MCL and MCRL will be given the choice to convert their existing licences to the UCL covering the existing scope of service or an expanded scope of service. If the existing licence holders choose not to convert their licences to the UCL, they should be entitled to continue to operate under their existing licences for their remaining terms. In other words, **the existing FCL, FCRL, MCL or MCRL holders would not be forced to surrender their existing licences while their licences remain valid, and the conversion to UCL would be implemented on a voluntary basis only.** In the separate consultation on the special conditions of the UCL that is being carried out by the Authority, the Authority has provided full details of the arrangement for conversion of existing carrier licences to UCLs, including the transplanting of existing rights and obligations in the fixed and mobile carrier licences to the UCLs.

*Q2. The Secretary invites views on the proposed migration arrangement under paragraphs 15-16.*

## **Period of Validity of the UCL**

### ***New Licence Application***

17. According to the Regulation, FCL has a validity period of 15 years and, subject to licence renewal by the Authority, a further period of not more than 15 years. FCRL has a validity period of not more than 12 years and, subject to licence renewal by the Authority, a further period of not more than 12 years. While MCL and MCRL have a period of validity of 15 years, the Regulation does not provide for renewal of these licences.

18. In order to streamline the administration process as UCL could cover different fixed and mobile telecommunications services, it would be desirable for the UCL to have a unified validity period irrespective of the types of services to be covered. The Authority considers that a UCL issued to a new licence applicant should have a validity period of 15 years. This is on par with existing FCL and MCL. There is no objection from the respondents to the two FMC consultations on a unified validity period for different services under UCL. **The Secretary therefore proposes that a new UCL issued to an applicant should have a validity period of 15 years for all types of services which may be authorized under the licence.**

19. Furthermore, in view of the rapid developments in the telecommunications technologies and market, the present form of the proposed UCL may no longer meet the need after a period of time and there may be a need to update the licence conditions or licensing regime. It is considered that in future when a UCL expires, the licensee should not have expectation of the licence being renewed with minimal change of licence conditions. Instead, the licence will be replaced by a new UCL or another licence with updated licence conditions that would meet the need of the prevailing regulatory environment. The situation is similar to the existing arrangement for the licensing of mobile carrier services. **Therefore, the Secretary proposes that upon expiry of a UCL, a new**

**licence with updated conditions will be issued to the licensee in case it should be authorised to continue providing the service covered by the original licence and any other services covered by the latest licensing regime.** In case that a licensee is not authorised to continue providing the service covered by the original UCL, notably due to variation or withdrawal of assignments of spectrum which is not efficiently used, sufficient prior notice<sup>9</sup> will be given to the licensee.

### ***Conversion to the UCL***

20. As proposed in paragraph 16 above, an existing holder of FCL, FCRL, MCL or MCRL would be given the choice to convert its existing licence to a UCL before the licence expires. Concerning the setting of the validity period of the UCL granted in such case, the Authority has proposed the arrangement for a number of scenarios in the first FMC consultation paper, and it is recapitulated in paragraphs 21 - 23 below.

*Scenario 1 : where an existing licensee proposes no change in scope of service*

21. Where an existing licensee surrenders its carrier licence to the Authority in return for a UCL under which the scope of service is identical to its existing carrier licence, this would not be treated as a new licence application or a licence renewal. In this circumstance, the Authority has proposed that the validity period of the converted UCL would be the same as the remaining term of the existing licence.

*Scenario 2(a) : where an existing licensee proposes change in scope of service and submits proposals on new services only*

22. If an existing licensee applies to convert its existing carrier licence to UCL and submits proposal for provision of new services only (i.e. the proposal does not cover or is not related to its existing services), it may not be appropriate to grant a UCL with a full validity period of 15 years as it would virtually extend the operation of the existing services beyond the original validity period of the existing carrier licence without

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<sup>9</sup> For example, under the Spectrum Policy Framework, in the case of variation or withdrawal of spectrum assignment to a carrier licensee for the provision of mobile or wireless carrier services, a minimum notice period of not less than three years before the date of variation or withdrawal would be given insofar as it is practicable in the circumstances.

going through a proper exercise for extension of the existing services. The Authority has proposed that the validity period of the converted UCL covering both the existing services and the proposed new services would also be same as the remaining term of the existing carrier licence.

*Scenario 2(b) : where an existing licensee proposes change in scope of service and submits proposals for both existing services and new services*

23. Where an existing licensee wishes to convert its carrier licence to a UCL and submits proposals for an expanded scope of services covering both the existing and new services, the licensee is effectively proposing to relinquish its existing carrier licence and apply for a new carrier licence. In these circumstances and provided that the Authority is satisfied that the application in respect of both the existing and new services meet with the licensing criteria, the Authority has proposed that a UCL may be granted with a validity period of 15 years.

#### *Proposed Conversion Arrangement*

24. The Secretary considers that the proposed arrangement in paragraph 21 for conversion of an existing carrier licence to UCL without change in scope of service (i.e. Scenario 1) should be an appropriate and acceptable arrangement for existing carrier licensees to migrate their existing licences to UCLs as soon as the unified licensing regime is in place as their rights and obligations would largely be preserved within the remaining terms of their existing licences if they should choose to convert their licences to UCLs. However, while the proposed arrangements in paragraphs 22 and 23 are possible options, there may be difficulties to distinguish in practice whether certain changes in service constitute an expansion of existing service. A degree of subjective judgement would also be involved in judging whether a proposal really pertains to brand new services. Furthermore, consideration should also be given to other scenarios such as where a company holding more than one carrier licences covering both fixed and mobile services wish to apply to convert the licences to a single UCL.

25. The Secretary considers that the conversion should be flexible and simple to administer. After considering the different possible scenarios, **the Secretary proposes that for conversion of existing carrier licences to UCLs, the period of validity for the UCL should be**

**set as follows:**

- (a) For conversion of an existing carrier licence without any change in scope of service, a UCL should be granted with the validity period same as the remaining term of the original carrier licence;**
- (b) For all other cases, they would be processed as if a new UCL is applied for replacement of the existing carrier licence(s). Subject to receiving and vetting of an application proposal with all the information provided as for a new licence application, a UCL should be granted with a full validity period of 15 years.**

26. For avoidance of doubt, the period of validity of the UCL granted for conversion of an existing carrier licence shall not operate to extend the period for which any spectrum has been assigned to the licensee under the existing licence – the spectrum right under the existing licence with the same validity period as the existing licence will simply be transferred to the new UCL. This applies irrespective of whether the UCL has the validity period same as the remaining term of the original carrier licence (paragraph 25 (a)) or the UCL has a full validity period of 15 years (paragraph 25(b)). In other words, it means that the period of legacy spectrum rights transferred to the UCL may be shorter than the validity period of the UCL. As explained in paragraph 13, spectrum rights should be acquired separately from the licence and therefore the licence holder should not have any expectation of the spectrum rights being renewed automatically upon expiry of assignment even if the UCL has not expired. On the other hand, new spectrum right may also be acquired by a UCL holder, and the validity period of the new spectrum right may be longer than that of the UCL. In this case, the assignee of the spectrum right should apply for a new licence issued by the Authority for using the spectrum when his UCL expires. For the details on granting of spectrum rights under the UCL and the transplanting of rights and obligations under the existing carrier licence(s) for conversion to the UCL, reference should be made to the consultation paper on the special conditions of UCL issued by the Authority.

*Q3. The Secretary invites views on the proposed period of validity for UCL under paragraphs 18-19, and the proposed conversion arrangement in paragraph 25.*

### **General Conditions (GCs) of the UCL**

27. As a general principle, in order to ensure a level playing field, the Secretary considers that licensees under the current licensing regime and those under the unified licensing regime who operate similar kind of network / service should basically have the same rights and obligations. In this regard, **the Secretary proposes that the GCs of UCL should be the same as those of the existing FCL, FCRL, MCL and MCRL** which are prescribed in the Regulation and reproduced at Appendix A. It is noted that there is basically no objection by the respondents to the two FMC consultations to use the same set of GCs for UCL as for the existing fixed and mobile carrier licences. The Secretary would like to invite any further comments on this proposal.

*Q4. The Secretary invites views on the proposed GCs of UCL as set out in Appendix A.*

### **Fee Schedule of the UCL**

28. The licence fees for the existing FCL, FCRL, MCL and MCRL, which were set on a cost-recovery basis to cover the administrative costs of OFTA, have different components<sup>10</sup>. According to the nature of these fee components, they can be broadly classified into three categories, namely:

#### **(i) Fixed fee component**

This is basically a fixed amount of annual fee payable by the licensee.

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<sup>10</sup> The fee schedules applicable to FCL, FCRL, MCL and MCRL are set out in Schedule 3 to the Regulation. The fee schedules applicable to FTNS licence is set out in Part 2 of Schedule 1 to the Telecommunications Regulations (Cap. 106A).

**(ii) Subscriber-based fee component**

This is a variable amount of fees which are calculated in accordance with the number of customer connections (for fixed services) or mobile stations used by customers of the licensee (for mobile services).

**(iii) Non-subscriber-based fee component**

This is a variable amount of fees which are calculated in accordance with the amount of radio spectrum (for fixed and mobile services) and/or number of base stations/land stations (for mobile/mobile restricted services) used by the licensee. The fee is to recover the administrative cost of the Telecommunications Authority in managing the spectrum.

The current levels of fees are summarised in Table 1 below.

Table 1 – Existing Licence Fees for Fixed and Mobile Carrier Licence

<b>Licence</b>	<b>Fixed fee component</b>	<b>Subscriber-based fee components</b>	<b>Non-subscriber-based fee components</b>
<b>FCL</b>	Annual fee (\$1,000,000; or \$200,000 for external service only)	Customer connection fee (\$7 per connection)	Spectrum management fee (*)
<b>FCRL</b>	Annual fee (\$100,000)	Customer connection fee (\$7 per connection)	Spectrum management fee (*)
<b>MCL</b>	Nil	Mobile station fee (\$18 per station)	Spectrum management fee (*) Base station fee (*)
<b>MCRL</b>	Annual fee (\$50,000)	Nil	Land station fee (*)

(\*) calculated according to pre-defined formulae set out in Schedule 3 to the Regulation



29. At the time when the fee structures were designed and the fee levels set, the above three categories of fee components generally reflected the nature of costs that the Authority would incur in administering and regulating the licence. Since the inception of the FTNS licence in 1995, the fee level for the FCL has basically remained unchanged except where a licensee provides external fixed services only, the fixed fee component was reduced from HK\$ 1 million to HK\$500,000 in 2003 and further reduced to HK\$200,000 in 2004 to reflect the reduced average costs in administering fixed carriers providing external fixed services only. For MCL, the level of the mobile station fee component has also been continually reviewed and reduced over the years to reflect the growth in the number of mobile subscribers and hence a decrease in average administration costs per mobile station<sup>11</sup>. The last revision exercise was conducted in 2005 and as a result the mobile station fee was further reduced from HK\$20 to HK\$18 per mobile station. Notwithstanding a continual review on the level of the fee components, the licence fee structure of the FCL and MCL is considered to remain appropriate and should reflect the nature of costs that the Authority incurs in administering and regulating the licences. The Secretary proposes that a similar structure of fee components in the existing carrier licences should be adopted in the UCL fee schedule.

***Fixed fee component – annual fee***

30. In the first FMC consultation paper, a fixed fee of \$1 million is proposed for UCL irrespective of whether fixed and/or mobile service is provided. Although some respondents queried the basis of the fee level and its difference from the fixed fees charged for other types of licences like Service-Based Operator (SBO)<sup>12</sup> licence and Public Non-Exclusive Telecommunications Services (PNETS)<sup>13</sup> licence, the Authority has made clear that the concerned fee is set at a level primarily for the recovery of costs by the Authority for administering the relevant licence. The Authority has reviewed the proposed fee level in 2007 and concluded that the same level is still appropriate from cost-recovery angle and with

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<sup>11</sup> The concerned changes in mobile station fee also applies to PRSL which has been used to license mobile carrier services before 1 April 2001.

<sup>12</sup> For SBO licence, the fixed fee component as determined by the Authority is HK\$90,000 if Class 1 services are provided and HK\$25,000 if Class 1 services are not provided.

<sup>13</sup> For PNETS licence, the fixed fee component as determined by the Authority is HK\$750.

reference to the existing fixed components of licence fees under the existing fixed and mobile carrier licences. Therefore, **the Secretary proposes that a UCL licensee would be required to pay an annual fee of \$1 million if it is authorized under the UCL to provide fixed local services or mobile services, or both.**

31. For provision of external fixed services only, the present licence fee under the FCL is \$200,000. For provision of mobile services other than land mobile services only, the present fixed fee component under the MCRL is \$50,000. The Authority has reviewed the concerned costs of administering the existing licences for the concerned services and recommended that it is appropriate to align the proposed fee at a level of \$100,000. Based on the recommendation from the Authority, **the Secretary proposes that the annual fee would be \$100,000 if the UCL permits the provision of (i) fixed external services only and/or (ii) mobile services other than land mobile services only.**

***Subscriber-based fee component – customer connection fee***

32. Currently, FCL, FCRL and MCL are subject to different levels of subscriber-based fee, i.e. the customer connection<sup>14</sup> fee payable under FCL and FCRL at \$7 per connection and the mobile station fee payable under MCL at \$18 per station. The Authority has proposed to set a unified rate for the customer connection fee payable under the UCL, regardless of whether the service is fixed or mobile in nature, or whether the subscriber is connected to the network/service by wireline or wireless connection.

33. The subscriber-based fee presently accounts for a significant portion of total licence fees currently received from the major fixed and mobile network operators. In setting the level of fee, the relevant consideration is to recover the administrative costs of the Authority in administering and regulating the UCL. In this connection, the Authority has reviewed the costs for on administering the FCL, FCRL and MCL.

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<sup>14</sup> A customer connection is a network termination point provided by the licensee for connection of customer equipment to the network. Examples of a network termination point are a distribution point for connection between a network and a block wiring system of a building, or a telephone socket for connection between a network and customer equipment, or an air interface linking mobile customer equipment to a mobile network, or a logical point that can be identified by means of a specific network address which is linked to a number or code assigned to an end customer.

It is considered that the customer connection fee for fixed services should be slightly increased while the fee for mobile services may be reduced. The Authority has proposed in the first FMC consultation paper that the customer connection fee can be set at a unified level of \$8 per connection. There is no major disagreement by the respondents on the retaining of a subscriber-based fee component in the licence fee structure. The Authority has reviewed the proposed level in 2007 and recommended that a unified level of \$8 per connection is still appropriate from cost recovery angle and with reference to the subscriber-based fee components of the existing fixed and mobile carrier licences. **The Secretary agrees to the Authority's recommendation and therefore proposes that the customer connection fee for UCL be set at \$8 per connection.**

34. At present, external fixed services licensed under the FCL and mobile services other than land mobile services licensed under MCRL do not have a subscriber fee component. The Secretary proposes that external fixed services and mobile services other than land mobile services will continue not to be subject to the payment of customer connection fee.

***Non-subscriber-based fee component – number fee***

35. Currently, costs incurred by the Authority in the management of telecommunications numbers have been embedded in the subscriber-based fee components. At present, fixed and mobile network operators may apply for number allocation by the Authority at no charge. With the existing consumption rate, the 8-digit numbering plan may be exhausted in seven years if appropriate preventive measures are not taken in time. Migration to a longer-digit plan will have a serious impact on all sectors of the community in terms of cost and convenience, and as such should not be considered lightly. According to OFTA's statistics, less than 60% of the subscriber numbers currently allocated to operators are assigned for use by the general public. The unassigned numbers are therefore lying idle. The lifetime of the current 8-digit numbering plan can be extended if the utilization rate can be improved. In this connection, the Authority considers it necessary to introduce a measure to provide the operators with the incentive to efficiently use the numbers already assigned to them. Therefore, the Authority proposed in the first

FMC consultation paper a fee of \$3 per subscriber number<sup>15</sup> for numbering blocks 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 amount of total number fee the licensee shall pay. Such a fee incentive should encourage more efficient use of numbers and help prolong the current 8-digit numbering plan. Alternatively, the licensees may return unallocated numbers to the Authority.

36. In response to the Authority's proposal, some operators had raised concern about the number fee. One operator was concerned that this fee would increase the service charges payable by customers. Other operators considered that the number fee, if imposed, should be charged for numbers assigned to end customers only but not for unassigned numbers. The Secretary notes that number fee is already a variable fee component under the SBO licence, which has been introduced by the Authority since January 2006. The number fee for SBO licence is set at \$7 per subscriber number. The fee applies to all subscriber numbers held by the SBO licensee<sup>16</sup>, irrespective of whether the numbers are assigned to end customers or not, in order to encourage efficient use of numbers. In fact, the number fee of \$7 for the SBO licence is much higher than the \$3 proposed for UCL. Unlike a facilities-based carrier, a SBO licensee does not establish a physical connection to the customer and therefore there is no customer connection fee for the SBO licence. The subscriber-based fee component for the SBO licence is embedded in the number fee which is therefore higher than that proposed for UCL.

37. The Secretary notes the concern of the industry about the additional fee component introduced in the UCL but taking the case of SBO licence as reference, the licence fee components should reflect the services provided under the licence and be set at such levels as to recoup the administrative expenses of the Authority in a proportionate manner. Furthermore, it is necessary to take a more balanced view on the overall licence fee payable under the UCL. For mobile service operated under

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<sup>15</sup> A subscriber number is a number in the Hong Kong Numbering Plan for assignment to the end customer for telecommunication services.

<sup>16</sup> Under the SBO licence, a number fee of \$7 applies for each subscriber number in the Numbering Plan of Hong Kong within numbering blocks allocated by the Authority to the licensee (net of those numbers subsequently ported out from the licensee's system) and for each number in the Numbering Plan of Hong Kong ported in to the licensee's system.

the UCL, a licensee will have to pay a fee of \$8 per customer connection, which is much lower than the existing fee of \$18 per mobile station if the mobile service is licensed under the MCL. Taking into account the proposed annual fixed fee of \$1 million, the \$8 per customer connection and the \$3 per subscriber number fee, the total licence fee payable for mobile service licensed under the UCL will still be lower than that payable under the MCL<sup>17</sup>. While it may be arguable that the proposed number fee would lead to a higher cost of providing fixed services, it is equally arguable that the cost of providing mobile services would be lowered under a UCL. The Authority considers that on the whole the same level of fee for both fixed and mobile services should be conducive to the FMC environment. Whether the harmonized level of licence fee for fixed and mobile services would lead to higher prices for fixed services or lower prices for mobile services is something which should be left to the market. The Authority has reviewed the proposed level of number fee in 2007 and concluded that the proposed level remains valid.

**38. The Secretary agrees to the Authority's views in general and proposes a fee of \$3 for each subscriber number allocated to the holder of a UCL, regardless of whether the number has been assigned to end customers or not.**

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

39. The Authority has proposed in the first FMC consultation paper that the spectrum management fee and base station fee under the UCL would adopt the same or comparable calculation formulae as those for the respective services licensed under the existing FCL and MCL. For the existing MCRL, a fee is charged for each land station or land earth station in a similar manner as base station for MCL, and it is considered that this fee can be maintained at the similar level under the UCL.

40. From the submissions received in response to the two FMC consultations, it seemed that some operators might have confused the spectrum management fee with the spectrum utilization fee ("SUF").

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<sup>17</sup> Take for example an existing MCL licensee which has one million mobile stations and two million numbers allocated. Excluding the spectrum management fee which should remain the same under the UCL, the existing licence fee payable is \$18 x 1 million or \$18 million. The new licence fee payable under the UCL is (\$1 million + \$8 x 1 million + \$3 x 2 million) or \$15 million, which is less than the amount payable under the original MCL.

The spectrum management fee is part of the fee schedule prescribed by the Secretary under section 7(2) of the Ordinance. The purpose of the fee is to recover the cost of the Authority on managing the spectrum. On the other hand, section 32I(9) explicitly specifies that SUF is a fee payable in addition to any fee prescribed under section 7(2). While the spectrum management fee shall be paid into the trading fund account of the Office of the Telecommunications Authority (“OFTA”) to recover the administrative costs of the Authority, SUF shall be paid into the general revenue of the Government. Since the radio spectrum assigned to UCL is expected to be managed in a similar manner as the radio spectrum assigned under the separate fixed and mobile licensing regime, the concerned administrative costs should remain at the similar level. Therefore, **the Secretary proposes that the formulae for calculating the spectrum management fee and base station / land station fee under the UCL will remain the same as those for the existing fixed and mobile carrier licences.**

41. The proposed fee schedule for UCL is attached in Appendix B and summarized in Table 2 below. There will be no change for those of the existing FCL, FCRL, MCL and MCRL which are still subject to the existing fee schedules as prescribed in the Regulation<sup>18</sup>.

Table 2 – Proposed Licence Fees for Unified Carrier Licence

Licence	Fixed fee component	Subscriber-based fee components	Non-subscriber-based fee components
UCL	Annual fee (\$1,000,000; or \$100,000 for external fixed service only and/or for radiocommunications services where moving stations are primarily for use in locations other than on land only)	Customer connection fee (\$8 per connection)	Number fee (\$3 per subscriber number)  Spectrum management fee (*)  Base station / land station fee (*)

(\*) calculated according to formulae as set out in Appendix B.

<sup>18</sup> The fee schedules of FTNS licence and PRS licence are prescribed in the Telecommunications Regulation (Cap 106A).

*Q5. The Secretary invites views on the proposed fee schedule of UCL as set out in Appendix B.*

**Timing**

42. The deadline for submission to the consultation of the proposals set out in this paper is 20 February 2008. After consideration of the submissions received and if the proposals are adopted in the present or revised form, the Secretary will proceed to prepare the amendment regulation under section 7(2) of the Ordinance. Subject to the above, the Secretary aims at tabling the amendment regulation(s) for negative vetting by the Legislative Council within this legislative session so that the UCL can be put in place within 2008.

**Communications and Technology Branch  
Commerce and Economic Development Bureau  
21 December 2007**

**Proposed General Conditions of UCL**

**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.

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## Proposal Fee Schedule of UCL

1. A fee of \$1,000,000 shall be payable on the issue of a UCL 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 (i) external services only, and/or (ii) radiocommunications services where moving stations are primarily for use in locations other than on land only, the fee is \$100,000.
2. A fee of \$800 shall be payable on the issue of a UCL and on each anniversary of the issue of the licence while the licence remains in force, 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 (i) external services only, and/or (ii) radiocommunications services where moving stations are primarily for use in locations other than on land only, no such fee is payable.
3. A fee of \$3 shall be payable on the issue of a UCL and on each anniversary of the issue of the licence while the licence remains in force, 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 or assigned to other licensees who have made full payment for such numbers under their licences) and for each subscriber number in the Numbering Plan of Hong Kong ported in to the licensee's network.
4. A fee for base stations (collectively refer to the base stations installed for mobile services or land stations/land earth stations for radiocommunications services where moving stations are primarily for use in locations other than on land) shall be payable on the issue of a UCL and on each anniversary of the issue of the licence while the licence remains in force, calculated as follows:

(a) for the 1st to the 50th base station installed for the service	\$1000 per base station
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- |     |   |                        |
|-----|---|------------------------|
| (b) | for the 51 <sup>st</sup> 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 UCL concerned is issued or on the anniversary of the issue.

5. Subject to section 6, a fee for the management of radio frequency assigned shall be payable on the issue of a UCL and on each anniversary of the issue of the licence while the licence remains in force, 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

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