

# **Guidelines for the Submission of Proposals for Applying Unified Carrier Licence**

**1 September 2010 (Issue 4)**

## **Section I – Introduction**

- 1.1 These Guidelines are issued under section 6D(2)(a) of the Telecommunications Ordinance (Cap. 106) (the “Ordinance”). They indicate the manner in which the Telecommunications Authority (the “TA”) proposes to perform his function of determining applications for unified carrier licence (“UCL”) for the operation of all types of fixed, mobile and converged telecommunications services (or any combination thereof). These Guidelines are designed to assist interested parties in formulating their proposals. They do not bind the TA to grant any licence nor on the terms of any licence to be granted. The TA reserves the right not to accept any proposal submitted. All proposals will be considered on their merits having regard to the relevant factors as they stand at the relevant time. Nothing in these Guidelines should be taken to bind the TA to any particular course of action in relation to the handling of proposals that may be submitted as envisaged in these Guidelines.
- 1.2 All proposals applying for UCL will be evaluated on their merits having regard to the information provided as required in Section VII and to the broad licensing criteria outlined in Section VIII of these Guidelines. In considering any proposal applying for UCL the TA will also consider the benefit of the proposed network to the community, more specifically the type of services to be offered and the intended coverage areas, the reasonableness of the business plan and the applicant’s financial capability to fulfil the capital expenditure (“capex”) requirement.
- 1.4 Proposals may be submitted in any format and they should include detailed information as required under Section VII of these Guidelines and as much documentary evidence as possible to substantiate the application.
- 1.5 The applicants should use their best endeavours to ensure that all information contained in their proposals and any other subsequent submissions and representations are correct and accurate in all respects, in reliance upon which the TA will consider the proposals.
- 1.6 Proposals should be submitted in triplicate under confidential cover and reach the TA at the following address. If available, please also provide an electronic copy of the proposals:

The Telecommunications Authority  
29/F, Wu Chung House  
213, Queen's Road East  
Wanchai  
Hong Kong  
(Attn.: Principal Regulatory Affair Manager, R13)

- 1.7 Receipt of proposals by the TA will be acknowledged individually.
- 1.8 The TA may request the applicants to provide additional information to clarify or supplement the proposals submitted.
- 1.9 The TA reserves the right to disclose the names of the parties who have submitted proposals. All other information received will be treated in confidence. Where the TA proposes to disclose any information from the proposals and he considers that the disclosure would result in the release of sensitive information concerning business or commercial or financial affairs of the relevant parties, the TA will give the relevant parties concerned a reasonable opportunity to make representations on the proposed disclosure before the TA makes a final decision on whether or not to disclose the information.
- 1.10 There is no deadline for the submission of proposals. The proposals will be considered as and when they are received.
- 1.11 These Guidelines should be read in conjunction with the TA Statements and other policy and regulatory documents hereinafter referred to.
- 1.12 These Guidelines do not apply to the granting of UCL by the TA for provision of services using radio spectrum acquired through auction, tender or a combination of auction and tender as conducted by the TA. For such cases, the information required to be submitted, the licensing criteria and other relevant matters that the TA will consider for the granting of UCL will be specified in the documents that the TA will publish in association with the auction, tender or a combination of auction and tender (as the case may be) for the relevant radio spectrum.

## **Section II – The Regulatory Framework Under the Unified Carrier Licensing Regime**

### ***Unified Carrier Licensing Regime***

- 2.1 The unified carrier licensing regime has been implemented starting from 1 August 2008<sup>1</sup>. Prior to this date, the operation of fixed and mobile services was regulated separately under different types of carrier licences with different sets of licence conditions. Four types of carrier licences, namely fixed carrier licence (“FCL”), fixed carrier (restricted) licence (“FCRL”)<sup>2</sup>, mobile carrier licence (“MCL”) and mobile carrier (restricted) licence (“MCRL”)<sup>3</sup> <sup>4</sup> (hereafter referred to as “fixed / mobile carrier licences”) were issued by the TA depending on the types of fixed or mobile services authorized for provision by a licensee under the licence.
- 2.2 With market and technological developments, fixed-mobile convergence (“FMC”) is emerging which blurs the distinction between fixed and mobile networks and services. To ensure that the regulatory environment is conducive to the emergence of FMC, the TA conducted two public consultation exercises for review of regulatory issues related to FMC in 2005 and 2006 respectively. In the conclusion of the FMC review as set out in the TA Statement on “Deregulation for Fixed-Mobile Convergence” issued on 27 April 2007, the TA recommended, among others, the introduction of a UCL as a single vehicle for licensing fixed, mobile and/or converged services. The Government further carried out two public consultations in relation to the creation of the UCL in December 2007<sup>5</sup>. On 9 May 2008, the TA set out the detailed licensing

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<sup>1</sup> The Telecommunications (Carrier Licences) (Amendment) Regulation 2008 for creation of the UCL commenced operation on 1 August 2008.

<sup>2</sup> Fixed Carrier (Restricted) Licence (“FCRL”), which is a restricted form of FCL, 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).

<sup>3</sup> Mobile Carrier (Restricted) Licence (“MCRL”) is a mobile carrier licence issued for radiocommunications where moving stations primarily for use in locations other than on land are used.

<sup>4</sup> Before 1 April 2001, the operation of mobile carrier services was regulated under the Public Radiocommunications 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 has continued to be in force until expiry. There is now only one PRSL issued for mobile services other than land mobile services remaining valid and it will expire in 2011. Unless otherwise stated, MCRL hereafter referred to in this paper includes this PRSL providing mobile services other than land mobile services.

<sup>5</sup> In December 2007, the Secretary for Commerce and Economic Development (“SCED”) issued a consultation paper entitled “Consultation Paper on the Creation of a Unified Carrier Licence under the Telecommunications Ordinance” setting out the proposals on the general conditions (“GCs”), period of validity and fee structure for the UCL (“SCED Consultation Paper”). In parallel, the TA issued a separate consultation paper entitled “Licensing Framework for Unified Carrier Licence” covering the special conditions (“SCs”) proposed to be attached to the UCL, the general approach for granting a UCL under different scenarios and the arrangement for migration of existing carrier licences to UCLs

framework for the UCL including the special conditions under UCL and the migration arrangements for existing fixed and mobile carrier licences in a TA Statement entitled “Licensing Framework for Unified Carrier Licence” (“UCL Statement”). Applicants for UCL are advised to read the UCL Statement, which is posted on OFTA’s website<sup>6</sup>.

2.3 The TA will not issue any fixed / mobile carrier licences<sup>7</sup> starting from 1 August 2008. Instead, the UCL will be the only carrier licence to be issued for the provision of the fixed, mobile and/or converged services<sup>8</sup>. All existing fixed / mobile carrier licences issued by the TA shall remain valid until they expire. The licence holders may apply to the TA for a UCL to replace their existing carrier licences upon expiry. Alternatively, the licence holders may apply to the TA for conversion of their existing licences before expiry to UCLs on a voluntary basis.

2.3.1 For an existing holder of a fixed telecommunications network service (“FTNS”) licence / FCL authorised to provide external fixed services only, if it wishes to provide internal telecommunications services as well, it may either apply for a separate UCL for local fixed services or apply to convert its existing FTNS licence / FCL to a UCL with expanded scope of service to cover both external and internal telecommunications services.

2.3.2 For an existing holder of an FTNS licence / FCL authorised to provide external fixed services only, if it wishes to establish self-provided backhaul facilities, the TA will consider the application on a case by case basis. If the application is approved, the FTNS licence / FCL holder will have to convert its existing licence to a UCL with expanded scope of service to cover external telecommunications services and self-provision of backhaul facilities.

2.3.3 For the avoidance of doubt, application for expansion of scope of service under the existing FTNS licence / FCL to include internal telecommunications services, or self-provision of backhaul facilities will not be accepted.

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(“TA Consultation Paper”).

<sup>6</sup> The UCL Statement is available at <http://www.ofa.gov.hk/en/tas/others/ta20080509.pdf>.

<sup>7</sup> Except for a MCL which the TA has committed to grant in November 2008 to the successful bidder of the spectrum in the 850 MHz band to provide CDMA2000 service.

<sup>8</sup> For avoidance of doubt, the existing 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, control and monitoring of a space object and for space radiocommunications, will not be covered under the unified carrier licensing regime.

## *Other licences*

- 2.4 It should be noted that other types of licences may permit a licensee to establish the kind of facilities or services which may overlap with those allowed under a UCL, including the licences as described in the following sub-paragraphs 2.4.1 to 2.4.6. The form and licence conditions of these licences are determined by the TA.
- 2.4.1 The Self-Provided External Telecommunications System (“SPETS”) licence allows the self-provision of external circuits for the transmission and reception of telecommunications messages is permitted. The form and general conditions of the licence were published in the Gazette and are posted on OFTA’s website.
- 2.4.2 The Satellite Master Antenna Television (“SMATV”) licence allows the licensees to receive telecommunications signals from satellites. The form and general conditions of the licence were published in the Gazette and are posted on OFTA’s website.
- 2.4.3 The Public Non-Exclusive Telecommunications Service (“PNETS”) licence for external telecommunications services (“ETS”) allows provision of ETS by service providers since 1 January 1999. There is no pre-set limit on the number of such licences. Currently, the PNETS licensees are required to use the transmission facilities (e.g. switched or leased circuits) supplied by carrier licensees (FTNS licensees, fixed carrier licensees, mobile carrier licensees or unified carrier licensees) for the operation of their services. The form and general conditions of the licence were published in the Gazette and are posted on OFTA’s website.
- 2.4.4 The Class Licence for In-building Telecommunications Systems created on 11 October 2002 by the TA allows the operation of in-building telecommunications systems to provide intra-building telecommunications and broadcasting (conveyance) services and access to public telecommunications services in Hong Kong. To ensure that residents and tenants in the buildings will have unrestricted choice of different networks/services, one important licence condition is that the in-building telecommunications systems must be made available for interconnection with telecommunications networks or operators on a non-discriminatory basis. Moreover, authorized unified carrier, fixed carrier and FTNS licensees have statutory right of access to buildings to install and operate networks to reach the residents and tenants in the buildings, even though there is already an

in-building system installed by the property owners. The form and conditions of the Class Licence were published in the Gazette and are posted on OFTA's website.

2.4.5 The Services-Based Operator ("SBO") Licence created on 6 January 2006 by the TA allows the provision of Internet Protocol ("IP") telephony services by a two-class licensing approach. Class 1 services are those services that have all the attributes of the conventional local telephony services whereas Class 2 services do not have all the attributes of the conventional local telephony services. The form and conditions of the SBO Licence were published in the Gazette and are posted on OFTA's website.

2.4.6 The PNETS licence for mobile virtual network operator ("MVNO") allows the provision of a public radiocommunications service to customers through interconnection with, and access to, the radiocommunications infrastructure of an operator licensed under a unified carrier or mobile carrier licence and assigned with the radio spectrum through which the public radiocommunications service is provided. The form and general conditions of the licence were published in the Gazette and are posted on OFTA's website.

2.4.7 The Class Licence for Offer of Telecommunications Services created by the TA on 2 February 2007 pursuant to section 8(1)(aa) of the Ordinance allows the offer of telecommunications services to the general public without establishment, operation or maintenance of any means of telecommunications equipment. The form and conditions of the Class Licence were published in the Gazette and are posted on OFTA's website<sup>9</sup>.

### ***Interconnection***

2.5 Interconnections between telecommunications networks and services are governed by section 36A of the Ordinance and the licence conditions of the carrier licences. The TA has also issued a series of TA Statements (No. 1 to No. 10) during the period 28 March 1995 - 21 June 1995 on "Interconnection and Related Competition Issues", setting out the principles, including charging principles, for seeking and effecting interconnection. Statements No. 4, 5, 6, 7 (revised on 18 November 1997) and 8 were revised on 18 March 2002. On 3 July 2008, the TA

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<sup>9</sup> Persons offering services under the Class Licence are generally resellers of the telecommunications services operated by licensed operators. They usually purchase wholesale services from licensed operators and resell the services in the retail market under their own brand names. Common examples of such resellers are providers of international telephone cards, mobile phone services and any value-added telecommunications services.

published a Statement on “Withdrawal of Mandatory Type II Interconnection” in respect of mandatory Type II interconnection<sup>10</sup> which has been fully withdrawn by the Government after 30 June 2008. The interconnection charging regime for a unified carrier licensee was also described in the UCL Statement<sup>11</sup>. All the relevant TA Statements can be downloaded from the OFTA’s website.

- 2.6 In particular, a unified carrier licensee shall note that it is required under its licence to ensure “any-to-any connectivity” (“A2A”). In other words, it shall interconnect (subject to the requirement of the licence condition<sup>12</sup>) its service and network with the service and networks of other carriers licensed under the Ordinance such that irrespective of the types of services and networks which they provide and operate and irrespective of the underlying technologies used, the carriers should be obliged to interconnect with one another so that customers can enjoy seamless and transparent access to any other customers or any telecommunications services, regardless of whether the customers or services to be accessed are located on the same or a different network.

### *Use of Radio Spectrum*

- 2.7 According to section 32H of the Ordinance, the TA is empowered to allocate and manage frequencies and bands of frequencies in all parts of the radio spectrum used in Hong Kong. On 24 April 2007, the Government announced the Radio Spectrum Policy Framework (“Spectrum Policy Framework”) for the management of radio spectrum in Hong Kong, after taking into consideration the views collected during a public consultation exercise and the TA issued a Statement on the same date. The Spectrum Policy Framework and the concerned TA Statement may be retrieved from the web sites of the Commerce and Economic Development Bureau (<http://www.cedb.gov.hk/ctb/>) and OFTA respectively.

- 2.8 A unified carrier licensee may apply for use of radio spectrum for provision of telecommunications service in accordance with the arrangement set out in the UCL Statement<sup>13</sup>. Under the UCL, a number of frequency bands are made available for application of use by a licensee without charge (see Annex B). In addition, the TA has decided and announced in his Statement of 18 May 2001 that local fixed network operators may apply for authorization to use the band of 5,850 - 5,950

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<sup>10</sup> Type II interconnection, a regulatory tool widely deployed in the world, requires the incumbent fixed network operator (“FNO”) to open up its copper-based customer access network (“CAN”) to new entrants so that the latter may provide competing service to customers in the start-up phase when their own self-built CANs are not as extensive as the incumbent’s.

<sup>11</sup> See paragraphs 91 to 98 of the UCL Statement.

<sup>12</sup> See Special Condition 3 in the sample UCL.

<sup>13</sup> See sub-paragraph 7(a) of the UCL Statement.

MHz (which is allocated to Fixed Satellite Service) on a shared and uncoordinated basis for fixed wireless access purpose. A unified carrier licensee authorized to provide fixed service may apply to use this band on the same basis as existing fixed network operators.

### ***Use of Numbers***

- 2.9 According to section 32F of the Ordinance, the numbering plan of the HKSAR is administered by the TA in consultation with the Telecommunications Numbering Advisory Committee which has representatives from the industry, consumer associations and academics, etc. To ensure the efficient allocation and assignment of numbers and codes for telecommunications networks/services which meet up-to-date requirements of the telecommunications industry, the TA issues a “Code of Practice Relating to the Use of Numbers and Codes in the Hong Kong Numbering Plan (Cap. 106)” (the CoP for Numbers) for the purpose of providing guidance to the telecommunications network operators and service providers to whom the TA has delegated the administration of part of the numbering plan. The CoP for Numbers can be downloaded from the OFTA’s website. A unified carrier licensee may apply for allocation of telecommunications numbers and codes in the numbering plan for provision of telecommunications service in accordance with the arrangement set out in the UCL Statement<sup>14</sup>.

### ***Right of Way***

- 2.10 For a holder of UCL who is authorized to provide fixed telecommunications services by laying underground cables in public streets / unleased Government land (i.e. road opening) and installing cable systems inside buildings (i.e. building access), the TA may consider to grant relevant authorizations to the licensees to meet its business need. The arrangements for authorization of road opening and building access for a unified carrier licensee have been set out in details in the UCL Statement<sup>15</sup>. The TA will issue separate guidelines and information notes to set out in details the procedures and requirements for applying such authorizations<sup>16</sup>. For the avoidance of doubt, offering services only to the licensee itself or to affiliated companies or entities does not qualify as offering services to the public.

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<sup>14</sup> See sub-paragraph 7(b) of the UCL Statement.

<sup>15</sup> See sub-paragraphs 7(c), 7(d) and paragraphs 8 to 12 of the UCL Statement.

<sup>16</sup> Please refer to the “Guidelines for Application of Road Opening Authorization and Procedure for Road Opening Works “ (Issue 4, 1 August 2008) and “Guidelines for Application of Building Access Authorization for Provision of Fixed Telecommunications Service” (1 August 2008) issued by the TA and published on OFTA’s website.

### ***Sharing of Use of Facilities***

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

### ***Universal Service Obligation***

- 2.12 Under section 35B of the Ordinance, the TA may require that one or more fixed carrier licensees<sup>17</sup> have a Universal Service Obligation (“USO”) for provision of universal services. The details of the USO in the HKSAR are given in the TA Statement of 14 January 1998. At present, only PCCW-HKT Telephone Limited is appointed as the universal services provider. In addition, carrier licensees are required to share the cost for provision of universal services. A system of Universal Service Contribution (“USC”) is implemented which requires operators to share the costs of meeting the USO. Before May 2009, operators offering external telecommunications services are required to share the costs based on their portion of external telecommunications traffic. To keep pace with the market developments, the TA updated the universal service arrangements and issued a Statement entitled “Review of the Regulatory Framework for Universal Service Arrangements” (the “USO Statement”) on 8 June 2007. Under the new arrangement, instead of using external telecommunications traffic as the basis for sharing the universal service contribution, the sharing method will be changed to the quantity of telecommunications numbers allocated to operators for provision of telecommunications services with effect from May 2009. Applicants may refer to study the USO Statement which is available from the OFTA’s website.

### ***Competition Provisions***

- 2.13 Sections 7K, 7L, 7M, 7N and 7P of the Ordinance prohibit anti-competitive practices, abuse of dominant position, misleading and deceptive conduct, discriminatory practices, and changes in relation to carrier licensees (including unified carrier licensees) which substantially lessen competition in a telecommunications market respectively. If a licensee is found to be in breach of the sections, the TA may issue directions under section 36B of the Ordinance to require the licensee to stop the breach and/or impose financial penalty under section 36C.

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<sup>17</sup> Including unified carrier licensees authorized to provide fixed services.

## Section III – General Information Relating to Local Fixed Service

### *Local Fixed Service*

- 3.1 Fixed service refers to the operation of telecommunications facilities for communications between fixed points. A fixed point means a network termination point and shall include such area within the immediate vicinity of such a point as the TA may direct in writing, either generally or specifically, to allow limited mobility for access to that point in a certain manner. Local fixed service is for communications between fixed points within the Hong Kong Special Administrative Region (HKSAR).
- 3.2 A unified carrier licensee may be authorized to provide local fixed service which may cover all local telecommunications services between fixed points within the HKSAR capable of being provided utilizing the fixed network, wireline-based or wireless-based or a combination of both where applicable, operated by the licensee.
- 3.3 In Hong Kong, the fixed service market was fully liberalised starting from 1 January 2003 and since then there has been no pre-set limit on the number of fixed carrier licences for the provision of local and/or external fixed services. For implementation of the full liberalization of the market, the TA acknowledges that there may be physical constraints in certain areas within the territory, such as business and densely populated districts, for network rollout using the prevailing technical methods such as laying underground ducts and gaining access to limited space within buildings. However, the TA is mindful that there are technical alternatives, available now or upcoming, or administrative arrangements to overcome the constraints. The market players should identify and deploy their own business solutions to overcome the constraints. The licensing of local fixed service will be technology-neutral, subject to the requirement for authorization by the TA for use of radio spectrum and right of way (see paragraphs 2.7 to 2.8 and 2.10).
- 3.4 Before 1 April 2001, the operation of fixed service was regulated under the FTNS licensing regime. With the carrier licence regime coming into force on 1 April 2001, the FCL has been used to regulate the operation of fixed service, while the FTNS licences already issued will continue to be in force until expiry. As mentioned in paragraph 2.3, commencing from 1 August 2008, the TA will issue UCL only. The scope of service of a UCL issued for local fixed service will be specified in the schedules of the licence in accordance with the application proposal of the applicant.

### *Fixed Service for Carrying Television Programme Service*

- 3.5 With the commencement of the Broadcasting Ordinance on 7 July 2000, the transmission and provision of television programme services are separately licensed and regulated respectively under the Telecommunications Ordinance (Cap.106) and the Broadcasting Ordinance (Cap.562). An applicant who wants to establish and operate a telecommunications transmission systems and ancillary facilities to transmit the television programme channels licensed under the Broadcasting Ordinance may apply to the TA for a FCL or FCRL. A FCRL is a restricted form of FCL and it entitles the licensee to establish or maintain a telecommunications network for carrying television programme channels which contains television programmes within the meaning of section 2(1) of the Broadcasting Ordinance.
- 3.6 Under the UCL, there will be no distinction between the scope of service for fixed service previously covered under FCL and that previously covered under FCRL<sup>18</sup>. A UCL authorized for fixed service will be issued for carriage of television programme service.

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<sup>18</sup> Since the scope of service for FCRL is a sub-set of that for FCL.

## **Section IV – General Information Relating to External Fixed Service**

### ***External Fixed Service***

- 4.1 External fixed service covers all external telecommunications services
- (a) between one or more points in the HKSAR and one or more points outside the HKSAR; and
  - (b) between two or more points outside the HKSAR but routed in transit via the HKSAR; and
- capable of being provided utilizing the external network operated by the licensee.
- 4.2 In Hong Kong, the external services market has been liberalised from 1<sup>st</sup> January 1999 and the external facilities market from 1<sup>st</sup> January 2000. Same as for local fixed service, external fixed service was previously licensed under the FTNS / FCL licensing regime. After the unified carrier licensing regime has been implemented, the TA will issue UCL for the provision of external fixed service. The scope of service of a UCL issued for external fixed service will be specified in the schedules of the licence in accordance with the application proposal of the applicant.
- 4.3 Under a UCL for external fixed service, the licensee may be authorized to provide external facilities as well as external services operated over external facilities. Access to the external facilities or services provided by a unified carrier licensee for external fixed service will be through the public switched networks of local fixed network operators (i.e. holders of FTNS licence, FCL or UCL authorized to provide local fixed service) or local mobile network operators or by leased circuits provided by licensed local fixed network operators. Generally, the point of interface between the external facilities under a UCL for external fixed service and local fixed/mobile networks is the external gateway or Point of Presence (“POP”) of the UCL for external fixed service.
- 4.4 A unified carrier licensee for external fixed service may apply for road opening as mentioned in paragraph 2.10 for their backhaul circuits for the purpose of connecting the landing points of external facilities (either cable stations or earth stations) with their external gateways or the POP. Such applications will be considered on their individual merits taking into account, among other things, whether there are existing ducts that

may be shared along the proposed routing.

- 4.5 For the avoidance of doubt, any fixed telecommunications facilities or services connecting the customers in the Hong Kong SAR to the POP, and the supply of backhauled to other unified carrier, fixed carrier or FTNS licensees for external facilities fall within the scope of services of licensees with authorization to provide local fixed service.
- 4.6 For clarification purpose, the UCL for external fixed service does not authorize the holder of such a licence to operate any external mobile services in the HKSAR, which are mobile services other than land mobile services licensable under the UCL, MCL or MCRL. These services include:-
- (a) coast stations and coast earth stations within the HKSAR for maritime mobile services and maritime mobile satellite services; and
  - (b) aeronautical stations and aeronautical earth stations within the HKSAR for aeronautical mobile services and aeronautical mobile satellite services.
- 4.7 An applicant may in the same application propose to operate any form of external fixed services based on cable or non-cable facilities.

#### ***Non-cable-based External Fixed Service***

- 4.8 The applicants may choose to establish their satellite earth stations for the purpose of providing non-cable-based external fixed service. Currently, satellite earth stations are established by fixed carrier / FTNS licensees in various locations of Hong Kong.
- 4.9 The unified carrier licensees for external fixed service will not be granted access rights under the licence or section 14(1) of the Ordinance for the establishment and maintenance of satellite earth stations on private premises (leased land).

#### ***Cable-based External Fixed Service***

- 4.10 The cables may be overland or submarine cables.
- 4.11 The applicant may choose to build its own cable landing stations but there is no obligation on the HKSAR Government to grant a site for such a purpose. Application for a cable landing site will be the subject of a separate exercise and the applicant will need to apply to the Hong Kong Science and Technology Parks Corporation for land inside Tseung

Kwan O Industrial Estates, or Director of Lands for other government land and other relevant authorities in accordance with the usual land planning and disposal application procedures.

- 4.12 Currently, there are six cable landing stations<sup>19</sup> operated by fixed carrier / FTNS licensees. The TA may consider proposals for sharing the use of these sites provided that the applicants are able to demonstrate to the TA that the facility on those sites would constitute a bottleneck facility and that it is technically feasible to share the facility. Full details for the sharing of the bottleneck facility should be given in the application. Interested parties are also invited to refer to the TA Statement issued on 19 September 2000 entitled “Access and Co-location at Cable Landing Stations”.

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<sup>19</sup> Two of which are located at Tong Fuk and the other four are at Deep Water Bay, Chung Hom Kok, Cape D'Aguilar and Tseung Kwan O.

## **Section V – General Information Relating to Mobile Service**

### ***Mobile Service***

- 5.1 A unified carrier licensee may be authorized to provide mobile service which enables two-way communications between moving locations or between a moving location and a fixed location in Hong Kong.
- 5.2 In Hong Kong, the market for mobile services has always been competitive since the services emerged. Mobile service has previously been licensed under the public radiocommunications service licence (“PRSL”) and MCL<sup>20</sup>. After the unified carrier licensing regime has been implemented, the TA will issue UCL for the provision of mobile service subject to the availability and assignment of radio spectrum. It should be noted that new application of UCL for provision of mobile services is only applicable when appropriate radio spectrum is available for supply by the TA. As part of the implementation of the Radio Spectrum Policy Framework, the TA will publish a “Spectrum Release Plan” (“SRP”) to inform the industry and interested parties of the potential supply of radio spectrum through an open bidding or tendering process for the coming three years. The SRP will be updated annually on a rolling basis or as necessary taking into account the latest developments and it is available at the website of OFTA. An applicant who is interested to provide mobile services should make reference to the SRP from time to time and the public announcements made by the TA to invite applications to bid for the radio spectrum.

### ***Mobile Service Other than Land Mobile Service***

- 5.3 Under the UCL, the licensee may be authorized to provide a restricted form of mobile service which enables the provision of radiocommunications where moving stations primarily for use in locations other than on land are used. This restricted form of mobile service has previously been licensed under the PRSL / MCRL and includes maritime mobile satellite, land mobile satellite, aeronautical mobile satellite, maritime mobile and aeronautical mobile services.

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<sup>20</sup> Before 1 April 2001, the operation of mobile carrier services was regulated under the Public Radiocommunications 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.

## Section VI – Licensing Arrangement

### *General*

- 6.1 A holder of UCL shall be a company registered under the Companies Ordinance (Cap. 32) in the HKSAR. There will be no foreign ownership restriction on the unified carrier licensee. In line with the full liberalization policy in telecommunications services, the TA has not pre-set a limit on the number of UCL to be issued, or any restriction on the types of services which may be authorized under the UCL, when there are no physical or other constraints on the provision of the proposed services.

### *Period of Validity of the UCL*

- 6.2 A new UCL issued to a new applicant shall be valid for 15 years from the day on which it is issued.
- 6.3 Where a UCL is issued for conversion of an existing fixed or mobile carrier licence to the UCL, the following arrangements will apply:
- (a) For conversion of an existing carrier licence without any change in scope of service, the UCL to be issued would have a validity period the same as the unexpired term of the original carrier licence.
  - (b) For all other cases, they would be processed as if a new UCL is applied for to replace the existing carrier licence(s) and the UCL which may be granted will have a full validity period of 15 years.
- 6.4 There is no automatic renewal upon expiry of a UCL. Upon the expiry of a UCL, a new licence needs to be applied for if the licensee wishes to continue to provide service.

### *Licence Conditions*

- 6.5 The basic licence conditions of UCL, which are given in the sample UCL published on OFTA's website<sup>21</sup>, include the General Conditions ("GC"s) as prescribed under the Telecommunications (Carrier Licences) Regulation (Cap 106V) and a common set of Special Conditions ("SC"s). The TA may also impose additional SCs which are tailored for the different types of services authorized under a UCL or specific to each licensee as may be appropriate<sup>22</sup>. The SCs will be prepared after

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<sup>21</sup> <http://www.ofa.gov.hk/en/report-paper-guide/guidance-notes/guidelines-ucl-sample.pdf>

<sup>22</sup> See paragraph 83 of the UCL Statement.

reviewing the application proposal.

### ***Scope of Service***

- 6.6 Services authorized under a UCL may be fixed service<sup>23</sup> only, external fixed service only, mobile service only, mobile service other than land mobile service only, or a combination of them. A summary of the types of services which can be authorized under the UCL and descriptions on the respective scope of service under the UCL as compared with the corresponding descriptions under the existing fixed and mobile carrier licences are given in Annex A. The 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. If the licensee wishes to operate other types of services not covered by its initial application, it may subsequently apply to the TA to expand the scope of service.
- 6.7 In addition, the UCL will contain a number of schedules dealing with the description of the licensed service, the licensed network, the technical particulars of satellite earth stations and terrestrial radio stations and the frequency spectrum used for the provision of the licensed service.

### ***Licence Fee***

- 6.8 The licence fee for UCL is prescribed in the Telecommunications (Carrier Licences) Regulation. The licence fee will include three components:
- 6.8.1 Fixed fee component – The licensee is required to pay an annual fee of \$1 million if it is authorized under the UCL to provide local fixed services or mobile services, or both. For provision of (i) external fixed services only and/or (ii) mobile services other than land mobile services only, the fee is \$100,000.
- 6.8.2 Subscriber-based fee component – The licensee is required to pay a fee of \$800 on an annual basis for each 100 customer connections<sup>24</sup> established. If the licensee provides external

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<sup>23</sup> As mentioned in paragraph 3.11, holder of UCL which authorizes the provision of local fixed service is entitled to establish or maintain a telecommunications network for carrying television programme channels which contains television programmes within the meaning of section 2(1) of the Broadcasting Ordinance.

<sup>24</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

services or mobile services other than land mobile services only, no such fee is payable.

6.8.3 Non-subscriber-based fee components – The licensee is required to pay \$3 on an annual basis for each subscriber number allocated to it (whether upon or after the issue of UCL), regardless of whether the number has been assigned to end customer or not. The licensee is also required to pay spectrum management fee calculated based on the amount of frequency spectrum used for the provision of licensed service. In case of shared use of spectrum, a reduction factor (which will be equal to the number of users authorized or reserved by the TA to use the concerned radio frequency) is applied. No spectrum related licence fee, however, is currently payable for spectrum assigned on a shared basis for satellite communications.

6.9 The detailed fee schedule of UCL is prescribed in the Telecommunications (Carrier Licences) Regulation and reproduced in Annex B.

#### ***Spectrum Utilization Fee***

6.10 Other than the licence fee, a unified carrier licensee shall also pay spectrum utilisation fee (“SUF”) for spectrum assigned to the licensee as designated by the TA by order and at such level or according to the method of determining the SUF as prescribed under regulation.

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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.

## **Section VII –Information to be Provided in Proposals**

### ***Application Procedures under Different Scenarios***

- 7.1 The proposal and information required to be provided by an applicant for UCL in the following cases are set out in paragraph 7.2 to 7.5 respectively:
- (1) Application for a new UCL
  - (2) Replacing an existing carrier licence upon its expiry by a UCL
  - (3) Conversion of an existing carrier licence (before expiry) to a UCL without change in scope of service
  - (4) Conversion of existing carrier licence(s) (before expiry) to a UCL for other cases
- 7.2 For an application for a new UCL, the applicant should submit the full information specified in paragraphs 7.7 to 7.18 of this Section. Subject to satisfying the relevant licensing criteria set by the TA (see Section VIII) and, where applicable, the availability and assignment of scarce resource such as radio spectrum to allow the provision of service, the TA will consider to grant a UCL to the applicant.
- 7.3 For an application for replacement of an existing carrier licence upon its expiry by a UCL, the licensee should submit an application to the TA for continuing to operate the service specified under the scope of the original licence, in association with any new services which the licensee would like to operate under the new UCL. The application proposal should include full details as required for an application for a new UCL. Basically, the TA will examine the application according to the similar criteria as for granting a UCL to a new applicant.
- 7.4 For an application for conversion of an existing carrier licence (before its expiry) to UCL, the licensee should submit an application to the TA for a UCL to operate the same service authorized under the original licence. The application proposal should provide any updates to the information given by the licensee for the initial application of the original licence.
- 7.5 For an application for the conversion of one or more existing carrier licence(s) (before expiry) to UCL, other than a simple conversion without change in scope of service, the holder of the existing carrier licence(s) should submit an application proposal including full details as required for a new application. Basically, the TA will examine the application according to the similar criteria as for granting a UCL to a new applicant.

- 7.6 For granting a UCL for the replacement of an existing carrier licence (upon expiry) or conversion of existing carrier licence(s) (before expiry), rights and obligations under the original licences may or may not be maintained under the UCL. Further details are given in the UCL Statement<sup>25</sup>.

### ***Application Proposal***

#### **7.7 Company Structure**

- 7.7.1 A company which wishes to operate any form of services authorized under UCL must be registered in the HKSAR under the Companies Ordinance. The application proposal should contain details of the company, including:
- (a) photocopies of the Certificate of Incorporation and the Business Registration Certificate of the company;
  - (b) detailed information on corporate and shareholding structure including relationships with holding or related companies;
  - (c) certified copies of the company Memorandum and Articles of Association;
  - (d) details on the composition of the company Board of Directors and key officers; and
  - (e) the organizational/management structure and staffing levels of the company and any principal contractors to be employed in constructing and maintaining the network.
- 7.7.2 Successful applicants should be committed to the provision of the proposed service in the HKSAR as detailed in their proposals, submissions and representations, including the part on company structure and shareholding.

#### **7.8 Financial Capability**

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

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<sup>25</sup> See paragraphs 99 – 108 of the UCL Statement.

- 7.8.2 If the applicant is a newly-formed company, the proposal should include:
- (a) the directors' certificate of the amount of issued and paid-up share capital;
  - (b) bankers' confirmation of the amount of its deposits and/or available credit facilities; and
  - (c) copies of audited profit and loss accounts and balance sheets and auditor reports for the last three full years, together with the most recently published interim results, of the company's shareholding companies.
- 7.8.3 Proposals should include a detailed financial plan (with inflation assumptions) for the proposed services and network for the first ten years of operation including:
- (a) a breakdown of the proposed capital expenditure and of working capital requirements for the first ten years of operation;
  - (b) projected profit and loss account including details of revenue, fixed and variable costs, balance sheet and budgeted cash flow statements, showing the amount of capital to be invested on an annual basis for ten years;
  - (c) method of depreciation of assets;
  - (d) projected volume of business and market share for the first ten years of operation;
  - (e) the forecast internal rate of return and payback period of the project;
  - (f) details of proposed financing structure, debt equity ratio of the project, credit facilities, repayment terms and schedule for loans and bonds, timing or injection of funding, and the level of shareholders' support to satisfy the TA that the applicant has sound financial backing to carry out the project; and
  - (g) sensitivity tests on the business plan showing the worst case scenario (the worst case being one beyond which the company would not wish to invest) and a scenario in which the projected revenue level falls to 80% of the basic

assumptions, details of contingency financial arrangements, balance sheet, profit and loss account, cash flow statements, capital investment plan, internal rate of return and payback period of the project.

## 7.9 Economic and Market Study

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

## 7.10 Technical Details of the Facilities

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

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

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

he considers relevant in the circumstances.

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

#### 7.11 Description of Proposed Services

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

#### 7.12 Technical Support

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

#### 7.13 Contingency Plan

- 7.13.1 The applicant should provide the contingency plan for its proposed services in response to major breakdown or network/service outage. It should include:
- (a) a brief description of the contingency plan and arrangement;
  - (b) the designed level of resilience in terms of percentage of affected services recovered and the time within which the recovery will be completed;
  - (c) the amount of backup capacity (relative to the capacity level required for normal operation) and the spare

resources such as backhaul equipment for contingency connection;

- (d) prior and post arrangements for re-allocating resources, re-routing the affected traffic and acquisition of additional bandwidth to recover the affected services;
- (e) internal procedures for monitoring and reporting critical network outage, composition of the team responsible for handling the major incidents and the responsibility of the respective major team members; and
- (f) brief description of the action and procedures to (i) assess the impact of major incident; and (ii) disseminate the information to the management, OFTA and the customers.

#### 7.14 Previous Relevant Experience

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

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

#### 7.15 Implementation Plan

7.15.1 Proposals should include an implementation plan, giving the timing for significant milestones of implementation for the first three years, starting from the date of grant of the licence including where applicable the network planning, placing of order for equipment, delivery of equipment, acquisition of sites, securing access to buildings, construction of equipment buildings/rooms, earth stations or cable landing stations, conclusion of cable construction and maintenance of agreements, laying of cables, negotiations on interconnection arrangements, installation of equipment and testing. The applicant will be required to adhere to this plan if a licence is subsequently granted. The TA wishes to see early availability of the proposed services.

7.16 Other Benefits to the Local Telecommunications Industry and Economy

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

7.17 Other Information

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

7.18 Executive Summary

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

## **Section VIII - Broad Licensing Criteria**

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

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

### 8.2.1 Business plan

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

### 8.2.2 Financial capability

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

### 8.2.3 Technical soundness and a satisfactory quality of service

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

### 8.2.4 Proven managerial and technical expertise

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

#### 8.2.5 Service quality and charges

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

#### 8.2.6 Implementation schedule

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

#### 8.2.7 Quality of proposal

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

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

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

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

Proposals would not be favourably considered if there is a lack of clear controlling interest in a consortium (e.g. presence of fragmented shareholdings) or there is a lack of clearly workable and sensible dispute resolution procedure and efficient mechanisms for deadlock resolution at Board or shareholder levels or there are doubts on the reliability of the proposer or its shareholders.

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

Office of the Telecommunications Authority  
1 September 2010

## Annex A

### Description of Service under the Unified Carrier Licence

Types of service	Service classification under UCL	Existing description under FCL and MCL <sup>26</sup>	Description under UCL
Wireline-based fixed service	Fixed service	For FCL : all internal (and external) telecommunication services between fixed points capable of being provided utilising the Network, other than telecommunication services the subject of an exclusive licence issued under the Ordinance, a licence deemed to be granted under the Ordinance, a Mobile Carrier Licence, a Public Radiocommunications Service Licence, a Radio Paging System Licence, a service subject to licensing under any other Ordinance, or a satellite broadcasting service under a Satellite Television Uplink and Downlink Licence.	Similar to description in the left column
Wireless-based fixed service	Fixed service	For FCL: Basically same as above	Same as above
Fixed service for distribution of domestic free TV programme Service	Fixed service	For FCL: 1. all internal telecommunications services between fixed points capable of being provided utilising the network as defined in Schedule 2 and the Radiocommunications Installations as defined in Parts (A) and (B) of Schedule 3 (other than telecommunications services the subject of an exclusive licence issued under the Ordinance, a public radiocommunications service licence, a	Similar to description in the left column or similar to wireless-based fixed service, as the case may be.

<sup>26</sup> The concerned descriptions are same as those incorporated in the Schedules of the existing FCLs and MCLs

Types of service	Service classification under UCL	Existing description under FCL and MCL <sup>26</sup>	Description under UCL
		<p>mobile carrier licence, a radio paging system licence or a service subject to licensing under any other Ordinance), including :</p> <p>(i) transmission of 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 the licensee;</p> <p>(ii) operation of Radiocommunications Installations as defined in Parts (A) and (B) of Schedule 3 for the transmission and reception of television and associated sound and data signals related to the provision of the service referred to in paragraph (i); and</p> <p>(iii) provision of telecommunications services to the public as approved by the Authority.</p> <p>2. all external telecommunications services between fixed points capable of being provided utilising the Radiocommunications Installations as defined in Parts (B) and (C) of Schedule 3 for carriage of, in the case of –</p> <p>(i) Outgoing messages from Hong Kong, messages that originate from</p>	

Types of service	Service classification under UCL	Existing description under FCL and MCL <sup>26</sup>	Description under UCL
		<p>the licensee or, where the licensee is a company, from the licensee's holding company, a subsidiary of the licensee or any affiliated company; and</p> <p>(ii) incoming messages to Hong Kong, messages that are intended for the licensee or, where the licensee is a company, for the licensee's holding company, a subsidiary of the licensee or any affiliated company.</p>	
Satellite-based external fixed service	External fixed service	<p>For FCL:</p> <p>all external telecommunications services between fixed points capable of being provided utilising the network, other than telecommunications services the subject of an exclusive licence issued under the Ordinance, a deemed licence, a public radiocommunications service licence, a mobile carrier licence, a radio paging system licence, a service subject to licensing under any other Ordinance, a fixed carrier (restricted) licence, or a satellite broadcasting service under a satellite television uplink and downlink licence.</p> <p>The licensee may establish and maintain an external telecommunications circuit based on a non-cable based external network at the Hong Kong end.</p>	Similar to description in the left column
Cable-based	External	For FCL:	Similar to

Types of service	Service classification under UCL	Existing description under FCL and MCL <sup>26</sup>	Description under UCL
external fixed service	Fixed service	Similar to the satellite-based external fixed service except that the licensee may establish and maintain an external telecommunications circuit based on a cable based external network or non-cable based external network at the Hong Kong end.	description in the left column
Fixed service for carrying television programmes	Fixed service	<p>For FCRL:</p> <p>To establish and operate –</p> <p>(a) a transmission network to transmit television and associated sound and data signals for the distribution of the television programme service licensed under the television programme service licence held by the licensee under the Broadcasting Ordinance; and</p> <p>(b) ancillary telecommunications facilities for the operation of broadcasting services and the transmission and reception of television and associated sound and data signals related to the provision of the service.</p>	Similar to wireline-based fixed service
Mobile service	Mobile service	<p>For MCL:</p> <p>A public mobile radiocommunications service using cellular radiocommunications technology operating at frequencies specified in</p>	Similar to description in the left column

Types of service	Service classification under UCL	Existing description under FCL and MCL <sup>26</sup>	Description under UCL
		Schedule 3 within the [frequency range to be specified] frequency band to enable two-way communications between moving locations or between a moving location and a fixed location;	
Mobile service other than land mobile service	Mobile service other than land mobile service	<p>For MCRL:</p> <p>Public radiocommunications service including one or more of the following :</p> <p>(a) maritime mobile service, which means a mobile radiocommunications service between the coast stations operated by the licensee in the territory of HKSAR and customers' ship stations (regardless of whether the ship stations are within HKSAR waters or outside the territory of the HKSAR), or between customers' ship station (regardless of whether the ship stations are within HKSAR waters or outside the territory of HKSAR) routed in transit via the coast stations operated by the licensee in the territory of HKSAR</p> <p>(b) maritime mobile-satellite service, which means a mobile radiocommunications service via satellite between the coast earth stations operated by the licensee</p>	Similar to description in the left column

Types of service	Service classification under UCL	Existing description under FCL and MCL <sup>26</sup>	Description under UCL
		<p>in the territory of HKSAR and customers' ship earth stations (regardless of whether the ship earth stations are within HKSAR waters or outside the territory of HKSAR), or between customers' ship earth stations (regardless of whether the ship earth stations are within HKSAR waters or outside the territory of HKSAR) routed in transit via the coast earth stations operated by the licensee in the territory of HKSAR</p> <p>(c) aeronautical mobile service, which means a mobile radiocommunications service between the aeronautical stations operated by the licensee in the territory of HKSAR and customers' aircraft stations (regardless of whether the aircraft stations are located within the territory of HKSAR or outside the territory of HKSAR), or between customers' aircraft stations (regardless of whether the aircraft stations are located within the territory of HKSAR or outside the territory of HKSAR) routed in transit via the aeronautical stations operated by the licensee in the territory of HKSAR.</p>	

Types of service	Service classification under UCL	Existing description under FCL and MCL <sup>26</sup>	Description under UCL
		<p>(d) aeronautical mobile-satellite service, which means a mobile radiocommunications service via satellite between the aeronautical earth stations operated by the licensee in the territory of HKSAR and customers' aircraft earth stations (regardless of whether the aircraft earth stations are located within the territory of HKSAR or outside the territory of the HKSAR), or between customers' aircraft earth stations (regardless of whether the aircraft earth stations are located within the territory of HKSAR or outside the territory of HKSAR) routed in transit via the aeronautical earth stations operated by the licensee in the territory of HKSAR</p> <p>(e) Land mobile-satellite service, which means a mobile radiocommunications service via satellite between the gateway earth stations operated by the licensee in the territory of HKSAR and customers' land mobile earth stations (regardless of whether the land mobile earth stations are located within the territory of HKSAR or outside the territory of HKSAR), or</p>	

Types of service	Service classification under UCL	Existing description under FCL and MCL <sup>26</sup>	Description under UCL
		<p>between customers' land mobile earth stations (regardless whether the land mobile earth stations are located within the territory of HKSAR or outside the territory of HKSAR) routed in transit via the gateway earth stations operated by the licensee in the territory of HKSAR</p>	

**Fee Schedule of UCL**

1. A fee of \$1,000,000 shall be payable on the issue of a unified carrier licence and, in each subsequent 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, or of radiocommunications services (where moving stations are primarily for use in locations other than on land) only, or of these two types of services only, the fee is \$100,000.
2. A fee of \$800 shall be payable on the issue of a unified carrier licence 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. For the purposes of this section, a customer connection shall be any network termination point provided by the licensee and as identified by the Authority for connection of customer equipment to the network, and a network termination point shall include any subscriber identification module used by a customer, and any other device or interface, used for connection to the network. If the licence permits the provision of external services only, or of radiocommunications services (where moving stations are primarily for use in locations other than on land) only, or of these two types of services only, no such fee is payable
3. A fee of \$3 shall be payable on the issue of a unified carrier licence and on each anniversary of the issue of the licence while the licence remains in force, for each subscriber number allocated to the licensee that is not ported out from the licensee's network or assigned, as authorized by the Authority, to another licensee (who has made payment of the licence fee for such number under its licence) and for each subscriber number allocated to another licensee that is ported in to the licensee's network. For the purposes of this section, a subscriber number is a number in the numbering plan within numbering blocks allocated by the Authority to a licensee, which number may be assigned by the licensee to its customer for use of a telecommunications service
4. A fee for base stations, being—
  - (a) base stations installed for mobile services; or
  - (b) land stations or land earth stations installed for radiocommunications services (where moving stations are primarily for use in locations other than on land), shall be payable on the issue of a unified carrier licence and on each anniversary of the issue of the licence while the licence remains in force, calculated as follows—

(c)	for the 1st to the 50th base station installed for the service	\$1000 per 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 section 6, a fee for the management of radio frequency assigned shall be payable on the issue of a unified carrier licence and on each anniversary of the issue of the licence while the licence remains in force, calculated as follows—

(a) subject to paragraph (b), where the radio frequency is assigned 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 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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