

Guidelines for the Submission of Proposals for Applying Unified Carrier Licence

29 July 2016 (Issue 10)

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 Communications Authority (the “CA”)¹ proposes to perform its 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, and should be read in conjunction with the relevant CA Statements, and other policy and regulatory documents hereafter referred to.
- 1.2 All proposals applying for UCL will be evaluated on their merits having regard to the information provided as required in Section VIII and to the broad licensing criteria outlined in Section IX of these Guidelines.
- 1.3 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 CA will consider the proposals.
- 1.4 Proposals could be submitted under confidential cover and reach the CA at the following address. Please provide an electronic copy and two printed copies of the proposals. Alternatively, proposals may be submitted by email to: ucl@ofca.gov.hk.

Office of the Communications Authority
29/F, Wu Chung House
213 Queen’s Road East
Wanchai
Hong Kong
(Attn.: Head, Regulatory 2)

¹ Pursuant to the Communications Authority Ordinance (Cap.616), with effect from 1 April 2012, all duties and powers of the Telecommunications Authority are conferred on the CA, and all duties and powers of the Office of the Telecommunications Authority (“OFTA”) are conferred on the Office of the Communications Authority (“OFCA”), the executive arm of the CA.

- 1.5 Applicants will receive the acknowledgement of receipt of proposals. The CA may request the applicants to provide additional information to clarify or supplement the proposals submitted.
- 1.6 The CA 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 CA proposes to disclose any information from the proposals and it considers that the disclosure would result in the release of sensitive information concerning business or commercial or financial affairs of the relevant parties, the CA will give the relevant parties an opportunity to make representations on the proposed disclosure before the CA makes a final decision on whether or not to disclose the information.
- 1.7 These Guidelines do not apply to the granting of UCL by the CA for provision of services using radio spectrum acquired through auction, tender or a combination of auction and tender as conducted by the CA. For such cases, the information required to be submitted, the licensing criteria and other relevant matters that the CA will consider for the granting of UCL will be specified in the documents that the CA 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.
- 1.8 Nothing in these Guidelines should be taken to bind the CA on the granting of any licence, the terms of any licence to be granted, or any particular course of action in relation to the handling of proposals submitted.

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 as the single licensing vehicle for regulating the establishment and maintenance of means of telecommunications, including telecommunications networks, in Hong Kong for provision of public telecommunications services. 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. Various types of carrier licences, namely fixed telecommunications network services licence, fixed carrier licence and fixed carrier (restricted) licence,² (hereafter collectively referred to as “FCLs”), as well as mobile carrier licence and mobile carrier (restricted) licence³ (hereafter collectively referred to as “MCLs”) were issued depending on the types of fixed or mobile services that a carrier licensee was authorised to provide 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, two public consultation exercises for review of regulatory issues related to FMC were conducted in 2005 and 2006 respectively. In the conclusion of the FMC review as set out in, among others, the Statement on “Deregulation for Fixed-Mobile Convergence” issued on 27 April 2007, it was recommended to introduce UCL as a single vehicle for licensing fixed, mobile and/or converged services. Two further public consultations in relation to the creation of the UCL were conducted in December 2007.⁴ On 9 May 2008, a Statement entitled “Licensing Framework for Unified Carrier Licence” (“UCL Statement”)⁵ was issued to set out the detailed UCL licensing framework including the

² Fixed carrier (restricted) licence authorised the licensee to establish and maintain a telecommunications network for carrying television programmes within the meaning of section 2(1) of the Broadcasting Ordinance (Cap 562) (“BO”).

³ Mobile carrier (restricted) licence authorised the licensee to establish and maintain a telecommunications network for radiocommunications using moving stations that are primarily for the use in locations other than on land.

⁴ 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, period of validity and fee structure for the UCL. In parallel, a separate consultation paper entitled “Licensing Framework for Unified Carrier Licence” (“UCL Consultation Paper”) was issued covering the special conditions 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.

⁵ The UCL Statement is available at http://tel_archives.ofca.gov.hk/en/tas/others/ta20080509.pdf.

special conditions (“SCs”) under UCL and the migration arrangements for existing FCLs and MCLs to UCL. Applicants for UCL should read the UCL Statement.

- 2.3 At present, UCL is the only type of carrier licence to be issued for the provision of fixed, mobile and/or converged services. Since the implementation of UCL in 2008, FCLs or MCLs were no longer issued but all existing FCLs and MCLs shall remain valid until they expire. Holders of existing FCLs and MCLs may apply to the CA for UCLs to replace their existing licences upon expiry. Alternatively, they may apply to the CA for conversion of their existing licences before expiry to UCLs on a voluntary basis. A holder of an existing FCL/MCL who wishes to provide services that fall outside its existing scope of services would need to apply to convert its existing FCL/MCL to a UCL covering both its existing and new services. A full list of carrier licences including UCL, FCLs and MCLs is available at the CA website.⁶
- 2.4 For the avoidance of doubt, UCLs will only be granted to parties for the provision of public telecommunications services, i.e. to make the services provided under the UCL available to the public at the wholesale level and/or retail level. UCLs will not be granted for offering services only to the licensee itself or to its affiliated companies or entities, which are not qualified as offering services to the public.
- 2.5 Carrier licensees are authorised to establish and maintain telecommunications networks and facilities, which may cross unleased Government land and public streets, for the provision of public telecommunications services. If the provision of public telecommunications services does not involve the establishment or maintenance of any telecommunications means which cross unleased Government land or public streets, no UCL is required. Applicants may consider whether Services-based Operator (“SBO”) Licence is applicable to their proposed services. For details about SBO Licence, please refer to the “Guidelines for the Application for SBO Licence” on the CA website.⁷

Interconnection

- 2.6 A holder of UCL is required under its licence condition to ensure any-to-any (“A2A”) connectivity, i.e. any customer in any one network can have access to any other customer in any interconnecting network and, where directed by the CA, to any service offered in any interconnecting network. While the concerned licence condition is applicable to all types of telecommunications services, the CA has so far

⁶ Available at http://app1.coms-auth.hk/apps/telecom_lic/content/lic_search.asp.

⁷ Available at <http://www.coms-auth.hk/en/licensing/telecommunications/apply/index.html>.

applied the requirement of A2A connectivity to voice services only.

- 2.7 The terms and conditions for interconnection between carriers may be established by (a) bilateral agreement as a result of commercial negotiations between the carriers; (b) tariff published by the carrier which is open to all parties seeking to interconnect; or (c) determination made by the CA under section 36A of the Ordinance.
- 2.8 Charges for interconnection between mobile carriers as well as charges for broadband interconnection between fixed carriers have never been subject to any regulatory guidance and have all along been determined through commercial negotiations between the interconnecting carriers. Charges for interconnection between fixed and mobile carriers had once been subject to regulatory guidance, which were withdrawn in April 2009 after a two-year transitional period.⁸ In respect of charges for narrowband interconnection between fixed carriers, the CA decided on 16 April 2013 to withdraw the regulatory guidance on such charges subject to an 18-month transitional period.⁹ In other words, starting from 16 October 2014, all types of carrier-to-carrier local interconnection charges would no longer be subject to any regulatory guidance. Whether interconnection charges are required for the establishment of interconnection and exchange of traffic between carriers, and the level of such charges if any, would be solely determined through commercial negotiations.
- 2.9 Applicants should refer to the series of Statements (No. 1 to No. 10) on “Interconnection and Related Competition Issues”¹⁰ which set out the principles for seeking and effecting interconnection, but should note the withdrawal of Statement No. 7 on 16 October 2014.
- 2.10 On 23 December 2011, the CA decided to adopt a new regime for local access charge (“LAC”) from 1 July 2013. Under the new LAC regime, local fixed and mobile carriers are entitled to receive LAC for the conveyance of external telecommunications service traffic, and the level of LAC will be set by commercial negotiations by the interconnecting parties. Details are provided in the Statement and the Regulatory Guide regarding Local Access Charge issued on 23 December 2011.¹¹

⁸ For more details about the withdrawal of regulatory guidance for fixed-mobile interconnection charge, please refer to the Statement entitled “Deregulation for Fixed-Mobile Convergence” issued on 27 April 2007, which is available at http://tel_archives.ofca.gov.hk/en/tas/others/ta20070427.pdf.

⁹ For more details about the CA’s decision, please refer to the CA Statement entitled “Review of Regulatory Guidance on the Charging Principles of Interconnection between Fixed Carriers”, which is available at http://www.coms-auth.hk/filemanager/statement/en/upload/170/ca_statements20130416.pdf.

¹⁰ The Statements (No.1 to No.10) on “Interconnection and Related Competition Issues” are available at http://tel_archives.ofca.gov.hk/en/tas/tas-bs-interconnection.html.

¹¹ The Statement entitled “New Regulatory Regime for Local Access Charge” issued on 23 December 2011 is available at http://tel_archives.ofca.gov.hk/en/tas/interconnect/ta20111223.pdf, while the Regulatory Guide of Local Access Charge is available at http://coms-auth.hk/filemanager/statement/en/upload/37/gn_201125e.pdf.

2.11 Carrier licensees are obliged to ensure that a copy of their interconnection agreements is filed with the CA within 14 days after the agreements have been made, unless the filing requirement is waived by the CA. OFCA would publish on its website three types of interconnection agreements, namely Type I interconnection agreements; Type II interconnection agreements and blockwiring interconnection agreements between carrier licensees (with commercially sensitive information redacted) for public information.¹² Applicants may refer to the Statement entitled “Update of the Existing Arrangements for the Filing and Publication of Interconnection Agreements” issued on 2 March 2012 for details.¹³

Use of Radio Spectrum

2.12 According to section 32H of the Ordinance, the CA 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 after public consultation announced the Radio Spectrum Policy Framework¹⁴ for the management of radio spectrum in Hong Kong. As set out in the Radio Spectrum Policy Framework, there is no legitimate expectation that there will be any right of renewal or right of first refusal of any licence or spectrum assignment upon the expiry of a licence or spectrum assignment. The minimum notice periods for variation or withdrawal of spectrum assignments are set out in the Statement issued on 31 January 2008.¹⁵

2.13 The rights of a UCL holder in relation to the use of radio spectrum for provision of telecommunications service are set out in the UCL Statement.¹⁶ The use of radio spectrum may be subject to the payment of spectrum management fee (which is one of the components of the annual licence fee as mentioned in Section 7.8 and **Annex A**) as well as spectrum utilisation fee (“SUF”). Under section 32I of the Ordinance, the CA may by order designate the frequency bands in which the use of spectrum is subject to the payment of SUF, and the SCED may by regulation prescribe the level of SUF or the method of determining the SUF. Applicants should note that the SCED and the CA have jointly issued a Statement on 23 September 2011 on SUF for spectrum assigned administratively.¹⁷

¹² The interconnection agreements are published at http://www.ofca.gov.hk/en/industry_focus/telecommunications/interconnection_agreement/index.html

¹³ The Statement entitled “Update of the Existing Arrangements for the Filing and Publication of Interconnection Agreements” is available at http://tel_archives.ofca.gov.hk/en/tas/interconnect/ta20120302.pdf.

¹⁴ See <http://www.cedb.gov.hk/ccib/eng/legco/pdf/spectrum.pdf>.

¹⁵ The Statement is available at http://tel_archives.ofca.gov.hk/en/tas/spectrum/ta20080131.pdf.

¹⁶ See sub-paragraph 7(a) of the UCL Statement

¹⁷ The joint statement is available at http://tel_archives.ofca.gov.hk/en/tas/spectrum/ta20110923.pdf.

Use of Numbers

2.14 According to section 32F of the Ordinance, the numbering plan of Hong Kong is administered by the CA. To ensure the efficient allocation and use of numbers and codes for telecommunications networks/services which meet up-to-date requirements of the telecommunications industry, the CA issues a “Code of Practice Relating to the Use of Numbers and Codes in the Hong Kong Numbering Plan”¹⁸ for the purpose of providing guidance to the telecommunications network operators and service providers to whom the CA has delegated the administration of part of the numbering plan. The rights of a UCL holder in relation to the use of telecommunications numbers and codes in the numbering plan for provision of telecommunications service are set out in the UCL Statement.¹⁹

Number Portability

2.15 Holders of UCL are required to facilitate fixed number portability (also known as operator number portability or “ONP”) and mobile number portability (“MNP”) at their own expenses.²⁰ The obligation on number portability will be accompanied by the right to have access to the number portability databases. To fulfil the licence obligations concerning ONP and MNP, the licensees may choose to set up their own systems or negotiate with other licensees to make arrangements at commercially agreed terms. If the licensees opt to set up their own number portability databases, they shall, where and as directed by the CA, provide administration database hosting service²¹ to other licensees at commercially agreed terms to facilitate the portability of numbers as required under their licences.

2.16 Holders of UCL may implement fixed mobile number portability (“FMNP”) on a voluntary basis at their own expenses. Applicants interested in implementing FMNP should observe the relevant guiding principles set out in the Statement entitled “Fixed Mobile number Portability” dated 10 July 2009²² and submit proposals to the CA for its prior approval. Such proposals should identify and adequately address the technical and operational issues associated with the implementation

¹⁸ See <http://www.coms-auth.hk/filemanager/statement/en/upload/240/cop20131203e.pdf>.

¹⁹ See sub-paragraph 7(b) of the UCL Statement

²⁰ See the Statement entitled “Facilitating Number Portability under the Unified Carrier Licensing Regime” issued on 22 October 2010, available at: http://tel_archives.ofca.gov.hk/en/tas/others/tas20101022.pdf. Apart from fixed and mobile carriers, services-based operators providing class 1 services and class 3 services (i.e. mobile virtual network operators) are also obliged to facilitate ONP and MNP at their own expenses.

²¹ Administration database hosting service means a service offered by the licensee which makes available its administration database for access by another licensee, so that the latter will be able to fulfill the licence obligation under its own licence to facilitate the portability of numbers without the need of setting up its own administration database.

²² The Statement is available at http://tel_archives.ofca.gov.hk/en/tas/numbering/tas20090710.pdf.

of FMNP.

Road Opening

- 2.17 A UCL holder may be granted with an authorisation under section 14(1) of the Ordinance if it is authorised to provide fixed services and it demonstrates a plan to roll out a wireline-based infrastructure. Where a UCL holder needs to open or break up any public street or unleased Government land, it shall apply to the Director of Highways or the Director of Lands for permission as the case may be. All licensees authorised to carry out road opening works are required to follow the coordination mechanism set out in the “Guidelines for Application of Road Opening Authorisation and Procedure for Road Opening Works”.²³

Building Access

- 2.18 A UCL holder may be granted with an authorisation for building access if it is authorised to provide fixed services and it demonstrates a plan to roll out self-built customer access network to buildings based on deployment of technology which requires the laying of facilities in common parts of a building for serving only the residents and occupants of that building. For the principles and criteria which the CA would adopt in granting authorisation of building access to carriers, applicants may refer to the “Guidelines for Application of Building Access Authorisation for Provision of Fixed Telecommunications Service”.²⁴

Sharing of Use of Facilities

- 2.19 The sharing of “bottleneck” facilities is governed by section 36AA of the Ordinance. The CA 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 that provision, the CA may direct sharing of the “bottleneck” facilities and determine the terms and conditions for such sharing.

Technical Standards

- 2.20 Pursuant to section 32D of the Ordinance, the CA may from time to time prescribe standards and specifications of telecommunications networks, systems, installations, customer equipment and services, etc.²⁵ Licensees are obliged to observe these specifications, where applicable, for the establishment and maintenance of their networks and for the provision of services. Applicants should refer to these specifications

²³ Available at <http://www.coms-auth.hk/filemanager/statement/en/upload/151/gn442012e.pdf>.

²⁴ Available at http://tel_archives.ofca.gov.hk/en/report-paper-guide/guidance-notes/gn_200820.pdf.

²⁵ A full list of HKCA Specifications is available at http://ofca.gov.hk/en/industry_focus/telecommunications/standards/hkca/index.html.

before submitting their application proposals.

Universal Service Obligation

2.21 Under section 35B of the Ordinance, the CA may require that one or more fixed carrier licensees²⁶ have a universal service obligation (“USO”) for the provision of basic service, which mainly covers local fixed voice telephony service and public payphones. At present, PCCW-HKT Telephone Limited and Hong Kong Telecommunications (HKT) Limited, as joint holders of UCL No. 025, are appointed as the universal service provider. Telecommunications service providers, including carriers, are required under their licence condition, to pay to the universal service provider its relevant share of the universal service contribution (“USC”) to assist the latter to meet the USO. The sharing basis of USC is based on the quantity of telecommunications numbers allocated to licensees for the provision of local fixed and mobile telecommunications services. Applicants may refer to the Statement entitled “Review of the Regulatory Framework for Universal Service Arrangements” issued on 8 June 2007 for details.²⁷

Publication of Tariff

2.22 Pursuant to section 7F of the Ordinance and the respective licence condition of the UCL, a holder of UCL is obliged to publish tariffs and charge no more than the published tariffs for the services operated under its licence. The tariff of a service shall include not only all relevant service charges but also the terms and conditions on which the service is provided. To provide guidance to licensees on publication and filing of tariffs, the CA has issued the “Guidelines on Publication and Filing of Tariff”.²⁸

Prohibition of Unfair Trade Practices

2.23 Pursuant to the Trade Descriptions (Unfair Trade Practices) (Amendment) Ordinance 2012 (“TD(A)O”) passed by the Legislative Council on 17 July 2012 and brought into operation on 19 July 2013, the Trade Descriptions Ordinance (Cap. 362) (“TDO”) has been amended to extend its coverage to prohibit traders of all sectors, including the telecommunications sector, from engaging in false trade descriptions in providing services and in specified unfair trade practices, namely misleading omissions, aggressive practices, bait advertising, bait-and-switch, and wrongly accepting payment. With the TD(A)O coming into effect, section 7M of the Ordinance prohibiting misleading or deceptive conduct of telecommunications licensees has been repealed

²⁶ Including unified carrier licensees authorised to provide fixed services

²⁷ The Statement is available at http://tel_archives.ofca.gov.hk/en/tas/ftn/ta20070608.pdf.

²⁸ Available at <http://www.coms-auth.hk/filemanager/statement/en/upload/187/gn201307e.pdf>.

on the same date.

- 2.24 In addition to criminal prosecutions, a civil compliance-based mechanism has been introduced. The enforcement agency may, as an alternative to criminal prosecution, accept an undertaking from a trader, whom the enforcement agency believes has engaged in a prohibited unfair trade practice, to stop that practice, or where necessary, seek an injunction from the court for the purpose.
- 2.25 The Customs and Excise Department (“C&ED”) is the principal agency for enforcing the amended TDO, with concurrent jurisdiction conferred on the CA to enforce the relevant provisions of the amended TDO in relation to the commercial practices of licensees under the Ordinance and the Broadcasting Ordinance (Cap. 562) (“BO”) that are directly connected with the provision of a telecommunications or broadcasting service under the respective ordinances. Applicants should study the relevant enforcement guidelines which state the manner in which the C&ED and the CA would exercise their enforcement powers and provide guidance on the operation of the new legislative provisions.²⁹

Prohibition of Anti-Competitive Practices

- 2.26 The Competition Ordinance (Cap. 619) (“CO”) is a cross-sectoral competition law prohibiting anti-competitive conduct through three competition rules. The First Conduct Rule provides that an undertaking must not make or give effect to an agreement, engage in a concerted practice, or as a member of an association of undertakings, make or give effect to a decision of the association, if the object or effect of the agreement, concerted practice or decision is to prevent, restrict or distort competition in Hong Kong. The Second Conduct Rule provides that an undertaking that has a substantial degree of market power must not abuse that power by engaging in conduct that has as its object or effect the prevention, restriction or distortion of competition in Hong Kong. The Merger Rule provides that an undertaking must not, directly or indirectly, carry out a merger involving telecommunications carrier licensees that has, or is likely to have, the effect of substantially lessening competition in Hong Kong.
- 2.27 Under the CO, the CA has concurrent jurisdiction with the Competition Commission (the “Commission”) to enforce the CO in respect of the conduct of certain undertakings operating in the broadcasting and telecommunications sectors. The CA and the Commission have signed a Memorandum of Understanding (“MoU”) to coordinate the performance of their functions under the CO. According to the MoU, for cases involving the telecommunications or broadcasting sectors and falling within the concurrent jurisdiction, the CA will ordinarily take the

²⁹ Available at http://www.coms-auth.hk/en/policies_regulations/unfair_trade_practices/index.html.

role of the lead authority, which will assume responsibility for exercising the relevant powers and functions conferred upon it under the CO. For matters involving issues that are partly within and partly outside the concurrent jurisdiction, the CA and the Commission will discuss and agree on how best to progress the matter on a case-by-case basis.

2.28 The CA and the Commission have jointly issued six guidelines³⁰ under the CO describing how they expect to interpret and give effect to the three competition rules, and explaining the procedures for handling complaints, conducting investigations and considering applications for exclusions and exemptions.

2.29 For more information about the enforcement of the CO by the CA, please refer to the website of the CA.³¹

Consumer Protection

Fair Usage Policy (“FUP”)

2.30 To provide guidance to broadband service providers on how they may implement their FUP and to enhance the transparency of service information to facilitate better informed consumer choices, the CA has issued the mandatory “Guidelines for the Implementation of Fair Usage Policy for the Provision of Mobile and Fixed Broadband Services”.³² Holders of UCL providing fixed and/or mobile broadband services are required to comply with the guiding principles set out in these guidelines for the implementation of FUP.

Billing Information and Payment Collection for Telecommunications Services

2.31 To provide guidance to licensees on the chargeable items to be included in their bills for telecommunications services as well as arrangements for payment collection, the CA has issued the voluntary “Code of Practice in relation to Billing Information and Payment Collection for Telecommunications Services”.³³ Holders of UCL are encouraged to pledge compliance with this code.

Industry Code of Practice for Telecommunications Service Contracts

2.32 To provide guidance to the telecommunications industry in drawing up service contracts with customers, the Communications Association of

³⁰ The guidelines are available at http://www.coms-auth.hk/en/policies_regulations/competition/co/legislation_and_guidelines_issued_under_the_co/index.html.

³¹ http://www.coms-auth.hk/en/policies_regulations/competition/co/index.html.

³² Available at http://coms-auth.hk/filemanager/statement/en/upload/38/gn_201124e.pdf.

³³ Available at <http://www.coms-auth.hk/filemanager/statement/en/upload/33/cop20111011e.pdf>.

Hong Kong (“CAHK”) has promulgated a voluntary industry “Code of Practice for Telecommunications Service Contracts” as an industry self-regulatory initiative.³⁴ All major telecommunications service providers in Hong Kong have pledged compliance with this industry code. Holders of UCL are expected to comply with the industry code and follow the practices prescribed therein.

Customer Complaint Settlement Scheme (“CCSS”)

2.33 To help resolve billing disputes in deadlock between telecommunications service providers and their residential/individual customers by means of mediation, the telecommunications industry has set up the CCSS.³⁵ The CCSS is managed and operated by an independent CCSS mediation service centre set up under the CAHK. All major telecommunications service providers and mobile virtual network operators (“MVNOs”) in Hong Kong have participated in the CCSS. Holders of UCL offering services for residential/individual customers are encouraged to join the CCSS.

³⁴ Available at http://www.cahk.hk/News/310/Industry_CoP_Telecom_Service_Contract.pdf.

³⁵ Details of the CCSS are available at http://ofca.gov.hk/en/consumer_focus/fixed_telecom/ccss/index.html.

Section III – General Information Relating to Local Fixed Service

- 3.1 The local fixed service market in Hong Kong has been fully liberalised and there is no pre-set limit on the number of licences to be issued for the provision of local fixed services.
- 3.2 Fixed service refers to the establishment and maintenance of telecommunications facilities for communications between fixed points. A fixed point means a fixed network termination point and shall include such area within the immediate vicinity of such a point as the CA 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 Hong Kong.
- 3.3 A UCL holder may be authorised to provide local fixed service which may cover all local telecommunications services between fixed points within Hong Kong capable of being provided utilising the fixed network, wireline-based or wireless-based or a combination of both where applicable, established and maintained by the licensee.
- 3.4 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 CA is mindful that there are technical alternatives, available now or upcoming, or administrative arrangements to overcome the constraints. Market players should identify and deploy their own business solutions to overcome the constraints. The licensing of local fixed service is technology-neutral, subject to the requirement for authorisation by the CA for use of radio spectrum, road opening and building access (see paragraphs 2.12, 2.13, 2.17 and 2.18).
- 3.5 With the commencement of the BO on 7 July 2000, the transmission and provision of television programme services are separately licensed and regulated respectively under the Ordinance and the BO. An applicant who wishes to establish and operate telecommunications transmission systems and ancillary facilities to transmit the television programme channels licensed under the BO may apply to the CA for a UCL authorised for local fixed service for carriage of television programme service.

Section IV – General Information Relating to External Fixed Service

- 4.1 The external fixed service market in Hong Kong has been fully liberalised and there is no pre-set limit on the number of licences to be issued for the provision of external fixed services.
- 4.2 External fixed service covers all external telecommunications services -
- (a) between one or more points in Hong Kong and one or more points outside Hong Kong; and
 - (b) between two or more points outside Hong Kong but routed in transit via Hong Kong; and
- capable of being provided utilising the external network established and maintained by the licensee.
- 4.3 Under a UCL for external fixed service, the licensee may be authorised to provide external facilities as well as external services operated over external facilities. Access to the external facilities or external services provided under a UCL for external fixed service will be through the public switched networks of local fixed/mobile carriers, or through local leased circuits provided by local fixed carriers. 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 holder of UCL for external fixed service may apply for road opening as mentioned in paragraph 2.17 for their backhaul circuits for the purpose of connecting the landing points of external facilities (either cable landing stations or satellite earth stations) with their external gateways or the POP. Such applications will be considered on their individual merits.
- 4.5 For the avoidance of doubt, the operation of any fixed telecommunications facilities or services connecting the customers in Hong Kong to the POP as well as the supply of backhauls to other licensees require a UCL for local fixed service.
- 4.6 For clarification purpose, a UCL for external fixed service does not authorise the holder to operate:-
- (a) coast stations and coast earth stations within Hong Kong for maritime mobile services and maritime mobile satellite services; and

- (b) aeronautical stations and aeronautical earth stations within Hong Kong 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 and/or non-cable facilities.

Cable-based External Fixed Service

4.8 The applicants may choose to lease capacity on existing cables, which may be overland or submarine cables, or land their own cables in Hong Kong for provision of services. They may also choose to land their cables by using existing cable landing stations or building a new cable landing station.

4.9 At present, there are seven cable landing stations³⁶ operated by external fixed carriers. The CA may consider proposals for sharing the use of these sites provided that the applicants are able to demonstrate to the CA 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 Statement issued on 19 September 2000 entitled “Access to and Co-location at Cable Landing Stations”.³⁷

4.10 Applicants should note that, the Government has no obligation to grant a site for the establishment of a cable landing station. Application for a cable landing site will be subject to 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 Estate, Director of Lands for other government land, or other relevant authorities as appropriate in accordance with the usual land planning and disposal application procedures.

4.11 For the landing of submarine cables in Hong Kong, OFCA has established an information webpage and provides a single-point-of-contact service assisting interested parties in obtaining statutory approval from various government departments. Interested parties may refer to the respective webpage for further details.³⁸

³⁶ Two of which are located at Tong Fuk, two at Tseung Kwan O, and the other three at Deep Water Bay, Chung Hom Kok and Cape D'Aguilar.

³⁷ Available at http://tel_archives.ofca.gov.hk/en/tas/interconnect/ta20000919.pdf.

³⁸ For details, please refer to:

http://www.ofca.gov.hk/en/industry_focus/telecommunications/facility_based/infrastructures/submarine_cables/index.html.

Non-cable Based External Fixed Service

- 4.12 The applicants may choose to establish their satellite earth stations or use existing satellite earth stations established by other external fixed carriers for the purpose of providing non-cable based external fixed service.

Section V – General Information Relating to Mobile Service

- 5.1 Mobile service refers to the establishment and maintenance of telecommunications facilities which enable two-way communications between moving locations or between a moving location and a fixed point in Hong Kong, operating at the frequencies assigned to the licensee.
- 5.2 The issue of UCL for the provision of mobile service will be subject to the availability of radio spectrum. As part of the implementation of the Radio Spectrum Policy Framework, the CA publishes the “Spectrum Release Plan” (“SRP”)³⁹ 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 is updated every year on a rolling basis or as required taking into account the latest developments. Parties who are interested in providing mobile service should make reference to the SRP from time to time and the announcements made by the CA to invite applications to bid for the radio spectrum.
- 5.3 Applicants who wish to deploy femtocell to facilitate the provision of mobile service should indicate this in their application. For details, please refer to the “Regulatory Framework of Femtocell Deployment”.⁴⁰
- 5.4 Applicants, as well as existing licensees authorised to provide mobile service, may also apply to the CA to include the provision of MVNO service under its UCL. MVNO service refers to telecommunications service utilising the radio stations operated by another UCL holder providing mobile service at frequencies specified in that UCL holder’s licence, to enable two-way communications between moving locations or between a moving location and a fixed point.

Mobile Service Other than Land Mobile Service

- 5.5 Under the UCL, the licensee may be authorised to provide radiocommunications services where moving stations are primarily for use in locations other than on land. Such services may include maritime mobile service, maritime mobile satellite service, aeronautical mobile service, aeronautical mobile satellite service and land mobile satellite service.

³⁹ Available at http://ofca.gov.hk/en/industry_focus/radio_spectrum/management/index.html.

⁴⁰ Available at http://tel_archives.ofca.gov.hk/en/consultations/circulardoc/circular_20111202_annex.pdf.

Section VI – General Information Relating to Public Wireless Local Area Network Service

- 6.1 Public wireless local area network (“LAN”) service refers to telecommunications services operating at specified frequencies by using wireless technologies (such as Wi-Fi) to provide –
- (a) communications between two or more points within the radio coverage of the radiocommunications installations established, maintained, used or possessed by the licensee for the purpose of providing the public wireless LAN service; or
 - (b) access to or resale of a public telecommunications service provided by the licensee or other person licensed under a public telecommunications network or services licence.
- 6.2 UCL holders are authorised to provide public wireless LAN service (e.g. public Wi-Fi service) on or across unleased Government lands or public streets and within private premises. If the provision of public wireless LAN service is intended to serve area within private premises only, such as shopping malls, coffee shops, university campus, etc. and does not cross unleased Government lands or public streets, a UCL is not required. Applicants may consider whether the Class Licence for the Provision of Public Wireless Local Area Network Services (“Class Licence”) is more appropriate for their proposed services. For details about the Class Licence, please refer to the “Guidelines to Operate Public Wireless Local Area Network Services under Class Licence”.⁴¹

Assignment of Frequency Spectrum

- 6.3 UCL holders authorised to provide public wireless LAN service will be assigned subject to the CA’s discretion frequency spectrum in the 2.4 GHz and 5 GHz bands (i.e. 2400 – 2483.5 MHz, 5150 – 5350 MHz, 5470 – 5725 MHz and 5725 – 5850 MHz). The assignment will be made subject to the condition that the assigned frequencies shall be used for the provision of public wireless LAN service only. In particular, the assigned frequencies shall not be used for the provision of public mobile services.
- 6.4 The radiocommunications apparatus used for the provision of the public wireless LAN service shall operate within the assigned frequency bands and shall generate the output and spurious emissions with the specified levels as set out in **Annex A**.

⁴¹ The “Guidelines to Operate Public Wireless Local Area Network Services under Class Licence” is available at <http://www.coms-auth.hk/filemanager/statement/en/upload/374/gn162016e.pdf>.

Registration

- 6.5 UCL holders authorised for the provision of public wireless LAN service are required to register with the CA information about the location in which the radiocommunications apparatus is established and maintained and the frequency band employed before commencement of the provision of such service and they shall notify the CA within one month after ceasing to provide such service. Information required for registration of the public wireless LAN service is detailed in the registration form.⁴² Any change to the registered information shall be updated before it is put into effect.
- 6.6 Submission of completed registration form, update of information and notification of cessation of service can be made by email to register-wlan@ofca.gov.hk or in person at the Office of the Communications Authority (Address: 29th Floor, Wu Chung House, 213 Queen's Road East, Wanchai, Hong Kong). The CA will publish a register of the operators providing the public wireless LAN service on OFCA's website. The register will include the name of the service provider, the location(s) of the radiocommunications apparatus and the frequency band(s) used by the radiocommunications apparatus.

⁴² The registration form can be found at -
http://www.coms-auth.hk/filemanager/common/licensing/reg_form_e.xls (in English) or
http://www.coms-auth.hk/filemanager/common/licensing/reg_form_c.xls (in Chinese).

Section VII – Licensing Arrangement

General

- 7.1 A holder of UCL shall be a company registered under the Companies Ordinance (Cap. 622) in Hong Kong. There will be no foreign ownership restriction on the unified carrier licensee. In line with the full liberalisation policy in telecommunications services, the CA 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 authorised under the UCL, when there are no physical or other constraints on the provision of the proposed services.

Period of Validity of the UCL

- 7.2 A new UCL issued to a new applicant shall be valid for 15 years from the day on which it is issued.
- 7.3 Where a UCL is issued for conversion from an existing FCL or MCL, the following arrangements will apply:
- (a) For conversion from an existing carrier licence without any change in scope of service, the UCL to be issued would have a validity period 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.
- 7.4 There is no automatic renewal upon expiry of a UCL. The licensee is required to apply for a new licence before expiry of the existing one.

Licence Conditions

- 7.5 Licence conditions of UCL, as given in the sample UCL published on the CA's website,⁴³ include the General Conditions ("GCs") as prescribed under the Telecommunications (Carrier Licences) Regulation (Cap. 106V) and a common set of Special Conditions ("SCs"). The CA may also impose additional SCs which are tailored for the different types of services authorised under a UCL or specific to each licensee as may be appropriate.⁴⁴

⁴³ Available at http://www.coms-auth.hk/filemanager/common/licensing/sample_ucl_licence.pdf.

⁴⁴ See paragraph 83 of the UCL Statement

Scope of Service

- 7.6 Services authorised under a UCL may be local fixed service, external fixed service, mobile service, mobile service other than land mobile service, public wireless LAN service, or a combination of them. A UCL holder may subsequently apply to the CA if it wishes to expand the scope of service.
- 7.7 A UCL contains 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

- 7.8 The licence fee for UCL is prescribed in the Telecommunications (Carrier Licences) Regulation, which is reproduced in **Annex B**. The annual licence fee will include the following components:
- 7.8.1 (a) A fee of \$1 million for provision of local fixed services and/or mobile services, or; (b) a fee of \$100,000 for provision of external fixed services only and/or mobile services other than land mobile services only.
- 7.8.2 A fee of \$700 for each 100 customer connections⁴⁵ established. If the licensee provides external services or mobile services other than land mobile services only, no such fee is payable.
- 7.8.3 A fee of \$3 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.
- 7.8.4 A fee for base stations installed for mobile services, or for land stations/land earth stations installed for radiocommunications services.
- 7.8.5 A spectrum management fee calculated based on the amount of frequency spectrum used for the provision of licensed services.

⁴⁵ A customer connection is a network termination point provided by the licensee for connection of customer equipment to the network. 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.

Section VIII –Information to be Provided in Proposals

Application Procedures under Different Scenarios

- 8.1 The proposal and information required to be provided by an applicant for UCL in the following cases are set out in paragraph 8.2 to 8.5 respectively:
- (a) Application for a new UCL;
 - (b) Replacing an existing carrier licence upon its expiry by a UCL;
 - (c) Conversion of an existing carrier licence (before expiry) to a UCL without change in scope of service; and
 - (d) Conversion of existing carrier licence(s) (before expiry) to a UCL for other cases.
- 8.2 For an application for a new UCL, the applicant should submit the full information specified in paragraphs 8.7 to 8.18 of this Section. Subject to satisfying the relevant licensing criteria set by the CA (see Section IX) and, where applicable, the availability and assignment of scarce resource such as radio spectrum for the provision of service, the CA will consider to grant a UCL to the applicant.
- 8.3 For an application for a new UCL in view of the expiry of an existing one, the licensee should submit an application to the CA 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 CA will examine the application according to the similar criteria as for granting a UCL to a new applicant.
- 8.4 For an application for conversion of an existing carrier licence (before its expiry) to UCL, the licensee should submit an application to the CA for a UCL with the same scope of service authorised 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. As mentioned in paragraph 7.3(a), the validity period of the UCL granted under this scenario will be the same as the unexpired term of the original licence.
- 8.5 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 CA will examine the application according to the similar criteria as for granting a UCL to a new applicant.

- 8.6 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.⁴⁶

Application Proposal

8.7 Company Structure

8.7.1 Holders of a UCL must be registered in Hong Kong under the Companies Ordinance. The application proposal should contain details of the company intended to be the holder of the UCL under application, 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 Articles of Association of the company;
- (d) details on the composition of the company's Board of Directors and key officers; and
- (e) the organisational/management structure and staffing levels of the company and any principal contractors to be employed in constructing and maintaining the network.

8.8 Financial Capability

8.8.1 If the applicant is an established company, the proposal should include copies of audited financial statements, including the auditor reports for the last three full years, together with the most recent interim results (if applicable).

8.8.2 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

⁴⁶ See paragraphs 99 – 108 of the UCL Statement.

- (c) copies of audited financial statements, including the auditor reports for the last three full years, together with the most recent interim results, of the company's shareholding companies (if applicable).

8.8.3 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 planned capital expenditure ("CAPEX") 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 CA 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.

8.9 Economic and Market Study

8.9.1 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 ten years with as much information as possible.

8.10 Technical Details of the Facilities

8.10.1 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 Hong Kong, if applicable, and other technological characteristics;
- (b) the facilities upon launch of service and the facilities expansion plan for the first ten years of operation;
- (c) the planned location of equipment to be installed;
- (d) the planned facilities and traffic management, signalling, metering and billing arrangements (where applicable) to be adopted; and
- (e) proposed interface for interconnection with other networks.

Proposals should illustrate how the proposed facilities are designed and implemented to ensure delivery of good, efficient and continuous services.

8.10.2 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 CA after review of the proposals received and taking into account the demand for frequency spectrum for other services in Hong Kong and other factors as it considers relevant in the circumstances.

8.10.3 Applicants should provide technical proposals for interconnection with other fixed telecommunications networks (local and external) and mobile telecommunications networks in Hong Kong.

8.11 Description of Proposed Services

- 8.11.1 The applicant should indicate the scope of service proposed to be operated under the UCL.
- 8.11.2 Proposals should include a detailed description of all services to be provided, the target customers, their intended coverage areas upon the commissioning of the facilities, the expected service launch date, the implementation schedule if the proposed services are to be introduced in phases and plans for the introduction of new services. Proposals should also include 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 to provide their services.
- 8.11.3 Successful applicants should be committed to the provision of the proposed services in Hong Kong as detailed in their proposals, submissions and representations.

8.12 Technical Support

- 8.12.1 Proposals should include details of technical support facilities and maintenance centres which the applicants have or intend to set up in Hong Kong, 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/procedure.

8.13 Contingency Plan

- 8.13.1 To ensure sustainability of service delivery, 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, OFCA and the customers.

8.14 Previous Relevant Experience

- 8.14.1 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.
- 8.14.2 Information should also be provided on the applicant and its shareholders' experience in running other relevant businesses in Hong Kong or overseas.

8.15 Implementation Plan

- 8.15.1 Proposals should include an implementation plan, giving the key milestones of implementation for the first three years starting from the date of grant of the licence including where applicable (a) the network planning, (b) placing of order for equipment, (c) delivery of equipment, (d) acquisition of sites, (e) securing access to buildings, (f) construction of equipment buildings/rooms, earth stations or cable landing stations, (g) conclusion of cable construction and maintenance of agreements, (h) laying of cables, (i) negotiations on interconnection arrangements, (j) installation of equipment and (k) testing. The applicant will be required to adhere to this plan if a licence is subsequently granted. The CA wishes to see early availability of the proposed services.

8.16 Other Benefits to the Local Telecommunications Industry and Economy

- 8.16.1 Proposals which can demonstrate that their implementation will offer significant benefits to Hong Kong, for example, employment, manufacturing and wider trading opportunities, introduction of innovation and improvements to the local

telecommunications industry and promotion of Hong Kong as an international telecommunications centre will be given special consideration.

8.17 Other Information

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

8.18 Executive Summary

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

Section IX - Broad Licensing Criteria

- 9.1 The basis for assessment of proposals will be the information supplied by applicants according to the requirements set out in Section VIII of this document. The CA reserves all rights not to accept application proposals which are substantially incomplete in this respect.
- 9.2 In considering any proposal applying for UCL, the CA will consider the benefit of the proposed network to the community, more specifically the type of services to be offered and the intended coverage areas, the reasonableness of the business plan and the applicant's financial capability to fulfil the CAPEX requirement. The other licensing criteria include the following -

9.2.1 Business Plan

The CA 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 CAPEX would support the networks and services proposed.

9.2.2 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 CA 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.

9.2.3 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 Hong Kong. Any radio frequency spectrum requirements must be compatible with spectrum allocation plans in Hong Kong and the proposed system must use spectrum efficiently.

9.2.4 Proven Managerial and Technical Expertise

The applicant must possess proven managerial and technical

expertise to operate a satisfactory service, market the service in Hong Kong and provide satisfactory customer support. The CA will consider the knowledge of the applicant or the consortium partners, as appropriate, about the local environment and/or their experience in the operation of external telecommunications facilities.

9.2.5 Service Quality and Charges

The CA 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.

9.2.6 Implementation Schedule

The CA 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 landing stations depending on the type of external facilities they plan to operate). The applicant should also demonstrate capability in negotiating and managing interconnection issues.

9.2.7 Quality of Proposal

The proposal should be concise, clearly presented with each aspect substantiated by well researched facts and comprehensive independent market survey would receive more favourable consideration by the CA.

9.2.8 Benefit to the Local Telecommunications Industry, Customers in Hong Kong and the Economy as a Whole.

The CA 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 Hong Kong new technological know-how and contribution to the local economy as a result of the investment.

9.2.9 A Clearly Workable and Defined Corporate Structure with Sensible Dispute Resolution Procedures Minimising “Deadlocks”.

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.

- 9.3 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 CA is entitled to determine the weight it will give to the individual matter to which it considers appropriate in the circumstances, after taking the relevant factors into account, and will decide each case on its own merits.

Office of the Communications Authority
29 July 2016

Technical Criteria for radiocommunications apparatus used for the provision of the public wireless LAN service

Column 1	Column 2	Column 3
Frequency Band	Output Level	Spurious Emission Level
2400 – 2483.5 MHz	(a) peak e.i.r.p. not to exceed 4 W for frequency hopping spread spectrum modulation or digital modulation systems; or (b) aggregate e.r.p. not to exceed 100 mW for any modulation	e.r.p. not to exceed 10 μ W outside the frequency band in which the fundamental frequencies are located
5150 – 5350 MHz ⁴⁷	e.i.r.p. not to exceed 200 mW using only digital modulation	e.r.p. not to exceed 10 μ W
5470 – 5725 MHz ⁴⁸	e.i.r.p. not to exceed 1 W	e.r.p. not to exceed 10 μ W
5725 – 5850 MHz	(a) peak e.i.r.p. not to exceed 4 W for frequency hopping spread spectrum modulation or digital modulation systems; or (b) aggregate e.r.p. not to exceed 100 mW for any modulation	e.r.p. not to exceed 10 μ W outside the frequency band in which the fundamental frequencies are located

⁴⁷ Use of the band 5150 – 5350 MHz is restricted to indoor operations until the requirements of the International Telecommunication Union (“ITU”) as applicable to the band are available, by which time the use of the band shall be in compliance with the requirements as laid down by the ITU.

⁴⁸ Use of the band 5470 – 5725 MHz shall comply with the technical requirements in Recommendation ITU-R M.1652 “Dynamic frequency selection (DFS) in wireless access systems including radio local area networks for the purpose of protecting the radiodetermination service in the 5 GHz band” approved by the ITU as revised from time to time.

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 \$700 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 authorised 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	\$1000 per base
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	installed for the service	station
(d)	for the 51st to the 100th base station installed for the service	\$500 per base station
(e)	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 authorised 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 authorised 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