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迎接電訊市場的新挑戰 Meeting the New Challenges of the Telecommunications Market

重新指配在1.9至2.2吉赫頻帶內的頻譜

1.9至2.2吉赫頻帶內118.4兆赫頻譜的先前指配期已於2016年10月21日屆滿。根據通訊局經兩輪公眾諮詢後制定的重新指配安排，在須重新指配的118.4兆赫的頻譜中，29.6兆赫的頻譜須於2016年10月22日易手。為協助流動網絡營辦商順利移交頻譜和減低對用戶的影響（如有的話），通訊辦於2015年3月成立所有相關流動網絡營辦商均參與的技術工作小組，以協調有關重新指配頻譜的技術事宜和安排。通過技術工作小組的努力及所有相關營辦商的合作，是次因重新指配頻譜而引致的頻譜移交已於2016年10月22日零時零分順利及無縫地完成，令公眾人士繼續享用暢通無阻的流動服務。

重新指配在900兆赫及1800兆赫頻帶內的頻譜

在900兆赫及1800兆赫頻帶內的頻譜現用於提供2G、3G及4G流動服務。在900兆赫頻帶內49.8兆赫的頻譜及在1800兆赫頻帶內148.8兆赫的頻譜的現有指配期將於2020年11月至2021年9月期間屆滿。計及在該兩個頻帶內現時未被指配的1.4兆赫頻譜，合共有200兆赫的頻譜須要指配或重新指配。

通訊局聯同商務及經濟發展局局長於2016年2月至5月進行了第一輪公眾諮詢，就重新指配頻譜的建議安排及相關頻譜使用費，徵詢業界及其他受影響各方的看法和意見。諮詢文件提出三個重新指配頻譜的方案，即(1)完全行政指配模式；(2)完全市場主導模式；以及(3)行政指配兼市場主導的混合模式。為期三個半月的諮詢結束後，通訊辦共收到325份來自業界、商業機構及公眾人士的意見書。三個重新指配頻譜的建議方案各有不同的業界人士支持。

經詳細考慮第一輪公眾諮詢所收到的看法和意見，以及外聘顧問就各個重新指配頻譜方案對服務質素可能造成的影響進行技術研究的結果，通訊局認為有充分理據採納行政指配兼市場主導的混合模式，並就此作進一步諮詢。該模式建議賦予四家現有頻譜受配者優先權，以獲重新指配1800兆赫頻帶內80兆赫的頻譜（或所有須考慮的頻譜的40%），即每家20兆赫頻譜，從而確保在港鐵範圍內的4G服務及全港的2G服務得以延續；並建議把餘下在900兆赫及1800兆赫頻帶內合共120兆赫的頻譜（或所有須考慮的頻譜的60%）以拍賣方式重新指配。通訊局聯同商務及經濟發展局局長於2017年2月14日展開第二輪公眾諮詢。為期三個半月的諮詢於2017年5月24日結束，通訊辦共收到22份意見書。通訊辦會繼續支援通訊局詳細檢視在第二輪諮詢所收集到的意見書，以期採用一個最能達至重新指配頻譜四個目標的安排，即確保客戶服務得以延續、善用頻譜、促進有效競爭，以及鼓勵投資和推廣創新服務。

通訊局和商務及經濟發展局局長計劃約在2017年年底公布就重新指配900兆赫及1800兆赫頻帶內200兆赫頻譜及相關頻譜使用費的安排所作的決定，讓業界有約三年時間就頻譜指配的任何變動作出準備。

電訊牌照費下調

2012年11月，通訊局與商務及經濟發展局局長發表聯合聲明，公布決定把綜合傳送者牌照下每100個顧客接駁點的接駁費用由800元調低至700元，以及把公共無線電通訊服務牌照（傳呼服務）和服務營辦商牌照（第三類服務）下每100個移動電台須繳付的移動電台費用由800元減至700元。新牌照費在完成立法程序後，已於2013年3月1日起生效。2013年2月，香港電話有限公司及Hong Kong Telecommunications (HKT) Limited（「香港電話

Re-assignment of Frequency Spectrum in the 1.9 – 2.2 GHz Band

The previous term of assignment of 118.4 MHz of spectrum in the 1.9 – 2.2 GHz band expired on 21 October 2016. According to the re-assignment arrangement arrived at by the CA after two rounds of public consultation, 29.6 MHz out of the 118.4 MHz of spectrum re-assigned was to change hands with effect from 22 October 2016. In order to facilitate a smooth spectrum handover among the mobile network operators and to minimise service impact, if any, on users, OFCA set up a Technical Working Group in March 2015 with the participation of all relevant mobile network operators for the purpose of coordinating the technical issues and arrangements in relation to the spectrum re-assignment. Through the efforts of the Technical Working Group and the collaboration of all relevant operators, the spectrum handover arising from the spectrum re-assignment was successfully and seamlessly completed at 00 hours on 22 October 2016, and members of the public continue to enjoy smooth and uninterrupted mobile services.

Re-assignment of Frequency Spectrum in the 900 MHz and 1800 MHz Bands

Frequency spectrum in the 900 MHz and 1800 MHz bands is being deployed for the provision of 2G, 3G and 4G mobile services. The existing assignments for 49.8 MHz of spectrum in the 900 MHz band and 148.8 MHz of spectrum in the 1800 MHz band will expire within the period between November 2020 and September 2021. Together with 1.4 MHz of currently unassigned spectrum in the two frequency bands, a total of 200 MHz of spectrum is under consideration for assignment / re-assignment.

The CA and the SCED jointly conducted the first round of public consultation from February to May 2016 to solicit views and comments of the industry and other affected parties on the proposed arrangements for spectrum re-assignment and the related spectrum utilisation fee (“SUF”). Three options were proposed for spectrum re-assignment, namely (a) a full-fledged administratively-assigned approach; (b) a full-fledged market-based approach; and (c) a hybrid

administratively-assigned cum market-based approach. Upon the close of the three-and-a-half-month consultation, 325 submissions were received from the industry, business organisations and members of the public. There was support from different industry players for each of the three proposed re-assignment options.

Having carefully considered the views and comments received in the first round of public consultation and the findings of a technical study undertaken by an external consultant on the possible service impact arising from different spectrum re-assignment options, the CA considered that there were justifications for adopting the hybrid administratively-assigned cum market-based approach for further consultation. Under this approach, 80 MHz of the spectrum in the 1800 MHz band (or 40% of all spectrum under consideration) was proposed to be re-assigned to the four incumbent spectrum assignees through the offer of a right of first refusal to each of them for the acquisition of 20 MHz of spectrum, so as to safeguard the provision of 4G services in the Mass Transit Railway premises and the provision of territory-wide 2G services. The remaining 120 MHz of spectrum (or 60% of all spectrum under consideration) in the 900 MHz and 1800 MHz bands was proposed to be re-assigned by way of auction. The CA and the SCED jointly launched the second round of public consultation on 14 February 2017. Upon the close of the three-and-a-half-month consultation on 24 May 2017, 22 submissions were received. OFCA will continue to support the CA in reviewing the submissions received in the second consultation in detail, with a view to adopting an arrangement that would best meet the four objectives in spectrum re-assignment, namely, ensuring customer service continuity, efficient spectrum utilisation, promotion of effective competition, and encouragement of investment and promotion of innovative services.

The CA and the SCED plan to promulgate their decisions on the arrangements for the re-assignment of the 200 MHz of spectrum in the 900 MHz and 1800 MHz bands and the related SUF by around the end of 2017. This will allow a lead time of about three years for the industry to prepare for any change in spectrum assignments.

和HKT」)就通訊局與商務及經濟發展局局長調低牌照費的決定申請提出司法覆核的許可。原訟法庭及上訴法庭分別於2015年8月及2016年5月作出裁決，裁定通訊局與商務及經濟發展局局長勝訴，並駁回該宗司法覆核申請。香港電話和HKT其後向終審法院提出上訴，有關程序仍在進行中。

實施更有效使用八位號碼計劃的措施

香港自1995年起一直採用八位電訊號碼計劃。由於社會對流動服務號碼的需求持續殷切，以及八位電訊號碼計劃內的號碼數量有限，如不採取紓緩措施，可供編配作流動服務之用的八位號碼預計最早可能在2018年耗盡。有見及此，通訊辦協助通訊局進行諮詢，就五項建議措施徵詢公眾意見，務求透過更有效使用現行八位電訊號碼計劃，為流動服務提供額外的號碼資源。經審慎考慮業界及有興趣人士的看法和意見後，通訊辦協助通訊局制定將採用的措施和分三個階段實施該等安排的安排，並於2016年6月24日公布通訊局的決定。為確保順利及適時實施該等措施，通訊辦一直與業界緊密合作，並與相關營辦商跟進其網絡及系統所需作出的改動。在有關各方的合作和努力下，該等措施的第一及第二階段已分別於2017年1月1日及2017年7月1日順利推行，措施的第三階段亦將於2021年7月1日展開。當分三個階段推行的五項措施全部實施後，將合共提供額外1 572萬個號碼以編配作流動服務之用。現行八位號碼計劃的使用期預計可延長至2029年或更後。



檢討根據全面服務責任提供的公眾收費電話機數目

截至2016年12月31日，全面服務責任所涵蓋的公眾收費電話機約有3 100個。固定和流動服務供應商須按《電訊條例》第35B條設立的全面服務補貼制度，分擔在全面服務責任下提供公眾收費電話機所需的費用。在2014年，電訊業界所提供的公眾收費電話機補貼額為港幣2,160萬元。

香港的流動電話普及率高，市民幾乎完全依賴流動電話打出電話或發送即時訊息，公眾收費電話機近年的需求因而持續減少，在全面服務責任下的公眾收費電話機幾乎完全無利可圖。根據2014年和2015年的數據，約56%的公眾收費電話機每日平均收入不多於港幣一元。

基於上述背景，通訊辦自2016年下半年開始，與電訊業界商討作出檢討，以期把合資格獲得全面服務補貼的公眾收費電話機數目減少至合理水平，從而減低業界把須承擔的全面服務補貼費用透過調整服務收費轉嫁給固定和流動服務用戶的壓力。在敲定檢討的原則及其他細節後，通訊局於2017年6月29日公布決定展開檢討。通訊辦會分批接觸相關持份者，就每日平均收入不多於港幣一元的公眾收費電話機從全面服務責任中剔除的做法，徵詢他們的意見。整項檢討預計於2019年年底完成。

廣播類流動電視服務的規管

2014年1月，獲授權提供廣播類流動電視服務（「流動電視服務」）的綜合傳送者牌照（「流動電視牌照」）持有人香港流動電視網絡有限公司（「香港流動電視網絡」）向通訊辦表示，擬將原本採用的中國移動多媒體廣播（「CMMB」）制式轉換為數碼地面多媒體廣播（「DTMB」）制式。作為通訊局的執行部門，通訊辦向港視和香港流動電視網絡指出，採用DTMB制式提供流動電視服務而沒有實施有效的技術措施以防止流動電視服務於指明處所被固定接收，會令本港超過5 000個指明處所組成的觀眾接收到其流動電視服務，因而須受《廣播

Reduction of Telecommunications Licence Fees

In November 2012, the CA and the SCED issued a joint statement to promulgate their decisions to reduce the customer connection fee level of Unified Carrier Licences (“UCLs”) from \$800 to \$700 for each set of 100 customer connections; and to reduce the mobile station fee level of Public Radiocommunications Service Licences (Paging) and Services-Based Operator Licences (Class 3) from \$800 to \$700 for each set of 100 mobile stations. Following the completion of the legislative procedure, the new licence fees took effect on 1 March 2013. In February 2013, PCCW-HKT Telephone Limited and Hong Kong Telecommunications (HKT) Limited (“PCCW and HKT”) applied for leave to lodge a judicial review (“JR”) against the CA and the SCED on their decisions on licence fees reduction. The Court of First Instance and the Court of Appeal ruled in favour of the CA and the SCED, and dismissed the JR application in August 2015 and May 2016 respectively. PCCW and HKT subsequently appealed to the Court of Final and the process is ongoing.

Implementation of Measures for More Efficient Use of the 8-digit Numbering Plan

Since 1995, Hong Kong has adopted an 8-digit telecommunications numbering plan. In light of the persistently high demand for mobile service numbers and the finite amount of numbers in the 8-digit telecommunications numbering plan, it was forecast that the 8-digit numbers available for allocation to mobile services would be used up by as early as 2018 if no mitigation measures were taken. Against this background, OFCA assisted the CA in conducting a consultation to solicit public views on five proposed measures with a view to making available additional number resources for mobile services through more efficient use of the existing 8-digit telecommunications numbering plan. Having carefully considered views and comments from the industry and interested parties, OFCA supported the CA in finalising the measures to be adopted and the arrangements to implement the respective

measures in three phases, with promulgation of the CA’s decision on 24 June 2016. To ensure the smooth and timely implementation of the measures, OFCA has been closely working with the industry and following up with the operators concerned in respect of the implementation of the necessary changes to their networks and systems. With the collaboration and efforts of all parties involved, Phases 1 and 2 of the measures were successfully implemented on 1 January 2017 and 1 July 2017 respectively. Phase 3 of the measures will be launched on 1 July 2021. Following full implementation of the five measures in three phases, a total of 15.72 million additional numbers will become available for allocation to mobile services. They are expected to be able to cope with the demand growth up to at least 2029.

Review of the Number of Public Payphones under the Universal Service Obligation (“USO”)

There were around 3 100 public payphones covered by the USO as at 31 December 2016. Public payphones under the USO are funded by fixed and mobile service providers under the universal service contribution (“USC”) scheme set up pursuant to section 35B of the TO. The telecommunications industry contributed HK\$21.6 million for the cost of providing public payphones in 2014.

With the high level of mobile phone penetration in Hong Kong, the general public relies almost entirely on mobile phones for making calls or sending instant messages, and the demand for public payphones has waned over recent years with almost all of them unprofitable under the USO. Based on the data of 2014 and 2015, about 56% of the public payphones had an average revenue of not more than HK\$1 per day.

Against the above background, OFCA had been in consultation with the telecommunications industry since the second half of 2016 on conducting a review, with a view to reducing the number of public payphones eligible for USC to a reasonable level, thereby reducing the level of USC borne by the industry and accordingly the pressure for operators to pass on the USC to subscribers of fixed and mobile services



條例》規管。港視和香港流動電視網絡就通訊辦的立場向法庭提出司法覆核許可申請。原訟法庭於2015年9月29日裁定通訊辦勝訴（「法庭判決」），並駁回所有由港視和香港流動電視網絡提出的司法覆核理據。

其後，港視要求通訊辦處理香港流動電視網絡提出的替代建議，即使用數字視頻廣播—地面2制式（「DVB-T2」）提供流動電視服務（「申請」）。經與通訊辦多輪書信往來及討論後，港視於2017年6月提交最終的技術建議書，列述詳細的技術安排，以確保香港流動電視網絡所提供的流動電視服務會恪守法庭判決及《廣播條例》和《電訊條例》的相關法定要求。

經仔細審視該技術建議書後，通訊局批准有關申請，並於2017年7月13日向香港流動電視網絡發出經修訂的流動電視牌照，授權香港流動電視網絡可把獲指配的8兆赫頻譜所使用的傳送制式更改為DVB-T2制式之下的T2 Lite版本，並按照其經修訂的流動電視牌照所訂明的新訂／經修訂條件及技術參數提供服務。

通訊局及通訊辦將繼續協助香港流動電視網絡提供恪守

法庭判決及《廣播條例》和《電訊條例》相關法定要求的流動電視服務。

繼續加強保障電訊服務消費者

持續實施防止流動通訊「帳單震撼」的措施

近年，智能電話和先進流動裝置日趨普及，刺激了流動數據服務的增長和需求，與此同時，有關流動寬頻服務帳單爭議的消費者投訴數字亦隨之而上升，情況備受消費者關注。這些投訴大多涉及流動通訊「帳單震撼」，即指消費者因收到的流動通訊服務帳單款額遠高於預期而感受到的震撼。出現流動通訊「帳單震撼」的主因，是消費者在使用本地服務或置身香港以外使用漫遊服務時，不經意或不自覺地使用了流動數據服務。

為解決這個問題，通訊辦自2010年5月起公布一系列供業界採用的預防措施，包括容許用戶選擇取消個別服務、設立收費上限、為各類根據用量收費的流動服務設立用量上限，以及向用量達到預定水平或啟動漫遊數據服務的用戶發出提示短訊。

through adjustments to service charges. On 29 June 2017, after finalising the guiding principles and other details, the CA announced its decision to embark on the payphone review. OFCA will approach relevant stakeholders by groups to solicit their views on the exclusion of public payphones with an average revenue of not more than HK\$1 per day from the USO. It is expected that the entire review will be completed by end 2019.

Regulation of Broadcast-type Mobile TV Services

In January 2014, Hong Kong Mobile Television Network Limited (“HKMTV”), the licensee holding the UCL (“Mobile TV Licence”) which authorised it to provide broadcast type mobile TV services (“Mobile TV Services”), indicated to OFCA its proposal to switch from the original China Mobile Multimedia Broadcasting (“CMMB”) standard to the Digital Terrestrial Multimedia Broadcast (“DTMB”) standard. As the executive arm of the CA, OFCA expressed its views to HKTV and HKMTV that Mobile TV Services using the DTMB standard without effective technical measures to prevent fixed reception by specified premises would render the Mobile TV Services available for reception by an audience of more than 5 000 specified premises in Hong Kong and hence should be subject to regulation by the BO. HKTV and HKMTV applied to the court for leave to apply for a JR of OFCA’s position. The Court of First Instance handed down its judgment (“Court Judgement”) on 29 September 2015 in favour of OFCA and dismissed all the grounds of JR brought by HKTV and HKMTV.

Subsequently, HKTV requested OFCA to process HKMTV’s alternative proposal of using the Digital Video Broadcasting – Terrestrial 2 (“DVB-T2”) transmission standard for the provision of its Mobile TV Services (“Application”). After rounds of correspondence and discussion with OFCA, HKTV submitted a finalized technical proposal in June 2017, setting out the detailed technical arrangements to ensure that the Mobile TV Services provided by HKMTV would be in strict compliance with the Court Judgment and the relevant statutory requirements under the BO and the TO.

Having carefully reviewed the technical proposal, the CA approved the Application and issued on 13 July 2017 to HKMTV an amended Mobile TV Licence, authorising HKMTV to change its transmission standard to the T2 Lite profile under DVB-T2 standard using the 8 MHz of spectrum assigned and in accordance with the new/amended conditions and technical parameters stipulated in the amended Mobile TV Licence.

The CA and OFCA will continue to facilitate HKMTV to provide its Mobile TV Services in strict compliance with the Court Judgment and the relevant statutory requirements under the BO and the TO.

Continued Efforts to Strengthen Consumer Protection in the Use of Telecommunications Services

Ongoing Implementation of “Mobile Bill Shock” Preventive Measures

The growing popularity of smartphones and advanced mobile devices has driven the growth of and demand for mobile data services in recent years. At the same time, the increase in the number of consumer complaints relating to mobile broadband billing disputes has become a common concern among consumers. Many of these complaints involve “mobile bill shock”, which refers to the shock consumers experience upon receiving unexpectedly high mobile bill charges. “Mobile bill shock” is mainly caused by unintentional or inadvertent usage of mobile data services, locally or while roaming outside Hong Kong.

To address this problem, OFCA has promulgated a series of preventive measures for the industry since May 2010. These measures include allowing customers to opt out of individual services; setting a charge ceiling; setting a usage cap for all kinds of usage-based mobile services; and alerting customers through short messages when their pre-determined usage threshold is reached, or when their roaming data usage is triggered.

為增加相關服務資訊的透明度，通訊辦已在網站公布個別營辦商所採取的措施，並定期更新資料。除推行這些措施外，通訊辦亦舉辦一系列消費者教育活動，以加深消費者對流動數據服務的認識和了解。通訊辦亦在網站提供數據用量計算機，消費者可使用此工具估算自己的數據用量。隨着流動網絡營辦商和流動虛擬網絡營辦商實施上述預防措施，加上我們持續推行消費者教育，有關流動通訊「帳單震撼」的投訴數字，已由2015年的289宗減至2016年的156宗，按年下降46%。

公平使用政策指引的實施進度

固網及流動寬頻服務供應商為消費者提供種類繁多的服務計劃，包括「無限用量」計劃。然而，某些「無限用量」服務計劃其實受限於服務供應商所實施名為「公平使用政策」的使用限制。公平使用政策旨在防止個別用戶過度使用網絡資源，以免對網絡表現構成不良影響，妨礙其他用戶使用服務。舉例來說，對於數據用量已超出某些上限的用戶，服務供應商可能會實施限制，例如調低其使用網絡服務優先次序或減慢其數據接達速度等。可是，消費者未必會留意到公平使用政策的實施或了解相關的條款及條件。對於使用「無限用量」服務計劃的用戶，當遇到數據用量因公平使用政策而受到限制時，更會感到不滿。

為保障消費者權益和增加服務資訊的透明度，通訊局於2011年11月發出《公平使用政策指引》，規管服務供應商實施其公平使用政策的情況。這份強制指引自2012年2月起已經生效。

2016年，通訊辦協助通訊局處理了六宗與公平使用政策相關的投訴個案，當中並無發現違反《公平使用政策指引》的個案。

提升寬頻表現測試系統

自2010年12月起，通訊辦在網站設立了寬頻表現測試系統，讓寬頻用戶測量其寬頻服務的連接表現，包括下載和上載速度、網絡時延、封包遺失和抖動。除桌面和手提電腦用戶外，採用iOS和Android作業系統的智能手機和平板電腦用戶也可使用該測試系統。

我們不時檢討和提升測試系統，以進一步加強系統的測試能力和表現。現時，測試系統可讓桌面電腦用戶及iOS和Android系統流動裝置用戶分別進行高達每秒1 000 兆比特及450兆比特的速度測試。

該寬頻表現測試系統榮獲「2013香港資訊及通訊科技獎」項下的「最佳公共服務應用（網上／流動應用程式）獎」優異證書。自推出服務至2017年3月為止，系統已進行超過7 200萬次測試。

繼續促進業界實施自行規管措施

改善電訊服務合約業界實務守則

為向業界提供擬訂電訊服務合約的指引，以提升合約制訂過程的透明度和客戶滿意度，香港通訊業聯會（一個業界聯會）於2010年12月公布屬自行規管性質的《業界守則》，所有主要的固定和流動網絡營辦商已由2011年7月起實施該守則。

經考慮實施《業界守則》的經驗及消費者的回應後，通訊辦向香港通訊業聯會提出多項建議，以進一步改善《業界守則》。香港通訊業聯會與各參與營辦商商討後，在2014年10月修訂《業界守則》。經修訂的《業界守則》由2015年5月1日起生效。

To increase the transparency of the relevant service information, OFCA has published measures implemented by individual operators on its website and provided regular updates. On top of these measures, OFCA has organised a series of consumer education programmes to enhance consumers' awareness and knowledge of mobile data services. OFCA has also posted a data usage calculator on its website, which serves as a tool for consumers to estimate their data usage consumption. With the implementation of the abovementioned preventive measures by mobile network operators and mobile virtual network operators as well as our on-going consumer education efforts, the number of complaints in relation to "mobile bill shock" decreased from 289 cases in 2015 to 156 cases in 2016, representing a year-on-year decrease of 46%.

Progress of the Implementation of Fair Usage Policy Guidelines

Fixed and mobile broadband service providers offer a variety of service plans to consumers, including plans with "unlimited usage". However, certain "unlimited usage" service plans are in fact subject to usage restrictions imposed by service providers in the name of Fair Usage Policy ("FUP"). The FUP is intended to prevent excessive usage of network resources by individual customers, which may adversely affect the network performance and hamper other customers' use of the service. For example, service providers may impose restrictions by lowering the network service priority or reducing the access speed for customers whose data usage has exceeded certain threshold. Nevertheless, consumers may not be aware of the existence of the FUP or understand the relevant terms and conditions. Customers of "unlimited service" plans in particular feel aggrieved when their data usage is subject to restriction because of the FUP.

In order to protect consumer interests and enhance the transparency of service information, the CA issued a set of FUP guidelines in November 2011, governing the way service providers should implement their FUP. The mandatory guidelines have been in effect since February 2012.

In 2016, OFCA assisted the CA in handling six FUP-related complaint cases. None of them was found to be in contravention of the FUP guidelines.

Enhancement of the Broadband Performance Test System

Since December 2010, OFCA has posted on its website a broadband performance test system to enable broadband service users to measure the performance of their broadband connections, including download and upload speeds, network latency, packet loss and jitter. Apart from users of desktop and notebook computers, users of smart phones and tablets running iOS and Android operating systems may also make use of the test system.

From time to time, we review and upgrade the test system to further enhance its capability and performance. Currently, it offers desktop users and users of iOS- and Android-based mobile devices speed tests of up to 1 000 Mbps and 450 Mbps respectively.

The broadband performance test system was accredited with a Certificate of Merit under the category of "Best Public Service Application (Web/Mobile Application) Award" in the "Hong Kong ICT Awards 2013". From service launch to March 2017, more than 72 million tests were performed under the system.

自2011年7月實施《業界守則》以來，有關服務合約爭議的投訴數字持續下降，由2011年的1 277宗減少至2016年的425宗，在五年內下降67%。

公布家居寬頻服務供應商終止服務安排詳情

為增加服務資訊的透明度及令消費者有更充分的認識，通訊辦自2016年11月起在其網站刊載主要家居寬頻服務供應商就消費者提出終止服務申請所採取的安排。刊載的資料包括終止服務預先通知期的要求、接受終止服務的申請途徑及方式、認收及確認終止服務申請的安排，以及交還顧客設備的途徑。所刊載的資料可以讓消費者更加了解不同的服務供應商現時的終止服務安排，有助減少有關終止服務事宜的爭議。此外，通過比較不同服務供應商現時終止服務的安排，亦能協助消費者在選擇服務計劃時，因應自己的需要作出明智的決定，從而鼓勵營辦商不斷改善服務。通訊辦會定期及在服務供應商推行新措施時更新所刊載的資料，並會繼續鼓勵服務供應商檢討其終止服務安排，以作進一步的改善。

收費流動內容服務守則

為保障消費者權益和增加有關流動內容服務價格資料的透明度，通訊辦與業界緊密合作，訂立了一份屬自願性質的《收費流動內容服務守則》。該守則由香港通訊業

聯會於2010年1月公布和實施，規管第三方內容服務供應商提供流動內容服務的手法，並設立業界自行規管計劃。守則要求所有第三方內容服務供應商為客戶提供流動內容服務前，須向他們清楚表明該服務屬於收費服務，並要得到客戶明確同意才提供服務。此外，有關供應商亦須清楚訂明簡易方便的終止訂用服務機制。

自2010年1月實施《收費流動內容服務守則》後，通訊辦一直密切監察守則的成效，並留意到相關投訴數字持續下跌及維持於低水平。在2016 / 17年度，我們只接獲一宗投訴，反映內容服務供應商一般遵從屬自願性質的守則，客戶亦對流動內容服務感到滿意。

鑑於過往的經驗、市場的最新情況，以及流動內容服務的投訴數字在近年持續處於低水平，香港通訊業聯會經與業界和通訊辦商討後，由2017年4月1日起簡化了守則內的自行規管安排，讓流動網絡營辦商擔當更重要的角色，以確保內容服務供應商繼續遵守守則所載的規定。在實施簡化安排後，香港通訊業聯會為處理與守則相關的事宜而成立的行政機構由2017年4月1日起停止運作。

儘管經修訂的守則採用簡化安排，所有關於保障消費者權益，以及要求內容服務供應商提供具透明度的流動內容服務價格資料的措施，在經修訂的守則內仍會維持不變。



Continuing to Facilitate the Implementation of Self-regulatory Measures

Enhancement of the Industry Code of Practice for Telecommunications Service Contracts

In order to provide guidelines for the industry in drawing up telecommunications service contracts with a view to improving transparency in the contracting process and increasing customer satisfaction, the Communications Association of Hong Kong (“CAHK”), an industry association, promulgated a self-regulatory Industry Code in December 2010, which was implemented by all major fixed and mobile network operators starting from July 2011.

Having regard to the implementation experience and consumers’ feedback, OFCA made a number of suggestions to CAHK to further enhance the Industry Code. CAHK revised the Industry Code in October 2014 following discussions with participating operators. The revised Industry Code took effect on 1 May 2015.

Since the implementation of the Industry Code in July 2011, the number of complaints related to service contract disputes has been decreasing continuously, from 1 277 cases in 2011 to 425 cases in 2016, representing a drop of 67% in five years.

Publications of the Service Termination Arrangements of Residential Broadband Service Providers

To enhance service information transparency and to better inform consumers, OFCA has since November 2016 published on its website details of the arrangements adopted by major residential broadband service providers to handle service termination requests from consumers. Information published covers the advance notice requirement, channels for accepting service termination requests and their relevant formats, arrangements to acknowledge and to confirm receipt of service termination requests, and channels for the return of customer equipment to service providers. The information will enable consumers to better understand existing practices

of different service providers, which should help reduce disputes over service termination matters. The information would also go some way towards facilitating consumers in making informed decisions on service plans that best suit their needs, by comparing the existing termination arrangements of different service providers, thereby encouraging operators to introduce improvements on an on-going basis. OFCA will update the published information periodically and as and when changes are introduced by service providers. OFCA will continue to encourage the service providers to review the service termination arrangements with a view to making further improvements.

Code for the Provision of Chargeable Mobile Content Services

To safeguard consumer interests and to increase the transparency of the pricing information related to Mobile Content Services (“MCS”), OFCA has worked closely with the industry to draw up the voluntary “Code for the Provision of Chargeable Mobile Content Services”. Promulgated and put into effect by CAHK in January 2010, the code governs the practices of third-party Content Service Providers (“CSPs”) in providing MCS and the establishment of an industry self-regulatory scheme. Under the code, all third-party CSPs are required to indicate clearly to their customers the chargeable nature of the services and to obtain their clear consent before initiating the delivery and provision of MCS. They are also required to set out clearly the unsubscribing mechanism, which should be simple and convenient.

Since the adoption of the code in January 2010, OFCA has been closely monitoring its effectiveness, and noted a continued decrease in the number of related complaints, which has remained at a low level. In 2016/17, only one complaint case was received, reflecting the general compliance of CSPs with the voluntary code and satisfaction of customers with the MCS.

In light of past experiences and latest market situation, as well as the persistently low level of complaints about MCS in recent years, CAHK, in consultation with the industry and OFCA, streamlined the self-regulatory arrangements under the code from 1 April 2017 such that mobile network

關於電訊服務帳單資料及收取帳款的實務守則

通訊局於2011年10月發出屬自願性質的《關於電訊服務帳單資料及收取帳款的實務守則》，旨在減少計帳爭議，並提高帳單資料的透明度。該實務守則就電訊服務帳單上所需包括的收費項目和收取帳款安排，為電訊營辦商提供指引。截至2017年3月，七家本地固定網絡營辦商和四家流動網絡營辦商已承諾遵從上述實務守則。我們已在通訊辦網站刊載消費者注意事項和所有營辦商遵從守則的情況摘要，供消費者參考。我們會繼續密切監察該實務守則的實施情況及成效。

提供流動電視服務的業界守則

根據政府在2008年12月公布並在2010年2月修訂的《香港廣播類流動電視服務發展框架》，業界須就提供本地廣播類和串流類的流動電視服務制訂業界守則，以實施自行規管。香港通訊業聯會於2012年8月發出有關流動電視服務的業界守則。為保護兒童和維護公眾道德，該守則要求流動電視服務供應商就色情及淫褻內容實施限制收看的措施。流動電視服務供應商亦應考慮社會現時普遍接受的道德標準，並格外留意其播出的電視內容可能對兒童造成的影響。

長期實施解決顧客投訴計劃

屬自願性質的「解決顧客投訴計劃」已由2015年5月1日起長期實施。該計劃以調解方式協助電訊服務供應商與其住宅／個人顧客解決雙方已陷入僵局的計帳爭議。調解服務由香港通訊業聯會成立的一個獨立調解服務中心（「調解服務中心」）提供，香港所有主要的電訊服務供應商均已自願參與。通訊辦對該計劃的支持包括贊助所需經費、按有關受理準則審核申請，以及監察計劃的表現和管治工作。

在2016／17年度，該計劃共接獲71宗合資格申請，當中41宗轉介予調解服務中心跟進前已獲得解決，26宗經調解服務中心調解後亦獲得圓滿解決，只有一宗個案未能解決。餘下的三宗個案則正由調解服務中心處理。

為提高市民對計劃的認識，我們舉辦了一系列宣傳活動，包括刊載漫畫和推廣專輯，以及舉辦巡迴展覽和公眾講座。通訊辦會繼續支持該計劃，以及監察計劃的成效。

協助新的海底電纜系統在香港登陸

在通訊辦的綜合聯絡服務協助下，新的區域海底電纜系統 Asia Pacific Gateway由2016年10月起在香港投入服務。另外，三個區域及洲際系統（即Asia Africa Europe-1，Pacific Light Cable Network及Hong Kong-Guam Cable System）及兩個本地系統（即Tseung Kwan O Express及Ultra Express Link）正在興建和籌劃階段，並預計於2017年年中至2020年投入服務。通訊辦將繼續向營辦商提供綜合聯絡服務，協助他們申請在香港興建新海底電纜系統所需的法定許可。

- ◀ 我們透過社交網絡宣傳活動讓更多人認識「解決顧客投訴計劃」。
CCSS has been promoted on social network to raise public awareness of the scheme.



operators would take up a more prominent role to ensure continual compliance with the requirements set out in the code by CSPs. Following the implementation of the streamlined arrangements, the Administrative Agency set up under CAHK to handle matters related to the code ceased operation starting from 1 April 2017.

Despite the adoption of the streamlined arrangements under the revised code, all the measures in respect of safeguarding consumer interests and provision of transparent pricing information related to MCS by CSPs remain the same in the revised code.

Code of Practice in Relation to Billing Information and Payment Collection for Telecommunications Services

In October 2011, the CA issued a voluntary code of practice entitled “Code of Practice in Relation to Billing and Payment Collection for Telecommunications Services”, with a view to reducing billing disputes and enhancing the transparency of billing information. This code of practice provides guidance to telecommunications operators on chargeable items to be included in their bills, and arrangements for payment collection. As at March 2017, seven local fixed network operators and four mobile network operators had pledged compliance with the code. We have published on our website a consumer alert as well as a summary of the compliance status of all operators for the information of consumers. We will continue to closely monitor the implementation and effectiveness of this code of practice.

Industry Code of Practice for Provision of Mobile TV Services

According to the Framework for Development of Broadcast-type Mobile TV Services in Hong Kong promulgated by the Government in December 2008 and revised in February 2010, the industry is required to develop a code of practice on the provision of Mobile TV Services, both local broadcast-type and streaming-type, for the purpose of self-regulation. In August 2012, CAHK issued a code of practice for Mobile TV Services. With a view to protecting children and public

morals, the code requires Mobile TV Service providers to implement access controls for pornographic and obscene content. Mobile TV Service providers should also have regard to the prevailing standards of morality generally accepted by society, and in particular be vigilant about the likely effects of their television content on children.

Long-term Implementation of the Customer Complaint Settlement Scheme

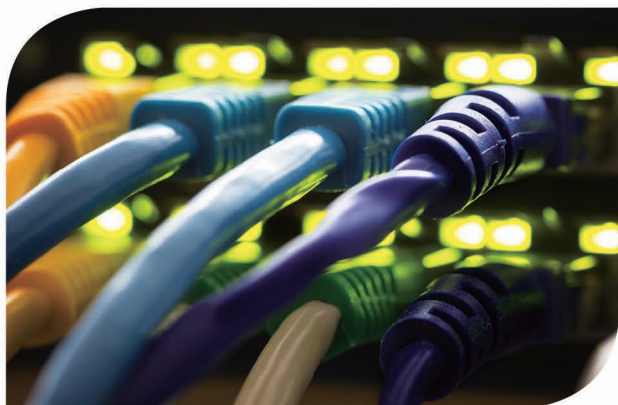
The voluntary Customer Complaint Settlement Scheme (“CCSS”) has been implemented on a long term basis since 1 May 2015. The CCSS helps resolve billing disputes in deadlock between telecommunications service providers and their residential / personal customers by means of mediation. The mediation service is provided by an independent mediation service centre (“CCSS Centre”) set up under CAHK with voluntary participation of all major telecommunications service providers in Hong Kong. OFCA supports the CCSS by contributing the necessary funding, vetting the CCSS applications against the acceptance criteria, and monitoring the performance and the governance of the scheme.

There were 71 eligible applications in 2016/17, 41 of which were resolved before referral to the CCSS Centre, 26 were satisfactorily settled through mediation by the CCSS Centre, and only one case was not settled. The remaining three cases were being processed by the CCSS Centre.

To raise public awareness of the CCSS, a series of publicity activities were conducted, including publication of comic strips and advertorials, as well as roving exhibitions and public seminars. OFCA will continue to support the CCSS and monitor its effectiveness.

Facilitation of the Landing of New Submarine Cable Systems in Hong Kong

With the support of OFCA’s single-point-of-contact service, a new regional submarine cable system, namely, the Asia Pacific Gateway, has been brought into service in Hong



固網寬頻服務的發展

透過寬頻上網使用各項應用程式及瀏覽內容，已成為香港市民日常生活的一部分。隨着固定網絡營辦商持續鋪設網絡，市民得以享用近乎覆蓋全港並採用各種技術提供的寬頻服務。截至2017年3月，香港約有263萬個住宅及商業固網寬頻用戶，住戶滲透率為93%。目前寬頻服務的速度可高達每秒10吉比特。大約82%的固網寬頻

用戶使用速度達每秒10兆比特或以上的寬頻服務。為透過促進市場競爭以改善在鄉郊及偏遠地區所提供固網寬頻服務，通訊局已修訂世紀互聯集團有限公司的綜合傳送者牌照內有關網絡鋪設的規定，以便該公司可使用2.3吉赫頻帶內的無線電頻譜向至少4 000間村屋提供無線固網寬頻服務。另外，通訊局於2017年1月向鄉村電話有限公司批出新的綜合傳送者牌照。該公司的主要業務是在香港鄉郊及偏遠地區興建和營運光纖寬頻基礎設施。各固定網絡營辦商持續在鄉郊及偏遠地區建立網絡基礎設施，預計可逐步提升這些地區的固網寬頻服務選擇及質素。

根據歐洲光纖到戶議會於2017年2月發出的新聞公報，香港住戶連接光纖到戶／光纖到樓的滲透率在全球61個經濟體系中排名第五。根據互聯網內容傳輸商 Akamai 於2017年5月發布的《2017年第一季互聯網發展狀況報告》，香港的連線速度平均峰值為每秒129.5兆比特，屬全球速度最快的第四位。

Kong since October 2016. In addition, three regional and transcontinental systems (namely, the Asia Africa Europe-1, Pacific Light Cable Network and Hong Kong-Guam Cable System), as well as two domestic systems, (namely, Tseung Kwan O Express and Ultra Express Link) are being constructed and planned for putting into service between mid-2017 and 2020. OFCA will continue to provide the single-point-of-contact service to assist operators in applying for the necessary statutory approvals to construct new submarine cable systems in Hong Kong.

Development of Fixed Broadband Services

Broadband access to various applications and content services has become an integral part of people's lives in Hong Kong. With the continuous network rollout of fixed network operators, the Hong Kong community is able to enjoy nearly ubiquitous coverage of broadband networks deploying various technologies. As at March 2017, there were around 2.63 million residential and commercial fixed-broadband subscribers, with a household penetration rate of 93%. Broadband services are now available at speeds of up to 10 Gbps. Around 82% of fixed broadband subscribers use broadband services with a speed of 10 Mbps or above.

With a view to enhancing the provision of fixed broadband services in rural and remote areas through increased competition in the market, the CA amended the network rollout requirement under the UCL of the 21 ViaNet Group Limited for the provision of wireless fixed broadband service using radio spectrum in the 2.3 GHz band to at least 4 000 village houses. In addition, the CA granted a new UCL in January 2017 to Village Telephone Limited which focused on the construction and operation of fibre-based broadband infrastructures in rural and remote areas of Hong Kong. It is expected that the choice and quality of fixed broadband services in rural and remote areas will improve progressively through continuous rollout of the network infrastructure to those areas by various fixed network operators.

According to a press release issued by the FTTH Council Europe in February 2017, Hong Kong ranked the fifth worldwide in fibre to home/building household penetration among the 61 economies under comparison. According to the "State of the Internet 1st Quarter, 2017 Report" published by Internet content delivery provider Akamai in May 2017, Hong Kong has an average peak connection speed of 129.5 Mbps, which is the fourth highest in the world.