

Office of the Communications Authority

Major Tasks and Projects for 2021-22

Major tasks and projects are categorised into “priority” and “normal” ones to indicate their relative importance.

(I) Priority Tasks/Projects

(1) Support to the Communications Authority (CA)

1. We will continue to support the CA to enable it to assume the full spectrum of its regulatory functions.

(2) Continued Support to the Fifth Generation (5G) Development

2. In 2019, a total of about 4 500 MHz of spectrum suitable for deployment of 5G services in various frequency bands (i.e. 4 100 MHz of spectrum in the 26/28 GHz bands, 200 MHz in the 3.5 GHz band, 100 MHz in the 3.3 GHz band and 80 MHz in the 4.9 GHz band) was made available to the market.

3. Following our administrative assignment of a total of 1 200 MHz of spectrum in the 26/28 GHz bands to three mobile network operators (MNOs) (400 MHz each as per their applications) in April 2019, as well as the assignment of 380 MHz of auctioned spectrum in the 3.3 GHz, 3.5 GHz and 4.9 GHz bands from December 2019 to April 2020, MNOs have launched commercial 5G services starting from April 2020, marking the arrival of the 5G era in Hong Kong.

4. We have identified an additional 80 MHz of spectrum in the 4.9 GHz band and 140MHz in the 600/700 MHz bands for assignment in 2021-22 for the provision of public mobile services. Taking into account the views received from the relevant public consultations completed in 2020, the CA and the Secretary for Commerce and Economic Development (SCED) announced the decisions on the arrangements for spectrum assignment and related spectrum utilisation fee (SUF) in March 2021. Subject to completion of the legislative process, the CA plans to conduct an auction in the fourth quarter of 2021 to assign the new spectrum.

5. The International Telecommunication Union (ITU) decided on the harmonised regional and global spectrum allocation for 5G services at its World Radiocommunication Conference held from 28 October to 22 November 2019 (WRC-19). OFCA attended the Conference and

undertook follow-up actions to ensure compliance with the decisions and recommendations made by ITU as applicable to Hong Kong. In particular, WRC-19 identified the 40 GHz and 70 GHz bands for 5G service on a global basis. We have sought the CA's approval to allocate, among others, the 39.5 – 43.5 GHz and 66 – 71 GHz bands to mobile service on a co-primary basis with effect from 1 January 2021 with a view to paving the way forward for assignment to 5G services in future subject to technology development and industry demand. We will continue to identify and make available other suitable spectrum for the development of 5G and other innovative services in Hong Kong.

(3) Encouraging the Early Deployment of 5G

6. On 5 May 2020, we launched the Subsidy Scheme for Encouraging Early Deployment of 5G under the second round of Anti-epidemic Fund. The scheme aims to encourage various sectors to deploy 5G technology early to foster innovation and smart city applications, thereby improving their operation efficiency and service quality as well as enhancing Hong Kong's overall competitiveness. The scheme has been well received and is open for application until 31 July 2022. OFCA will continue to administer the scheme, including processing applications, monitoring implementation of the approved projects and arranging a sharing session for successful applicants to share the experience they have gained in the projects.

(4) Facilitating Infrastructure Rollout

7. With the support of relevant Government departments, we launched a pilot scheme in March 2019 to facilitate the MNOs' use of over 1 000 suitable Government venues for installation of radio base stations under streamlined application and vetting procedures. The scheme was well received by the industry. OFCA will further assist operators under a "demand-led" approach to make use of other suitable Government premises to extend 5G network coverage. OFCA will continue to provide support to the operators, relevant Government departments and site managers of selected Government venues to help expedite the approval process and installation work.

8. Furthermore, the Government will open up suitable public facilities like sheltered bus stops and public payphone kiosks for extending 5G network coverage. OFCA has, in consultation with the operators and relevant Government departments, formulated the relevant procedures and requirements for applications by MNOs to use such public facilities for installing radio base stations.

9. One satellite operator has been allocated with a land lot in Chung Hom Kok Teleport for relocation of its existing satellite facilities operating in the 3.5 GHz band for telemetry, tracking and control (TT&C) of satellites in orbits from Tai Po to Chung Hom Kok Teleport. We will continue to work with the relevant Government departments and the other satellite operator to facilitate the relocation of the relevant TT&C facilities from Tai Po to Chung Hom Kok Teleport. It is anticipated that the problems of using the 3.5 GHz band for 5G services in the restriction zone in Tai Po could be completely resolved within four years. In addition, we will continue to work with relevant Government departments to provide suitable land lots in Chung Hom Kok Teleport in 2021 for external telecommunications infrastructure with a view to further enhancing the overall capacity and diversion capability of Hong Kong's external telecommunications network.

(5) Rollout of High Speed Broadband Services to Rural and Remote Areas

10. In support of the Government's policy initiative, we implemented a scheme to provide subsidies to fixed network operators (FNOs) for extension of fibre-based networks to villages in remote areas. In July 2018, the Finance Committee of the Legislative Council approved \$774.4 million for implementing the scheme. After conducting two tender exercises in June 2019 and January 2020 respectively, we awarded all six projects to two FNOs. The two FNOs have commenced works for the rollout of fibre-based networks and submarine cables. It is expected that the newly-built fibre-based networks will be extended to the villages concerned in phases from 2021 onwards. OFCA will continue to monitor the implementation progress.

(6) Review of the Use of Telephone Exchange Sites

11. The CE in C decided in April 2019 in principle not to extend or renew the existing land grants for use as telephone exchanges and other telecommunications-related facilities upon expiry of their respective terms. For the 42 sites where land grants will expire in June 2025 (the Sites), the lessees have been invited to submit representations if they considered that they would be unable to surrender to the Government the Sites on or before the expiry date. In response, all the concerned lessees have submitted representations expressing objection to non-renewal of the land grants. To facilitate Government's consideration of the representations, OFCA has commissioned a consultant to conduct technical assessment and inspection of the Sites were also conducted to verify the use of the Sites, with a view to making recommendations to the Government from telecommunications angle on the way forward for handling of the Sites.

(7) Re-assignment of Spectrum for Mobile Services

12. To take forward the decisions of the CA and SCED in December 2017, 50 MHz of spectrum in the 900 MHz band underwent a seamless re-assignment for a new 15-year term in January 2021. The re-assignment of 150 MHz of spectrum in the 1 800 MHz band will take place in September 2021 upon expiry of the existing assignment. To ensure a smooth handover of spectrum in the 1 800 MHz band among the existing and new assignees, OFCA will continue to work with all the four incumbent MNOs through the working group set up in May 2019 for the purpose of coordinating technical works relating to the handover.

13. The existing frequency assignments in the 850 MHz band and 2.5/2.6 GHz band will expire in November 2023 and March 2024 respectively. Taking into account the views received from the relevant public consultations completed in 2020, and the undertaking given by the existing assignee of the 850 MHz band in February 2021 to voluntarily return the spectrum in or before November 2021, the CA and SCED announced their decisions on the arrangements for spectrum re-assignment and the related SUF in March 2021. The CA targeted to conduct the auction for assignment of the spectrum in the fourth quarter of 2021.

(8) Review of Legislation

14. The Government is working on the review of the telecommunications regulatory framework and is undertaking drafting work of an amendment bill to give effect to the proposals that have gained support in the public consultation completed earlier. We will continue to support the Government and the CA in this exercise.

15. With our support, the Government completed a review of the television and sound broadcasting regulatory framework with the aim of modernising the regulatory framework in response to market needs and technological developments. The Broadcasting and Telecommunications Legislation (Amendment) Bill 2019 that implements the relevant relaxation measures proposed in the review was passed in the Legislative Council on 29 October 2020. The relevant provisions took effect on 5 February 2021 with the CA's guidance notes on licence applications updated and issued on the same day.

16. The Government will explore proposals on regulating person-to-person telemarketing calls. With the experience gained over the years in regulating commercial electronic messages under the UEMO, we will

support the Government in the exercise.

(9) Regulation of Telecommunications Services and Equipment

17. To facilitate the entry of a wide range of service providers and the development of various innovative 5G services and applications, the Localised Wireless Broadband Service (LWBS) Licence, which is subject to less stringent requirements as compared with conventional public mobile services licensed under the UCL, was created in July 2019 for the assignment of the Shared Spectrum in the 26/28 GHz bands. The Shared Spectrum is intended to be assigned for use in different specified locations such as university campuses, industrial estates, the airport and technology parks on a geographically sharing basis, subject to the restriction that the total network coverage of each assignee shall not exceed 50 square kilometres. The first LWBS Licence was issued to the Airport Authority in October 2019 for implementation of the smart airport initiatives. OFCA will continue to monitor the use of the Shared Spectrum and update the licensing framework.

18. The revised Class Licence for Offer of Telecommunications Services (CLOTS) pursuant to section 8(1)(aa) of the TO which regulates any person who offers telecommunications services to the general public without establishment, operation or maintenance of any means of telecommunications equipment, has taken effect since 26 October 2019. A key feature of the revised CLOTS is the introduction of a registration requirement for those CLOTS licensees with a customer base of 10 000 subscriptions or more. As of March 2021, 21 CLOTS licensees have made registration. OFCA will continue to monitor developments in the market and ensure compliance by the industry with all the regulatory requirements under the revised CLOTS for enhancing consumer protection.

19. In June 2016, the CA decided to implement five measures in three phases with a view to achieving a more efficient use of the existing 8-digit numbering plan and making available additional number resources for mobile services. The first and the second phases of the measures have been implemented since 1 January 2017 and 1 July 2017 respectively, while the third phase of the measures will be implemented from 1 July 2021. Following the full implementation of all the measures, an additional 15.72 million numbers in total will become available for allocation to mobile services. They are expected to be able to cope with the demand up to at least 2029. We will continue to follow up with the operators in respect of the implementation of the necessary changes to their networks and systems to support the opening of the relevant number blocks. For the longer term development of the numbering plan, we will monitor the effectiveness of

the measures as well as the on-going demand for telecommunications numbers as the market develops, especially with the growth of new Internet of Things (IoT) services and 5G services in the future.

20. Public payphone service is a basic telephone service which the universal service provider (USP) is required to provide under its universal service obligation (USO). The cost of providing public payphone service subject to the USO is shared by the fixed and mobile services operators. In view of the diminishing demand for public payphone service in recent years, we completed a review and decided in 2019 to exclude about 35% and 50% of the total number of in-building type public payphones and kiosk type public payphones respectively from the USO. The USP had already removed all the excluded in-building type public payphones, whereas 87% of the excluded kiosk type public payphones had been removed as at 31 March 2021. We will continue to monitor the removal progress of the excluded kiosk type public payphones by the USP.

21. We will also continue to provide support to the USP and the relevant Government departments to facilitate the proposed use of public payphone kiosks for the provision of other services and functions, including installation of radio base stations and smart kiosks.

22. On an on-going basis, OFCA continues to assist the CA in streamlining the regulatory measures to ensure that they remain effective and business-friendly under the prevailing market environment. Having regard to the feedback from the industry including submissions received during the aforementioned consultation on review of the telecommunications regulatory framework conducted by the Government, we have conducted review and implemented streamlined arrangements in regard to the regulatory measures for filing and publication of tariffs and interconnection agreements, and will review the regulatory measures on submission of regulatory accounting information in 2021.

(10) Regulation of Broadcasting Services and Equipment

23. The free TV licences of Fantastic Television Limited (Fantastic TV), HK Television Entertainment Company Limited (HKTVE) and Television Broadcasts Limited (TVB) and the sound broadcasting licences of Hong Kong Commercial Broadcasting Company Limited and Metro Broadcast Corporation Limited with validity periods of 12 years are subject to mid-term reviews in 2021 to 2022. We will support the CA in assessing the performance of these licensees during the first six years of their respective licences with a view to submitting views and suggestions for consideration by the CE in C on ways to improve the services provided by the licensees

in the remaining years of their licences.

24. Since the launch of Digital Terrestrial Television (DTT) services in late 2007, a total of 29 transmitting stations have been constructed by the free TV licensees, bringing the overall DTT coverage to at least 99% of the population. We will continue to work with the relevant free TV licensees to improve the reception in the few areas in Hong Kong where DTT reception problems are identified.

25. Upon the switch-off of analogue television services on 30 November 2020, we will make available spectrum in the 600/700 MHz bands for public mobile services. In July 2019, we gave advance notices to the relevant TV broadcasters on the variation of their spectrum assignments for relocating their DTT channels in the 600/700 MHz bands to the 500 MHz band by 30 November 2021. To enable the continued reception of the DTT services by the viewing public, the relevant TV broadcasters will broadcast the DTT channels concerned using both the existing and new transmitting frequencies for a period of eight months from 1 April to 30 November 2021, with a view to facilitating the reconfiguration of common antenna broadcast distribution systems or in-building coaxial cable distribution systems (collectively known as communal aerial systems) for reception of the relocated DTT frequency channels in the 500 MHz band. We will continue to liaise with the relevant TV broadcasters and operators of communal aerial systems on the above relocation of DTT frequency channels and coordinate with the Mainland authorities on their use of spectrum in the 470 – 806 MHz band in order to vacate the spectrum in the 600/700 MHz bands.

(II) Normal Tasks/Projects

(1) Regulation of Telecommunications Services and Equipment

26. We will continue to provide support to the CA in handling UCL applications and licence administration matters.

27. FNOs with manholes installed in public streets are required to follow the guidelines issued in June 2010 and revised in July 2016 in conducting inspections and implementing mitigation measures against the risk of gas explosion on their manholes in public streets. We will continue to monitor the implementation work of the operators in accordance with the requirements set out in the guidelines.

28. IoT is an emerging technology that enables the provision of communications platforms and services for interconnected devices to generate, exchange and consume data with minimal human intervention. Since the creation of the Wireless Internet of Things (WIoT) Licence by the CA in December 2017 for the provision of WIoT platforms and services using the shared frequency band of 920 – 925 MHz, three WIoT licences have been issued. Moreover, MNOs may also provide WIoT services using the spectrum assigned to them under their UCLs. With the introduction of a new WIoT device fee component under the UCL and Services-based Operator (SBO) Licence effective from 31 January 2019 and 1 August 2020 respectively, any WIoT device operated under the UCL or SBO Licence is subject to a fee of \$2 for each WIoT device, which is on a par with the fee level under the WIoT Licence. We will continue to support the CA to facilitate the development of WIoT services in the 5G era.

29. On 28 April 2020, the CA issued a circular letter to all SBO licensees on the enhancement of the licensing framework, namely the extension of the period of validity of the licence from one year to two years to enhance regulatory certainty, streamlining the categories of services authorised under the SBO Licence, and adopting a new licence fee structure to ensure regulatory symmetry between the SBO Licence and other licences. The enhanced framework has taken effect from 1 August 2020. OFCA will continue to monitor the effectiveness of the enhanced licensing framework for SBO.

30. Mandatory Type II Interconnection at exchange level and at buildings with more than one self-built customer access networks was withdrawn in full on 30 June 2008. We will continue to monitor the network rollout of the alternative self-built customer access networks of fixed operators.

31. To stimulate and promote further development of our broadband infrastructure, we launched a voluntary registration scheme for residential buildings connected with fibre-based access networks in November 2010. The scheme was extended to cover non-residential buildings in April 2013. Under the scheme, fibre-connected buildings are categorised into two classes, i.e. the fibre-to-the-home (FTTH) buildings and the fibre-to-the-building (FTTB) buildings. As of 31 March 2021, 24 772 residential buildings were registered with the scheme, representing about 84% of the total number of households in Hong Kong. 1 697 non-residential buildings were also registered with the scheme. We will continue to encourage participation of industry players.

32. We will continue to combat unauthorised telecommunications activities, including the sale, establishing, maintaining, possessing and/or using unauthorised telecommunications systems and devices, which are in breach of the TO, the relevant regulations and the conditions of the various telecommunications licences.

33. As at 31 March 2021, a total of 33 base stations serving country parks and the Hong Kong Geopark have been set up by mobile operators. We will continue to facilitate the installation of more base stations by these operators for improving mobile network coverage in country parks, the Hong Kong Geopark and rural areas.

34. In order to provide hikers with the necessary information on mobile network coverage in country parks and the Hong Kong Geopark, we have prepared 171 digital maps which show such coverage in those areas and posted them on our website for public information. We will continue to update the maps when new base stations are installed.

35. Since the implementation of the number fee framework in August 2008, as at 31 March 2021, a net amount of 7.66 million numbers had been returned by the operators. We will continue to facilitate the operators' return of numbers and review the usage of the numbering resources in a timely manner to promote the effective and efficient use of telecommunications numbers and codes.

36. Telecommunications licensees holding telephone numbers for the provision of fixed and mobile telephone services are required to pay universal service contribution (USC) to the USP for the net cost of meeting the USO. The last review of the level of USC for the year 2019 was completed with the results promulgated in December 2020. We will continue to calculate the USC in a fair, reasonable and efficient manner, and promulgate the calculated USC levels on a regular basis.

37. Following the implementation of a new computerised system for processing applications for and renewals of private mobile radio systems licences (the Electronic Licensing System), we extended the system to cover other private telecommunications licences in 2020.

38. The system which enables and facilitates end users of fixed and mobile broadband services to test the performance of their broadband services was launched in December 2010 and upgraded over the years to enhance its performance and functionalities. As of 31 March 2021, an accumulated total of more than 105 million tests were performed with an

average daily hit rate of 28 055. We will continue to monitor the system performance and improve it taking into account technology and market developments.

(2) Facilitating Infrastructure Rollout

39. Since 2010, we have been offering a single point-of-contact service to assist operators to apply for the necessary statutory approvals for landing new submarine cables in Hong Kong. The overall response of the industry is positive. Four new regional and transcontinental submarine cable systems as well as two new domestic submarine cable system have already come into operation in Hong Kong since 2013. Five new regional submarine cable systems are under planning or construction and will be put into service in Hong Kong between 2021 and 2023. In addition, four new domestic submarine cables are also under planning. We will continue to provide the service to facilitate the landing of new submarine cables in Hong Kong.

40. In tandem, we will continue to facilitate MNOs to roll out their mobile broadband services by deployment of radio base stations at the hill-top sites and Government buildings in remote areas.

41. We have coordinated with the operators and liaised with the relevant Government departments and Mainland authorities on the operators' proposals of utilising new cross-boundary infrastructures, such as the Hong Kong-Zhuhai-Macao Bridge (HZMB) for installation of cross-boundary optical fibre cables to increase the capacity and enhance the diversity of their cross-boundary facilities. Some FNOs have commenced provision of cross-boundary telecommunications services via the optical fibre cables installed along HZMB since October 2020. We will continue to coordinate the matter with the relevant parties.

(3) Facilitating Access

42. We will continue to facilitate access to buildings by fixed operators for installation of in-building telecommunications facilities for the conveyance of telecommunications and broadcasting services, including the use of the In-building Coaxial Cable Distribution Systems of Hong Kong Cable Television Limited to deliver Fantastic TV's free TV service.

(4) Spectrum Management

43. We will conduct frequency planning studies for a horizon of five years with a view to timely making available supply of spectrum for

different wireless services and applications.

44. To ensure the orderly development of new services and to minimise interference, we will continue to coordinate with neighbouring authorities on the use of radio spectrum for broadcasting and telecommunications services.

45. Spectrum to be used by or on behalf of the Government is managed administratively by OFCA. We completed in 2019-20 the fourth review of the efficiency of the spectrum used by the Government and posted our findings on our website. We will continue to promote adherence with the Guidelines for Spectrum Assignment for Land Mobile Systems and Fixed Links Deployed by Government Users in Hong Kong by users of Government spectrum.

46. The radio monitoring and direction finding system for our Radio Monitoring Unit commissioned in 2001 was replaced in June 2019. We will make use of the new system for more efficient radio monitoring and assistance in identification of interfering sources.

(5) Regulation of Broadcasting Services and Equipment

47. We will continue to monitor the performance of the broadcasting licensees and ensure their compliance with the relevant legislation and licence conditions. All broadcasting licensees are required to observe the relevant codes of practice issued by the CA. We will assist the CA in revising the codes of practice as necessary.

48. By virtue of the Charter of Radio Television Hong Kong (RTHK) promulgated in August 2010, RTHK should also ensure that all its TV and radio services comply with the relevant codes of practices of the CA. To ensure the compliance with the codes of practice by broadcasting licensees and RTHK, we will continue to act on complaints lodged by the public in a rigorous and transparent manner.

49. We will continue to regulate the technical performance of the licensed broadcasters.

50. We will continue to improve the reception of the existing free terrestrial television and sound broadcasting in the territory, especially in areas where reception is not satisfactory.

(6) Competition Affairs

51. The CA is conferred concurrent jurisdiction with the Competition Commission (the Commission) to enforce the CO in respect of the conduct of undertakings in the telecommunications and broadcasting sectors. The CA and the Commission have signed a Memorandum of Understanding to coordinate the performance of their functions on which they have concurrent jurisdiction under the CO. We will continue to assist the CA in enforcing the CO in the telecommunications and broadcasting sectors.

(7) Regulation of Unsolicited Commercial Electronic Messages

52. The UEMO has been in operation since December 2007. We will continue to maintain the Do-not-call Registers for fax, short message and pre-recorded telephone message respectively for use by the general public, and for businesses/organisations as senders of commercial electronic messages. We will continue to handle and investigate reports of suspected contravention of the UEMO and take appropriate actions following the technology neutral principle. We will also provide support and advisory services to CEDB on spam-related issues.

53. We will continue to liaise with local, Mainland and overseas anti-spam organisations and enforcement agencies to facilitate cooperation in spam control and sharing of experience and intelligence of anti-spam issues.

(8) Advisory and Support Services

54. We will continue to provide support to satellite operators registered in Hong Kong by attending satellite co-ordination meetings and issuing licences for the launching and operation of new or replacement satellites.

55. We will continue our coordination with local, Mainland and overseas satellite operators and administrations on satellite launching, coordination and interference matters.

56. We will continue to provide support to CEDB in overseeing the operation of the EAS, which the Government engaged the MNOs to set up their network for dissemination of time-critical emergency messages to the public. The EAS was established with government funding and launched in November 2020. We will assist relevant bureau/department to disseminate emergency messages via the EAS, and monitor MNOs' operation and maintenance of the EAS.

57. We will continue to strengthen Hong Kong's participation, by both the Government and the private sectors, in international and regional telecommunications fora, and to provide support to regional/international telecommunications projects.

58. We will continue to provide support to CEDB and TID on the implementation and further expansion of the CEPA and the closer co-ordination with the Mainland authorities with respect to the cross-border provision of telecommunications services in the Mainland by Hong Kong service suppliers.

59. We will also continue to support CEDB and TID in establishing free trade agreements with other economies with a view to facilitating market access and the provision of telecommunications services.

(9) Technical Standards

60. We will continue to monitor the process and performance of Local Certifications Bodies in the provision of testing and certification services under the accreditation scheme administered by the OFCA.

61. We will continue to implement the Mutual Recognition Arrangement for conformity assessment of telecommunications equipment led by the Asia-Pacific Economic Cooperation Telecommunications and Information Working Group.

62. We will continue to monitor the battery safety and the radiation exposure limit of uncertified mobile phones supplied in the market. In 2019-20, we commissioned a laboratory to conduct battery safety tests for 20 models of uncertified mobile phones and another laboratory to conduct measurement of the Specific Absorption Rate for 10 models of uncertified mobile phones. The tests indicated that the battery safety of all the 20 models of uncertified mobile phones met the relevant electrical safety standard and the Specific Absorption Rate values of all the 10 models of mobile phones were below the 2W/kg limit as recommended by the International Commission on Non-Ionizing Radiation Protection.

(10) Corporate Affairs and Handling of Consumer Complaints

63. We will continue to promote the smart use of communications services through the launch of the annual consumer education campaign, which offers various activities and programmes for public participation such as public seminars, roving exhibitions etc., communications through the mass media, the OFCA's website, the "Communications Master – OFCA"

Facebook Fan Page and joint efforts with various user groups and industry organisations.

64. On the handling of consumer complaints, we will ensure that complaints involving possible contraventions of the provisions of the TO, the BO, the UEMO, the TDO and the CO or licence conditions are attended to promptly. For complaints which fall outside the scope of the legislative provisions and relevant licence conditions, we will ensure that they will be promptly referred to the operators concerned.

65. To help the industry, the media and the public understand the new developments in the communications market and the OFCA's new initiatives, we will continue to organise industry and media activities as necessary for effective communication.

(11) Consumer Protection

66. To safeguard consumer interests in the use of telecommunications services, we take proactive actions to implement various consumer protection measures and work with the industry to draw up and implement self-regulatory measures to address new consumer issues that may arise from time to time. These measures include the voluntary Customer Complaint Settlement Scheme (CCSS) administered by the Communications Association of Hong Kong, an industry association. The CCSS aims to help resolve billing disputes in deadlock between telecommunications service providers and their customers by means of mediation.

67. Other self-regulatory measures voluntarily implemented by the industry include the promulgation of the Code for the Provision of Chargeable Mobile Content Services to govern the practices of third party content service providers, and the Code of Practice for Telecommunications Service Contracts to improve the clarity of provisions in the telecommunications service contracts. Mobile operators have also adopted a series of preventive measures promulgated by OFCA to tackle the problem of mobile bill shock. The measures implemented by individual mobile operators are published on OFCA's website.

68. In order to enhance transparency of the service level of the mobile broadband service market, mobile operators publish their performance pledges and the actual performance statistics of their mobile broadband services. The pledges and statistics are updated quarterly, and are available on the respective websites of the mobile operators and on our website via hyperlinks. Regarding service termination of residential broadband services,

we publish and periodically update on our website details of the arrangements adopted by major residential broadband service providers to handle service termination requests from service subscribers.

69. The CA has issued a voluntary Code of Practice in relation to Billing Information and Payment Collection for Telecommunications Services to enhance the transparency of the pricing of chargeable items in the provision of telecommunications services by local fixed and mobile operators. To provide guidance to fixed and mobile broadband service providers on how they may implement Fair Usage Policy, the CA has promulgated a set of mandatory guidelines setting out the relevant guiding principles for compliance by service providers.

70. Launched in January 2003 and revised in November 2005, the Billing and Metering Integrity Scheme is a voluntary scheme to ensure billing and metering accuracy for IDD, mobile voice and dial-up Internet services. We have conducted a review on the effectiveness of the scheme in light of the latest market environment. With support from the industry, we decided to end the scheme from January 2021. We will continue to safeguard consumer interest in billing and metering issues through other existing regulatory measures.

71. We will continue to monitor the effectiveness of various regulatory guidance given to the industry on the provision of service to end customers, including the Code of Practice on the Cessation Arrangements for MVNO Services which took effect in October 2017 and the Code of Practice on the Verification of the Addresses of Potential Customers for Mobile Telecommunications Services and issued a revised Code of Practice which was revised in December 2018.

72. We will continue to monitor the effectiveness of the various consumer protection measures adopted, and engage the industry where necessary to seek further improvement of the existing measures or introduction of new measures. The CA is also conferred concurrent jurisdiction to enforce the fair trading sections of the TDO in respect of the commercial practices of the telecommunications and broadcasting licensees which are directly connected with the provision of a telecommunications or broadcasting service under the TO or the BO. For cases involving unfair trade practices, we will take enforcement actions where warranted in accordance with the powers conferred on the CA under the TDO.

(12) Human Resources Management

73. A Training and Development Committee has been established to oversee the implementation of OFCA's training and development policies to meet the training needs of staff and to strengthen arrangements for grooming officers with strong potentials. We will continue to promote a learning culture in the office and provide training opportunities for staff at all levels to enhance their professional and managerial competencies, ensure healthy succession, and keep pace with the advent of new technologies. We will also arrange overseas management programmes and explore opportunities for staff attachment to policy bureaux, overseas regulatory authorities and relevant authorities in the Mainland to broaden the horizon of our staff and prepare them for greater challenges.

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