

Office of the Communications Authority
Major Tasks and Projects for 2019-20

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

(I) Priority Tasks/Projects

(1) Support to the CA

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

(2) Preparing for the 5G era

2. The CA promulgated its work plan on 21 March 2017 for making available additional spectrum to meet the demand of public mobile (including fifth generation mobile, or 5G in short) services towards 2020 and beyond, and outlined a roadmap for the release of new spectrum to the industry. To enable the early launch of 5G services, the CA and Secretary for Commerce and Economic Development (SCED) jointly conducted three public consultations in 2018 in respect of the allocation and assignment arrangements for a total of about 4 500 MHz of spectrum comprising (a) 4 100 MHz of spectrum in the 26 GHz band (24.25 – 27.5 GHz) and the 28 GHz band (27.5 – 28.35 GHz); (b) 200 MHz of spectrum in the 3.5 GHz band (3.4 – 3.6 GHz); and (c) 100 MHz of spectrum in the 3.3 GHz band (3.3 – 3.4 GHz) and another 100 MHz of spectrum in the 4.9 GHz band (4.83 – 4.93 GHz) respectively. Taking into account views and comments received, the CA and SCED announced their respective decisions on the arrangements for assignment of the available 5G spectrum and the related spectrum utilisation fees (SUF) in mid-December 2018.

3. We will take follow up actions in 2019 to implement the decisions of the CA and SCED. This includes processing the applications for administrative assignment of spectrum in the 26 GHz and the 28 GHz bands; providing support to CEDB in making the necessary legislative amendments; and conducting auctions for spectrum in the 3.5 GHz, 3.3 GHz and 4.9 GHz bands. We will continue to identify and make available additional spectrum to support the development of 5G services in Hong Kong.

4. To address the concerns raised by the mobile industry regarding the imposition of two restriction zones to constrain the deployment of mobile base stations of public mobile services operating in the 3.5 GHz band, a working group was formed under the Radio Spectrum and Technical Standards Advisory Committee of OFCA to consider feasible technical arrangements for deployment of mobile base stations operating in the 3.5 GHz band within the restriction zones. The working group comprises representatives of OFCA, mobile network operators (MNOs), satellite operators, Hong Kong Science and Technology Parks Corporation, and Hong Kong Applied Science and Technology Research Institute. The working group aims at coming up with recommendations by the first quarter of 2019 for consideration of the CA.

5. The International Telecommunication Union (ITU) will decide on the harmonised global spectrum allocation for 5G services at its World Radiocommunication Conference to be held in October/November 2019. We will attend the Conference and take necessary actions to ensure our compliance with the decisions and recommendations made by ITU. We are also actively preparing for our participation in various preparatory meetings organised by the regional telecommunications group and ITU.

(3) Facilitating Infrastructure Rollout

6. The Chief Executive announced in the 2018 Policy Address to open up suitable government premises to facilitate mobile operators to roll out their 5G networks. With the support of relevant Government departments, we have identified over 1 000 suitable government premises and worked out streamlined application and vetting procedures to facilitate mobile operators to install radio base stations. We have announced details of the scheme in March 2019.

7. We will continue to provide support to the Innovation and Technology Bureau in launching a pilot Multi-functional Smart Lampposts scheme at selected urban locations, under which the smart lampposts will be used to provide convenient data services and collect various real-time city data, enhance city and traffic management, and complement the future infrastructure development for 5G services. We will work with the operators and relevant Government departments to streamline the application process.

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

8. In the 2017 Policy Address, the Chief Executive proposed for the Government to provide telecommunications companies with financial incentives in the form of subsidies to encourage the extension of fibre-based network to villages in remote locations. The Finance Committee of the Legislative Council approved \$774.4 million for the project in July 2018. We are now finalising the list of villages to be covered under the subsidy scheme and preparing the tender document. Our target is to invite tender in the second quarter of 2019.

(5) Re-assignment and Assignment of Spectrum for Mobile Services

9. The current assignments of the spectrum in the 900 MHz band and the 1 800 MHz band will expire in January 2021 and September 2021 respectively. The CA and SCED jointly conducted two rounds of public consultation in 2016 and 2017 respectively on the arrangements for spectrum re-assignment and the related SUF. The CA has also appointed an external consultant to provide an independent assessment of the technical aspects of the matter. Taking into account views and comments received in the two rounds of public consultation and the results of the consultancy study, the CA and SCED announced their respective decisions on the arrangements for spectrum re-assignments and the methods of determining the related SUF in December 2017. To take forward the decisions of the CA and SCED, provisional assignments of 20 MHz of spectrum have been made to each of the four incumbent MNOs through the offer of a right of first refusal. Auction for the remaining 120 MHz of spectrum was also conducted in December 2018. To ensure smooth handover of the spectrum in 2021, OFCA will convene a working group to coordinate among MNOs technical works relating to the handover.

(6) Review of Legislation

10. The Government is reviewing the BO and TO and the CA has been consulted in the process. We will support the Government and the CA in this exercise.

(7) Regulation of Telecommunications Services and Equipment

11. The development of Internet of Things (IoT) services and applications is becoming popular worldwide. Taking into account views

and comments from the industry, the CA approved the creation of a new Wireless IoT Licence for the establishment, maintenance and operation of wireless networks and systems for the provision of wireless IoT services in Hong Kong based on Low Power Wide Area Network technologies operating in the 920 – 925 MHz frequency band on 1 December 2017. As at 31 March 2019, three Wireless IoT Licences have been granted by the CA. In addition, to facilitate the deployment of wireless IoT services in Hong Kong, a new fee component for wireless IoT services provided by MNOs under their current UCLs, at \$200 for each 100 wireless IoT devices used by customers, was introduced under the Telecommunications (Carrier Licences) Regulation (Cap. 106V) with effect from 31 January 2019. This is pitched at the same level as the wireless IoT device fee under the Wireless IoT Licence.

12. To cope with the problem of the shortage of numbers for mobile services, the CA decided on 24 June 2016 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. 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. 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. 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 launch of new IoT services and 5G services in the near future.

13. Public payphone service is a form of basic telephone service which the universal service provider (USP) is required under its universal service obligation (USO) to provide. 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 have embarked on a public engagement exercise since July 2017 with the relevant stakeholders, including site owners for in-building type public payphones and District Councils for kiosk type public payphones, with a view to determining the reasonable number of public payphones that should be subject to the USO. We will continue with

the public engagement exercise and target to complete the review by end 2019.

(8) Regulation of Broadcasting Services and Equipment

14. Pursuant to a referral made by the Securities and Futures Commission in May 2017 on matters relating to the shareholding structure of Television Broadcasts Limited (TVB), we assisted the CA in reviewing the regulatory issues relating to the shareholding change applications submitted by TVB in 2015 and 2016. The CA completed its review and announced its decisions in September 2019. The CA requested the relevant parties to provide the CA with statutory declarations and deeds of undertaking to ensure that the person exercising control of TVB complied and will continue to comply with the relevant provisions of the BO. With these actions taken, the CA revoked the approvals previously granted to TVB for the 2015 and 2016 applications, but approved at the same time a new application covering the changes in shareholding structure of TVB in 2015 and 2016.

15. Since the launch of 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. With the assignment of broadcasting spectrum to HKTVE as an additional means of transmission, on top of its fixed network, to provide DTT services from 2 April 2016, we will continue to work with TVB and HKTVE to improve the reception in the few areas in Hong Kong where reception problems are identified.

16. In view of the DTT penetration rate, DTT coverage and the arrangement for realisation of digital dividend in Hong Kong, the Government announced on 11 February 2019 that analogue television services will be switched off (ASO) on 30 November 2020. The Government also planned to make available a total 160 MHz of spectrum in the 600/700 MHz bands for mobile services after ASO. We will coordinate with the Mainland authorities on the use of spectrum in the 470 – 806 MHz band after ASO and liaise with the relevant TV broadcasters on the relocation of DTT frequency channels in order to vacate the spectrum in the 600/700 MHz bands. We will also provide technical support to CEDB in the implementation of ASO.

(II) Normal Tasks/Projects

(1) Regulation of Telecommunications Services and Equipment

17. In 2018, six replacement UCLs were issued to existing licensees for the provision of internal and external fixed telecommunications services. We will continue to provide support to the CA in handling UCL applications and licence administration matters.

18. Following our issue of the guidelines on mitigating the risk of gas explosion in telecommunications manholes in June 2010, fixed operators with manholes installed in public streets are required to follow the guidelines in conducting inspections and implementing mitigation measures on their manholes in public streets. These mitigation measures are found to be effective in preventing gas explosion in telecommunications manholes. In order to further reduce the risk of gas explosion in telecommunications manholes, the guidelines were revised in July 2016 to require the operators to implement the mitigation measures for all the telecommunications manholes, irrespective of their internal volumes, in accordance with the schedules specified in the guidelines. We will continue to monitor the implementation work of the operators in accordance with the requirements set out in the guidelines.

19. Local Assisted Access (LAA) is a technology which allows mobile operators to make use of the 5 GHz shared band, currently used for Wi-Fi services, for delivering mobile services so as to achieve a higher data rate or to offload data traffic from their mobile networks. On 4 June 2018, the CA announced its decision to make available the 5 GHz Shared Band for the provision of public mobile services on a shared basis, as well as the associated regulatory and licensing regime, following the completion of public consultation conducted in February 2018. Since then, three MNOs have been authorised to use the 5 GHz Shared Band on a shared basis to provide public mobile services through necessary amendments to their UCLs, and one of them has already launched commercial LAA network in August 2018. We will continue to support the CA to review the licensing regime with a view to facilitating market development.

20. The CA issued a Code of Practice on the Cessation Arrangements for mobile virtual network operators (MVNOs) Services which became effective as from 28 October 2017. The Code of Practice sets out the requirements to ensure that MVNOs and their hosting MNOs would manage service cessation arrangements in a better co-ordinated

manner and that a reasonable advance notice will be provided to affected service subscribers and the general public before any service cessation by a MVNO. In order to safeguard the MVNOs' commitment to comply with the Code of Practice, MVNOs are imposed a performance bond requirement by the CA to secure the payment of any financial penalty due to contravention of licence obligation on compliance with the Code of Practice. OFCA will continue to monitor the effectiveness of the Code of Practice and other administrative measures implemented earlier to strengthen the regulation of MVNO services.

21. The CA has reviewed the existing Code of Practice on the Verification of the Addresses of Potential Customers for Mobile Telecommunications Services and decided to issue a revised Code of Practice which has become effective as from 29 December 2018. The revised Code of Practice provides practical guidance to mobile service providers in respect of the verification of the addresses of potential customers with enhancements to cater for the evolving industry practices such as online transactions for mobile service subscriptions.

22. 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.

23. 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 2019, 22 295 residential buildings were registered with the scheme, representing about 85% of the total number of households in Hong Kong. 1 668 non-residential buildings were also registered with the scheme. We will continue to encourage participation of industry players.

24. 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.

25. As at 31 March 2019, a total of 31 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.

26. 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.

27. Since the implementation of the number fee regime in August 2008, as at 31 March 2019, a net amount of 7.56 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.

28. Telecommunications licensees holding telephone numbers for the provision of fixed and mobile telephone services are required to pay universal service contribution (USC) to the universal service provider for the net cost of meeting the USO. The last review of the level of USC for the year 2017 was completed with the results promulgated in December 2018. We will continue to calculate the USC in a fair, reasonable and efficient manner, and promulgate the calculated USC levels on a regular basis.

29. 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 will extend the system to cover other private telecommunications licences in 2019.

30. We commissioned an independent third party to design, establish, operate and support a broadband speed test system in Hong Kong which enables and facilitates end users of fixed and mobile broadband services to test the performance of their broadband services. This test system sets a dedicated reference for local measurement and demonstration purposes. The system was launched in December 2010 and upgraded over the years to enhance its performance and functionalities. As of 31 March 2019, an accumulated total of more than 87 million tests were performed with an average daily hit rate of 28 907. We will continue to monitor the

system performance and improve it taking into account market developments.

(2) Facilitating Infrastructure Rollout

31. 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 one new domestic submarine cable system have already come into operation in Hong Kong since 2013. Five other new regional and transcontinental systems are under planning or construction and will be put into service in Hong Kong between 2019 and 2021. In addition, two new domestic submarine cables that will link up Tseung Kwan O and Siu Sai Wan are also under planning. We will continue to provide the service to facilitate the landing of new submarine cables in Hong Kong.

32. In tandem, we will continue to facilitate mobile operators to roll out their mobile broadband services by deployment of the hill-top sites and Government buildings in remote areas.

33. We have coordinated with the operators and liaised with the relevant Government departments and the Mainland authorities on the operators' proposals of utilising new cross-boundary infrastructures, such as the Hong Kong-Zhuhai-Macao Bridge for installation of cross-boundary optical fibre cables to increase the capacity and enhance the diversity of their cross-boundary facilities. We will continue to coordinate the matter with the parties concerned.

(3) Facilitating Access

34. 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.

35. The CE in C formally granted a free TV licence to Fantastic Television Limited (Fantastic TV) in May 2016. As of March 2019, we have approved the use of the In-building Coaxial Cable Distribution Systems of Hong Kong Cable Television Limited to deliver Fantastic TV's free TV service in 16 695 buildings. We will continue to render support and assistance to Fantastic TV to facilitate its access to buildings for the

installation of in-building telecommunications facilities for the conveyance of its services.

(4) Spectrum Management

36. 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.

37. Spectrum to be used by or on behalf of the Government is managed administratively by OFCA. We completed in early 2017 the third review of the efficiency of the spectrum used by the Government and posted our findings on our website. The next review will be conducted in 2019-20. In the meantime, 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.

38. We installed a radio monitoring and direction finding system for our Radio Monitoring Unit back in 2001 to assist us in performing the radio monitoring and radio frequency interference investigations in Hong Kong. As the system has reached the end of its serviceable life, there is a need to procure a replacement system. The Government Logistics Department issued a tender for the supply of a spectrum monitoring system to OFCA in September 2017. The tender was awarded to the successful bidder in July 2018. Implementation of the new spectrum monitoring system is in progress.

(5) Regulation of Broadcasting Services and Equipment

39. We will continue to monitor the performance of the broadcasting licensees and ensure their compliance with the relevant legislation and licence conditions.

40. All broadcasting licensees are required to observe the relevant codes of practice issued by the CA. By virtue of the Charter of Radio Television Hong Kong 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.

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

42. 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

43. The CO commenced full operation on 14 December 2015. 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, whilst the competition provisions in the BO and the TO have been repealed subject to transitional arrangements. 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

44. The UEMO has been in operation since December 2007. We will continue to maintain the Do-not-call Registers (DNCs) 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.

45. 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

46. 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.

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

48. 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.

49. 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 Guangdong with respect to the cross-border provision of telecommunications services in the Mainland by Hong Kong service suppliers.

50. 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

51. 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.

52. 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.

53. We will continue to monitor the electrical safety and the radiation exposure limit of uncertified mobile phones placed on the market. In 2018, we commissioned a laboratory to conduct measurement of the Specific Absorption Rate (SAR) for 20 uncertified mobile phones. The test indicated that the SAR values of all the 20 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

54. 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.

55. 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.

56. 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 organise industry and media activities as necessary for effective communication.

(11) Consumer Protection

57. 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.

58. 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.

59. In order to enhance transparency of the service level of the mobile broadband service market, mobile operators publish the 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.

60. 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.

61. We will continue to monitor the effectiveness of the various consumer protection measures adopted, and engage the industry where necessary to seek to improve the 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

62. 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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