



通訊事務管理局
COMMUNICATIONS
AUTHORITY

2022-23

**ANNUAL 年
REPORT 報**



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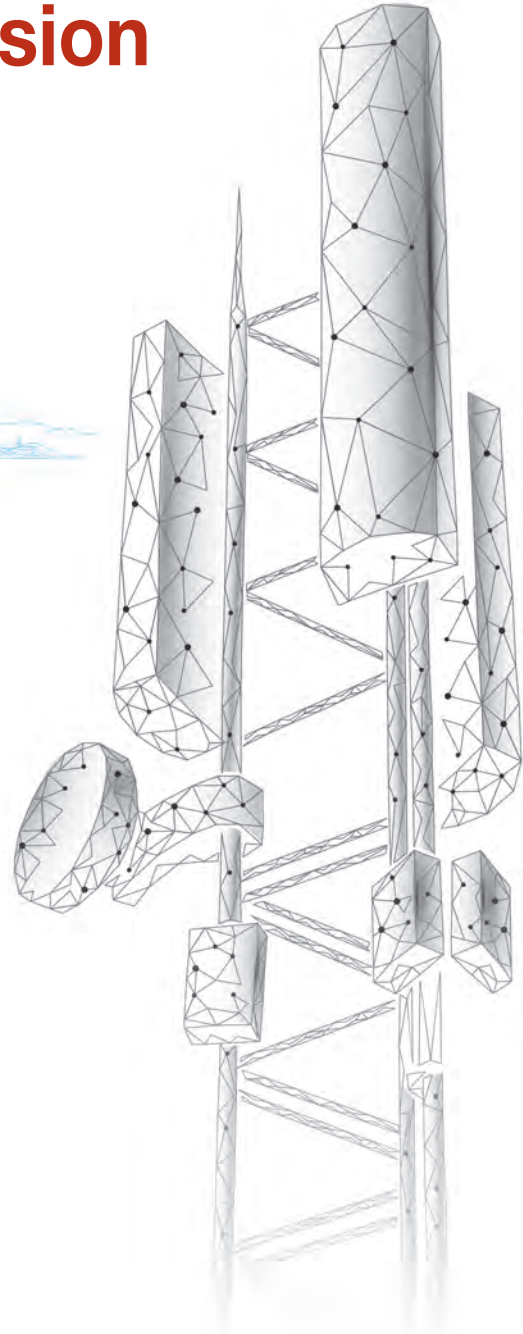
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Glossary

CHAPTER 1 Vision and Mission

VISION

Our vision is that Hong Kong has the world-class communications services to meet the challenges of the information age.



MISSION




Fostering an environment that supports a vibrant communications sector to enhance Hong Kong's position as a communications hub in the region;

Encouraging innovation and investment in the communications market; and

Promoting competition and adoption of best practices in the communications market for the benefit of the industry and consumers.



CHAPTER 2 Chairman's Message

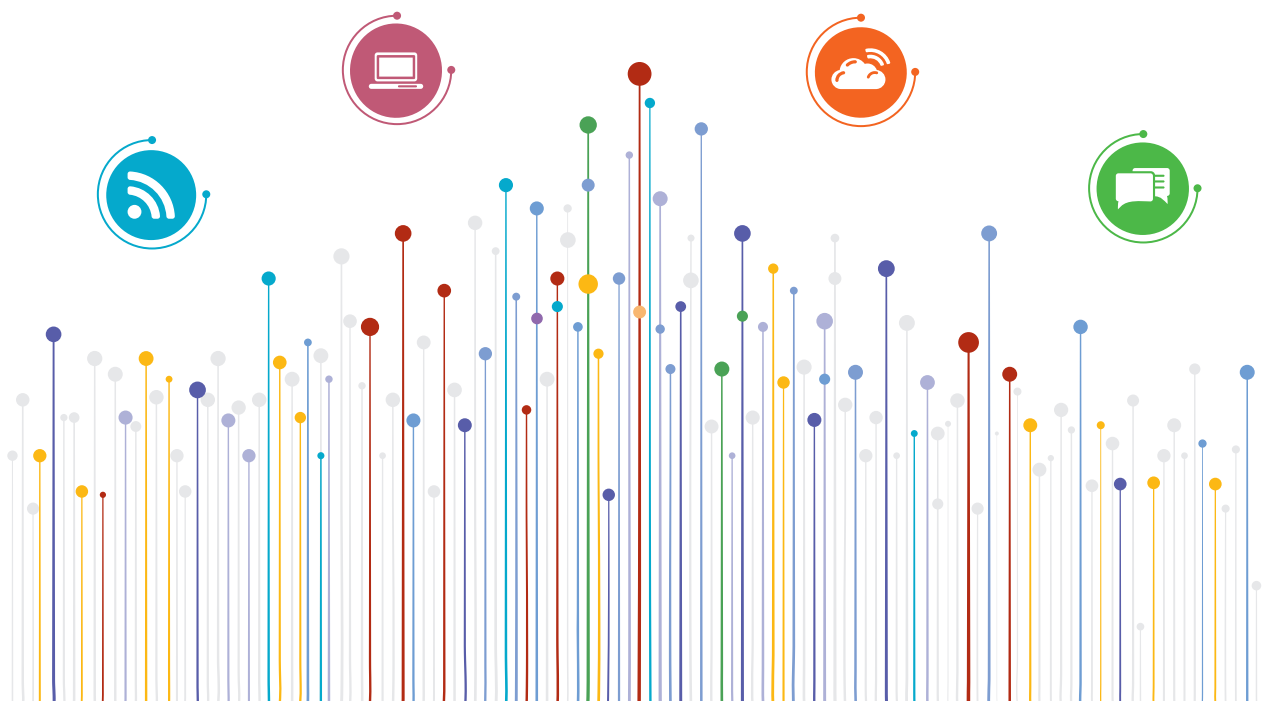


It is my great pleasure and honour to present this report of the Communications Authority (the Authority), which provides a detailed account of the tasks undertaken by the Authority for the year ending 31 March 2023 and the challenges ahead.

A VIBRANT BROADCASTING MARKET

The broadcasting sector in Hong Kong continues to be vibrant and versatile, with 14 free-to-air digital television channels and 14 radio channels provided by various commercial broadcasters and the public service broadcaster, Radio Television Hong Kong (RTHK), as well as about 800 local and overseas television programme channels in various languages available through free-to-air terrestrial and satellite reception or pay television services. Hong Kong is also situated at a strategic location for uplinking satellite television services to the Asia Pacific region, currently with nine non-domestic television programme service (non-domestic TV) licensees providing more than 130 satellite television programme channels for audience in the Asia Pacific region.

On the broadcasting front, the Chief Executive in Council (CE in C) accepted and endorsed the Authority's recommendations on the mid-term review of the domestic free television programme service (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 (CRHK) and Metro Broadcast Corporation Limited (Metro) in February 2023. The recommendations cover a variety of aspects of the licensed services of the relevant broadcasters with a view to encouraging further investment in the industry, including the relaxation of the designated language requirements and refinement of the programme requirements (such as increase in local productions, provision of subtitling and sign language, and enhancement of positive programmes) for the interest of the viewing/listening public. The Authority's recommendations as endorsed by the CE in C have been implemented by way of licence amendments and directions by the Authority. We believe that these adjustments can ensure that the broadcasting services of the five licensees would continue to meet public expectation and needs of the licensees to deliver their broadcasting services in the remaining licence periods.



Chairman's Message

Following the CE in C's approval of the application for the termination of the domestic pay television programme service (pay TV) licence of Hong Kong Cable Television Limited (HKCTV) in February 2023, the Authority had actively followed up with HKCTV to ensure its proper implementation of the committed exit arrangements and relevant technical adjustments during the period leading to the cessation of HKCTV's pay TV service on 1 June 2023, with a view to protecting customer rights and the interest of the viewing public at large. HKCTV's exit arrangements were smoothly completed under the Authority's oversight.

RAPID GROWTH OF THE TELECOMMUNICATIONS MARKET

Amidst the COVID-19 pandemic during the year under review, Hong Kong's telecommunications market continued to flourish. By March 2023, the number of mobile subscriptions reached 21.6 million and over 99% of them were subscriptions of the third generation (3G), fourth generation (4G) and fifth generation (5G) mobile services. Further to the commercial launch of 5G services since 1 April 2020, 5G mobile subscriptions reached 5.1 million in March 2023, representing a mobile subscriber penetration rate¹ of 68.2%. Mobile network operators (MNOs) and mobile virtual network operators (MVNOs) were offering 4G and 5G services at affordable prices. In March 2023, the monthly mobile data usage further surged to 167 401.4 Terabytes, representing 1.3 times and 1.8 times of the monthly usage over the same period in 2022 and 2021 respectively. The monthly mobile data usage per capita rose to 22 279.5 Megabytes in March 2023, compared with 16 811.4 Megabytes in March 2022 and 12 628.5 Megabytes in March 2021. We expect that 5G services will further boost mobile data usage with the new range of innovative services and applications empowered by 5G. The Authority will continue to introduce necessary measures to facilitate the robust development of the mobile services market.



¹ Calculation of mobile subscriber penetration rate does not include machine type connections.

MAJOR TASKS AND CHALLENGES IN THE COMING YEAR

The broadcasting industry faces significant challenges from competition from the increasingly popular Internet-based media services. There have been changes in the way people receive broadcasting contents – from both traditional broadcasting services as well as online and on-demand services. Having regard to the views and suggestions from the industry and the public, the Authority embarked on a review of its codes of practice, with a view to refining the regulatory regime in order to facilitate the broadcasting licensees in meeting the challenges of the rapidly evolving business environment. The review is expected to be completed within 2023.

On the telecommunications front, following the promulgation of decisions of the Authority and the Secretary for Commerce and Economic Development (SCED) by way of a joint statement on 2 May 2023 on the arrangements for re-assignment of 20 MHz of spectrum in the 850/900 MHz band and 90 MHz of spectrum in the 2.3 GHz band as well as the related spectrum utilisation fee (SUF) upon the expiry of their existing assignment term in May 2026 and March 2027 respectively, the Authority will conduct an auction in 2024 for re-assignment of the spectrum in these bands. Looking ahead, the Authority will also make available new spectrum in the 6/7 GHz band to support the continuous development of 5G and other mobile communications services.

The work that lies ahead will be as diverse and challenging as before. The Authority will continue to do its utmost to foster a conducive environment to support the communications sector.

I would like to extend my gratitude to members of the Authority for their commitment and insightful contribution throughout the year, and to former members and my predecessors for the achievements they made over the years. I would also like to thank colleagues of the Office of the Communications Authority (OFCA) for their dedication and professionalism in supporting the work of the Authority.

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Members of the Communications Authority

(April 2022 – March 2023)



Chairman,
Ms Winnie TAM Wan-chi, SBS, SC, JP
Communications Authority



Vice-Chairman,
Miss Eliza LEE Man-ching, JP
*Permanent Secretary for Commerce and Economic
Development (from 1 July 2022 onwards)*



Vice-Chairman,
Mr Clement LEUNG Cheuk-man, JP
*Permanent Secretary for Commerce and Economic
Development (Communications and Creative Industries)
(until 30 June 2022)*



Members



**Mr Stephen HUNG
Wan-shun**



**Mr Benjamin TANG
Kwok-bun, GBS**



**Prof Karen CHAN
Ka-yin, JP**



**Prof Vincent LAU
Kin-nang**



**Mr Simon WONG
Kwong-yeung, MH**



**Dr Hubert CHAN
Chung-ye, JP**



**Ms Amy FUNG
Dun-mi, MH, JP**



**Mr Patrick LAW
Fu-yuen**



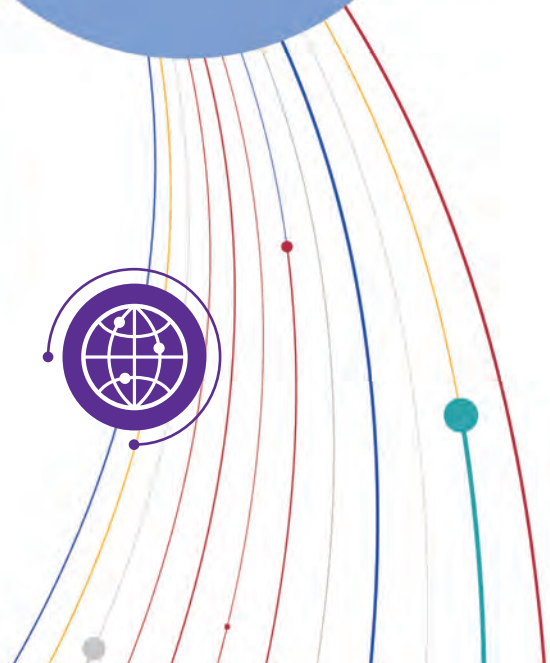
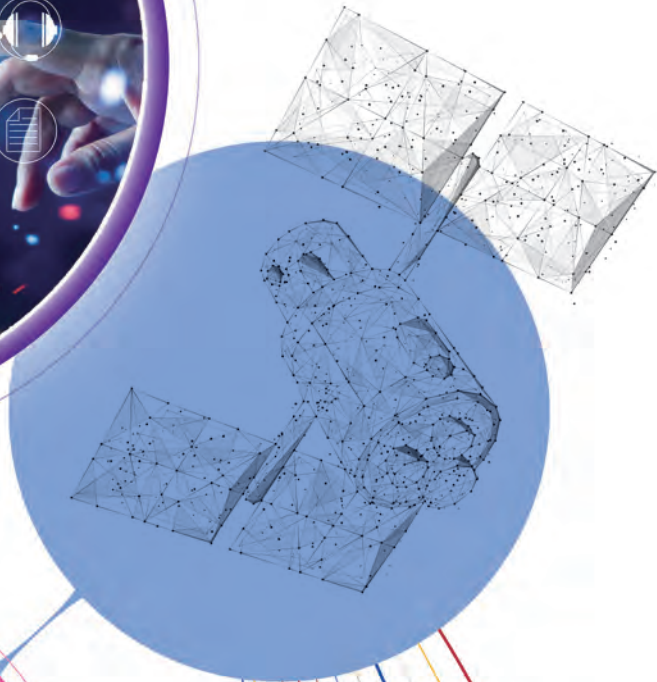
**Prof LEUNG
Siu-fai, MH**



**Mr Chaucer LEUNG
Chung-yin, JP**
*Director-General of
Communications*

CHAPTER
4

Role and Functions of the Communications Authority



THE COMMUNICATIONS AUTHORITY

To meet the regulatory challenges brought about by rapid technological advancements and media convergence, the Authority was established on 1 April 2012 under the Communications Authority Ordinance (Cap. 616) (CAO) as an independent statutory body and took over fully the functions and powers of the former Telecommunications Authority and Broadcasting Authority. Its role is to regulate the broadcasting and telecommunications industries in Hong Kong in accordance with the CAO, the Broadcasting Ordinance (Cap. 562) (BO), the Telecommunications Ordinance (Cap. 106) (TO), and the Broadcasting (Miscellaneous Provisions) Ordinance (Cap. 391) (B(MP)O). It shares concurrent jurisdiction with the Customs and Excise Department (C&ED) in enforcing the fair trading sections of the Trade Descriptions Ordinance (Cap. 362) (TDO), and with the Competition Commission (Commission) in enforcing the Competition Ordinance (Cap. 619) (CO) in the telecommunications and broadcasting sectors. It also has a role to regulate the sending of commercial electronic messages (CEMs) in accordance with the Unsolicited Electronic Messages Ordinance (Cap. 593) (UEMO).



The Authority performs the following functions:

(a) Advisory Function to SCED and the CE in C

- tendering advice to SCED on any legislation, legislative proposals and regulatory policies relating to telecommunications, broadcasting, anti-spamming or activities connected with the telecommunications or broadcasting sectors;
- making recommendations to the CE in C on applications for and renewal of free TV licences, pay TV licences and sound broadcasting licences;

Role and Functions of the Communications Authority

(b) Unified Regulator of the Communications Sector

- granting and renewing non-domestic TV licences and other licensable television programme service (other licensable TV) licences;
- preparing and revising codes of practice setting programme, advertising and technical standards for television and radio;
- dealing with complaints about broadcasting issues and imposing sanctions on the broadcasting operators for contravening the various provisions and requirements;
- handling the licensing, financial monitoring and regulation of broadcasting licensees in Hong Kong;
- granting and renewing telecommunications licences;
- managing and administering the radio frequency spectrum and the telecommunications numbers;
- developing technical standards and conducting broadcasting/telecommunications equipment testing in line with international best practices, and ensuring satisfactory performance of the certification bodies in carrying out certification and testing against the prescribed technical standards;
- facilitating fixed network operators (FNOs) to access buildings to install in-building telecommunications facilities for the conveyance of telecommunications and broadcasting services;
- dealing with complaints about telecommunications services and imposing sanctions on telecommunications operators for contravening the various provisions and requirements;
- handling the licensing, financial monitoring and regulation of telecommunications licensees in Hong Kong;

(c) Competition Authority of the Communications Sector

- enforcing the CO in respect of the conduct of undertakings operating in the telecommunications and broadcasting sectors;

(d) Unfair Trade Practices in the Communications Sector

- enforcing the fair trading sections of the TDO in relation to the commercial practices of licensees for the provision of telecommunications or broadcasting services under the TO or BO; and

(e) UEMO

- enforcing the UEMO on the sending of CEMs.

ORGANISATION

Members of the Authority (except the Director-General of Communications (DG Com) who is an ex-officio member) are appointed by the Chief Executive of the Hong Kong Special Administrative Region. During the period from April 2022 to March 2023, there were a total of 12 members (comprising 10 non-official members, including the Chairman, and two public officers, viz. the Permanent Secretary for Commerce and Economic Development and DG Com).

The Authority has appointed three committees to assist it in discharging part of its major duties:

- the *Broadcast Complaints Committee*;
- the *Broadcast Codes of Practice Committee*; and
- the *Telecommunications Affairs Committee*.

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4**Role and Functions of the Communications Authority**

The **Broadcast Complaints Committee** is responsible for considering complaints about broadcasting issues and making recommendations to the Authority regarding such complaints. During the period from April 2022 to March 2023, it comprised five Authority members and four co-opted non-official members.

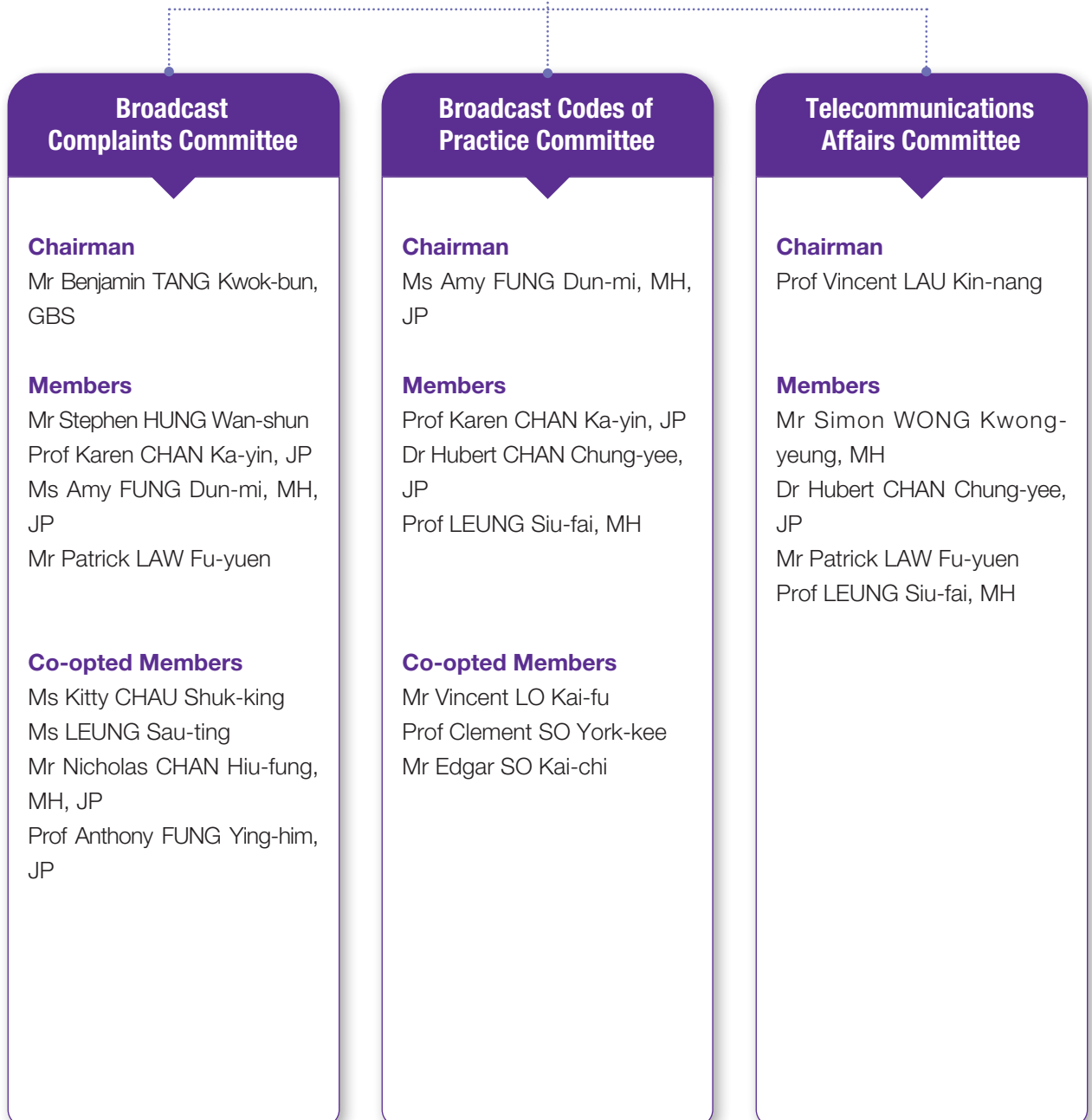
The **Broadcast Codes of Practice Committee** is responsible for keeping the television and radio broadcasting standards under regular review and amending the codes of practice when necessary. During the period from April 2022 to March 2023, it comprised four Authority members and three co-opted members.

The **Telecommunications Affairs Committee** is responsible for offering advice and reporting to the Authority on telecommunications matters. During the period from April 2022 to March 2023, it comprised five Authority members.

The **Office of the Communications Authority** serves as the executive arm and secretariat of the Authority.

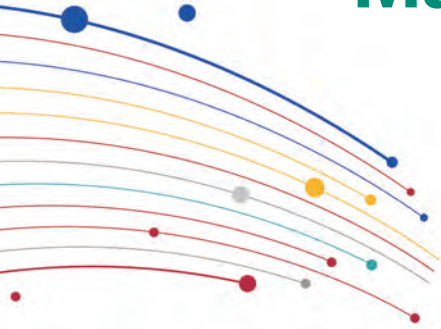
Organisation Chart (1 April 2022 – 31 March 2023)

The Communications Authority



CHAPTER
5

Overview of Major Developments in the Communications Market





BROADCASTING

5.1 An Overview of the Developments in the Broadcasting Market

5.1.1 Number of Licensees and Channels

Television Programme Services

As at March 2023, there were a total of 14 TV licensees, including three free TV licensees², two pay TV licensees³ and nine non-domestic TV licensees. They provided 477 television channels⁴, of which about 60 non-domestic TV channels were receivable in Hong Kong. An overview of the television channels provided by the commercial licensees and RTHK, the public service broadcaster, is shown in **Figure 1**.

Hong Kong implemented full digital TV broadcast on 1 December 2020. As at March 2023, the three **free TV licensees**, viz. Fantastic TV, HKTVE and TVB, provided a total of ten digital channels in high definition television (HDTV) format, viz. “HOY TV”⁵, “Hong Kong International Business Channel” and “HOY Infotainment”⁶ (by Fantastic TV), “ViuTV” and “ViuTVsix” (by HKTVE), and “Jade”, “Pearl”, “J2”, “TVB News Channel” and “TVB Finance, Sports & Information Channel”⁷ (by TVB). RTHK, the public service broadcaster in Hong Kong, provided four digital channels.

2 As at March 2023, the three free TV licensees were Fantastic TV, HKTVE and TVB.

3 As at March 2023, the two pay TV licensees were HKCTV and PCCW Media Limited. On 14 February 2023, the CE in C approved the termination of the pay TV licence of HKCTV with effect from 1 June 2023. Following the cessation of the pay TV service by HKCTV, there will only be one pay TV licensee in Hong Kong (i.e. PCCW Media Limited).

4 Some channels were provided by more than one licensee at the same time.

5 The television programme channel “Hong Kong Open TV” was renamed as “HOY TV” with effect from 18 October 2022.

6 The television programme channel “HOY Infotainment” was launched on 21 November 2022.

7 The television programme channel “TVB Finance & Information Channel” was renamed as “TVB Finance, Sports & Information Channel” with effect from 5 September 2022.



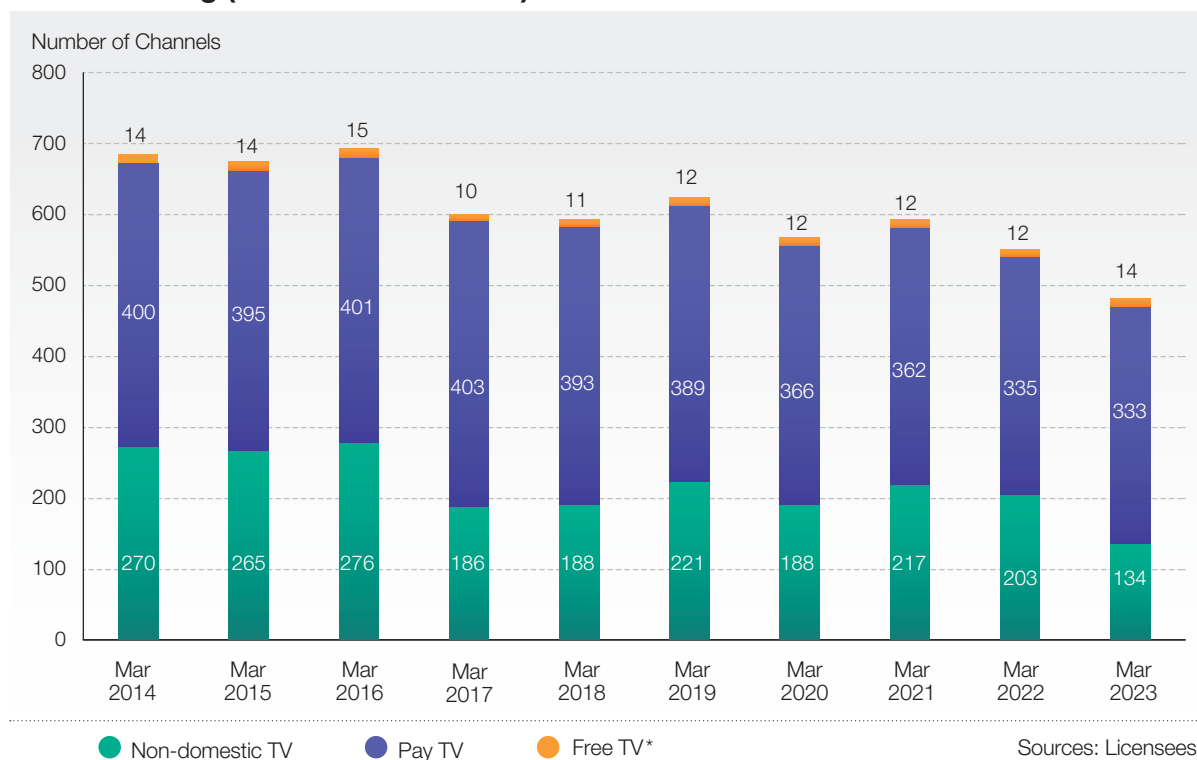
Overview of Major Developments in the Communications Market

As at March 2023, the two **pay TV licensees**, viz. HKCTV and PCCW Media Limited (PCCW Media) provided a total of 333 pay television channels and were offering a diverse range of local and non-local productions. Among those channels, over 120 were HDTV channels.

As at March 2023, there were nine **non-domestic TV licensees** providing more than 130 television channels. Hong Kong viewers could receive about 60 of those channels.

During the period under review, there were 20 **other licensable TV licensees** providing television programme services in more than 50 hotels in Hong Kong.

Figure 1: Television Channels Provided by Commercial Licensees and RTHK in Hong Kong (as at 31 March 2023)



* While some free TV channels were simulcast in both analogue and digital formats during the period of 2014 to 2020, the total number of free TV channels is calculated by reference to the channels broadcast in digital format only.



In addition to satellite television channels provided by non-domestic TV licensees, Hong Kong viewers can also receive free unencrypted satellite television programme channels uplinked from outside Hong Kong. As at March 2023, there were around 500 free-to-air satellite television channels available for reception via the Satellite Master Antenna Television Systems in Hong Kong. A list of these channels is available at http://www.ofca.gov.hk/filemanager/ofca/en/content_295/st_smatv.pdf.



Sound Broadcasting Services

During the period under review, there were two **sound broadcasting licensees**, viz. CRHK and Metro. RTHK, the public service broadcaster in Hong Kong, also provided sound broadcasting service.

As at March 2023, there were a total of 14 radio channels (three by CRHK, three by Metro and eight by RTHK⁸) providing round-the-clock sound broadcasting services to the public.

⁸ The radio programme channel "RTHK CMG/Radio The Greater Bay" was launched on 1 July 2022.



Overview of Major Developments in the Communications Market

5.1.2 Transmission Modes

Television

The regulatory framework for television programme services in Hong Kong as enshrined in the BO is technology-neutral⁹. Licensees are free to choose their transmission arrangements for delivery of television services. Broadcasters may apply for carrier licences from the Authority and build their own transmission networks to deliver their services. Alternatively, they may engage any of the existing carrier licensees to provide the transmission service. Licensees may also provide their television programme services via multiple transmission platforms so as to extend their coverage.

The transmission modes employed by television programme service licensees are set out in **Figure 2**.

Figure 2: Transmission Modes Employed by Television Programme Service Licensees

Licensee	Transmission Mode	Network Coverage (as at March 2023)
Free TV		
Fantastic TV	Terrestrial UHF ¹⁰ , HFC ¹¹ and MMDS ¹²	99% of population ¹³
HKTVE	Terrestrial UHF and Fixed broadband network	99% of population
TVB	Terrestrial UHF	99% of population
Pay TV		
HKCTV	HFC, MMDS and Satellite (Digital)	Around 95% of total households
PCCW Media	PON and DSL ¹⁴ broadband network (Digital)	Around 98% of total households
Non-domestic TV		
8 licensees ¹⁵	Satellite (Digital)	Around 27% of total households ¹⁸
1 licensee ¹⁶	IPLC ¹⁷ and Satellite (Digital)	Around 27% of total households ¹⁸

⁹ An exception is that a service provided on the Internet is exempted from the regulatory framework under the BO.

¹⁰ Terrestrial Ultra High Frequency

¹¹ Hybrid Fibre Coaxial Cable

¹² The Authority approved Fantastic TV's application to cease using Microwave Multipoint Distribution System (MMDS), for transmission of its free TV service with effect from 1 June 2023.

¹³ The coverage of Fantastic TV's spectrum-based free TV service has reached at least 99% of the population by May 2023.

¹⁴ Passive Optical Network and Digital Subscriber Line

¹⁵ The licensees concerned are APT Satellite TV Development Limited, Auspicious Colour Limited, Hong Kong TV International Media Group Limited, One TV Media Global Limited, Phoenix Satellite Television Company Limited, Star China Media Limited, Sun Television Cybernetworks Enterprise Limited and WarnerMedia Asia Pacific (HK) Limited.

¹⁶ The licensee concerned is Starbucks (HK) Limited.

¹⁷ International Private Lease Circuit

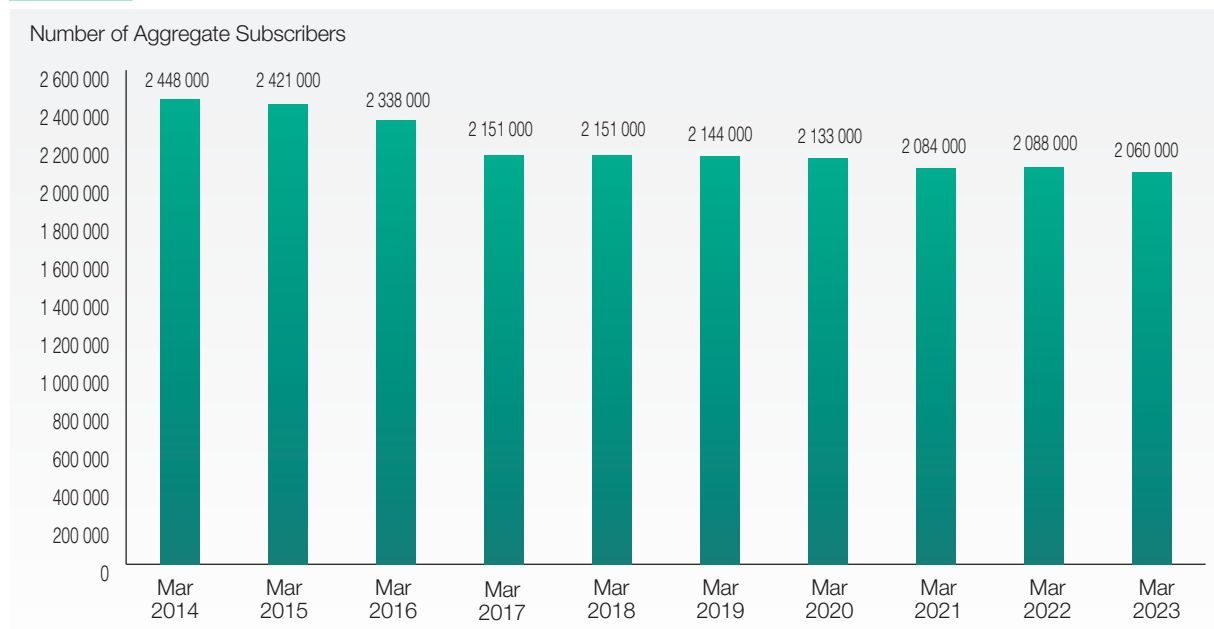
¹⁸ The non-domestic TV services mainly serve viewers in the Asia-Pacific region, Europe and Africa and do not target Hong Kong, but some Hong Kong households (over 700 000) can receive the unencrypted channels.

Penetration of Different Broadcasting Services

The penetration rate of free TV services stood at about 95% of the total households as at end of March 2023¹⁹.

The penetration of licensed pay TV services was about 77%²⁰ of the total households as at end of March 2023. The total number of subscribers to licensed pay TV services stood at about 2.1 million in March 2023²¹. The changes in total number of subscribers from 2014 to 2023 are set out in **Figure 3**.

Figure 3: Subscribers to Licensed Pay TV Services in Hong Kong



Sources: Licensees

Sound Broadcasting

Radio broadcasters in Hong Kong use frequency modulation (FM) and amplitude modulation (AM) transmissions to provide their sound broadcasting services. As at 31 March 2023, eight FM programme channels were provided through seven²² principal transmitting stations, supplemented by two low-power FM fill-in stations, while six AM programme channels were broadcast from two principal transmitting stations, supplemented by five low-power AM/FM fill-in stations. The services practically covered the whole area of Hong Kong.

19 Source: HKTAM Establishment Survey, CSM Media Research

20 Penetration of licensed pay TV services is calculated by dividing the total number of subscribers to licensed pay TV services by the total number of households. Some subscribers were counted more than once if they subscribed to more than one pay TV service.

21 Some subscribers were counted more than once if they subscribed to more than one service.

22 The "RTHK CMG/Radio The Greater Bay" FM programme channel was launched in July 2022 through Mount Gough Transmitting Station and would be broadcast through other transmitting stations in phases by 2024.



Overview of Major Developments in the Communications Market

5.1.3 Broadcasting Revenues and Investment

Licensed broadcasting services contributed an estimated \$7.5 billion²³ to the Hong Kong economy, which represented about 0.3% of the gross domestic product in 2022. There are two main sources of revenues for the provision of broadcasting services, viz. advertising and subscription. The incomes of free TV licensees and sound broadcasting licensees mainly come from advertising sales²⁴. Pay TV licensees, on the other hand, derive their incomes mainly from subscription fees with advertising sales as a secondary income source.

Advertising Revenue

According to research²⁵, television and radio accounted for 9% (about \$2.4 billion) and 4% (about \$1 billion) respectively of the accumulated \$27.1 billion advertising revenues in the entertainment and media industry of Hong Kong in 2022.

In 2022, the actual advertising revenues of HKTVE and TVB were around \$616 million and \$1,178 million respectively. The actual advertising revenues of other licensees were not publicly available.

Subscription Revenue

According to the annual report of HKT Trust and HKT Limited (HKT), the holding company of PCCW Media, the turnover of its pay TV services and related services provided in Hong Kong under the “Now TV” brand was \$2.5 billion in 2022.

The subscription revenue of HKCTV was not publicly available.



²³ Source: Company reports of major broadcasting licensees providing television programme services in Hong Kong

²⁴ These include sales of advertising spots within programme breaks, programme/event sponsorship, product placement as well as related production fees of advertisements and tailor-made content.

²⁵ Source: PricewaterhouseCoopers Global Entertainment and Media Outlook: 2023-2027, www.pwc.com/outlook. All advertising revenues are net spending excluding agency commissions, production costs and discounts.

Investment in Broadcasting Industry



Key investment projects in the television industry in recent years include the digital terrestrial broadcasting network, HDTV content and production technology, interactive television services, and regular network maintenance and upgrades that are required to maintain or expand the ever-advancing scope of services.

Fantastic TV, HKTVE and TVB have respectively committed to investing a total of \$1.3 billion for the six-year period from 2022 to 2028, \$2.2 billion for the six-year period from 2021 to 2027 and \$6.6 billion for the six-year period from 2022 to 2027 for the provision of free TV services. Investment commitments of Fantastic TV, HKTVE and TVB comprise capital expenditures and programming expenditures. As at March 2023, Fantastic TV, HKTVE and TVB provided 504, 290 and 832 hours of HDTV programmes per week respectively. Fantastic TV and TVB also provided 182 and 1 178 hours of independent local productions in their programming respectively in 2022 according to their commitments.



As regards the pay TV market, i-CABLE Communications Limited, the parent company of HKCTV, reported in its 2022 Annual Report that the capital expenditure of the group decreased from \$120 million in 2021 to \$114 million in 2022. Its major items of investment included property, plant and equipment. According to the 2022 Annual Report of HKT, the holding company of PCCW Media, the capital expenditure of

the group was around \$2,346 million in 2022. Its major items of investment included property, plant and equipment, and interests in leasehold land.

On the sound broadcasting side, CRHK and Metro have committed to investing \$549 million and \$561 million respectively for the six-year period from 2022 to 2028 covering production of radio programmes and upgrading of transmission facilities and equipment in order to provide better sound quality and to enhance station coverage and efficiency of the radio production.



Overview of Major Developments in the Communications Market

5.1.4 Programme Variety and Positive Programme Requirements

(a) Programme Variety and Diversity

Number of Broadcast Hours and Hours of Station Productions

As at March 2023, the licensees broadcast about 64 652 hours of television programmes a week. The ten digital channels of Fantastic TV, HKTVE and TVB provided a total of 1 632 broadcast hours per week, while the 333 channels of the two pay TV licensees provided a total of 53 108 broadcast hours per week. As a public service broadcaster, RTHK provided 672 hours per week on its four digital channels. About 60 channels of non-domestic TV licensees receivable in Hong Kong provided about 9 900 broadcast hours per week.

The total broadcast hours per week provided by CRHK, Metro and RTHK as at March 2023 were 2 352.

During the period under review, there were a total of 35 641 hours of station productions broadcast on Fantastic TV, HKTVE and TVB. Of the 333 channels provided by pay TV licensees, 67 channels (20.1%) were produced by the licensees themselves.

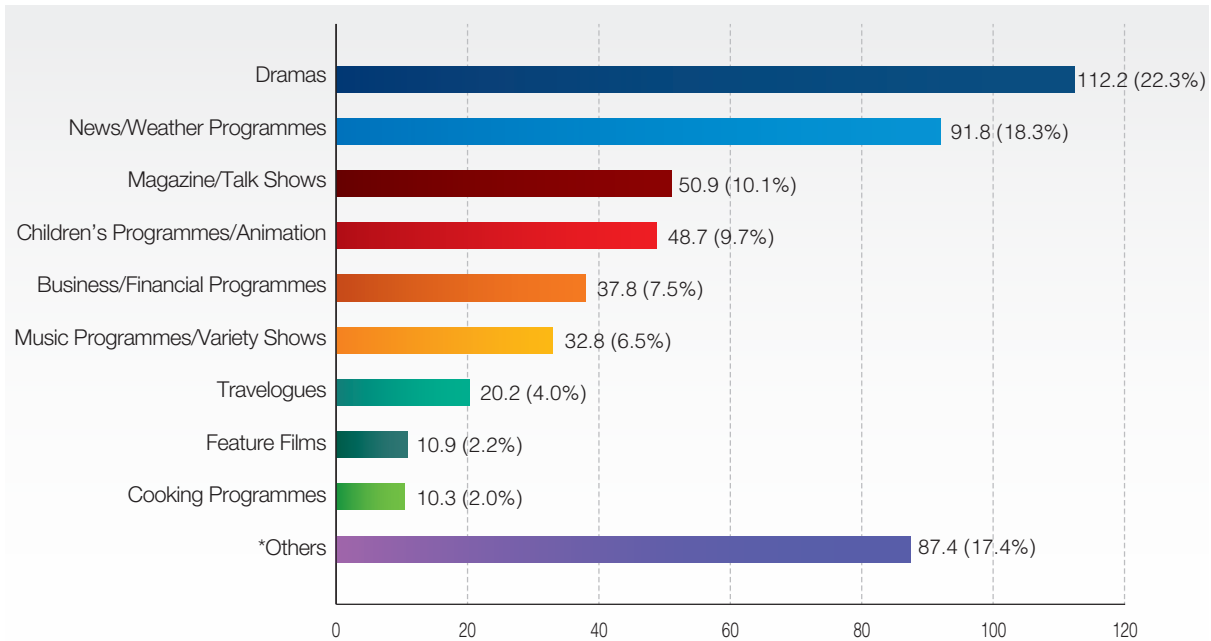


Free TV Services

Chinese and English Channels

During the period under review, drama series (22.3%) and news/weather programmes (18.3%) continued to be the dominant programme genres during prime time on the Chinese channels (viz. “HOY TV”, “Jade” and “ViuTV”). Drama series on “Jade” were mostly in-house productions; while “HOY TV”, “Jade” and “ViuTV” broadcast Mainland, Korean and Japanese drama series. In addition, magazine/talk shows (10.1%), children’s programmes/animation (9.7%), business/financial programmes (7.5%), music programmes/variety shows (6.5%), travelogues (4.0%), feature films (2.2%) and cooking programmes (2.0%), etc. were also broadcast during prime time on the Chinese channels. The four channels provided by RTHK presented a variety of programmes to not only serve a broad spectrum of audiences, but also cater for the needs of minority interest groups.

Figure 4: Weekly Hours of Different Types of Programmes Broadcast on HOY TV, Jade and ViuTV (as at March 2023)



* Other programmes include current affairs programmes, sports programmes and health/medical programmes, etc.

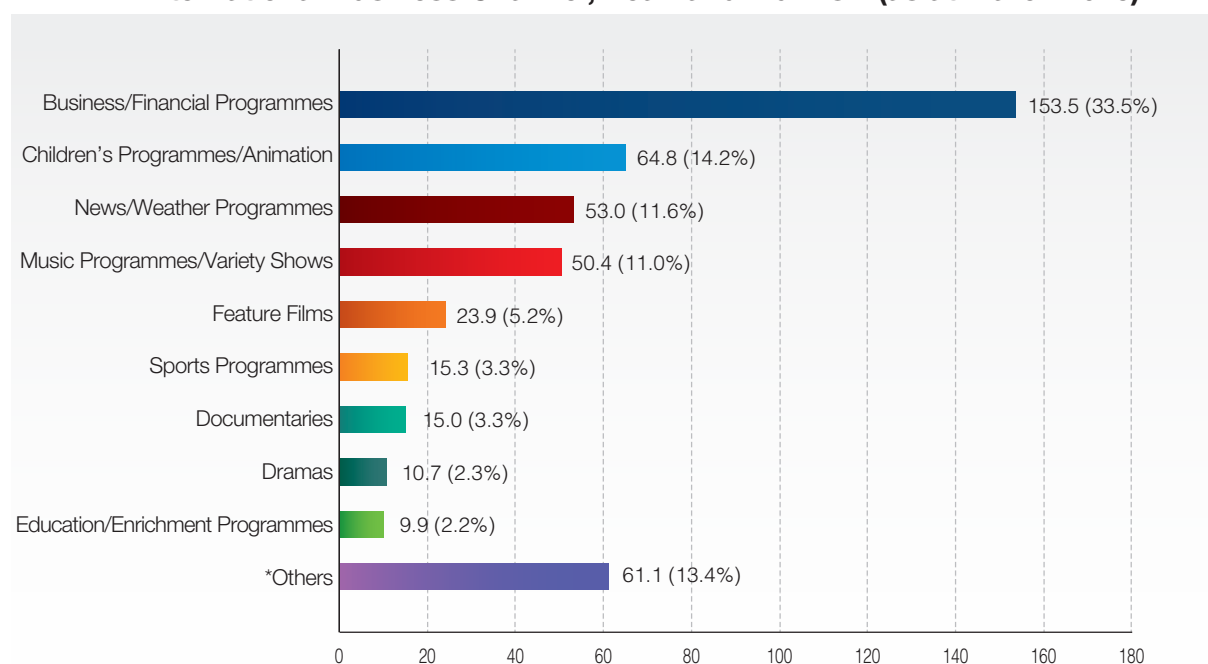
Weekly Total: 503 Hours
Sources: Licensees

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Overview of Major Developments in the Communications Market

The English channels (viz. “Hong Kong International Business Channel”, “Pearl” and “ViuTVsix”) broadcast a wide range of programmes, including business/financial programmes (33.5%), children’s programmes/animation (14.2%), news/weather programmes (11.6%), music programmes/variety shows (11.0%), feature films (5.2%), sports programmes (3.3%), documentaries (3.3%), imported popular drama series (2.3%) and education/enrichment programmes (2.2%).

Figure 5: Weekly Hours of Different Types of Programmes Broadcast on Hong Kong International Business Channel, Pearl and ViuTVsix (as at March 2023)



* Other programmes include current affairs programmes, sports programmes and health/medical programmes, etc.

Weekly Total: 457.6 Hours
Sources: Licensees

Thematic Channels

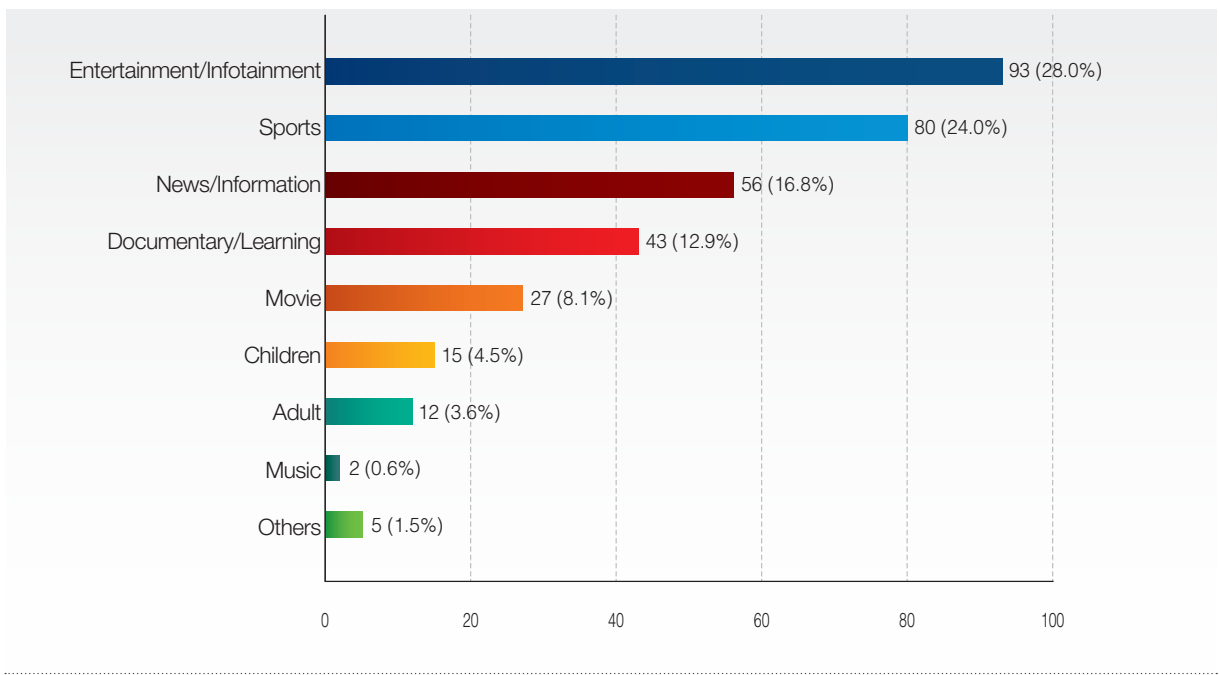
During the period under review, TVB provided acquired dramas, documentaries, variety shows, news, financial information programmes, etc. on “J2”, “TVB News Channel” and “TVB Finance, Sports & Information Channel”. Fantastic TV provided news, financial information, sports and infotainment programmes on “HOY Infotainment” since its launch in November 2022.



Pay TV Services

During the period under review, a great variety of channels were offered on pay TV services, including entertainment/infotainment channels (28.0%), sports channels (24.0%), news/information channels (16.8%), documentary/learning channels (12.9%), and movie channels (8.1%).

Figure 6: Nature of Pay TV Channels (as at March 2023)



Total Number of Channels: 333
Sources: Licensees

As at March 2023, HKCTV offered 124 channels (including 42 HDTV channels). PCCW Media’s “Now TV” service offered 141 channels (including 85 HDTV channels) and 68 video-on-demand services.

CHAPTER 5

Overview of Major Developments in the Communications Market

Sound Broadcasting

As at March 2023, CRHK operated two FM Cantonese channels, viz. “CR1” and “CR2”, and one AM English channel, viz. “AM 864”. “CR1” mainly provided news, current affairs, financial and personal view programmes. “CR2”, targeting younger listeners, featured pop culture and music programmes. “AM864” was primarily a music channel.

Metro operated two FM Cantonese channels, viz. “Metro Finance” and “Metro Info”, and one AM English channel, viz. “Metro Plus”. “Metro Finance” provided real-time, market-moving news and information on financial markets around the world. “Metro Info” provided music and programmes on lifestyle, health, market news and other information of interest to the public. “Metro Plus” was primarily a music channel which also provided some programmes for ethnic groups including the Filipino, Indian and Thai communities in Hong Kong.



RTHK operated eight radio channels, providing Cantonese, English and Putonghua services. It offered a variety of thematic channels ranging from information to general entertainment and culture.

(b) Positive Programme Requirements

Free TV Services

During the period of 1 April 2022 to 13 February 2023, free TV licensees (viz. Fantastic TV, HKTVE and TVB) were respectively required to broadcast at least 38, 41.5 and 45.5 hours of positive programmes²⁶ per week. They all met the stipulated requirements²⁷.

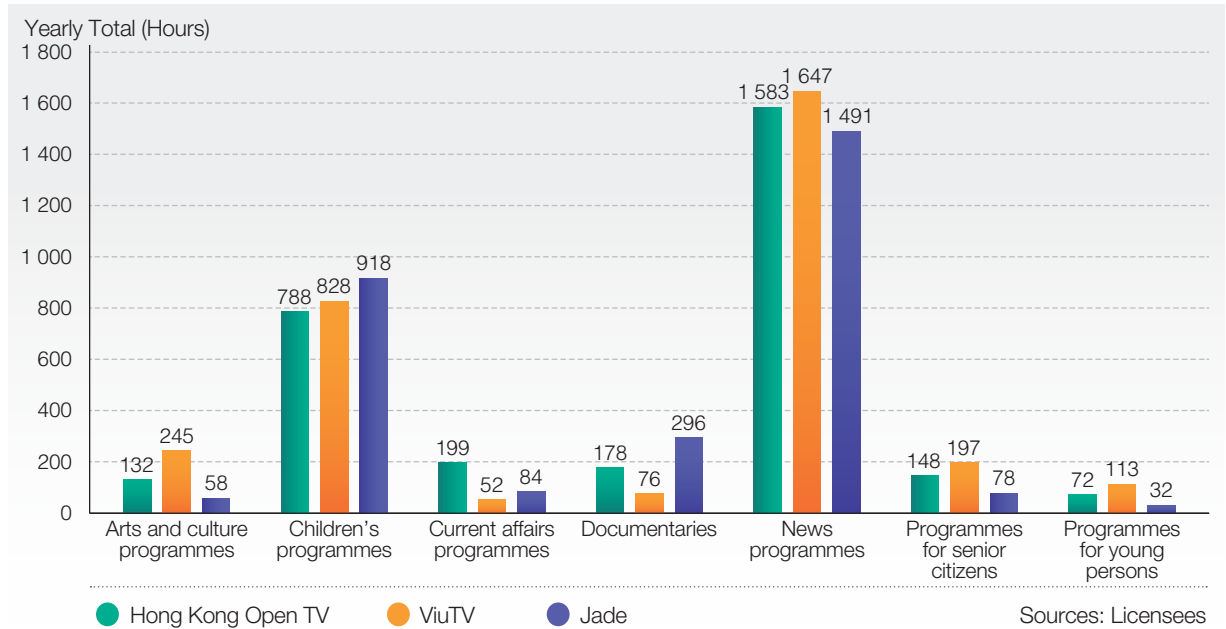
The reports submitted by the licensees to the Authority on six types of positive programmes, viz. current affairs programmes, documentaries, children’s programmes, programmes for young persons, programmes for senior citizens, and arts and culture programmes, are available at https://www.coms-auth.hk/en/licensing/broadcasting/compliance_reports/index.html.

²⁶ During the period of 1 April 2022 to 13 February 2023, the positive programmes that Fantastic TV, HKTVE and TVB were required to broadcast comprised news, current affairs programmes, documentaries, arts and culture programmes, children’s programmes and programmes for senior citizens and young persons.

²⁷ TVB was required to broadcast at least 45.5 hours of positive programmes per week, including four hours of positive programmes per week on its thematic channels (viz. “J2”, “TVB Finance, Sports & Information Channel” and “TVB News Channel”). HKTVE was required to broadcast at least 41.5 hours of positive programmes per week.

Upon the use of spectrum as an additional means of transmission from 1 April 2022, Fantastic TV was required to broadcast at least 38 hours of positive programmes per week. Fantastic TV was allowed to progressively increase the broadcast of positive programmes to at least 41.5 hours per week by May 2023.

Figure 7: Broadcast of Positive Programmes on the Chinese Channels of Fantastic TV, HKTVE and TVB (as at March 2023)



Free TV licensees were required to provide Chinese subtitles for all news, current affairs programmes, weather programmes and emergency announcements, as well as programmes broadcast during prime time (7:00 p.m. to 11:00 p.m.) on the Chinese channels²⁸. They were also required to provide English subtitles for all news, current affairs programmes, weather programmes, emergency announcements and educational programmes for teenagers (two hours per week) on the English channels. HKTVE and TVB were required to provide Chinese subtitling for all drama programmes on the Chinese channels and English subtitling for all programmes broadcast on the English channels between 8:00 p.m. and 11:30 p.m.²⁹. On the whole, Fantastic TV, HKTVE and TVB complied with the requirements on the provision of subtitles.

To meet public demand for easier access to information by persons with hearing impairment, the Authority issued a direction requiring TVB to provide sign language interpretation, in addition to subtitles, for a Cantonese news programme broadcast on its “Pearl” channel each day. TVB fulfilled this requirement.

28 TVB was also required to provide, on its thematic channels, Chinese subtitles for all news, current affairs programmes, weather programmes and emergency announcements as well as programmes broadcast during prime time.

29 Upon the use of spectrum as an additional means of transmission from 1 April 2022, Fantastic TV was allowed to step up incrementally the subtitling service with a view to covering all programmes broadcast on the integrated English channel on the relevant timeslot by May 2023, on par with the subtitling requirements applicable to HKTVE and TVB.

CHAPTER 5

Overview of Major Developments in the Communications Market

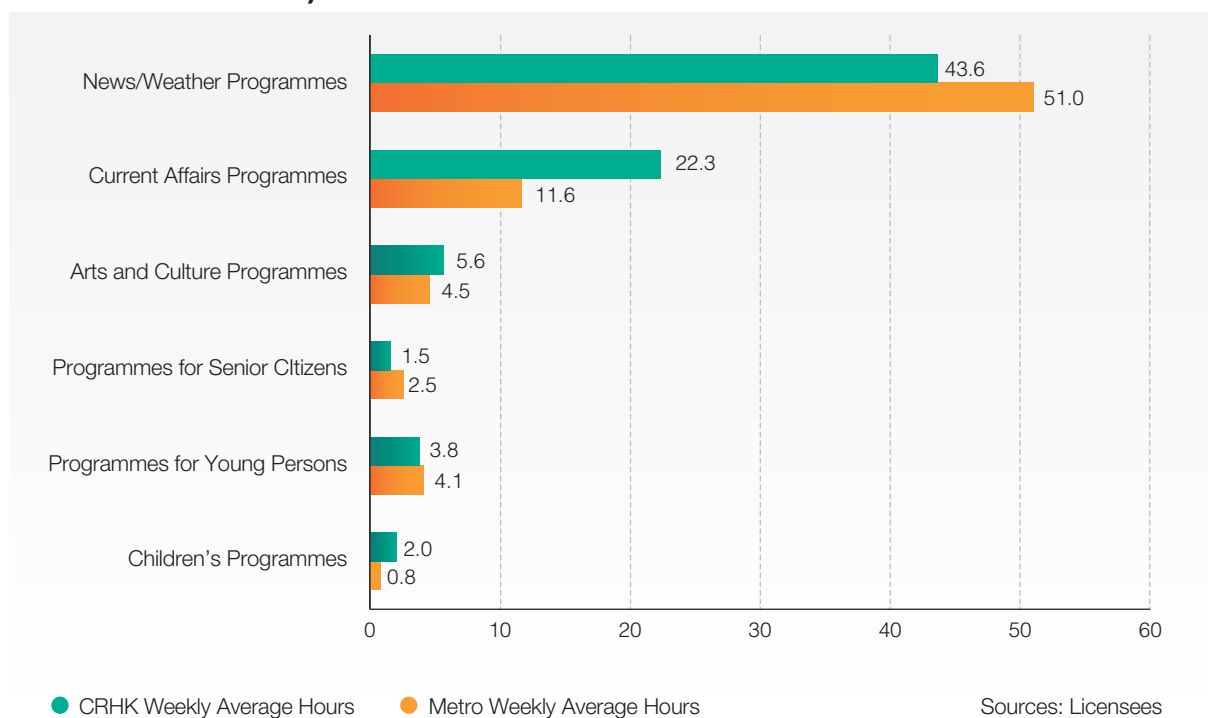
Pursuant to licence requirements, Fantastic TV, HKTVE and TVB were required to broadcast two minutes of Announcements in the Public Interest (APIs) in every two clock hours on each channel. Also, they were required to broadcast, on a weekly basis, not more than five minutes in aggregate of publicity material for the Authority on each of the Chinese and English integrated channels³⁰. During the period under review, Fantastic TV, HKTVE and TVB broadcast a total of 1 358 hours of the two types of materials.

Sound Broadcasting

During the period of 1 April 2022 to 13 February 2023, CRHK and Metro were each required to broadcast at least 28.5 hours of positive programmes³¹ per week under their respective licences. CRHK and Metro broadcast the required amount of positive programmes.

CRHK and Metro also fulfilled the requirements on the broadcast of one minute of APIs in each hour and not more than five minutes of publicity material for the Authority each week on each service channel. The reports submitted by the licensees to the Authority on positive programmes are available at https://www.coms-auth.hk/en/licensing/broadcasting/compliance_reports/index.html.

Figure 8: Broadcast of Positive Programmes on Sound Broadcasting Services (as at March 2023)



³⁰ For the three thematic channels of TVB, they were required to broadcast two minutes of publicity material for the Authority per week. For the thematic channel of Fantastic TV, the licensee was required to comply with its commitment of broadcasting five minutes of publicity material for the Authority per week.

³¹ CRHK and Metro were required to broadcast news and weather programmes, current affairs programmes, arts and culture programmes, programmes for young persons, senior citizens and children, in their respective sound broadcasting services.

Subsequent Developments

On 14 February 2023, the CE in C endorsed the Authority's recommendations on the mid-term review of three free TV and two sound broadcasting licences. First and foremost, the Authority considered it incumbent upon free TV and sound broadcasting licensees in Hong Kong to raise public awareness of the importance of national security and engender in them a sense of citizenship and national identity through their broadcast services and programmes, and to promote youth development. In this connection, the Authority recommended and the CE in C approved that free TV and sound broadcasting licensees shall broadcast no less than 30 minutes per week of programmes to positively promote national education, national identity and Hong Kong National Security Law under the category "current affairs" on top of the existing required broadcast hours. Free TV licensees shall also double the existing broadcast hours of programmes for "young persons" to promote youth development. In addition to the above, the CE in C also endorsed a number of recommendations to refine various programme requirements (such as provision of subtitling³² and sign language³³ by free TV licensees).

To give the licensees adequate preparation time, the Authority requested that the new programme requirements should be fully implemented by the third quarter of 2023.

5.1.5 Hong Kong as a Regional Broadcasting Hub

Hong Kong is a broadcasting hub in the Asia-Pacific region. As at March 2023, there were nine non-domestic TV licensees operating in and broadcasting from Hong Kong. Altogether, they offered more than 130 satellite television channels serving viewers in the Asia-Pacific region, Europe and Africa, with about 60 channels receivable in Hong Kong. A summary of the non-domestic TV services as at March 2023 is at **Annex 1**.

32 To align the two time periods requiring the provision of subtitles for all programmes on the integrated Chinese and English channels to 7:00 p.m. to 11:00 p.m.

33 To apply the sign language requirement to all free TV licensees through including an enabling provision in the licences. As directed by the Authority, all free TV licensees are required to provide sign language interpretation and Chinese subtitles in a comprehensive news bulletin in Cantonese of not less than 25 minutes duration each day between 6:00 p.m. and 12:00 midnight.

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TELECOMMUNICATIONS

5.2 An Overview of the Telecommunications Market

Hong Kong has one of the most sophisticated and advanced telecommunications markets in the world. This has been an important factor in Hong Kong's development as a leading global business and financial centre. The telecommunications sector employed around 19 000 persons in 2022, whilst its gross output amounted to \$108 billion in 2021.

All sectors of Hong Kong's telecommunications market have been liberalised with no foreign ownership restrictions on telecommunications operators. The Authority's objectives are to maintain a level playing field in the open and competitive telecommunications market and to ensure that consumers get the best services available in terms of efficiency, quality and price.

5.2.1 The Telecommunications Regulatory Framework

Carrier Licences

The Authority issues carrier licences to facility-based operators, authorising them to establish and maintain telecommunications networks and facilities which may cross unleased government land and public streets, for the provision of public telecommunications services.

The unified carrier licensing framework has been implemented since 1 August 2008 as the single licensing vehicle for the provision of facility-based fixed, mobile and/or converged telecommunications services in Hong Kong.

A Unified Carrier Licence (UCL) for the provision of local fixed service authorises the licensee to establish and maintain fixed network, wireline-based or wireless-based, or a combination of both where applicable, to provide local telecommunications services between fixed points within Hong Kong. A UCL for the provision of external fixed service authorises the licensee to provide external transmissions and services operated over external facilities such as submarine cable and satellite communications systems. A UCL for the provision of mobile service enables the licensee to provide two-way communications between moving locations or between a moving location and a fixed location in Hong Kong. The issue of new UCL for the provision of mobile service is subject to the availability of radio spectrum for assignment. An operator may apply for a single UCL to provide all the above services.

As at March 2023, there were a total of 58 holders of UCL, providing local fixed services, cable-based external fixed services, non-cable-based external fixed services and/or mobile services.

Public Radiocommunications Service Licences

Services which may be authorised under the Public Radiocommunications Service (PRS) Licence include radio paging, community repeater (trunked radio) services, vehicle location information services, one way data message services, public mobile radio data services and railway signaling services.

As the provision of radiocommunications services requires the assignment of suitable operating frequencies, PRS Licences are granted only when the required radio spectrum is available.

As at March 2023, there were a total of six PRS licensees.

Services-based Operator Licences

Services-based Operators (SBOs) make use of the networks and facilities of other licensed facility-based operators for the provision of public telecommunications services, but they are not authorised to establish or maintain any telecommunications means which cross public streets or unleased government lands.

SBO licence covers three types of services, namely, Class 1 and Class 2 local voice telephony services, and Class 3 services which may include external telecommunications service (ETS), Internet access service, international value-added network service, MVNO service, private payphone service, public radio communications relay service, security and fire alarm signals transmission service, teleconferencing service and mobile communications service on board an aircraft.

As at March 2023, there were a total of 489 SBO licensees.

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Class Licences

The class licensing framework does not require any licence applications. Parties meeting the specified eligibility criteria and conditions (including any registration requirement) automatically become the class licensees, and are required to comply with the conditions set out in the relevant Class Licence as well as the TO. Currently, there are ten types of Class Licences:

- Class Licence for 6 GHz Device
- Class Licence for 60 GHz Device
- Class Licence for 79 GHz Automotive Radar
- Class Licence for Citizens Band Radio Station
- Class Licence for In-building Telecommunications Systems
- Class Licence for Medical Implant Communication System Device
- Class Licence for Short Range Device
- Class Licence for Taxi Mobile Station
- Class Licence for Offer of Telecommunications Services
- Class Licence for Provision of Public Wireless Local Area Network Services

Other Licences

Apart from the licences mentioned above, there are a number of miscellaneous licences under the purview of the Authority.

A breakdown of the types and numbers of all telecommunications licences is at **Annex 2**.



5.2.2 Developments in the Telecommunications Market and Technology Trends

Mobile Communications Services

Competition in public mobile services has always been keen. As at March 2023, four major MNOs, namely, China Mobile Hong Kong Company Limited, Hong Kong Telecommunications (HKT) Limited, Hutchison Telephone Company Limited and SmarTone Mobile Communications Limited (SmarTone), were providing a wide range of public mobile services.

MNOs provide second generation (2G), 3G, 4G and 5G mobile services in Hong Kong at very affordable prices. As at March 2023, there were about 21.6 million subscriptions to mobile communications services. The mobile subscriber penetration rate reached 282.4%, one of the highest in the world, with over 99% of them being subscriptions of 3G, 4G and 5G mobile services. Further to the commercial launch of 5G services since April 2020, 5G mobile subscriptions reached 5.1 million in March 2023, representing a mobile subscriber penetration rate of 68.2%. With the continued development of 5G services, increasingly higher speed of mobile communications will be supported.

With an ever growing demand for mobile data services, the monthly mobile data usage surged to 167 401.4 Terabytes in March 2023, representing 1.3 times and 1.8 times of the monthly usage over the same period in 2022 and 2021 respectively. The monthly mobile data usage per capita reached 22 279.5 Megabytes in March 2023, compared with 16 811.4 Megabytes in March 2022 and 12 628.5 Megabytes in March 2021. The development of 5G services and innovative applications enabled by 5G will further boost mobile data usage in the future.

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Figure 9: Number of Mobile Subscriptions (2013 to 2022)

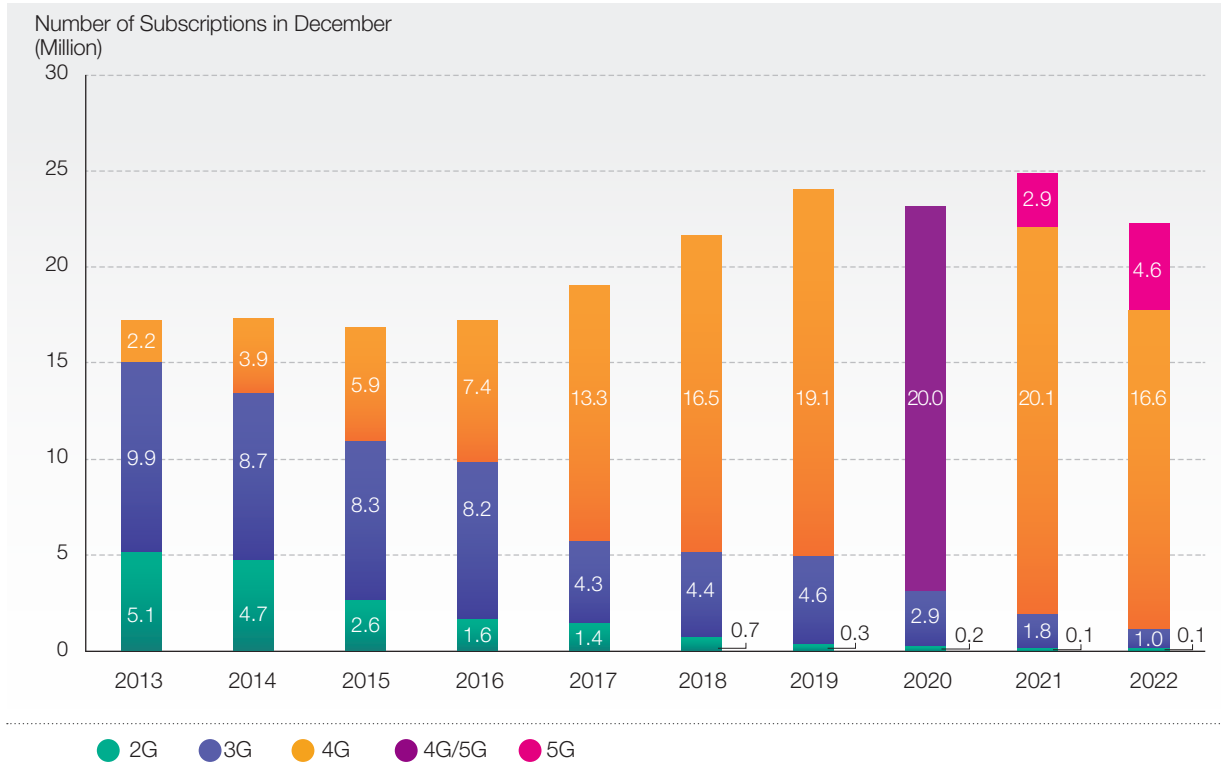


Figure 10: Mobile Subscriptions of Postpaid and Prepaid SIM (2013 to 2022)

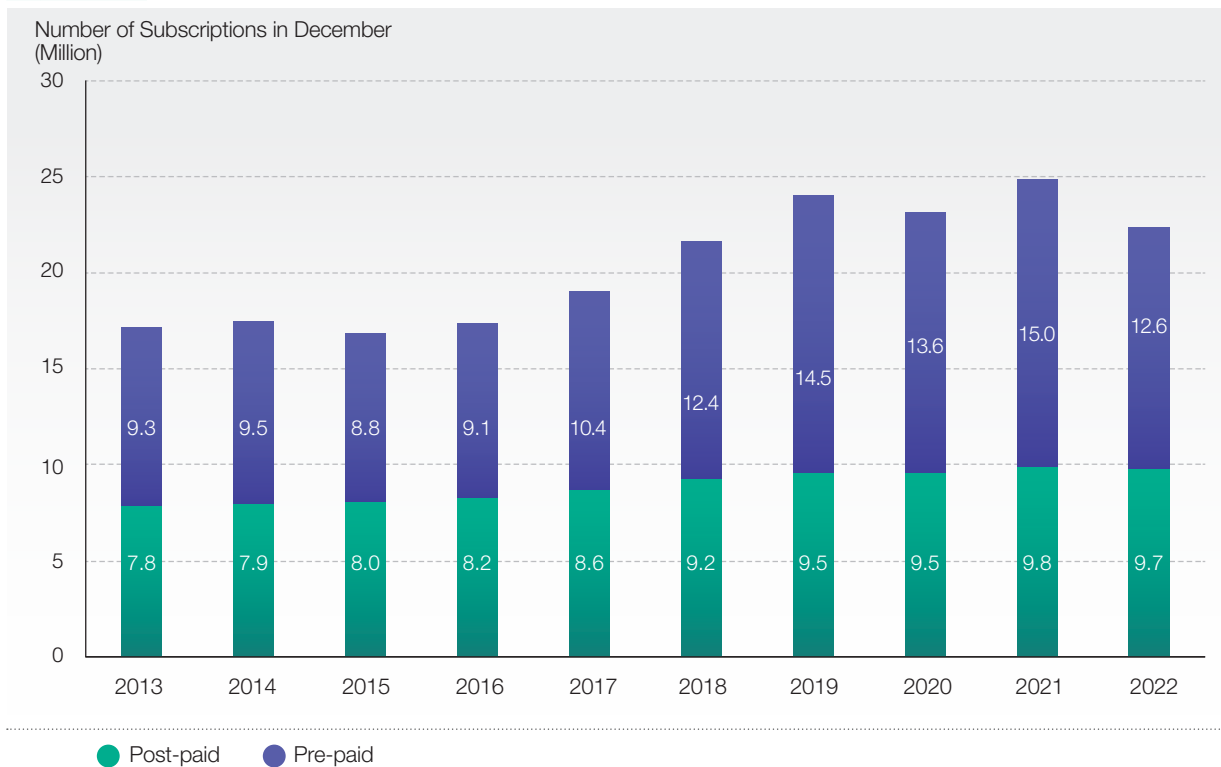
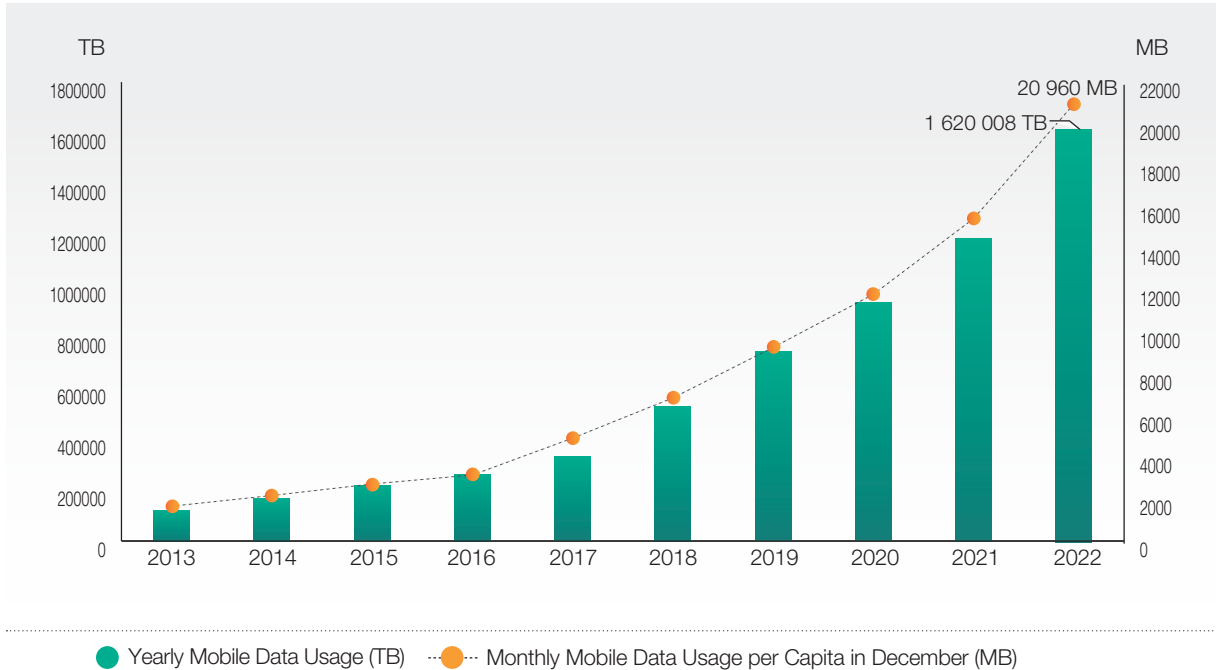


Figure 11: Mobile Data Usage (2013 to 2022)



Fixed Communications Services

The local fixed communications services market has been fully liberalised with no preset limit on the number of licences to be issued for fixed services, or deadline for submission of licence applications. Furthermore, there is no specific requirement on network roll-out and investment and licensees may provide their services according to their proposals.

As at March 2023, there were 27 local FNOs holding UCLs for the provision of local fixed services, providing around 73 fixed lines per 100 households, one of the highest in the world. They were, in alphabetical order:

- China Mobile Hong Kong Company Limited
- China Mobile International Limited
- China Telecom Global Limited
- China Unicom (Hong Kong) Operations Limited
- ComNet Telecom (HK) Limited
- Easy Tone Network Limited

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- Equinix Hong Kong Limited
- HGC Global Communications Limited
- HKBN Enterprise Solutions HK Limited
- HKBN Enterprise Solutions Limited
- HKC Network Limited
- Hong Kong Broadband Network Limited
- Hong Kong Cable Television Limited
- Hong Kong Telecommunications (HKT) Limited
- NTT Com Asia Limited
- PCCW Global (HK) Limited
- PCCW-HKT Telephone Limited and Hong Kong Telecommunications (HKT) Limited
- Reach Networks Hong Kong Limited and Reach Cable Networks Limited
- SmarTone Communications Limited
- Telstra International Limited
- Towngas Telecommunications Fixed Network Limited
- TraxComm Limited
- Verizon Hong Kong Limited
- Village Telephone Limited
- VNET Group Limited
- Vodafone Enterprise Hong Kong Limited
- Xenith IG Hong Kong Limited (formerly known as Superloop (Hong Kong) Limited)

As at March 2023, 91.9% and 80.6% of households were able to enjoy a choice of at least two and three self-built customer access networks respectively. It is expected that the figures will keep growing as the carriers continue to roll out their networks.

Fixed Broadband Services

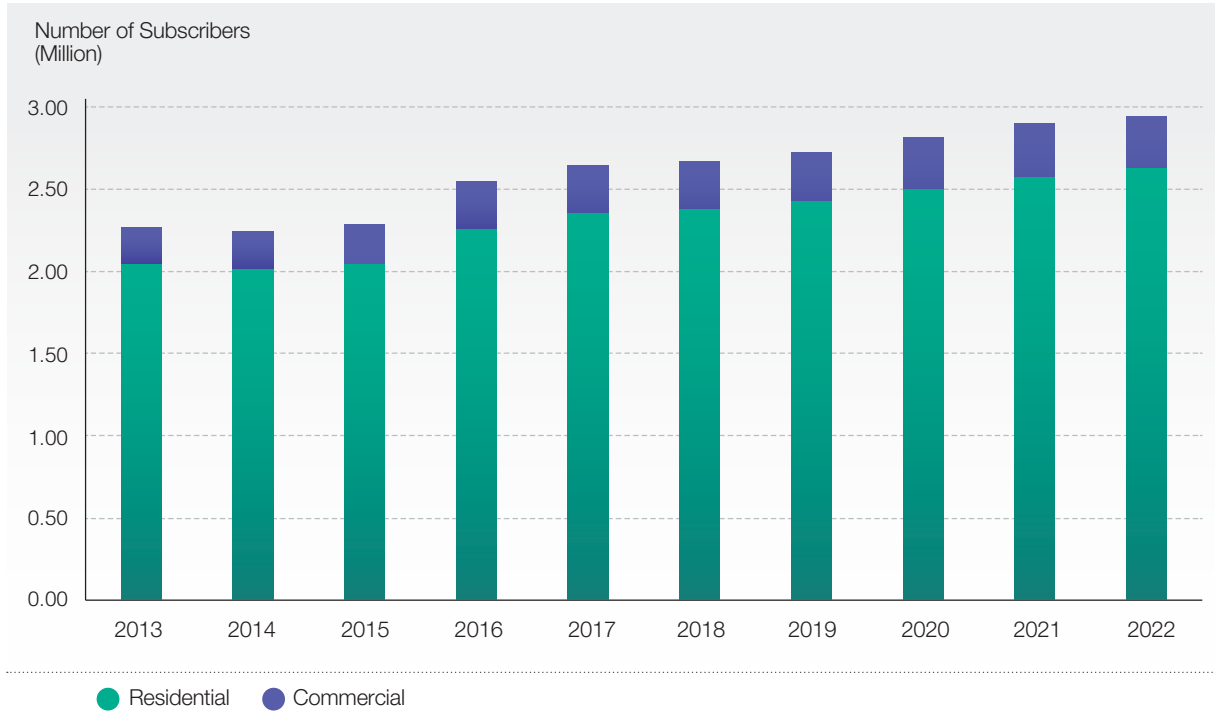
As at March 2023, 27 FNOs and 257 SBOs were authorised to provide broadband Internet access services in Hong Kong. With the continuous network rollout of FNOs, the Hong Kong community can enjoy nearly ubiquitous coverage of broadband networks through the deployment of various technologies including asymmetric digital subscriber line, hybrid fibre coaxial cable, fibre-to-the-building, fibre-to-the-home, etc. Broadband access to various applications and content services has become an integral part of the life of people in Hong Kong. As at March 2023, there were around 3 million residential and commercial fixed broadband subscriptions, with a household penetration rate of 99.5%. Broadband services are available at speeds up to 10 gigabits per second (Gbps). Around 88.2% of the fixed broadband subscriptions are supported by broadband services with speeds of 100 megabits per second (Mbps) or above. The statistics of fixed broadband subscriptions as at March 2023 and the statistics for the past ten years are shown in **Figure 12** and **Figure 13** respectively.

Figure 12: Statistics of Fixed Broadband Subscriptions (as at March 2023)

	No. of subscriptions	% share
Total no. of broadband subscriptions	2 992 638	100%
Broadband speed of 100 Mbps or above	2 638 253	88.2%
Broadband speed below 100 Mbps	354 385	11.8%
Residential	2 676 123	89.4%
Commercial	316 515	10.6%

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Figure 13: Fixed Broadband Subscriptions (2013 to 2022)



Internet of Things Services

Internet of Things is a technology which enables the provision of communications platforms and services for interconnected devices to generate, exchange and consume data with minimal human intervention. Currently, Wireless Internet of Things (WIoT) licensees, MNOs and MVNOs are authorised to provide WIoT services. Since the creation of the WIoT licence in December 2017, four WIoT licences have been issued. With the development of new wireless technologies such as 5G mobile technologies and smart city applications, it is expected that there will be an increasing number of WIoT devices connecting to the public telecommunications networks in future.

Public Wi-Fi Services

Operators have been actively rolling out Wi-Fi networks. Eight network operators and 241 class licensees are providing public Wi-Fi services in various locations of the territory. As at March 2023, there were 86 567 public Wi-Fi hotspots in the city and the number will continue to grow.

External Telecommunications Services

The external telecommunications facilities market has been fully liberalised. As at March 2023, 39 FNOs were authorised to provide cable-based and/or non-cable-based external telecommunications facilities.

As at March 2023, there were eight cable landing stations in Hong Kong: two in Tong Fuk, three in Tseung Kwan O and the other three in Deep Water Bay, Chung Hom Kok and Cape D'Aguiar respectively, making it a major telecommunications and Internet hub in the region.

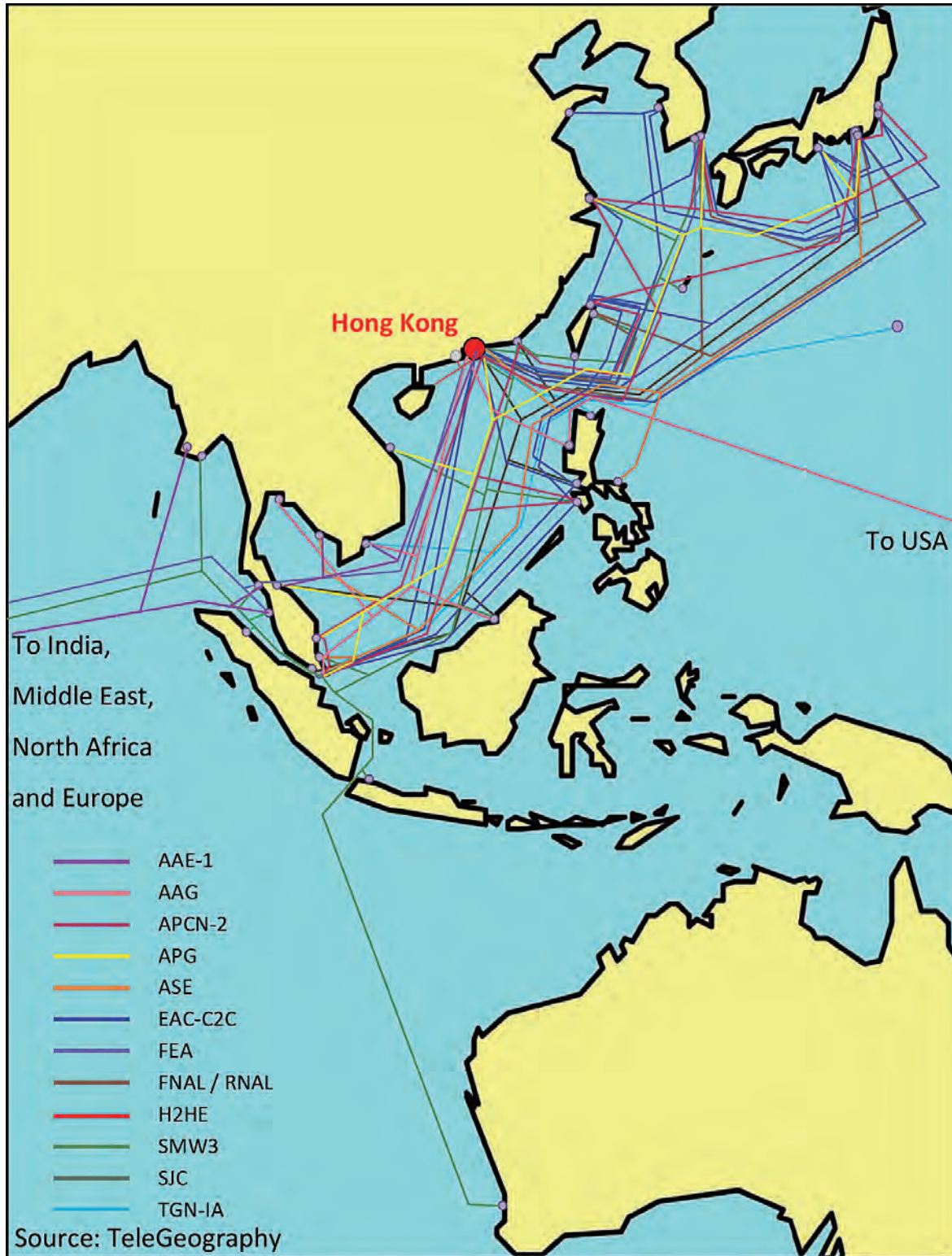
In March 2023, Hong Kong was connected to 12 regional and transcontinental submarine cable systems. They are Asia Africa Europe-1 (AAE-1), Asia-America Gateway Cable System (AAG), Asia Pacific Cable Network 2 (APCN-2), Asia Pacific Gateway (APG), Asia Submarine-Cable Express (ASE), EAC – C2C, FLAG Europe Asia (FEA), FLAG North Asia Loop (FNAL)/REACH North Asia Loop (RNAL), Hainan to Hong Kong Express (H2HE), Sea-Me-We 3 (SMW3), South-East Asia Japan Cable System (SJC) and TGN-Intra Asia Cable System (TGN-IA). As at March 2023, the total equipped external capacity exceeded 199 797 Gbps. Total external telephone traffic was 1.4 billion minutes for the period from January to December 2022. Landing of some new submarine cable systems is in the pipeline and they are expected to be ready for service between 2023 and 2026.



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Figure 14: Submarine Cables between Hong Kong and Other Economies



Satellite Services

Hong Kong adopts an open sky policy in regulating the provision of satellite services. Satellite-based telecommunications and television broadcasting services are provided via a multitude of satellites in the region with more than 190 transmitting/receiving satellite antennae in earth stations operated by a number of FNOs.

Licences are required for the operation of satellites and associated facilities. As at March 2023, there were a total of nine in-orbit satellites operated by two Hong Kong companies, namely Asia Satellite Telecommunications Company Limited and APT Satellite Company Limited, which are licensed to provide satellite communications services.

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Review of the Communications Authority's Major Tasks



BROADCASTING

6.1 Mid-term Review of Free TV and Sound Broadcasting Licences

During the period under review, the Authority made recommendations to the CE in C on the mid-term review of the free TV licences of Fantastic TV, HKTVE and TVB and the sound broadcasting licences of CRHK and Metro (Mid-term Review), including new service requirements to be imposed for the remaining six years of the licences. The Authority assessed the performance of these licensees in the first six years of the licence period and their investment and programme commitments for the remaining six years, having consulted the industry and the public. The Authority considered that the licensees' services had largely met public expectations. The Authority also noted that the public supported some forms of regulatory relaxation to allow more flexibility for the licensees in programme management to meet with the increasingly challenging business environment.

The overall objectives of the Authority's recommendations are to encourage additional investment in the industry³⁴, and to optimise and refine regulatory requirements for sustainable development of the industry³⁵. The Authority also considered it incumbent upon the free TV and sound broadcasting licensees to raise public awareness of the importance of national security and engender in them a sense of citizenship and national identity through their broadcast services and programmes, and to promote youth development. In this connection, the Authority recommended and the CE in C approved that free TV and sound broadcasting licensees shall broadcast no less than 30 minutes per week of programmes to positively promote national education, national identity and Hong Kong National Security Law under the category "current affairs" on top of the existing required broadcast hours. Free TV licensees shall also double the existing broadcast hours of programmes for "young persons". The Authority's recommendations were endorsed by the CE in C in February 2023. The recommendations have been implemented by way of licence amendments and/or directions issued by the Authority to the licensees concerned.

6.2 Review of Television and Radio Codes of Practice

During the consultation process of the Mid-term Review, the Authority received a number of suggestions from the public and the industry relating to the regulation of programme and advertising contents under the codes of practice issued by the Authority. Following the completion of the Mid-term Review, the Authority embarked on a review on its codes of practice in response to the views received, along the general direction of refining the

34 For the remaining six years of the licences, the total committed expenditure of the three free TV licensees and the two sound broadcasting licensees amounts to HK\$11.2 billion.

35 This covers a variety of aspects including relaxation of designated language requirements (for free TV and sound broadcasting licensees) and adjustment of programme requirements (such as increase in local productions for free TV, provision of subtitling and sign language for free TV, and enhancement of positive programmes for free TV and sound broadcasting licensees) for the interest of the community at large.

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regulatory regime to facilitate the licensees in meeting the challenges of the rapidly evolving business environment. The review is expected to be completed by end 2023 and the revised codes will be implemented upon gazettal.

6.3 Termination of Pay TV Licence of Hong Kong Cable Television Limited

Having considered the Authority's views on the obligations and liabilities that had accrued by HKCTV under its pay TV licence, the CE in C approved on 14 February 2023 the application for the termination of HKCTV's pay TV licence with effect from 1 June 2023. The Authority had actively worked with HKCTV to ensure its proper implementation of the committed exit arrangements and the associated technical adjustments for protecting customer rights and the interest of the general public, through a series of publicity programmes launched by HKCTV (including issuing press releases, launching thematic webpage and mobile applications as well as broadcasting on-air announcements) in order to enhance its customers' awareness and understanding of the exit arrangements.

6.4 Non-Domestic and Other Licensable TV Licences

During the period under review, the Authority granted one other licensable TV licence to Dynamic Streaming Service Limited for the provision of television programme services in hotel rooms in Hong Kong. The Authority also approved the application for renewal of one non-domestic TV licence by Hong Kong TV International Media Group Limited and one other licensable TV licence by Showers of Blessing Evangelistic Ministry (Hong Kong) Limited, as well as an application for termination of its other licensable TV licence by Sheraton International (Hong Kong) Limited.

6.5 Processing Complaints Relating to Broadcasting Services

Overview of the Complaints Processed

During the period from April 2022 to March 2023, the Authority processed a total of 1 857 cases (3 984 complaints)³⁶ relating to the materials broadcast by broadcasters, representing an increase of 20.0% in the number of cases and a reduction of 53.5% in the number of complaints processed³⁷, as compared with the figures during the same period in the previous year (1 552 cases, 8 575 complaints). Breakdown of all the complaint cases by broadcasting service and broadcaster processed during the period is shown in **Figure 15** and **Figure 16** respectively.

36 To ensure operational efficiency, complaints with similar allegations relating to the same issue or broadcast material are grouped together in handling and counted as a single case.

37 The decrease in the number of complaints processed in 2022/23 was mainly due to the fact that in 2021/22, there were a number of cases concerning social unrest which gave rise to a substantial number of complaints (over 4 500 complaints in total).

Figure 15: Distribution of All Complaint Cases by Broadcasting Service Processed in 2022/23

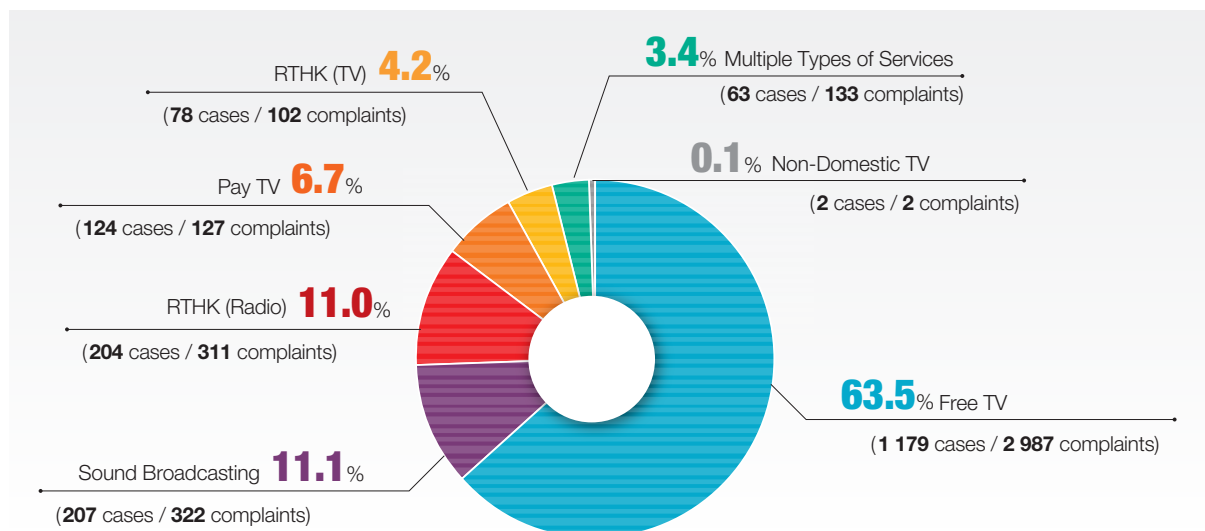


Figure 16: Distribution of All Complaint Cases by Broadcaster Processed in 2022/23

Broadcasters Involved	No. of Complaint Cases	No. of Complaints Involved
TVB	1 026	2 701
HKTVE	89	211
Fantastic TV	59	61
HKCTV	86	88
PCCW Media	38	39
CRHK	135	223
Metro	72	99
RTHK (TV)	78	102
RTHK (Radio)	204	311
Phoenix Satellite Television Company Limited	2	2
Multiple Broadcasters	68	147
Total	1 857	3 984

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Among all the complaint cases processed by the Authority, 1 844 cases (2 863 complaints) were handled by DG Com under the powers delegated by the Authority. These complaints involved breaches of a minor nature, or contained allegations which did not constitute any breach or were outside the remit of section 11(1) of the B(MP)O (i.e. the allegations concerned matters not regulated under the relevant legislation, licence conditions or codes of practice). The Authority dealt with 13 cases (1 121 complaints). Outcomes of all the complaints processed by the Authority during this period are listed in **Figure 17**.

Figure 17: Outcomes of All Complaint Cases Dealt with by the Authority and DG Com

	Within Section 11(1) of B(MP)O				Outside Section 11(1) of B(MP)O	Total
	Substantiated		Unsubstantiated			
	The Authority	DG Com	The Authority	DG Com	DG Com	
No. of Cases	6	143	7	1 344	357	1 857
No. of Complaints	89	162	1 032	2 139	562	3 984

Complaint Cases Dealt with by the Authority

Among the 13 complaint cases dealt with by the Authority, 11 concerned free TV services (involving 1 042 complaints, which accounted for 93% of the total number of complaints dealt with by the Authority). A breakdown of these complaint cases by broadcasting service is shown in **Figure 18**.

Figure 18: Breakdown of Complaint Cases Dealt with by the Authority by Broadcasting Service

Types of Broadcasting Service	No. of Complaint Cases	No. of Complaints Involved
Free TV	11	1 042
Sound Broadcasting	2	79

Regarding the nature of the broadcast materials involved in the 13 complaint cases dealt with by the Authority, 12 of them were related to programmes while one was on advertisement. Six of them were substantiated, among which one was related to programme promotions within news programmes; one concerned the use of offensive expression; one concerned irresponsible handling of programme and depiction of sex/violence; one concerned inaccurate factual contents of news; one concerned non-compliance with election-related guidelines and the remaining one was related to the broadcast of programme classified as “Parental Guidance Recommended” during the family viewing hours. The Authority issued one serious warning, one warning and four pieces of advice to the broadcasters concerned. A breakdown of the decisions of the Authority on the complaints dealt with in 2022/23 is shown in **Figure 19**.



Figure 19: Decision of the Authority on Complaint Cases in 2022/23

Decision of the Authority	TVB	HKTVE	Fantastic TV	CRHK	Total
No Further Action	6	1	0	0	7
Advice	1	1	1	1	4
Strong Advice	0	0	0	0	0
Warning	0	0	0	1	1
Serious Warning	0	0	1	0	1
Financial Penalty	0	0	0	0	0
Total	7	2	2	2	13

Review of the Communications Authority's Major Tasks

TELECOMMUNICATIONS

6.6 Making Spectrum Available in Multiple Frequency Bands for 5G Services

As of March 2023, the Authority assigned a total of 2 130 MHz of radio spectrum in various low, mid and high frequency bands, namely 700 MHz, 3.3 GHz, 3.5 GHz, 4.9 GHz, and 26 GHz and 28 GHz bands (26/28 GHz bands) in a timely manner for public mobile telecommunications use, including the provision of 5G services. Separately, 400 MHz of shared spectrum in the 26/28 GHz bands was also available for assignment to other parties for use on a sharing basis for the provision of local wireless broadband services in support of innovative 5G applications. MNOs launched their commercial 5G services in Hong Kong starting from April 2020. As of March 2023, 5G coverage in Hong Kong reached over 90% of the population, and even up to 99% in core business districts, covering major locations in urban areas and all Mass Transit Railway lines.

Making Available Additional 5G Spectrum to Meet the Demand of Operators

In order to meet the growing demands of innovative 5G applications in terms of speed, capacity and coverage, the Authority released additional spectrum in different frequency bands to the market. In June 2022, the Authority assigned 70 MHz of spectrum in the 700 MHz band to the MNOs according to the auction results of October 2021. The Authority will also make available to the market 400 MHz of new spectrum in the 6/7 GHz band by way of an auction in early 2025.

With the sustained enhancement of 5G services and the growing availability of 5G equipment and consumer products, 5G services are revolutionising mobile users' experience with excellent technical capabilities of high speed, high capacity, high reliability, massive connectivity and low latency communications. 5G technology is widely expected to continue to open up vast potential for various commercial and smart city applications.

In addition, the Authority will keep in view the outcomes of the World Radiocommunication Conference 2023 to be convened in end 2023 on, among others, identification of new frequency bands for mobile services. Taking note of the market development, the Authority will consider making available suitable new spectrum to the industry.



Re-assignment of Frequency Spectrum in the 2.5/2.6 GHz Band

Upon the expiry of the current assignment of 90 MHz of spectrum in the 2.5/2.6 GHz band in March 2024, the spectrum will be re-assigned to three MNOs pursuant to the results of the auction in October 2021, resulting in some of the frequency assignments in the 2.5/2.6 GHz band changing hands upon commencement of the new 15-year term of assignments. OFCA has started to coordinate with the three MNOs for the relevant technical arrangements to reconfigure their existing networks and/or roll out additional network infrastructures. OFCA will continue to ensure a seamless changeover at the time of re-assignment of the spectrum in the 2.5/2.6 GHz band in March 2024.

Preparing for Re-assignment of Frequency Spectrum in the 850/900 MHz and 2.3 GHz bands

The current assignment of 20 MHz of spectrum in the 850/900 MHz band and 90 MHz of spectrum in the 2.3 GHz band will expire in May 2026 and March 2027 respectively. Following a joint public consultation conducted by the Authority and SCED in November 2022, their respective decisions on the arrangements for re-assignment of a total of 110 MHz of spectrum in the above frequency bands as well as the related SUF upon the expiry of their existing assignment term were promulgated by way of a joint statement on 2 May 2023. It is expected that the Authority will reassign the spectrum in these bands in 2024 by way of an auction.

Review of the Communications Authority's Major Tasks

6.7 Ensuring Availability of Space in and Access to New Buildings for Installation of Mobile Communications Facilities

In support of the 2022 Policy Address initiative to strengthen 5G infrastructure, OFCA assisted the Commerce and Economic Development Bureau (CEDB) in formulating the legislative proposal to ensure availability of reserved space in and access to new buildings for installation of mobile communications facilities by MNOs, and conducting consultation sessions with relevant industries (including the developers, telecommunications trade, professional bodies, etc.) to seek views from stakeholders on the proposal. There is a need to amend section 14 of the TO to implement the initiative such that MNOs will be authorised to place and maintain radiocommunications installations at specified new buildings.

To implement the above legislative amendments, the Authority with OFCA's assistance will issue a Code of Practice for the Provision of Mobile Access Facilities in Specified Buildings for the Provision of Public Mobile Radiocommunications Services, which aims to provide practical guidance to developers and licensees on the infrastructure requirements for installations of mobile communications facilities in the specified new building.

OFCA will continue to support CEDB in taking forward the proposed legislative amendments and liaise with relevant government departments in making corresponding amendments to the relevant administrative guidelines to ensure timely implementation of the initiative to facilitate the rollout of mobile networks.

6.8 Facilitating the Rollout of 5G Networks

Compared with older generations of mobile services, a larger number of radio base stations (RBSs) are required for an effective 5G network. To facilitate the expedient and effective rollout of 5G networks, the Authority supported the Government in launching a pilot scheme in March 2019 to open up more than 1 000 suitable government premises for MNOs to install RBSs under a streamlined approval process and at a nominal rent of \$1 per year. In January 2022, about 500 government premises under a "demand-led" model were further opened up for MNOs to install RBSs.

OFCA has also been working closely with the industry to identify suitable street furniture and public facilities for the installation of RBSs, such as public payphone kiosks, sheltered bus stops, smart lampposts, etc. In respect of public payphone kiosks and sheltered bus stops, the Authority issued the "Guidelines on the Use of Public Payphone Kiosks for the Installation of Radio Base Stations for Provision of Public Mobile Services" and the "Guidelines on the Use of Sheltered Bus Stops for the Installation of Radio Base Stations for Provision of Public Mobile Services" in April and November 2020 respectively. As of March 2023, ten applications for installation of RBSs at sheltered bus stop were approved. OFCA will continue to work with the industry and the relevant government departments in identifying other suitable street furniture and public facilities for installation of RBSs.

6.9 Completion of a Technical Study on Non-Ionising Radiation Safety of Radio Base Stations

The Authority acting through OFCA commissioned a technical consultancy study in April 2021 on non-ionising radiation (NIR) safety of RBSs, including 5G RBSs. The study was completed in June 2022 and the consultancy report was published on OFCA's website in August 2022. The study examined technical matters in relation to NIR, in particular those for 5G RBSs employing new technology like massive multiple-input-multiple-output antennae, reviewed the methodology for assessment of NIR for different RBS deployment scenarios and the existing regulatory measures, and made recommendations on practical measures to ensure radiation safety of RBSs. Having regard to the findings and recommendations of the study, the Authority has updated the conditions for approval of RBSs under different scenarios so as to facilitate the on-going development of public mobile services while safeguarding public health.

6.10 Consent Granted to SmarTone Mobile Communications Limited to Phase Out 2G Services

OFCA processed an application from SmarTone seeking the Authority's approval to cease its provision of 2G services by October 2022. Under the relevant licence conditions, MNOs are required to make proper and appropriate arrangements for the affected customers to the satisfaction of the Authority before ceasing to provide a generation of mobile service. The Authority granted consent in August 2022 to SmarTone to cease the provision of all its 2G services starting from 14 October 2022, having taken into account relevant considerations including that no provision of 2G service plans by SmarTone to any customers; the extremely low percentage of affected customers who were still using 2G handsets/devices for connection to SmarTone's network; incentive offers provided by SmarTone to the affected customers to upgrade their 2G handsets/devices; favourable termination arrangements for those who chose not to upgrade their 2G handsets/devices; and sufficient time of notification and customer support to the affected customers. SmarTone subsequently ceased its 2G services as scheduled.

The Authority will consider applications from other MNOs and carefully examine the proposed arrangements for the affected customers before approval.



Review of the Communications Authority's Major Tasks

6.11 Full Implementation of Real-name Registration Programme for SIM Cards

Under the Telecommunications (Registration of SIM Cards) Regulation (Cap. 106A) (Registration Regulation), the Real-name Registration Programme for SIM Cards (Real-name Registration Programme) requires existing pre-paid SIM (PPS) card users to complete real-name registration by 23 February 2023 or their PPS cards would be deactivated. After the statutory deadline, all SIM cards issued and used locally (including SIM service plans and PPS cards) must complete real-name registration before service activation.

Pursuant to section 14 of the Registration Regulation, the Authority issued the “Guidelines on Implementation of Real-name Registration for SIM Cards” (SIM Guidelines) on 20 August 2021 to provide practical and administrative guidance to licensees for implementation of the Real-name Registration Programme in compliance with the Registration Regulation.

In accordance with the Registration Regulation and the SIM Guidelines, all new SIM cards should complete real-name registration before activation with effect from 1 March 2022. OFCA has been closely monitoring the implementation of the Real-name Registration Programme. In respect of a licensee's failure to fulfill such requirement, the Authority, having considered OFCA's assessment and the licensee's representations, issued a direction to the licensee on 21 October 2022 for rectifying its breach of the Registration Regulation.

After a transitional period of nearly one year to give licensees sufficient time for completing registration of existing PPS cards, the Real-name Registration Programme was fully implemented on 24 February 2023. As of 31 March 2023, about 13 million SIM cards (including SIM service plans and PPS cards) completed registration.

The Authority will, with the support from OFCA, ensure all relevant licensees' compliance with the Registration Regulation and the SIM Guidelines. In particular, the Authority will continue to closely monitor the effective implementation of the Real-name Registration Programme by licensees. Based on the experience cumulated, OFCA will continue to engage licensees in strengthening their registration platforms and conducting routine checks/inspections to safeguard the integrity of the registration records. OFCA will also continue to monitor and carry out enforcement actions, including verification of licensees' registration platforms, conducting market surveillances and regular inspections of the registration record to strengthen the integrity of the registration programme. OFCA will also encourage licensees to adopt more advance technology where available and practicable to enhance the verification process.

6.12 Combating Fraudulent Calls and Messages

OFCA has been working closely with the telecommunications industry and law enforcement agencies to devise and implement technical measures against fraudulent calls and messages delivered through telecommunications networks. In September 2022, OFCA, the Hong Kong Police Force (Police) and the telecommunications industry jointly established a dedicated Working Group on Tackling Fraudulent Calls and Messages by the Telecommunications Industry (the Working Group) to take forward concerted efforts in combating fraudulent calls and messages from the telecommunications perspective.

The Working Group has introduced a number of new measures since the fourth quarter of 2022, including (a) sending voice or text alert for calls with caller number prefixed with “+852” to alert mobile service users that the calls are from outside Hong Kong, (b) blocking transmission or delivery of calls bearing suspicious or spoofed caller identity, and (c) blocking access to suspicious websites and suspending telecommunications services of local phone numbers involved in scam cases based on information provided by the Police. OFCA will continue to work with the telecommunications industry and the Police to enhance the effectiveness of the measures.

To help the public verify the authenticity of SMS senders, OFCA is working with the telecommunications industry, the banking industry and the Police to establish a registration scheme for SMS senders, which is targeted to be launched before the end of 2023 in the banking and telecommunications sectors.

At the same time, the Authority has issued a Code of Practice on Management of Scam Calls by Mobile Service Providers on 21 April 2023 which requires mobile service providers to monitor calls originating from their networks and systems and prevent the use of individual local telephone numbers/codes from generation of scam calls. With effect from 30 June 2023, mobile service providers are required to take appropriate actions to suspend the relevant telecommunications service/function of any local telephone numbers/codes that are identified to generate suspected scam calls.

Review of the Communications Authority's Major Tasks

6.13 Implementation of the Protection of Underground Telecommunications Infrastructure

The Telecommunications (Amendment) Ordinance 2021 that amended relevant provisions of the TO to, among others, enhance the protection of underground telecommunications lines came into operation on 24 June 2022.

Under section 18A of the amended TO, it is a criminal offence for any person who failed to take reasonable steps to protect or prevent damage to an underground telecommunications line when carrying out any work below ground level near the line. In this regard, the Authority compiled and issued the "Guidelines on Work near Underground Telecommunications Lines" (UTL Guidelines) to provide relevant stakeholders with practical guidance for compliance with the requirements. According to the UTL Guidelines, the working party shall appoint a competent person to carry out the detection work for the underground telecommunications lines. In this connection, OFCA has liaised with two training course providers, namely the Hong Kong Institute of Construction and the Hong Kong Institute of Vocational Education, to offer relevant training courses. As of March 2023, more than 600 persons have attended the relevant training courses provided by the two training institutions on the detection work and over 290 of them have been registered as competent persons. The list of competent persons is published on OFCA's website. After just over a year of implementing section 18A of the TO, four successful prosecution cases were brought to with fines ordered by the Magistrates, and five cases are under investigation or prosecution. It is anticipated that the enforcement work will raise the industry awareness of the protection of underground telecommunications infrastructure.

6.14 Launching the New Labelling Scheme for Buildings with Optical Fibre Access

To promote the awareness of the public including building owners and building management offices (BMOs) on the merits of having optical fibre networks in their buildings, the Authority, supported by OFCA, launched a new labelling scheme for buildings with optical fibre access with the associated publicity activities launched in November 2022. Under the scheme, OFCA compiles and maintains a register of buildings connected with optical fibre networks based on information provided by FNOs as well as building owners, BMOs and property developers. The register, in the form of a geographical information system is available on OFCA's website for review by the public. The relevant building owners or BMOs are encouraged to display the designated label at their buildings indicating the buildings have access to optical fibre networks.

To promote the scheme, OFCA rolled out a series of publicity programmes, including launching a new set of TV and radio APIs as well as setting up a thematic webpage for the scheme. As of March 2023, over 67 000 buildings were registered under the scheme, covering over 90% living quarters.

6.15 Facilitating the Use of and Trade in 6 GHz Devices for Wireless Local Area Network

With the advent of technology, there are emerging new Wireless Local Area Network (WLAN) devices operating in the 5 925 – 6 425 MHz band (such as the commonly known Wi-Fi 6E devices, collectively referred to as the “6 GHz devices”) which support communications of faster data rates and lower latency, and hence better performance. To enable the introduction of these 6 GHz devices into Hong Kong, with the support of OFCA, the Authority created a class licence for regulating the use of and trade in 6 GHz devices, and varied the existing class licence for the provision of public WLAN services in April 2022. Since the creation and variation of these class licences, many 6 GHz devices (including access points and client devices) are now widely available in the local market, and their use enables the public to enjoy high performance WLAN services in both private and public locations. A dedicated webpage has been created on OFCA’s website to provide advice to consumers on making informed choice of 6 GHz devices. In addition, information leaflets are made available to remind the industry of the need to label 6 GHz access points offered for sale in Hong Kong as required under the class licence for 6 GHz devices.

6.16 Review of the Number of Public Payphones under the Universal Service Obligation

Public payphone 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 a public payphone service subject to the USO is shared by the fixed and mobile services providers. In view of the diminishing demand for public payphone service in recent years, the Authority announced in June 2017 to embark on a review to determine the reasonable number of public payphones that should be subject to the USO.

The review was completed in 2019 in accordance with the guiding principles laid down by the Authority. The Authority decided to exclude 515 in-building type public payphones (about 35% of the total number of in-building type public payphones) and 765 kiosk type public payphones (about 50% of the total number of kiosk type public payphones) from the USO.

As at March 2023, the USP had removed all the excluded in-building type and all except one kiosk type public payphones which was retained by the USP at its own cost.

Review of the Communications Authority's Major Tasks

6.17 Processing Complaints Relating to Telecommunications Services

As the telecommunications market is fully liberalised and highly competitive, the Authority has adopted a light-handed regulatory approach. The Authority investigates consumer complaints against telecommunications operators if there is sufficient evidence to establish a prima facie case on possible breaches of any provisions under the TO, licence conditions or other relevant legislation which the Authority has jurisdiction to enforce, namely, TDO and CO. For other consumer complaints not involving any breach of the TO, licence conditions or other relevant legislation, it is the responsibility of the telecommunications operators to resolve the matters under complaint with their customers. The Authority will take note of their handling of the consumer complaints received and take necessary actions if any systemic issue is identified.

During the year under review, the Authority received a total of 1 323 consumer complaints relating to telecommunications services, representing an increase of 11.4% compared to 1 188 complaints in the previous year. Among them, 766 cases (57.9%) were related to mobile services, 388 cases (29.3%) were related to Internet services, 150 cases (11.3%) were related to fixed-line services and five cases (0.4%) were related to external telecommunications. On the nature of complaints, the Authority received the largest number of complaints relating to customer service quality (364 cases or 27.5%), while complaints about service quality (233 cases or 17.6%) and disputes on contract terms (188 cases or 14.2%) ranked second and third respectively.

Breakdown of complaint cases by types of telecommunications services and nature of complaints received by the Authority during the period are shown in **Figure 20** and **Figure 21** respectively.

All the 1 323 complaint cases received were outside the Authority's jurisdiction. No case was found to be in breach of TO or licence conditions after investigation.

Figure 20: Distribution of Complaint Cases by Types of Telecommunications Services Received by the Authority in 2022/23

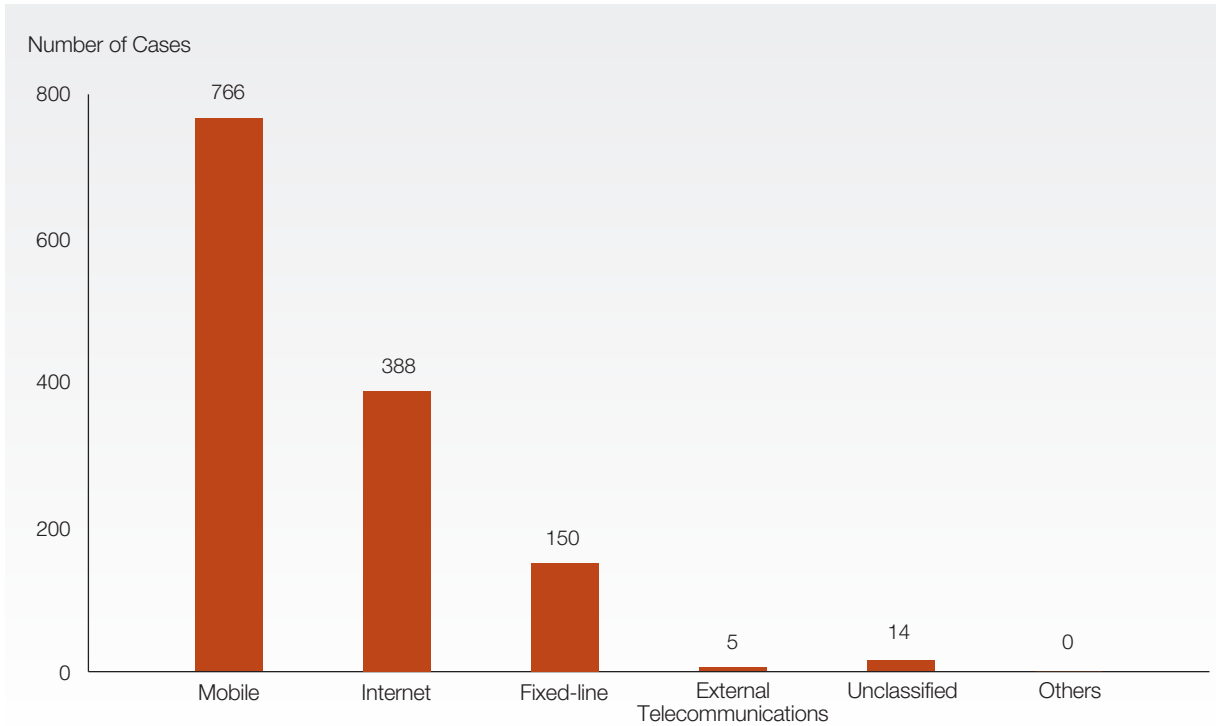
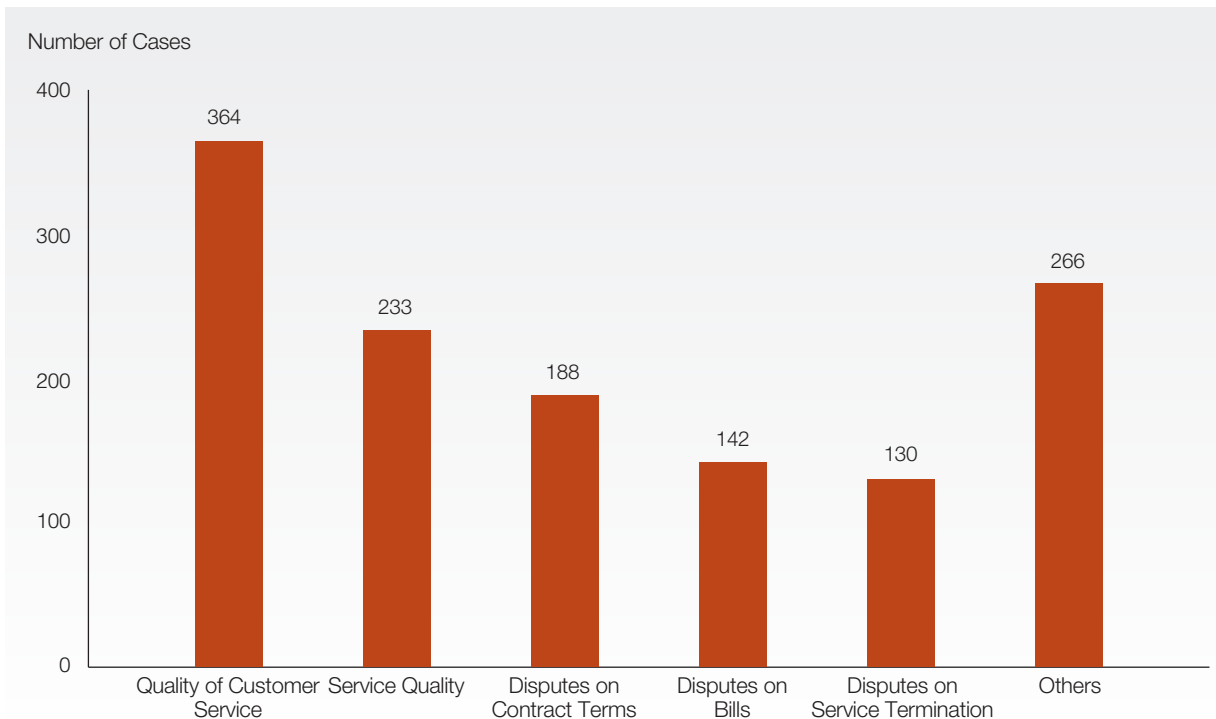


Figure 21: Distribution of Complaint Cases by Nature of Complaints Received by the Authority in 2022/23



Note: Types of complaint cases grouped under “others” include cases involving collection of overdue payment, porting of telecommunications numbers, refund matters, application/reactivation/suspension of telecommunications services, etc.

Review of the Communications Authority's Major Tasks

6.18 Strengthening Consumer Protection in the Use of Telecommunications Services

Consumer Protection Measures Adopted in the Telecommunications Industry

In order to safeguard consumer interests in the use of telecommunications services, OFCA has taken proactive actions to implement various consumer protection measures and works with the industry to draw up and implement self-regulatory measures for addressing 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 representing the industry. The CCSS aims to help resolve billing disputes in deadlock between telecommunications service providers and their customers through mediation.

Other self-regulatory measures voluntarily implemented by the industry include the promulgation of the Code of Practice for Telecommunications Service Contracts to improve the clarity of provisions in the telecommunications service contracts as well as the Code for the Provision of Chargeable Mobile Content Services to govern the practices of third-party content service providers.

Other examples include the implementation of mobile bill shock preventive measures by mobile service providers as well as publication of details of the arrangements adopted by major residential broadband service providers to handle service termination requests from consumers on OFCA's website.

OFCA will continue to monitor the implementation and effectiveness of the various consumer protection measures adopted and where necessary, engage the industry to seek further improvement of the existing measures or introduce new measures.

Broadband Performance Test System

Since December 2010, OFCA has been providing a broadband performance test system enabling users of fixed and mobile broadband service 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, OFCA reviews and upgrades the test system to further enhance its capability and performance. Currently, it supports speed tests of up to 10 Gbps for desktop and notebook computers and up to 3 Gbps for iOS-based and Android-based mobile devices. From service launch to March 2023, more than 118 million broadband performance tests were conducted via the system.

Consumer Education Programmes

During the year, the Authority continued to arrange publicity activities and disseminate consumer messages through different media channels. A territory-wide publicity campaign on Real-name Registration Programme was carried out from late September 2022 to February 2023 to remind the general public of the registration deadline on 23 February 2023. In addition, the Authority continued its publicity efforts in enhancing public awareness of smart use of communications services through the organisation of the annual Consumer Education Campaign from August 2022 to March 2023. A range of programmes and activities, including roving exhibitions, community talks, public seminar in hybrid mode, drama performances and talks at schools were held during the year. A new online exhibition website was also launched for public's access to various consumer messages anytime anywhere.

Three sets of new TV and radio APIs were produced and launched during the year on various themes, namely "5G Makes the Impossible Possible", "Five Main Points on Subscription to 5G Service Plans" and "Optical Fibre Access Enables Smart Living for All".

6.19 Enforcement of the Fair Trading Sections of the Trade Descriptions Ordinance

The fair trading sections of the TDO prohibit certain specified unfair trade practices by traders in the provision of goods and services to consumers. The Authority is conferred concurrent jurisdiction with the C&ED to enforce the fair trading sections of the TDO in relation to the commercial practices of licensees under the TO and the BO directly connected with the provision of telecommunications and broadcasting services. The two enforcement agencies have entered into a memorandum of understanding (MoU) to coordinate the performance of their functions under the fair trading sections of the TDO and have issued a set of enforcement guidelines to provide guidance for traders and consumers as to the operation of the fair trading sections.

From 1 April 2022 to 31 March 2023, the Authority handled a total of 291 complaints under the TDO, of which 249 were closed for insufficient evidence to suspect/establish a contravention or falling outside the scope of the TDO; three were closed after the issue of advisory letters to the licensees concerned to draw their attention to the need to improve the relevant commercial practices in relation to the sale, supply or promotion of telecommunications or broadcasting services to consumers, and the remaining 39 were under processing.

Review of the Communications Authority's Major Tasks

6.20 Enforcement of the Competition Ordinance

The CO provides a cross-sectoral competition law prohibiting anti-competitive conduct in all sectors. Under the CO, the Authority is conferred concurrent jurisdiction with the Commission to enforce the CO in respect of the conduct of undertakings operating in the telecommunications and broadcasting sectors, including merger and acquisition activities involving carrier licensees in the telecommunications sector.

Pursuant to the MoU signed by the Authority and the Commission, the Authority will ordinarily assume the role of the lead authority for matters falling within the concurrent jurisdiction. For matters involving issues that are partly within and partly outside the concurrent jurisdiction, the Authority and the Commission will discuss and agree on how best to process the matter on a case-by-case basis.

From 1 April 2022 to 31 March 2023, a total of 13 complaints and/or enquiries were received under the CO, with 12 cases closed without the need for further action and one case is being processed. During the year, one transaction was reviewed under the merger rule of the CO. No further action was considered necessary in respect of the transaction.

6.21 Enforcement of the Unsolicited Electronic Messages Ordinance

The UEMO sets out the rules about sending CEMs, including the requirements to provide accurate sender information and honour unsubscribe requests. Under the UEMO, the Authority has established three Do-Not-Call Registers (DNC Registers) to allow members of the public to register their numbers to indicate their choice of not receiving commercial facsimile messages, short messages and/or pre-recorded telephone messages. As of March 2023, more than 2.7 million numbers were registered under these DNC Registers.

The Authority will continue to monitor compliance with the UEMO by CEM senders and streamline the procedures for more effective enforcement.

MAJOR REGULATORY ACTIONS

6.22 Sanctions against Broadcasting Licensees

There was no major sanction against broadcasting licensees during the reporting period.

6.23 Sanctions against Telecommunications Licensees

Breach by IDD1628 Limited for Failure to Provide Satisfactory Customer Service and Other Licence Obligations

Between December 2020 and June 2021, OFCA received 11 consumer complaints alleging that IDD1628 Limited (IDD1628), an SBO licensee authorised for the provision of ETS, could not be reached through its customer service channels and failed to handle customers' requests for termination of its International Direct Dialling services. Taking into account OFCA's investigation, the Authority concluded on 24 February 2022 that IDD1628 was in breach of General Condition 5.1 of its SBO licence, which required it to provide a good, efficient and continuous service in a manner satisfactory to the Authority, and imposed a financial penalty of \$70,000 on IDD1628.

IDD1628 failed to pay the financial penalty and continued to fail to respond to OFCA's requests made subsequently for information relating to its business under various licence conditions. Taking into account OFCA's further investigation, the Authority concluded on 14 June 2022 that IDD1628 had been in continuous breach of General Condition 5.1 and in breach of the Special Conditions 3.1 and 13.2 of its SBO licence, and decided to suspend its licence with immediate effect until expiry on 30 November 2022. As IDD1628 failed to meet any of the requirements for the renewal of its SBO licence, the licence was not renewed upon expiry.

Review of the Communications Authority's Major Tasks

Breach by Ultra Data Technology Limited for Failure to Comply with the Registration Regulation and SIM Guidelines

As a result of OFCA's close monitoring of the implementation of the Real-name Registration Programme by the relevant licensees since September 2021, OFCA noted that Ultra Data Technology Limited (Ultra Data) and four other licensees failed to put in place in a timely manner an electronic registration platform in accordance with the SIM Guidelines. Taking into account OFCA's investigation, the Authority concluded on 8 March 2022 that they had breached the SIM Guidelines and the relevant condition of their licences and issued directions pursuant to section 36B(1)(a) of the TO to the five licensees, requiring them to rectify their breach of the SIM Guidelines and the relevant condition of their licences.

Whilst four of the five licensees adopted rectification measures to comply with the aforesaid directions, the SIM Guidelines and the relevant condition under their respective licences, Ultra Data failed to do so. Taking into account OFCA's further investigation, the Authority decided on 7 April 2022 to suspend part of Ultra Data's Class Licence for Offer of Telecommunications Services in respect of offering local mobile service through SIM cards subject to the real-name registration requirements for a period of 12 months with effect from 7 June 2022.

Breach by Multibyte Info Technology Limited for Failure to Comply with the Registration Regulation and SIM Guidelines

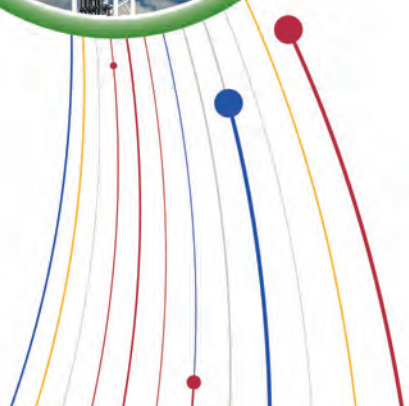
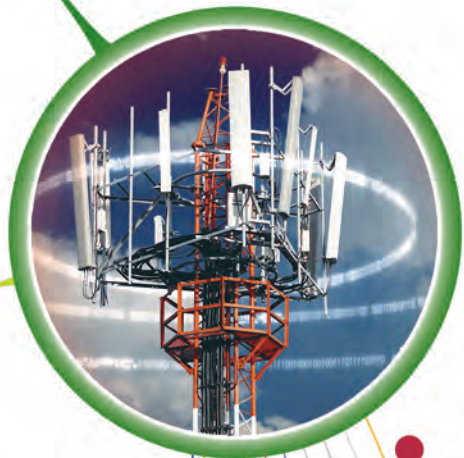
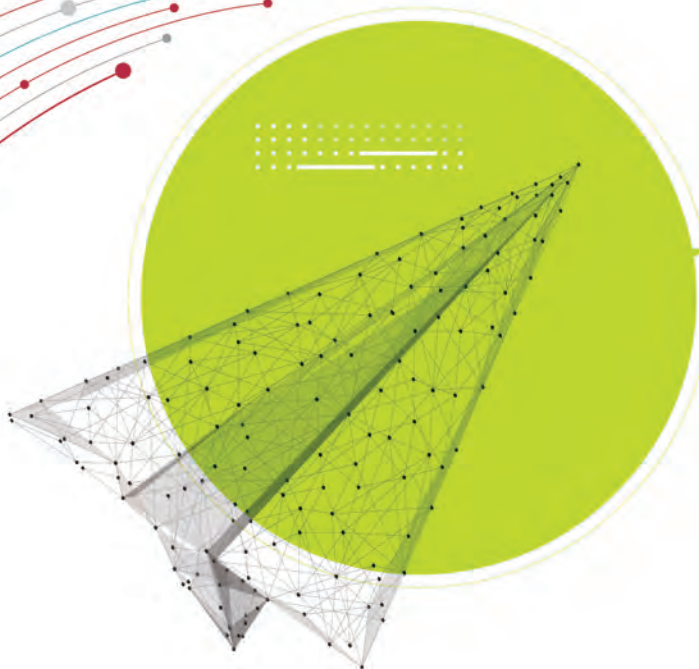
OFCA conducted an investigation into a suspected failure by Multibyte Info Technology Limited (Multibyte) to ensure completion of real-name registration by its customers for certain subscriptions to its eSender service provided and activated on or after 1 March 2022. Taking into account the findings of OFCA's investigation, the Authority concluded on 21 October 2022 that Multibyte had breached section 5 of the Registration Regulation and clause 3.3.1 of the SIM Guidelines, and issued a direction pursuant to section 36B(1)(a) of the TO to Multibyte, requiring it to rectify its breach of the Registration Regulation and SIM Guidelines by specified deadlines. Multibyte subsequently rectified its breach and comply with the Registration Regulation and SIM Guidelines.



6.24 Sanctions against Senders of Commercial Electronic Messages

From April 2022 to March 2023, the Authority received 540 reports on suspected contraventions of the UEMO, representing an increase of about 3.8% as compared to the 520 reports received in the previous year. The majority of these 540 reports was related to short messages, pre-recorded telephone messages and email messages. In dealing with these reports, the Authority would, depending on the circumstances, issue advisory letters to senders of CEMs requesting them to observe the requirements of the UEMO or issue warning letters to those involved in more serious cases. During the period under review, 69 advisory letters and 20 warning letters were issued. In the event of repeated contraventions by a particular sender, the Authority may issue enforcement notices pursuant to the UEMO directing the sender to take steps to remedy the contraventions. Any person who fails to comply with an enforcement notice may be liable to a fine of up to \$100,000 on the first conviction. In 2022/23, no enforcement notice was issued.

CHAPTER 7 Acknowledgement



The Communications Authority would like to express its appreciation for the cooperation and support given by the following organisations in preparing the Report:

Television Broadcasts Limited

HK Television Entertainment Company Limited

Fantastic Television Limited

Hong Kong Cable Television Limited

PCCW Media Limited

APT Satellite TV Development Limited

Starbucks (HK) Limited

WarnerMedia Asia Pacific (HK) Limited

Sun Television Cybernetworks Enterprise Limited

Auspicious Colour Limited

Phoenix Satellite Television Company Limited

Hong Kong TV International Media Group Limited

One TV Media Global Limited

Star China Media Limited

Hong Kong Commercial Broadcasting Company Limited

Metro Broadcast Corporation Limited

PricewaterhouseCoopers Hong Kong

CSM Media Research

TeleGeography

Commerce and Economic Development Bureau

Office of the Communications Authority

Information Services Department

Radio Television Hong Kong

ANNEX 1

SUMMARY OF NON-DOMESTIC TELEVISION PROGRAMME SERVICES

Licensee	Date of Launch of Service (Month.Year)	No. of Channels (No. receivable in HK)	Nature of Channels	Target Markets	Satellite
1. APT Satellite TV Development Limited	8.2000	13 (0)	General entertainment, & religious programmes	Asia-Pacific region, Middle East, Africa and Europe	Apstar 5C Apstar 7
2. Starbucks (HK) Limited	6.2000	1 (0)	Weather, sports, music and finance etc.	The Mainland	Apstar 6C
3. WarnerMedia Asia Pacific (HK) Limited (formerly known as Turner International Asia Pacific Limited)	10.1989	8 (0)	News, finance, movie, children & family programmes	Asia-Pacific region & South Asia	AsiaSat 7 Intelsat 20
4. Sun Television Cybernetworks Enterprise Limited	8.2000	1 (1)	History & culture-related documentaries	Asia-Pacific region	AsiaSat 9
5. Auspicious Colour Limited	1.2006	96 (45)	General entertainment, infotainment & music	Asia-Pacific region	AsiaSat 5 AsiaSat 7 AsiaSat 9
6. Phoenix Satellite Television Company Limited	5.2006	4 (3)	General entertainment, news & movie	Asia-Pacific region	AsiaSat 7
7. Hong Kong TV International Media Group Limited	3.2011	6 (6)	Infotainment	Asia-Pacific Region	Apstar 6C
8. One TV Media Global Limited	5.2013	2 (2)	News, finance & entertainment	Asia-Pacific Region	Apstar 5C
9. Star China Media Limited	1.2014	3 (2)	Music programmes, entertainment news & general entertainment	Asia-Pacific Region	AsiaSat 7

ANNEX

TYPES AND NUMBERS OF TELECOMMUNICATIONS LICENCES (AS AT 31 MARCH 2023)

Type of Licences	Number of Licences
Aeronautical VHF Fixed Station	34
Aircraft Station	312
Amateur Station	2 625
Broadcast Radio Relay Station & Broadcast Relay Station	12
Experimental Station	68
Hotel Television (Transmission)	166
Industrial, Scientific & Medical Electronic Machine	2 012
Localised Wireless Broadband Service	1
Maritime Radio (Local Vessel)	2 116
Mobile Radio System Fixed Station	15
Mobile Radio System Mobile Station	1 417
Private Mobile Radio System	1 947
Private Radio Paging System	3
Public Radiocommunications Service	7
Radio Dealers (Unrestricted)	4 143
Radiocommunications School	7
Radiodetermination and Conveyance of Commands, Status and Data	162
Satellite Master Antenna Television	65
Self-Provided External Telecommunications System	8
Services-Based Operator of Class 1 Service and Class 2 Service ^{Note A}	22
Services-Based Operator of Class 3 Service	467
Ship Station	2 245
Space Station Carrier	10
Taxi Radiocommunications Service	15
Unified Carrier – Mobile Services ^{Note B}	13
Unified Carrier – Local/External Fixed Services ^{Note B and Note C}	52
Wide Band Link & Relay Station	48
Wireless Internet of Things	4
Total	17 996

Note A: This figure includes 20 licences which are also authorised for the provision of SBO Class 3 services.

Note B: This figure includes seven licences which are authorised to provide both fixed and mobile services.

Note C: This figure includes the three licences authorising the transmission of domestic television programme services.



GLOSSARY

In alphabetical order	Abbreviation
26 GHz and 28 GHz bands	26/28 GHz bands
Amplitude Modulation	AM
Announcement in the Public Interest	API
Broadcasting (Miscellaneous Provisions) Ordinance (Cap. 391)	B(MP)O
Broadcasting Ordinance (Cap. 562)	BO
Building Management Office	BMO
Chief Executive in Council	CE in C
Commerce and Economic Development Bureau	CEDB
Commercial Electronic Message	CEM
Communications Authority	The Authority
Communications Authority Ordinance (Cap. 616)	CAO
Competition Commission	Commission
Competition Ordinance (Cap. 619)	CO
Customer Complaint Settlement Scheme	CCSS
Customs and Excise Department	C&ED
Director-General of Communications	DG Com
Domestic Free Television Programme Service	Free TV
Domestic Pay Television Programme Service	Pay TV
Do-Not-Call Register	DNC Register
External Telecommunications Service	ETS
Fantastic Television Limited	Fantastic TV
Fifth Generation	5G
Fixed Network Operator	FNO
Fourth Generation	4G
Frequency Modulation	FM
Gigabits per second	Gbps
Guidelines on Implementation of Real-name Registration for SIM Cards	SIM Guidelines
Guidelines on Work near Underground Telecommunications Lines	UTL Guidelines
High Definition Television	HDTV
HK Television Entertainment Company Limited	HKTVE
HKT Trust and HKT Limited	HKT
Hong Kong Cable Television Limited	HKCTV
Hong Kong Commercial Broadcasting Company Limited	CRHK
Hong Kong Police Force	Police
Hybrid Fibre Coaxial Cable	HFC
IDD1628 Limited	IDD1628
International Private Lease Circuit	IPLC
Megabits per second	Mbps

ANNEX

In alphabetical order	Abbreviation
Memorandum of Understanding	MoU
Metro Broadcast Corporation Limited	Metro
Microwave Multipoint Distribution System	MMDS
Mid-term Review of the Free TV Licences of Fantastic TV, HKTVE and TVB and the Sound Broadcasting Licences of CRHK and Metro	Mid-term Review
Mobile Network Operator	MNO
Mobile Virtual Network Operator	MVNO
Multibyte Info Technology Limited	Multibyte
Non-domestic Television Programme Service	Non-domestic TV
Non-ionising Radiation	NIR
Office of the Communications Authority	OFCA
Other Licensable Television Programme Service	Other Licensable TV
Passive Optical Network and Digital Subscriber Line	PON and DSL
PCCW Media Limited	PCCW Media
Pre-paid SIM	PPS
Public Radiocommunications Service	PRS
Radio Base Station	RBS
Radio Television Hong Kong	RTHK
Real-name Registration Programme for SIM Cards	Real-name Registration Programme
Second Generation	2G
Secretary for Commerce and Economic Development	SCED
Services-based Operator	SBO
SmarTone Mobile Communications Limited	SmarTone
Spectrum Utilisation Fee	SUF
Telecommunications Ordinance (Cap. 106)	TO
Telecommunications (Registration of SIM Cards) Regulation (Cap. 106AI)	Registration Regulation
Television Broadcasts Limited	TVB
Terrestrial Ultra High Frequency	Terrestrial UHF
Third Generation	3G
Trade Descriptions Ordinance (Cap. 362)	TDO
Ultra Data Technology Limited	Ultra Data
Unified Carrier Licence	UCL
Universal Service Obligation	USO
Universal Service Provider	USP
Unsolicited Electronic Messages Ordinance (Cap. 593)	UEMO
Wireless Internet of Things	WIoT
Wireless Local Area Network	WLAN
Working Group on Tackling Fraudulent Calls and Messages by the Telecommunications Industry	The Working Group



通訊事務管理局
COMMUNICATIONS
AUTHORITY

COMMUNICATIONS AUTHORITY

www.coms-auth.hk

For broadcasting matters:

Address : 20/F, Wu Chung House,
213 Queen's Road East,
Wan Chai, Hong Kong
Telephone Enquiries : (852) 2961 6333
Fax : (852) 2507 2219
Email : webmaster@ofca.gov.hk

For telecommunications and Unsolicited Electronic Messages matters:

Address : 29/F, Wu Chung House,
213 Queen's Road East,
Wan Chai, Hong Kong
Telephone Enquiries : (852) 2961 6333
Fax : (852) 2803 5110
Email : webmaster@ofca.gov.hk