

**For discussion on
14 November 2016**

**Legislative Council Panel
on Information Technology and Broadcasting**

**An Update on the Implementation of
Digital Terrestrial Television Broadcasting**

Purpose

This paper updates Members on the latest progress of the implementation of the digital terrestrial television (DTT) service.

DTT Network Coverage

Domestic free television programme service licensees

2. Domestic free television programme service (free TV) licensees are responsible for the construction of transmission network to deliver their licensed services throughout Hong Kong by adopting their own transmission means under the technology neutral regime enshrined in the Broadcasting Ordinance (Cap. 562). Currently, two of the free TV licensees, namely HK Television Entertainment Company Limited (HKTVE) and Television Broadcasts Limited (TVB), are providing DTT services, and the transmission network for broadcasting their DTT services has achieved an overall coverage of at least 99% of the Hong Kong population¹.

3. Another free TV licensee, Fantastic Television Limited (Fantastic TV), was granted a free TV licence on 31 May 2016. Under the licence, Fantastic TV is required to launch its licenced free TV service via a fixed network no later than 30 May 2017. In June 2016, Fantastic TV submitted an application to the Communications Authority (CA) for employing broadcasting spectrum as an additional transmission means for the delivery of its DTT service. Its application is being assessed by the CA in accordance with the established procedures.

¹ HKTVE also provides its licensed free TV service via a fixed network.

4. From time to time, the Office of the Communications Authority (OFCA) receives enquiries about DTT coverage in remote areas, including those with DTT reception problems. OFCA provides technical advice to the residents to help improve their DTT reception.

Radio Television Hong Kong

5. The Radio Television Hong Kong (RTHK) has commenced broadcast of its DTT channels since January 2014. Currently RTHK's DTT signals are broadcast from a total of 13 transmitting stations², covering about 85% of the Hong Kong population. RTHK plans to establish more transmitting stations for its DTT service in a progressive manner in the coming years. Funding was approved by the Finance Committee in July 2014 for the construction of 22 DTT fill-in stations. With the completion of these fill-in stations in 2019, the DTT target coverage of 99% of the Hong Kong population would be achieved and such coverage will be on a par with the current DTT coverage of TVB and HKTVE.

DTT Programme Channels

TVB

6. On 22 February 2016, TVB renamed its HD Jade channel as J5 and ceased the simulcast³ arrangement on its Jade and HD Jade channels. The change leads to an increase in programme choices for the viewing public.

HKTVE

7. HKTVE has launched its new integrated Chinese channel, ViuTV, via fixed network since 31 March 2016. Following the cessation of the free TV service of Asia Television Limited (ATV)⁴, HKTVE has started to transmit its DTT service from 2 April 2016. In accordance with its licence requirements, HKTVE will launch its integrated English channel no later than 31 March 2017.

² The 13 transmitting stations that RTHK is currently broadcasting its DTT signals are located at Temple Hill, Kowloon Peak, Castle Peak, Golden Hill, Cloudy Hill, Lamma Island, Mount Nicholson, Beacon Hill, Brick Hill, Sai Wan Shan, Hill 374 Yuen Long, Pottinger Peak and Stanley Hill

³ Simulcast means simultaneous broadcast of the same television programme content on both Jade and HD Jade (now renamed as J5) channels provided by TVB.

⁴ Following the decision of the Chief Executive in Council on 1 April 2015 not to renew the free TV licence of ATV and to extend the term of ATV's licence to 1 April 2016, all the broadcasting spectrum assigned to ATV was withdrawn on 2 April 2016, and part of the said broadcasting spectrum was assigned to HKTVE on the same day.

RTHK

8. RTHK commenced its DTT service with three high definition television (HDTV) channels, namely RTHK TV channels 31 (flagship channel), 32 and 33, in January 2014. As a public service broadcaster, RTHK's television services programme areas are set out in the Charter of RTHK. It provides, inter alia, services notably not adequately provided by commercial television broadcasters.

9. At present, on the DTT platform, RTHK's broadcasting hours of its flagship channel, RTHK TV channels 31, runs from 6:30 a.m. to 1:30 a.m. Monday to Sunday. A variety of television programmes, including the first live information and current affairs morning programme with simultaneous sign language interpretation in Hong Kong and a half-hour video news report, have been introduced to the viewing public to cater for the different needs and preferences of television audience.

10. Currently, the two commercial free TV service providers, HKTVE and TVB, together with the public service broadcaster, RTHK, are broadcasting a total of nine digital television programme channels, all in HDTV format. A full list of DTT programme channels is set out as follows –

Channel number	Name of Channel	Programme Description
<i>HKTVE</i>		
99	ViuTV	A Cantonese channel offering a variety of local and overseas productions
<i>TVB</i>		
81	Jade	A Cantonese channel offering a variety of local and overseas productions
82	J2 *	A general entertainment channel offering a mix of content customised to young viewers and adultescents
83	iNews*	A 24-hour news channel
84	Pearl	An English channel offering a variety of local and overseas productions
85	J5*	A channel offering acquired programmes and up-to-date information on financial and local property markets

Channel number	Name of Channel	Programme Description
<i>RTHK</i>		
31	RTHK TV Channel 31	A vast variety of quality programmes that serve a broad spectrum of audiences and cater for the need of the minority groups
32	RTHK TV Channel 32	Live feed programmes of various Legislative Council meetings, other important meetings, press conferences, international news image and footages, etc.
33	RTHK TV Channel 33	Relay of Channel 9, the Documentary Channel of China Central Television (CCTV-9)

* Interactive television service⁵ is currently available on these digital channels.

DTT Receivers

11. Currently, the television sets sold in the consumer electronics retail market are integrated digital televisions (iDTVs) which are capable of receiving DTT service directly without the need for connection to a separate digital decoder / set-top box. However, the sales volume of DTT set-top box (about 4 300 per month, including basic models with tuners only and those with harddisks for recording) remains steady. The average price of a DTT set-top box dropped to below \$500 (basic models with tuners only) in 2015.

DTT Take-up and Analogue Switch-off

DTT Take-up

12. According to a public survey conducted in December 2015, close to 85% (about 2.1 million) of the households in Hong Kong are receiving DTT service. The DTT take-up rate since the launch of DTT service is tabulated below –

⁵ Interactive television service was launched by TVB in August 2008. Through a DTT receiver capable of supporting the interactive television service provided by TVB, viewers can access a variety of information including weather forecast, news headlines, Hang Seng index, delayed quotes of individual stock prices, etc.

Date (year-end)	DTT Take up Rate (percentage of Hong Kong households)
2008	about 32%
2009	about 47%
2010	about 61%
2011	about 69%
2012	about 71%
2013	about 80%
2014	over 80%
2015	close to 85%

Analogue Switch-off

13. In 2014, the Government revised the working target date of switching off the analogue television broadcasting services (or in short “analogue switch-off (ASO)”) from 2015 to the end of 2020, with a review of the target date to be conducted in 2017-18. The revised target date will allow more time for the remaining analogue television viewers (of about 400 000 households as at the end of 2015) to switch to DTT service. It also allows the Government to optimise the utilisation of the vacated spectrum after ASO to yield the maximum economic benefits for Hong Kong through the co-ordination of frequency use with the Mainland authorities⁶.

Way Forward

14. The Government will continue to monitor the DTT take up by the viewing public and keep in view the respective market development.

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⁶ For the freed-up spectrum after ASO to be usable for mobile telecommunications services in Hong Kong, it must be free from radio interference in the same frequency range, including that of any signals transmitted from neighbouring areas in the same frequency range. This requires co-ordination and harmonisation of the use of the respective spectrum band with Hong Kong’s neighbouring Mainland areas. The Mainland authorities have indicated that, for planning purpose, the earliest ASO timeframe for the Guangdong Province would be at the end of 2020.