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Panel on Information Technology and Broadcasting

Meeting on 14 December 2009

**Updated background brief on the progress of the implementation of
digital terrestrial television broadcasting in Hong Kong**

Purpose

This paper sets out the progress of the implementation of digital terrestrial television (DTT) broadcasting in Hong Kong, and also a summary of views and concerns expressed by Members during previous discussions.

Background

2. DTT broadcasting is a new technology of transmitting television (TV) services, in which pictures and sound are processed electronically and converted into digital format for transmission. The signals will be re-converted by appropriate devices, such as set-top boxes, into TV programmes. DTT broadcasting, as compared with analogue broadcasting, brings major benefits in enhancing efficiency in utilizing radio spectrum, resolves some reception problems, and offers opportunities of new services such as multi-channel broadcasting, standard definition TV (SDTV)¹, high definition TV (HDTV)², broadcasting with multi-viewing angles, interactive

¹ A picture on the television screen is formed by a large number of small dots called pixels. The higher the number of pixels, the better the resolution hence picture quality. Conventional analogue TV broadcasting provides a resolution of up to 720 (horizontal) × 576 (vertical) pixels, which is known as 576 lines.

Standard definition television (SDTV) broadcasting can be considered as the digitized version of the conventional analogue television broadcasting. However, SDTV pictures are free from reception problems including "ghosting" and "snowing", and thus have a picture quality similar to digital versatile disk (DVD) (typically having a resolution of 525 lines).

² High definition television (HDTV) broadcasting, on the other hand, provides a high picture resolution of at least 720 lines or up to 1080 lines and typically on a wide screen (with an aspect ratio, i.e., the ratio of picture width to height, of 16:9). Hence, HDTV provides a much better picture quality than analogue television and SDTV broadcasting and enables viewers at home to have the same experience as watching movies in a cinema.

services and datacasting (e.g., financial quotes).

3. Pursuant to the implementation framework for DTT broadcasting announced by the Government in 2004, the two domestic free television programmes service licensees, i.e. Asia Television Limited (ATV) and Television Broadcasts Limited (TVB), officially launched DTT on 31 December 2007. The DTT network has been extended to 18 districts covering 75% of the Hong Kong population in August 2008. According to a survey conducted in June 2009, about 40% of households (approximately 920 000) are watching DTT via DTT receivers (including set-top boxes or integrated digital TV (iDTV) sets) or computers. The launch of five new fill-in stations by end 2009 would further extend the coverage to 85% of the population, or an additional 700 000 people. The construction of 17 more transmitting stations between 2010 and 2011 would bring the ultimate DTT coverage on a par with that of the existing analogue coverage.

Previous discussions

4. At the meetings of the Panel on Information Technology and Broadcasting (the Panel) on 12 November 2007, 19 February 2008 and 11 May 2009, members were updated on the latest progress of the implementation of DTT and issues covering the relevant regulatory decisions made by the Broadcasting Authority (BA), coverage areas of DTT broadcasting, the upgrade of In-Building Coaxial Cable Distribution System, labelling scheme for DTT receivers, promotion and publicity activities, environmental concerns arising from the disposal of old TV sets, digital and HDTV programme development and the timing of the analogue switch-off.

5. On DTT receivers, the Panel noted that the two broadcasters were supportive of the use of a "combined" set-top box although they objected to pay TV operators bundling free TV service channels into pay TV channels. As consumers in general would welcome the convenience of a "combined" set-top box, members called on the Administration to facilitate discussions among the broadcasters to bring about an early consensus. There should also be publicity on the choices of DTT receivers available and the best time to purchase a set-top box for DTT reception to address consumers' concerns in this respect. The Administration assured members that the BA would continue to coordinate among different broadcasters to address consumers' concerns.

6. Some Panel members were of the view that although technological advances had generally improved the reception quality, the digital and HDTV programming of both ATV and TVB in terms of quality and variety were far from satisfactory. While programme development and scheduling were commercial decisions of individual broadcasters, members called on the Government to urge the two free TV broadcasters to expedite their digital and HDTV programme development to deliver more diversified and higher quality digital TV entertainment to Hong Kong viewers. The Administration was also urged to explore measures to bring in competition to increase programme choices for the viewing public.

7. Some members expressed concern that households who could not afford to purchase DTT receivers or iDTV sets would be deprived of free television programme services as a result of the termination of analogue broadcasting. They held the view that the Government should adopt a more flexible approach in retaining analogue broadcasting instead of setting a deadline for a complete switch-off, forcing people to change to a more expensive form of entertainment. In view of the low DTT take-up, the Administration was requested to step up publicity and to actively explore measures (such as providing economic incentives/financial assistance to low-income families who could not afford the cost of the switch-over) to encourage and facilitate an early take-up of DTT so that economic benefits of a switch-over could be realized as early as possible. Dr Samson TAM suggested that a timetable should be drawn up for the analogue switch-off on the basis of some objective criteria such as the DTT take-up rate, and the proportion of population/households that had switched over to DTT. The Administration assured the Panel that it would continue to monitor the extent of DTT coverage, the DTT take-up rate, the price of DTT receivers and consumers' readiness before taking a decision on the timing of the analogue switch-off.

8. Hon Frederick FUNG raised a question at the Council meeting on 13 May 2009 about DTT, in particular, the price of DTT receivers, number of incidents of DTT service interruptions since the launch of DTT service, and the follow-up measures taken to reduce service interruption. The Administration advised that over the past year, the price range of popular DTT receivers had dropped from the range of \$1,500-\$3,000 to \$900-\$1,500. Since the launch of DTT, 19 incidents in respect of the transmitting equipment and related facilities of the two broadcasters had been recorded, resulting in service interruptions which lasted for periods from a few minutes to half a day. To minimize possible DTT service interruption affecting the viewing public due to failure of the transmitting facilities, the Office of Telecommunications Authority had asked the two broadcasters to improve their service recovery process including enhancement of the relevant spare equipment.

Latest position

9. The Administration will brief the Panel on 14 December 2009 on the latest development of DTT services, including the progress on network roll-out, status of DTT take-up by the viewing public and the latest publicity.

Relevant papers

Information paper provided by the Administration for the Information Technology and Broadcasting Panel meeting on 11 June 2007

<http://www.legco.gov.hk/yr06-07/english/panels/itb/papers/itb0611-ctbcr91907pt24-e.pdf>

Submissions from deputations for the Information Technology and Broadcasting Panel meeting on 11 June 2007 (Please refer to the agenda)

<http://www.legco.gov.hk/yr06-07/english/panels/itb/agenda/itag0611.htm>

Minutes of Information Technology and Broadcasting Panel meeting on 11 June 2007
<http://www.legco.gov.hk/yr06-07/english/panels/itb/minutes/itb070611.pdf>

Information paper provided by the Administration for the Information Technology and Broadcasting Panel meeting on 12 November 2007
<http://www.legco.gov.hk/yr07-08/english/panels/itb/papers/itb1112cb1-203-3-e.pdf>

Generic Code of Practice on Television Technical Standards
<http://www.legco.gov.hk/yr07-08/english/panels/itb/papers/itb1112cb1-230-1-e.pdf>

Background brief prepared by the Legislative Council Secretariat for the Information Technology and Broadcasting Panel meeting on 12 November 2007
<http://www.legco.gov.hk/yr07-08/english/panels/itb/papers/itb1112cb1-203-4-e.pdf>

Information paper provided by the Administration for the Information Technology and Broadcasting Panel meeting on 12 November 2007 (Follow-up paper)
<http://www.legco.gov.hk/yr07-08/english/panels/itb/papers/itb1112cb1-826-1-e.pdf>

Minutes of Information Technology and Broadcasting Panel meeting on 12 November 2007
<http://www.legco.gov.hk/yr07-08/english/panels/itb/minutes/itb071112.pdf>

Information paper provided by the Administration for the Information Technology and Broadcasting Panel special meeting on 19 February 2008
<http://www.legco.gov.hk/yr07-08/english/panels/itb/papers/itb0219cb1-805-1-e.pdf>

Minutes of Information Technology and Broadcasting Panel meeting on 19 February 2008
<http://www.legco.gov.hk/yr07-08/english/panels/itb/minutes/itb080219.pdf>

Information paper provided by the Administration for the Information Technology and Broadcasting Panel meeting on 11 May 2009
<http://www.legco.gov.hk/yr08-09/english/panels/itb/papers/itb0511cb1-1492-3-e.pdf>

Updated background brief prepared by the Legislative Council Secretariat for the Information Technology and Broadcasting Panel meeting on 11 May 2009
<http://www.legco.gov.hk/yr08-09/english/panels/itb/papers/itb0511cb1-1492-4-e.pdf>

Minutes of Information Technology and Broadcasting Panel meeting on 11 May 2009
<http://www.legco.gov.hk/yr08-09/english/panels/itb/minutes/itb20090511.pdf>

Hon Frederick FUNG Kin-kee's question on "Digital Terrestrial Television" at the Council meeting on 13 May 2009 and the Administration's reply
<http://www.legco.gov.hk/yr08-09/chinese/counmtg/floor/cm0513-confirm-ec.pdf>