

# 立法會 *Legislative Council*

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## **Panel on Information Technology and Broadcasting**

**Meeting on 8 March 2010**

### **Background brief on the implementation frameworks for the development of digital audio broadcasting and mobile television services**

#### **Purpose**

This paper provides background information on the implementation frameworks for the development of digital audio broadcasting (DAB) and mobile television (mobile TV) services in Hong Kong. It also provides a summary of views and concerns expressed by Members in previous discussions.

#### **Background**

2. According to overseas experience, Band III (174 – 230 MHz) frequencies are most suitable for DAB services. The prevailing DAB technologies using Band III are Eureka-147 developed in Europe. A frequency multiplex of 1.5 MHz in Band III can carry seven CD-quality sound channels. However, a more advanced standard, DAB+, has gradually become the industry norm. This provides sound quality equivalent to that possible on DAB but at a lower data rate using sophisticated compression techniques. For one Band III multiplex, up to 13 CD-quality audio channels can be provided.

3. In Hong Kong, four frequency multiplexes in Band III have been identified. According to the framework for the development of mobile TV services announced in December 2008, one UHF Band multiplex and two out of the four available frequency multiplexes in Band III will be used for providing mobile TV services, with up to 50% flexibility in the use of the transmission capacity to introduce DAB or other value-added services such as datacasting. The remaining two Band III multiplexes will be reserved for future DAB services, or other possible electronic communications services when technology further evolves.

4. In September 2009, the Government announced the decision to task RTHK to be the public service broadcaster in Hong Kong and to expand its scope of service, including the provision of DAB services by RTHK through the use of a Band III multiplex for public service broadcasting purposes. Since this announcement, the Administration had been monitoring market and technological developments and were reviewing the use of the available frequency multiplexes. No decision had yet been taken on when to proceed with the release of these multiplexes. Meanwhile, the Government issued a trial permit to Wave Media Limited, a fourth sound broadcaster, to carry out trial transmissions of DAB on Band III for a six-month period from 1 November 2009.

### **Previous discussions**

5. The subject on the development of DAB and mobile TV services had been discussed by the Bills Committee on Telecommunications (Amendment) Bill 2009 and the Panel on Information Technology and Broadcasting (the Panel). The views expressed by Members are summarized in the ensuing paragraphs.

### Digital audio broadcasting

6. During the scrutiny of the Telecommunications (Amendment) Bill 2009, the Bills Committee had discussed the availability of frequency spectrum for the provision of sound broadcasting services in Hong Kong. The Bills Committee had noted that all of the seven territory-wide FM channels and seven territory-wide AM channels had been allocated and were currently being taken up by RTHK and three commercial sound broadcasting licensees for the provision of territory-wide services. In this connection, some members of the Bills Committee considered that the Administration should expedite the development of DAB services in Hong Kong so as to supplement the existing analogue broadcasting and improve the quality of AM broadcasting and reception as well as to free up spectrum for the introduction of public access channels. These members opined that the Government should be more open-minded to community participation in broadcasting, and provide more platforms and channels for different sectors of the community and non-governmental organizations to express diverse views.

7. The Administration advised that the Commerce and Economic Development Bureau and RTHK were working together to follow up on the resource planning for establishing digital radio and TV services by the new RTHK. RTHK would commence the preparatory work for the spectrum use and transmission network planning for the provision of DAB services in consultation with the Office of the Telecommunications Authority (OFTA). A Community Broadcasting Involvement Fund would be set up to provide financial support and technical assistance to facilitate community groups to participate in broadcasting and content productions. It was estimated that territory-wide DAB services could be rolled out in phases in a period of around three to five years.

8. As regards the licensing criteria for audio broadcasting, irrespective of conventional audio broadcasting or DAB, some members of the Bills Committee expressed concern that the licensing criterion on financial soundness and commitments to investment would preclude set-ups that had less financial means from being granted a licence to operate community radio service. They were of the view that the Administration should consider lowering the financial threshold so that not only resourceful conglomerates, but also smaller community groups that were relatively less financially capable could also have the opportunity to operate their own channels and participate in community broadcasting.

9. The Administration explained that the criterion on financial soundness did not specify the minimum level of financial resources required other than stating that the applicant must demonstrate a commitment to invest sufficiently in the proposed project and must possess sufficient financial capability to invest to the level proposed. As such, no prospective applicants would be barred from making an application on financial grounds. The financial requirement and related consideration would depend on the applicant's business proposal in respect of the scale, nature and programme content of the services to be provided. The criterion would not in any way specify any threshold whereby an applicant should meet before it would be granted a licence.

### Mobile TV

10. At the Panel meeting on 12 January 2009, the Administration briefed members on the implementation framework for the development of mobile TV services in Hong Kong. The Panel supported in principle the implementation framework and the auction of the relevant spectrum to enable the provision of a wider variety of multimedia services to the viewing public.

### *Programming and content*

11. On regulation of mobile TV services, the Panel noted that the content of such services would not be regulated under the Broadcasting Ordinance (BO). Some Panel members supported that mobile TV services should not be subject to the regulation of BO as this would allow programme diversity and facilitate a wide variety of programme choices to the public. However, some Panel members were concerned that in the absence of regulatory control on mobile TV programming and content, the public, in particular children and youth, might be exposed to adult programme and programme with undesirable content in public places.

12. The Administration advised that mobile TV services, whereby TV programme services was provided by wireless transmission of audio-visual content for reception by compatible mobile phones or other portable devices, was a nascent and relatively personal service different from conventional free-to-air TV services. Having regard to the principle of freedom of expression and to allow mobile TV operators the flexibility to provide a wide range of programmes targeting the mobile TV market in response to consumer demand, a light-handed regulatory approach was proposed instead. Mobile TV services, its programming and content, would be subject to

regulation by general laws such as the Control of Obscene and Indecent Articles Ordinance (Cap. 390) and the Personal Data Privacy Ordinance (Cap. 486) as well as self-regulatory codes of practice to be developed by the industry.

### *Spectrum assignment*

13. Some Panel members opined that the assignment of frequency spectrum through auction would be advantageous to large financial conglomerates and create entry barrier for financially less viable groups. They were concerned that community/minority groups and non-profit making organizations wishing to operate community channels for expression of diverse views would not have the financial means to meet the high fee.

14. The Administration advised that to ensure fair and efficient allocation of spectrum as a scarce public resource, the Government would adopt a market-based approach in accordance with the Radio Spectrum Policy Framework promulgated by the Government whereby spectrum would be assigned by way of an auction whenever there was likely to be competing demand for the spectrum for non-government services. The level of spectrum utilization fee determined by auction would reflect the market value of the spectrum and the business potential perceived by the successful bidder.

### *Market competition*

15. Some Panel members considered that the Government should put in place measures to prevent monopoly and to increase market competition by opening up the market to new industry players. Some other members opined that in view of the high capital outlay required for establishing and maintaining a distributing network for transmitting mobile TV services and associated content productions, it was unlikely that a completely new market player would be interested in bidding for the spectrum. They expressed concern whether there would be sufficient market competition to safeguard the best interests of the public.

16. The Administration advised that mobile TV services and other permitted telecommunications and value-added ancillary services could be provided either by the successful bidders themselves direct, or by mobile TV service providers who hired the transmission capacity from the successful bidders. To encourage a wider variety of services in the mobile TV service market to be provided by different players, the UHF Band multiplex and the two Band III multiplexes would be offered as two separate packages in the auction and no bidder would be allowed to acquire more than one package from the auction.

17. To enable the release of relevant multiplexes in Band III and the UHF Band by auction, the respective subsidiary legislation under the Telecommunications Ordinance was gazetted on 6 February 2009 and tabled for negative vetting at the Legislative Council meeting on 11 February 2009. A subcommittee was subsequently formed under the House Committee to study the relevant Regulation and other related subsidiary legislation which came into operation on 3 April 2009.

## **Recent developments**

18. Taking into account overseas experience with DAB implementation, the value of the frequency spectrum, the increased market interest in the development of DAB, and RTHK's plan to launch DAB services, the Government announced in February 2010 the proposal to first release one 1.5 MHz Band III multiplex for the provision of DAB services starting from late 2010 or early 2011. Interested parties will be invited to submit application to the Broadcasting Authority by 30 April 2010 in accordance with the "Guidance Note for Those Interested in Applying for Licences to Establish and Maintain in Hong Kong a Broadcasting Service under Part IIIA of the Telecommunications Ordinance (Cap. 106)". Depending on market demand, the Administration will consider releasing further multiplexes for the provision of DAB services in due course. In line with international practices, there is no plan for replacing conventional sound broadcasting services (i.e. transmitted by means of analogue AM and FM) with DAB services.

19. The Government also re-visited the implementation framework for mobile TV and came to the conclusion that only one UHF Band frequency should be released for the introduction of broadcast-type mobile TV. The Government considers that the UHF Band frequency has a much larger capacity and is superior to Band III multiplexes in delivering mobile TV services. In view of the proposed allocation of one Band III multiplex for the introduction of DAB services, the Government will remove the flexibility for introducing DAB services in the mobile TV context, and adjust the cap allowed for providing other value-added communications services from 50% to 25% of the spectrum allocated. This brings the mobile TV implementation framework in line with that of digital terrestrial television (also allowing 25% flexibility in the DTT transmission capacity for the provision of value-added service). OFTA will announce details on the auction of the spectrum for mobile TV, which will be held in the second quarter of 2010.

20. Details of the implementation framework for the development of DAB services and the revised implementation framework for broadcast-type mobile TV services are set out in Appendices A and B to the Legislative Council Brief on digital audio broadcasting (File Reference: CTB(CR) 9/1/7).

## **Latest position**

21. The Administration will brief the Panel at its meeting on 8 March 2010 on the implementation framework for the launch of DAB services and the revised implementation framework for broadcast-type mobile TV services

## **Relevant papers**

Report of the Bills Committee on Telecommunications (Amendment) Bill 2009 issued for the House Committee meeting on 8 January 2010

<http://www.legco.gov.hk/yr09-10/english/hc/papers/hc0108cb1-822-e.pdf>

Information paper provided by the Administration for the Bills Committee on Telecommunications (Amendment) Bill 2009 meeting on 30 November 2009

<http://www.legco.gov.hk/yr09-10/english/bc/bc01/papers/bc011130cb1-457-6-e.pdf>

Report of the Subcommittee on Subsidiary Legislation to Enable the Release of Spectrum for Expansion of the Second Generation Mobile Service and Mobile TV Services to the House Committee meeting on 20 March 2009

<http://www.legco.gov.hk/yr08-09/english/hc/papers/hc0320cb1-1067-e.pdf>

Legislative Council brief provided by the Administration for the Information Technology and Broadcasting Panel meeting on 12 January 2009

<http://www.legco.gov.hk/yr08-09/english/panels/itb/papers/itb0112-ctbcr9191408pt4-e.pdf>

Background brief prepared by the Legislative Council Secretariat for the Information Technology and Broadcasting Panel meeting on 12 January 2009

<http://www.legco.gov.hk/yr08-09/english/panels/itb/papers/itb0112cb1-508-3-e.pdf>

Minutes of Information Technology and Broadcasting Panel meeting on 12 January 2009

<http://www.legco.gov.hk/yr08-09/english/panels/itb/minutes/itb20090112.pdf>

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