

# **PROVIDING RADIO SPECTRUM FOR BROADBAND WIRELESS ACCESS**

## **THIRD CONSULTATION PAPER**

**11 May 2007**

## **EXECUTIVE SUMMARY**

### **Introduction**

This consultation paper invites views from the industry and interested parties on the proposed allocation of spectrum for BWA deployment and related issues. It also aims to assess the likely market demand so as to assist the Telecommunications Authority (TA) in making decisions on how to take the matter forward.

### **Spectrum Availability in the 2.5 GHz Band**

2. While the 2.5 GHz band (2.50 – 2.69 GHz) is reserved for the expansion of 3G mobile services, there are competing demands for different services to operate in this band. As the World Radiocommunication Conference 2007 (WRC 2007) of the International Telecommunication Union will discuss the worldwide allocation of the 2.5 GHz band, the TA is of the view that it is pre-mature to consider the allocation of this band for BWA services before WRC 2007, but the TA intends to use this consultation to assess the interest and demand for the use of 2.5 GHz band for BWA services in Hong Kong so that the appropriate amount of spectrum would be included in the bidding exercise planned for 2008.

### **Spectrum Allocation Plan in 2.3 GHz Band**

3. The band immediately below 2.29 GHz (2.20 – 2.29 GHz) is allocated for Electronic News Gathering / Outside Broadcast (ENG/OB) links and the band immediately above 2.4 GHz (2.400 – 2.4835 GHz) is a licence-exempted band. To avoid mutual interference between these services and the future services to be operated in the 2.3 GHz band, appropriate guard

bands will be necessary. As a result, 85 MHz of spectrum within the band of 2.305 – 2.390 GHz may be deployed for BWA. Nonetheless, coordination with the Mainland authorities needs to be conducted to avoid mutual interference between the services in the 2.3 GHz band in the two territories. Depending on the outcome of such coordination and the market demand, the TA may consider offering initially only part of the spectrum in this band for bidding.

### **Scope of Permitted BWA Services**

4. The TA considers that the BWA spectrum should be allowed to provide fixed services, mobile services or fixed-mobile convergence services. The TA will not restrict the types of applications and services that may be provided using the BWA spectrum.

### **Spectrum Assignment and Licensing Arrangements**

5. The TA considers that the BWA spectrum should be assigned by a hybrid selection method including a pre-qualification and an auction. Any interested party, including existing fixed/mobile carriers and new entrants, may bid for the BWA spectrum. The TA proposes that each bidder should be allowed to bid for no more than 30 MHz bandwidth. With such a spectrum cap, and subject to coordination with the Mainland authorities on the use of 2.3 GHz band, there should be sufficient spectrum to license at least three BWA operators in the 2.3 GHz band.

6. The TA intends to license BWA services under the new Unified Carrier Licence to be created, with a validity period of 15 years. BWA Licensees will be required to start offering BWA services within 24 months from the date when the licence is issued. Performance bond will be imposed.

### **Spectrum Utilisation Fee**

7. The TA proposes the adoption of a one-off lump sum for Spectrum Utilisation Fee (SUF), the amount of which will be determined through an open auction.

## **Invitation of Comments and Expression of Intention**

8. The TA welcome views and comments on the issues covered in this consultation paper on or before 11 July 2007. Interested parties who have the intention to invest in services operating in the spectrum concerned are also invited to express their intention to the TA on or before 11 July 2007.

**Office of the Telecommunications Authority  
11 May 2007**