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**Panel on Information Technology and Broadcasting**

**Meeting on 9 May 2005**

**Background brief on  
consultation exercise on assignment of the available spectrum in the  
800 MHz and 1 800 MHz bands to the existing mobile network operators**

**Purpose**

This paper sets out the background of the consultation exercise on assignment of the available spectrum in the 800 MHz and 1 800 MHz bands to the existing mobile network operators (MNOs) and summarizes members' views expressed at the Panel and the Subcommittee on the subsidiary legislation<sup>1</sup> made under the Telecommunications Ordinance (Cap 106) on the licensing arrangements, which included the introduction of spectrum utilization fee (SUF) of mobile telecommunications services on expiry of the existing second generation (2G) licences.

**Background**

2. The Telecommunications Authority (TA) issued a TA Statement on 29 November 2004 setting out his view on, inter alia, how the licensing arrangement upon the expiry of the existing licences for 2G mobile services will be handled. The TA has decided not to offer new CDMA and TDMA licences upon expiry of the existing ones for reason that the assigned spectrum has not been put to

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<sup>1</sup> Subcommittee on Telecommunications (Designation of Frequency Bands Subject to Payment of Spectrum Utilization Fee) (Amendment) Order 2004, Telecommunications (Method for Determining Spectrum Utilization Fees) (Third Generation Mobile Services) (Amendment) Regulation 2004 and Telecommunications (Level of Spectrum Utilization Fees) (Second Generation Mobile Services) Regulation

efficient use. As such, the spectrum previously used for TDMA and CDMA services can be re-farmed or assigned for other use. Separately, the TA Statement has also mentioned that the unassigned Personal Communications Services (PCS) spectrum in the 1 800 MHz band may also be made available for allocation.

3. According to the TA Statement, the services of some MNOs have been restricted by spectrum shortage problems and additional spectrum will be required by these operators to meet their business growth. As a result, TA sees a need to consider allocating the available spectrum in the 800 MHz band and the 1 800 MHz band to eligible licensees as soon as possible. Specifically, the TA has decided to re-farm the spectrum vacated by the TDMA service for the Extended GSM (EGSM) service. However, as the TA considers that there is no urgency in introducing a new system operating in the spectrum vacated by the existing CDMA licensee, its deployment will be subject to the future spectrum policy review.

### **The consultation**

4. Pursuant to section 32G(2) and 32I(1) of the Telecommunications Ordinance (Cap 106), TA issued a consultation paper on 28 February 2005 to solicit the views of the industry and other interested parties on the proposed frequency assignment method and the proposed charge of SUF payment for extra spectrum allocated under this assignment exercise.

5. On the frequency assignment method, the TA is of the view that all MNOs have operational needs for extra spectrum to cope with their business needs. As such, the TA has proposed to divide the available spectrum in the 800 MHz and 1 800 MHz bands into six 1.6 MHz x 2 blocks. These blocks will then be directly assigned to the incumbent six MNOs to ensure a more balanced playing field for the mobile industry. The TA has no objection if the MNOs can coordinate and reach mutual agreement among themselves on the choice of frequency blocks. Otherwise, the TA will have to formulate a transparent and fair assignment method.

6. TA further proposes that the extra spectrum allocated to the MNOs pursuant to this assignment exercise should be subject to the payment of SUF in line with the Government's earlier decision that the MNOs will pay SUF for the spectrum which they have been assigned when they are granted the new mobile carrier licences after the expiry of their existing licences. Under TA's proposal, the level of SUF should be the same as that stipulated in the Telecommunications (Level of Spectrum Utilization Fees) (Second Generation Mobile Services) Regulation. That is, an annual fee of HK\$145 000 per MHz for the first five licence years will be payable. From the sixth licence year and onwards, an annual fee of 5% of network turnover subject to a minimum fee of HK\$1,450,000 per MHz will be payable.

7. In the last spectrum assignment exercise conducted in March 2002, the TA has imposed as a condition of assignment that the additional spectrum assigned should not be used to provide third generation (3G) services. As the TA considers that the restriction is no longer relevant in the present market environment, he has proposed in the consultation document to remove such restriction when extra spectrum is assigned to the MNOs.

### **Members' views**

8. When considering the proposed subsidiary legislation to extend the requirement to pay SUF to 2G mobile service licensees upon being granted new mobile carrier licences after expiry of their current ones, Members have expressed a number of concerns which may have a bearing on the present consultation.

9. Some Members are concerned whether 2G licensees will pose an unfair advantage over 3G licensees as the former will be able to offer, through network upgrading, 3G-like services but will only need to pay a much lower SUF than their 3G counterparts. The Administration has advised that after the initial five years, the charging mechanism for 2G services from the sixth licence year onwards is broadly consistent with that for 3G services. According to its assessment, 5% of the network turnover of the 2G licensees will likely exceed the minimum fee of \$1,450 per kHz of frequencies assigned payable. As such, both 2G and 3G licensees will be subject to the same charging formula in future.

10. On convergence of 2G and 3G mobile services, Members note that according to the Administration, the future development of mobile services in Hong Kong is primarily market-driven. With rising consumer demand and expectation for higher capacity and speed in voice and data transmission, operators will have to upgrade their network to meet market needs for more advanced mobile services. For example, the two operators which do not possess 3G licences may need to acquire additional spectrum in the EGSM band in order to provide the full range of services available on 3G networks.

11. On whether 2G licensees should only provide mobile services at a transmission speed of less than 144 kbps in order not to pose unfair competition to 3G services, the Administration has confirmed that it will not prescribe an upper limit on the transmission speed of 2G services as this will become a disincentive for 2G licensees to enhance their capability to provide advanced services.

**Latest position**

12. The consultation has ended on 29 March 2005. Subject to the views and comments received, the TA will proceed to finalize the band plan and the detailed arrangement for assigning the available spectrum, including the introduction of the necessary subsidiary legislation.

Council Business Division 1

Legislative Council Secretariat

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