

For discussion  
on 12 June 2000

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

**Progress Report on Industry Consultation on  
the Licensing of Third Generation Mobile Services**

**Purpose**

This paper briefs Members on the progress of the industry consultation on the licensing framework for third-generation (3G) mobile services.

**Background**

2. On 21 March 2000, the Telecommunications Authority (TA) issued an industry consultation paper (the "Consultation Paper") on the licensing framework for 3G mobile services in Hong Kong. The consultation period ended on 22 May 2000. The Consultation Paper identified and discussed the following issues on the licensing of 3G mobile services and consulted the industry and interested parties on these issues, prior to finalisation of the licensing framework:

- Choice of technical standards
- Allocation of radio spectrum
- Treatment of new entrants
- Licensing options
- Operator selection arrangement
- Other regulatory issues

3. Responses to the Consultation Paper have been enthusiastic. The TA has received 47 submissions, including 16 from individuals and academics, 5 from organizations representing different interests, 3 from political parties/Legislative Councillors, 6 from the existing mobile network operators, and the rest from equipment manufacturers or other operators in the telecommunications industry.

4. The submissions received have been published on the web site of the Office of the Telecommunications Authority (OFTA) at <http://www.ofta.gov.hk>. This paper provides a brief survey on the range of views received.

### **Choice of Technical Standards**

5. In the Consultation Paper, the TA stated that it is necessary to promote the adoption of technical standards that are compatible with each other from the users' point of view in order to facilitate competition between networks and to maximize user convenience in accessing roaming services. The choice of 3G standards will also have to be constrained by the band plans in Hong Kong which follow that assigned by the International Telecommunication Union (ITU). The TA therefore intends to allow the prospective operators to use any standards adopted by the ITU within their assigned 3G frequency bands for 3G services, subject to the TA being satisfied that the various technical standards are compatible with each other from the users' point of view.

6. The principles proposed by the TA in the Consultation Paper have received the general support of those parties who have commented on this issue.

## **Allocation of Radio Spectrum**

7. The TA in the Consultation Paper advised the industry that the spectrum allocated by the ITU for 3G services will be available for use in Hong Kong and Hong Kong will follow the band plan recommended by the ITU. This proposal has received the general support of the parties who have commented on this issue.

## **Treatment of New Entrants**

8. In the Consultation Paper, the TA considered that there are grounds for considering the licensing of new entrants in the market to compete with the incumbent operators. The intention of the TA was generally supported with the exception of an existing operator which argued that the Hong Kong mobile services market could not accommodate new entrants for 3G services. Views were divergent on whether the incumbents and new entrants should be treated on the same basis in the bidding process (i.e. whether spectrum should be set aside for new entrants).

## **Licensing Options**

9. The TA put forward in the Consultation Paper four licensing options. In two of the options (Options 1 and 2), the existing mobile operators and new entrants will be given an *equal opportunity* to compete for the 3G licences while in the other two (Options 3 and 4), part of the 3G spectrum will be reserved for *new entrants only* and the remaining part for the incumbents. In Options 1 and 3, all successful applicants (incumbents or new entrants) will be allocated the same width (15 MHz x 2) of spectrum. In Options 2 and 4, new entrants will be allocated wider spectrum (15 MHz x 2) compared with incumbents (10 MHz x 2) who can upgrade their second-generation (2G) networks to perform part of the functions of the 3G services. A total of four to six 3G operators can be accommodated depending on the mix of incumbents and new entrants which are successful in the applications.

10. The submissions provided technical information on the adequacy of the proposed width of spectrum for incumbents and new entrants. Some put forward arguments that it would not be possible to use the 2G spectrum for 3G services without affecting the quality of services to existing 2G customers. Some suggested an additional option which would maximize the number of 3G licences to be issued to six within spectrum constraints, notwithstanding the mix of incumbents and new entrants to be licensed. Views from commenting parties were divided on which options should be adopted in Hong Kong, depending on their views on whether or not spectrum should be reserved for new entrants in the market.

### **Operator Selection Arrangement**

11. In the Consultation Paper, the TA pointed out that the well-established method for the allocation of limited spectrum to 3G operators by way of evaluation of the merits of applications had worked well in the past. However, views were invited on the selection method. This particular issue has received the most enthusiastic response in the submissions.

12. Apart from two operators (one incumbent and one other), the operators, equipment manufacturers and organisations representing their interest generally supported the “evaluation of merits” approach. A few submissions from individuals who are not operators or manufacturers also supported this approach. Many considered that the “evaluation of merits” approach, if adopted, should be made more transparent.

13. One existing mobile network operator was strongly in support of the spectrum auctioning approach. Most of the submissions from individuals, academics and political parties/Legislative Councillors supported the auctioning approach.

14. The Consumer Council, the Hong Kong Telecommunications User Group, one operator and a couple of submissions from individuals/academics suggested some form of “hybrid” approaches that would capture the benefits, while avoiding the disbenefits, of both approaches. The Hong Kong Telecommunications Users Group, while supporting selection based on the merits of applications, suggested that the operators should pay spectrum utilization fees. One academic proposed that the “monopoly rent” (excessive profit) earned by the 3G operators should be taxed.

## **Other Regulatory Issues**

### ***Mandatory Roaming from 3G to 2G***

15. The Consultation Paper also considered whether, in order to promote effective competition of the 3G market, second-generation (2G) operators who succeed in obtaining 3G licences should allow mandatory roaming into their networks by customers of the new entrants in the 3G market. This is because the coverage of a new entrant’s network cannot be compared with that of a mature network established for many years by an existing 2G operator. Without the mandatory roaming requirement, the 3G new entrant would find it difficult to compete effectively with the established operators in the market if the latter operators also provide 3G services.

16. The parties that have commented on this issue supported roaming from 3G networks to 2G networks, but views were divided as to whether this should be achieved through regulatory intervention or commercial negotiations.

### ***Separation of Service Provision from Network Operation***

17. The Consultation Paper also put forward the concept of separation of service provision from network operation, which would

enable more service providers to participate in the 3G market without being limited by the availability of radio spectrum. This means that a service provider needs not at the same time be the network operator although a network operator may not be precluded from acting as a service provider.

18. Views on this issue were divided. Some supported that the separation should be mandated while others considered that the separation should be optional and be determined by market forces.

### **Way Forward**

19. The consultation period for the submission of comments by the industry and interested parties in response to the Consultation Paper has ended. ITBB and the TA will consider carefully the submissions received before taking a view on the various issues discussed in the Consultation Paper. If found necessary, the TA may issue a second consultation paper in the third quarter of 2000 for further consultation with the industry on certain licensing and regulatory issues. The TA intends to finalise the licensing framework for the 3G services and invite applications for licences in the last quarter of 2000. 3G services are expected to be brought into commercial operation in 2001 or 2002.

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