立法會
Legislative Council

LC Paper No. CB(4)272/13-14(04)

Ref. : CB4/PL/ITB

Panel on Information Technology and Broadcasting

Meeting on 13 January 2014

Background brief on issues relating to the arrangements for the frequency spectrum in the 1.9 – 2.2 GHz Band upon expiry of the existing frequency assignments for the provision of third generation mobile services and the spectrum utilization fee

Purpose

This paper summarizes previous discussions by the Panel on Information Technology and Broadcasting ("the Panel") on issues relating to the arrangements for the frequency spectrum in the 1.9 – 2.2 GHz Band upon expiry of the existing frequency assignments for the provision of third generation ("3G") mobile services and the spectrum utilization fee ("SUF").

Background

2. With the increasing popularity of smart phones, notepads and other advanced communications devices, mobile services in Hong Kong have continued to grow rapidly in recent years. Adequate and timely supply of radio spectrum to meet the incessant demand for additional network capacity is considered essential and critical to the healthy development of the mobile industry.

3. Frequency spectrum in the 1.9 – 2.2 GHz band was assigned through auction to four mobile network operators, each with 2 x 15 MHz, for the provision of 3G mobile services in October 2001 for a tenure of 15 years. The four incumbent 3G operators are CSL Limited, Hong Kong Telecommunications (HKT) Limited, Hutchison Telephone Company Limited and SmarTone Mobile Communications Limited. Their existing 3G frequency assignments will expire on 21 October 2016. China Mobile Hong

Kong Company Limited has not been assigned with any spectrum in this frequency band. However, it is currently providing 3G services under commercial agreements with some of the incumbent 3G operators by deploying the latter's 3G network capacity.

4. According to the statement issued by the former Telecommunications Authority ("TA") in January 2008 on minimum notice periods for variation or withdrawal of spectrum assignments upon and before their expiry, insofar as it is practicable in the circumstances, the decision of the Communications Authority ("CA") on whether to renew the frequency assignments with different frequencies assigned, or not to renew the assignments at all upon their expiry, should be notified to the incumbent operators at least three years in advance, i.e. by October 2013 at the latest for the 3G spectrum re-assignment exercise.

5. The Secretary for Commerce and Economic Development ("SCED") and the former TA jointly issued the first consultation paper in March 2012 to solicit the views and comments of the industry and interested parties on the arrangements for re-assignment of the 1.9 – 2.2 GHz spectrum upon expiry of the existing assignments. Having considered the views and comments received in response to the first consultation paper, the SCED and the CA jointly issued the second consultation paper on 28 December 2012 which proposed a hybrid option of administratively-assigned cum market-based approach in the 3G spectrum re-assignments for further consultation until the closing date of 28 February 2013.

Previous discussions of the Panel

6. At the Panel on 4 February 2013, the Administration briefed members on the second consultation paper issued in December 2012 and arrangements for the frequency spectrum in the 1.9 – 2.2 GHz Band upon expiry of the existing frequency assignments for 3G mobile services and the related issues. Members noted that the following three options were proposed in the first consultation paper issued in March 2012 :

Option 1: An administratively-assigned approach – right of first refusal to be offered to the incumbent 3G operators;

Option 2: A full-fledged market-based approach – re-auctioning all the spectrum; and

Option 3: A hybrid between administratively-assigned and market-based approach – right of first refusal to the incumbent 3G operators for them to retain part of the spectrum, while part of the spectrum would be returned to the CA for re-auction.

7. According to the Administration, Option 3, which had been proposed in the second consultation, allowed operators to maintain an acceptable level of service quality in respect of most of the existing 3G services, while the public re-auction of one-third of the existing 3G spectrum would give new investors an opportunity to compete for spectrum fairly with the incumbent operators, thereby enhancing competition in the mobile communications services market and increasing the choices to consumers.

8. The Panel received views from representatives of relevant stakeholders on the matter at its meeting on 27 March 2013. Some deputations including the four incumbent 3G operators expressed objection to the proposed Option 3 and considered that Option 1 proposed in the first consultation should be adopted upon expiry of the existing frequency assignments for 3G mobile services. Some other deputations, including China Mobile Hong Kong Company Limited, the only operator which did not have any 3G frequency assignment and had indicated its strong interest in acquiring some of the 3G spectrum, were in support of Option 2.

9. According to the Administration's estimate, each incumbent 3G operator might at worst lose one-third of the spectrum in the 1.9–2.2 GHz band in the auction if Option 3 was adopted. Some members expressed concern about the degradation of customer service quality; they noted that according to the Office of the Communications Authority ("OFCA"), the reduction in data download speed would be restricted to at most 18% on average during the transitional period, whereas the estimate provided by some deputations could be as high as 30 to 40%.

10. Some members expressed concern that the spectrum charging arrangements proposed under Option 3 could make Hong Kong's SUF amongst the highest in the world, and the cost could be passed on to consumers either through higher service charges or less innovation or investment in service improvement. The Administration advised that SUF in Hong Kong was determined by auction and it would therefore reflect the full market value of the spectrum. The level of SUF varied among spectrum at different frequency bands.

11. As some deputations cautioned about the possible degradation of customer service quality for adopting Option 3: in the form of slower data download speed, a greater number of drop calls, and weakening of indoor mobile coverage for 3G services, the Panel urged the Administration to

appoint an independent consultant to conduct a detailed technical assessment on the impact on the quality of service provided by incumbent 3G operators as soon as practicable. The Administration agreed to do so and SCED would announce the outcome of the review together with his decision on the arrangement for the 3G spectrum upon expiry of the current assignment.

Recent developments

Study commissioned by four 3G operators

12. According to the findings of a study commissioned by the four incumbent 3G operators released on 5 September 2013, the extent of the service degradation on 3G services could be three times (i.e. 27%) of that estimated by the Government in its consultation paper (i.e. 9%). The study found that the Government's proposed Option 3 risked a complete loss of voice service in the MTR during busy periods, a significant decrease in data download speeds, difficulties and delays in accessing video applications via the Internet. The 3G operators considered it inappropriate for the Government to express a preference for re-auctioning part of the 3G spectrum before undertaking a full study. A copy of the joint statement by the four incumbent 3G operators on their study is at the **Appendix.**

13. On 15 November 2013, the CA and the SCED issued a joint statement announcing the CA's decision to adopt the hybrid administratively-assigned cum market-based approach for the re-assignment of the 118.4 MHz of paired spectrum in the 1.9 - 2.2 GHz band upon expiry in October 2016 of the existing assignments (i.e. Option 3). The statement also announced the methodology in setting the concerned SUF which would be prescribed by subsidiary legislation proposed by SCED. The final report of the consultancy study entitled "Re-assigning the Spectrum in the 1.9 – 2.2 GHz Band – Impacts on Service Quality and Customers of Adopting a Hybrid between Administratively-assigned and Market-based Approach" commissioned by OFCA was published on the same day. Under the hybrid approach, each of the four incumbent 3G operators will be offered a right of first refusal to be re-assigned two-thirds (or 19.8 MHz) of the 3G spectrum ("Right-of-first-refusal Spectrum") they currently hold. The remaining 3G spectrum will be re-assigned by way of auction ("Re-auctioned Spectrum"). The 20 MHz of unpaired spectrum in the 1.9 - 2.2 GHz band, which have been left idle since the assignment in 2001, would be put back to reserve upon expiry of the existing assignments. According to the final report of the study, if the incumbent 3G operators which are unable to, or choose not to, acquire any Re-auctioned Spectrum implement appropriate measures in the two years between the spectrum re-auction and the actual spectrum

re-assignment, any service degradation that may ensue from a reduction in the spectrum holding can be effectively mitigated. Such measures may include encouraging early migration of 3G customers to 4G network and leasing 3G spectrum capacity from other MNOs through commercial arrangements in order to maintain or enhance service to customers, etc. The CA is of the view that service continuity and quality can be maintained under Option 3.

Related LegCo question

14. At the Council meeting on 11 December 2013, Hon Claudia MO raised a written question on the alleged double standards adopted by the Government in handling domestic free television programme services ("free TV") licences and the assignment of 3G spectrum, i.e. by refusing to approve all three applications for domestic free TV programme service licences whilst deciding to re-assign a portion of the 3G spectrum by way of auction upon the expiry of the existing assignments in October 2016. The Administration advised that free TV and telecommunication services were subject to different licensing regimes, governing legislations and regulatory frameworks. While the Government's broadcasting and telecommunications policies had all along encouraged competition, the present conditions and pace of development of these two different markets varied from each other. The Government therefore considered it inappropriate to make a direct comparison between these two markets.

Latest position

15. The Administration will brief the Panel on 13 January 2014 on the arrangements for the frequency spectrum in the 1.9 – 2.2 GHz Band upon expiry of the existing frequency assignments for the provision of 3G mobile services and the SUF.

Relevant papers

16. A list of the relevant papers with their hyperlinks is at:
http://www.legco.gov.hk/yr15-16/english/panels/itb/papers/itb_ft.htm

Council Business Division 4
Legislative Council Secretariat
7 January 2014

3G mobile operators commission Plum Consulting
Study on "Impact assessment of re-auction of 2.1GHz spectrum in Hong Kong"

HONG KONG, 5 September 2013 – Plum Consulting, a UK-based consultancy firm, today released the findings of an expert study on the "Impact assessment of re-auction of 2.1GHz spectrum in Hong Kong" ("study"). The study was commissioned by the four 3G incumbent mobile operators in Hong Kong, namely CSL Limited, Hong Kong Telecommunications (HKT) Limited, Hutchison Telecommunications (Hong Kong) Limited and SmarTone Mobile Communications Limited.

Plum Consulting is an industry specialist which has advised operators and regulators around the world including OFCA on a variety of strategy, policy, regulatory and spectrum-related matters in the telecoms, media and online sectors.

Background

The Government has proposed to remove one-third of the 3G spectrum at 2.1GHz from each of the four incumbent 3G mobile operators for re-auctioning when the spectrum assignment period expires in 2016. In making this proposal, the Government has acknowledged that its proposal will create a real risk of harming service quality and consumers, and has commissioned a consultancy study to examine the impact of its proposal on the overall experience of consumers.

Reasons for Plum's study

While the 3G operators have provided input into OFCA's consultancy study, they have not been allowed to view the final results or comment on the conclusions reached by the Government's consultant. Despite repeated requests from the 3G operators, there is no indication from the Government that the consultancy report will be shared with the operators or the public before the Government makes its final decision on this matter. On this basis, in order to allow for a more informed public discussion, the 3G operators engaged Plum Consulting to undertake a study to assess the potential service quality and impact on consumers arising from the Government's proposal.

Plum's study

Plum's study provides an expert appraisal of the nature and scale of the service degradation and disruption that will occur if the Government's proposals to take back one-third of each mobile operator's 3G spectrum at 2.1GHz for re-auctioning is adopted when the assignment period expires in 2016.

Plum's analysis shows that the extent of the service degradation on 3G services could be 3 times of that estimated by the Government in their consultation paper. The Government's proposal risks a complete loss of voice service in the MTR during busy periods, a significant decrease in data download speeds, difficulties and delays in accessing video applications via the Internet.

cont'd…

Conclusion

It is not appropriate for the Government to express a preference for re-auctioning part of the 3G spectrum before undertaking a full and proper study. Any proposal that causes service degradation and increases costs with no material benefits is totally unacceptable. This cannot be the right way forward for Hong Kong or any services-based economy, and is contrary to any other off-shore market example.

Plum's analysis shows that the Government's proposal is seriously flawed. Significant harm will be caused to consumers in Hong Kong and also roaming customers. Substantial costs will be imposed on mobile subscribers and the 3G operators which, along with the high spectrum fees put forward by the Government, must eventually be borne by users. The Government would be taking a significant anti-consumer position if it were to go forward with its proposal, with consumers experiencing service degradation and higher costs. Re-assigning the 3G spectrum to the existing operators at a reasonable cost would be in the overall best interest of consumers and the economy.

- # -

About CSL Limited

CSL, established in 1983, is Hong Kong's first mobile network operator and is also the first mobile company in Hong Kong to employ a distinctive market segmentation strategy to provide customer focused services through its brands 1O1O, one2free, New World Mobility.

It operates a world-class LTE / GSM / WCDMA/ UMTS 900 network in Hong Kong and launched the world's first dual band 4G LTE with DC-HSPA+ network in 2010, through which it offers comprehensive mobile and broadband services to both local and international customers. As a leading roaming operator in Hong Kong, CSL also provides customers with comprehensive international multi-media connectivity with over 580 mobile operator partners around the world. For more information, please visit www.hkcsl.com. CSL is a subsidiary of Telstra Corporation Limited, Australia's leading telecommunications and information services company (www.telstra.com).

About HKT

HKT (SEHK: 6823) is Hong Kong's premier telecommunications service provider. It meets the needs of the Hong Kong public and local and international businesses with a wide range of services including local telephony, local data and broadband, international telecommunications, mobile, and other telecommunications businesses such as customer premises equipment sale, outsourcing, consulting, and contact centers.

Together with the highly successful media business of its parent company, PCCW Limited, HKT offers innovative media content and services across the PCCW Group's unique quadruple-play platforms – fixed-line, broadband Internet access, TV and mobile.

cont'd…

About Hutchison Telecommunications (Hong Kong) Limited

Hutchison Telecommunications (Hong Kong) Limited is a subsidiary of Hutchison Telecommunications Hong Kong Holdings Limited (HTHKH, Stock Code: 215). HTHKH is a leading integrated telecommunications service operator in Hong Kong, providing advanced mobile services in Hong Kong and Macau under the “3” brand, and residential fixed-line broadband services, residential telephone and IDD services in Hong Kong under the “3 Home Broadband”. HTHKH also provides sophisticated fixed-line services and corporate solutions to Hong Kong and international customers under the "HGC" brand. A group member of Hutchison Whampoa Limited (Stock Code: 13), HTHKH deploys the latest telecommunications technology to offer world-class telecommunications services and innovations, setting market trend and steering industry development.

For more information on HTHKH, please visit www.hthkh.com
For 3 Hong Kong services, please visit www.three.com.hk
For 3 Macau mobile services, please visit www.three.com.mo
For HGC fixed-line services, please visit www.hgc.com.hk

About SmarTone Mobile Communications Limited

SmarTone is a leader in wireless communications in Hong Kong. It provides voice, multimedia and broadband services through its territory wide 4G and 3G HSPA+ networks, and the use of unique *X-celerator* engine which speeds up the internet experience.

SmarTone's goal is to deliver unbeatable and valuable experiences to customers through superior network performance, proprietary services and customer care that looks after customers as SmarTone staff would want to be looked after themselves.

For further information, please contact:

CSL Limited
Katrina Law, Corporate Affairs
Tel: +852 2883 2776
Email: Katrina.yp.law@hkcsl.com