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香港寬頻網絡有限公司
Hong Kong Broadband Network Ltd.



商界服務
caring company 200506

Our Ref: HKBN/OFTA/BWA3/070718

Date: 18th July 2007

Office of the Telecommunications Authority
29th Floor, Wu Chung House
213 Queen's Road East
Wan Chai, Hong Kong
Attn.: **Thomas CHAN**
Senior Telecommunications Engineer

By Hand and By Fax
(Fax No.: 2803 5112)

Dear Sirs,

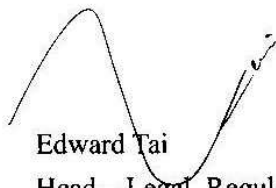
Re: CONSULTATION PAPER SUBMISSION

We refer to the Third Consultation Paper on Providing Radio Spectrum for Broadband Wireless Access (BWA) issued on 11th May 2007.

We enclose herewith our Submission thereon for your attention.

Should you require any further information, please do not hesitate to contact the undersigned at 3145 4777 or fax to 2199 8590.

Yours faithfully,
For and on behalf of
Hong Kong Broadband Network Limited



Edward Tai
Head – Legal, Regulatory & Company Secretarial Department

Encl.



Submissions on the Consultation Paper on Providing Radio Spectrum for Broadband Wireless Access (the “Consultation Paper”) issued on 11 May 2007

Submission by Hong Kong Broadband Network Limited to the Telecommunications Authority of Hong Kong

July 18, 2007

Specific Comment

Question 1

Do you agree that the 2.3 GHz band be allocated for BWA services? If agreed, when the spectrum should be made available?

With respect to the potential of and benefits arising from the deployment of BWA, the primary benefit of deploying BWA is in providing end users with another access method. Technically, BWA licensee could deploy BWA services using the 2.3 GHz band. However, we noted that there are limited BWA equipments currently being developed utilizing this spectrum. Clearly, the lack of service development and vendors make the use of 2.3 GHz spectrum not attractive.

Question 2

Do you agree that the opening up of the 2.5 GHz band for BWA should be considered at a later stage? If agreed, when and how much of the bandwidth should be made available to the market?

Currently ITU is discussing the detailed frequency arrangement 2.5GHz band. HKBN welcomes all ITU efforts to make a globally agreed and harmonized plan for 2.5 GHz. HKBN considers spectrum acquisition, particularly via an auction process, is a costly investment. In such a dynamic market, undue regulatory restrictions or limitations will only hamper incentives to invest and restrict the potential of any investment plans. The amount of spectrum to be allocated to BWA operators is critical, without clearing the aforesaid obstacles, investment incentives will be undermined.

Given the CITB is currently studying the possibilities in introducing MobileTV services through the 2.5 GHz band, HKBN thinks the deployment of BWA services in the same frequency band has to be properly coordinated.

To make BWA investment fruitful, HKBN considers the TA should at least provide detailed information such as how many licence will be granted in both the 2.3 GHz and the 2.5 GHz band, so that the industry can make a wise investment plan on relevant frequency bands.

Question 3

Do you have any preferred frequency bands for BWA services? How much spectrum

do you need initially and for future expansion (number of blocks, spectrum width of each block, in which bands) and when the spectrum should be made available to the market?

No specific comment except the following.

The minimum amount of spectrum required for deployment of a territory-wide BWA is 5 MHz. BWA have been deployed using 5 MHz in other jurisdictions such as Australia where, for example, Personal Broadband Wireless Australia is deploying ArrayComm's i-Burst technology using only 5 MHz in the 1.9 GHz band in Sydney and has plans to deploy in all capitals. Accordingly, SingTel recommends a minimum of 5MHz.

However, we feel that six 5 MHz block would restrict the amount and quality of service that can be offered. To get enough channels to do good RF planning, we would end up reducing the size of the channel below 5 MHz. Since 30 MHz of spectrum will only provide 6 channels, and will limit total throughput in the base station to 150Megabits max. (In equipment that can support 800 Megabits). Also this will increase the interference.

Question 4

Do you agree with the proposed frequency allocation plan given in Annex 1? If not, what is your proposal?

No specific comment.

Question 5

Do you agree that a BWA licensee should be assigned no more than six 5 MHz blocks of the BWA spectrum?

Please refer to our reply in Question 3 above.

Question 6

If the result of the coordination with the Mainland authorities confirm that 85 MHz bandwidth in the 2.3 GHz can be made available, do you agree that the TA should make available all the 85 MHz bandwidth for BWA service? If not, what is your proposal with reasons?

Agree. The TA should also consider factors affecting the availability of frequency in the 2.5 GHz band as cited in Question 2. To clear undue regulatory uncertainties, the TA should at least provide detailed information such as how many licences will be granted in both the 2.3 GHz and the 2.5 GHz band, so that the industry can make a wise investment plan on relevant frequency bands.

Question 7

Do you have any views on the frequency allocation plan for the 2.5 GHz band?

The TA should review whether the 2.5 GHz band should continue be reserved as an expansion band. Taking the international trend on wireless personal communication services, BWA is getting momentum, we are optimistic that the demand for wireless services deployed over BWA networks will exceed expectations. As with mobile phone and laptop technologies, BWA technologies liberate users from the desk and enable them to access information anytime at any place. This ability presents tremendous benefits and opportunities for service providers and consumers and will drive wireless services rollout and adoption.

However, as cited in Question 2, the number of BWA licence to be granted by the TA serves as a critical point to interested operators in valuing the cost of BWA spectrum.

Question 8

Do you have any comment on the TA's preliminary view that no restrictions should be imposed on the types of applications and services that may be provided using the BWA spectrum?

Pathway for the industry to rollout services which is technically feasible is the role of the TA. As far as BWA can provide applications and services that do not cause any harmful interference to other licensed band, it should be allowed, on the condition that BWA should not be subject to less or different features and service obligations than other access technologies.

Question 9

Do you have any further comments on the preliminary view of the TA that it should not prescribe any particular standard or technology for the BWA technology?

Welcome the TA's approach in maintaining technology neutral on BWA, just as it has been upholding this principle in the past. This principle is one of the most important

cornerstones of the success of the telecommunications industry in Hong Kong and its emergence as an Asian telecommunications hub. TA should not in any way favour or disfavour the deployment of any technology in the provision of any telecommunications services.

Question 10

Do you have any further comments on the TA's preliminary view that assignment of the frequency blocks for BWA services should be made on a territory-wide basis?

No specific comment.

Question 11

Do you have any further comments on the TA's preliminary view that BWA licensees will be required, under the licence, to roll out the services within 24 months from the date when the licence is issued and that performance bond will also be required?

In terms of the service obligations, in keeping with the technology neutral approach, it should be consistent with those adopted when licensing other parties to provide the same, or equivalent services using other access methods. BWA should not be subject to less or different features and service obligations than other access technologies. That is to say, if BWA is allowed to provide both mobile and fixed services, the TA should make reference to the service obligations currently imposed on relevant licensees.

Question 12

Do you agree with the proposed frequency assignment method as stated above?

HKBN maintains its view that auction is not a solution which best promotes technology innovation and may act as a hurdle to new entrants who may not possess financial resources to place the highest bid. To give new BWA operators a chance to gain a foothold in the market and build economies of scale, we strongly suggest the TA adopt "selection by merits" approach. This will give new wireless broadband network operators a chance to gain a foothold in the market and build economies of scale. Without such a competition safeguard, there is unlikely to be entry of operators of BWA network other than those operators with strong financial background, leaving the current status quo of a duopolistic upstream broadband network market structure unchanged and consumers with limited choice.

Question 13

Do you have any further comments on the TA's preliminary view that an up-front lump sum payment basis should be adopted for SUF, the amount of which will be determined through an open auction?

HKBN would like to reiterate our view that SUF should be paid over the term of the licence rather than having an upfront lump sum amount. It would enable innovative operators with limited financial resources to enter into the market and to compete with incumbent operators who possess significant financial resources. On the other hand, potential new entrants may not be necessary to raise an extensive amount of capital to pay for the spectrum and also rollout of the network.

Question 14

Do you agree that BWA licensees should not be subject to an ex ante ONA requirement?

HKBN submits that it is too premature for the TA as the regulatory body to determine the ONA requirement. If it is an obligation for the TA to maintain a level playing field, the TA should consider applying the same principles to the BWA service as applicable to 2G and 3G licensing regime and impose the same ONA requirement obligation on the new BWA service licence. This will also allow the TA and the industry more time to practically enhance the marketability and development of BWA services, in line with the Government's policy objectives.

Question 15

Do you consider that FMC services should be allocated with new number ranges?

No specific comment.

Question 16

Do you agree that numbers with prefixes "2" and "3" should be allocated to fixed/"limited mobility" BWA services while numbers with prefixes "6" and "9" should be allocated to "full mobility" BWA services?

As there is a general expectation from the public that "2" and "3", and "6" and "9" are designated for fixed and mobile services respectively, BWA serves as an alternate means of access to services, the same approach have to be followed. For the interest of the general public, it would be essential to require appropriate labeling of service.

HKBN believes that the minimum necessary would be to use obligatory labeling, with the separation of numbering for fixed-BWA services and mobile-BWA services.

Question 17

Do you agree that BWA licensees should be subject to the requirement of facilitating both ONP and MNP, including the FMNP to be introduced in the future?

No specific comment. However, if BWA can provide applications and services that are in same grades/types of fixed and mobile services, it should not be subject to less or different service obligations than other access technologies.

Question 18

Do you agree that BWA licensees should be subject to the requirement of denial of service to suspected stolen apparatus?

There is clear rationale for reducing the administrative burden that regulations impose on business. The cost of complying with the multitude of regulations is high. Before any licensing regime is seriously considered, HKBN would want to see a clear rationale for introducing any such scheme. There needs to be a feasibility study that clearly identifies a need and then clearly identifies the cost of putting such a scheme in place. As an interim solution, the TA may make reference to any guideline and/or Code of Practice currently adopted by mobile operators.

Question 19

Do you agree with the proposed approach as stated in paragraph 58 to resolve adjacent channel interference issues?

No specific comment. However, the TA may also consider some other ways to tackle adjacent-channel interference, such as to use out-of-band emissions masks and radiated power limits on the transmitter side, and Adjacent Channel Rejection filtering on the receiver side.

Question 20

Do you agree with the proposed guard bands for the 2.3 GHz band? Do you agree with the arrangement for the spectrum holder at the lower edge of 2.3 GHz band to use the spectrum 2.300 – 2.305 GHz as stated in paragraph 60?

No specific comment. However, in rewarding measures taken by holder of the

spectrum 2.305 – 2310 GHz to resolve the interference issue and to encourage operator in utilizing this frequency band, HKBN thinks the spectrum utilization fee for the aforesaid spectrum have to be adjusted accordingly.