

WHARF T&T LIMITED

SUBMISSION TO THE TELECOMMUNICATIONS AUTHORITY (“TA”) ON THE INDUSTRY CONSULTATION PAPER ON “LICENSING FRAMEWORK FOR DEPLOYMENT OF BROADBAND WIRELESS ACCESS”

1. INTRODUCTIONS

- 1.1 Wharf T&T Limited (“WTT”) welcomes the opportunity to respond to the Consultation Paper issued by the TA on 20 December 2004 on the Licensing Framework For Deployment of Broadband Wireless Access (the “Consultations Paper”).
- 1.2 WTT notes the variety of potential applications of Broadband Wireless Access (“BWA”) as outlined by the TA in the Consultation Paper. However, WTT believes that the BWA technology itself has not reached maturity stage to be ready for massive commercial deployment in Hong Kong.
- 1.3 WTT believes that both the Government and the industry would need more in-depth evaluation of the viability and applicability of BWA to the unique operating environment in Hong Kong, with detailed analysis from both the market and technology perspectives in line with global developments.
- 1.4 In this submission WTT would like to address specific issues arisen from the Consultation Paper.

2. LICENSING ISSUES

- 2.1 The TA sees BWA licence “*as a viable solution for the ‘last mile’ access*”:

“ For those FTNS operators relying heavily on Type II interconnection, BWA is a possible alternative that operators may consider to replace the installed Type II interconnection link in an efficient manner.” [paragraph 9 of the Consultation Paper]
- 2.2 WTT shares the same perspective with the TA and thus considers that BWA licence should only be given to those fixed-line operators who are active in the retail market and are most affected by the phased withdrawal of Type II interconnection at Point A.
- 2.3 The new Type II Interconnection Policy hits hard on fixed-line carriers who have been using Type II interconnection at Point A to deliver telephony service to end-users. In view of the total withdrawal of Type II interconnection at Point A by 30 June 2008, fixed-line carriers who have implemented extensive interconnection at Point A have been looking for alternatives to “last mile” access. As recognized in the Consultation Paper, BWA can be deployed to serve broad area and be used as wireless backhaul for fixed networks. Implementation of BWA is relatively cost

effective and efficient compared to conventional wireline access. It can dispense with the need to open up roads and lay underground cables, which would be very time consuming, environmentally unfriendly and costly to serve limited number of users. BWA presents a viable and practical solution to transition from Type II interconnection at Point A.

- 2.4 The incumbent fixed-line operator with ubiquitous coverage and with universal service obligation, in this regard would therefore not require such BWA licence as this would be totally redundant. As for fixed-line carriers who are not affected by phased withdrawal of Type II interconnection at Point A or not actively participating in the retail market, the BWA licence would not be of any practical/commercial use to them as far as “last mile” customer access is concerned because they simply do not need access to retail customers.
- 2.5 WTT believes that the mobile network operators do not require BWA licence nor the additional spectrum reserved for BWA as proposed by the TA in the Consultation Paper, particularly in view of the additional spectrum contemplated by the TA in his consultation paper dated 28 February 2005 on “*Assignment of the Available Spectrum in the 800 Hz and 1800 MHz Bands to the Existing Mobile Network Operators*”. Accordingly mobile networks operators should be precluded from the BWA spectrum.
- 2.6 WTT concurs with the TA on the view of offering BWA as a wireless extension of the conventional wireline based fixed network service and the eligibility requisite of having a fixed carrier licence. However, WTT is strongly of the view that BWA spectrum should be reserved for fixed-line carriers which have extensive deployment of Type II interconnection at Point A and are therefore most affected by the phased withdrawal of Type II interconnection at Point A, as these carriers require alternatives for the migration of their existing customers served via Type II interconnection at Point A to their direct access networks.
- 2.7 In fact this based on need approach is not novel. In the consultation paper issued by the TA on 28 February 2005 on “*Assignment of the Available Spectrum in the 800 Hz and 1800 MHz Bands to the Existing Mobile Network Operators*”, the TA had made an unprecedented decision to allocate the spectrum to all existing 2G mobile network operators on an equal treatment basis. The TA took the view that the allocation was required as a ‘*capacity expansion*’ by the existing mobile networks operators. This approach should be applied to allocation of BWA spectrum to fixed-line carriers who are most affected by the looming effects of the withdrawal of Type II Interconnection at Point A.
- 2.8 WTT agrees with the TA’s view that the service offered by a fixed carrier licence through BWA would only be allowed to have “limited mobility” i.e. no cell handoff capability. This is consistent with the current regulatory regime in keeping the mobile and fixed carrier licences separate.

3. SPECTRUM ASSIGNMENT

- 3.1 WTT considers that the TA should not mandate which technology or technologies to be used in the delivery of BWA services in Hong Kong. WTT has no objection that 3.4 – 3.6 GHz band will be allocated to BWA and FSS on a co-primary basis.
- 3.2 WTT is in discord with the TA’ s preliminary view to auction the BWA spectrum. WTT believes that, having identified the limited usage for BWA for the time being (namely for wireline based fixed network services and no cell handoff) and for fixed-line carriers most affected by the phased withdrawal of Type II interconnection at Point A, there is no need to go for any auction.
- 3.3 At present, BWA is only viewed as an alternative to wireline and to facilitate the replacement of installed Type II Interconnection links in an efficient manner. BWA’s quality and technical attainments are not proven. Fixed-line operators would have to incur significant start-up costs such as investing in the infrastructure deployment, CPE and O&M costs etc before any commercial rollout to generate revenue. With woes over its market acceptability and quality, fixed-line carriers run very high risks if the performance level of BWA turns out to be shoddy, no commercial ventures could be pursued thereof and all the start-up investments would be wasted. Both the effort and investment would be futile if BWA fails to deliver a performance level of commercial value to fixed-line carriers. WTT therefore opposes the spectrum assignment by auction, as this will unduly burden the operators.
- 3.4 The Government may be anxious to ensure efficient use of spectrum, however, the risk to be borne by the Government is in no way comparable to the risks that would be borne by the fixed-line carriers, without having mentioned the possible preventive measure of insurance:
- “ The Government can take measures to insure against the risk of the operator withdrawing from the market or selling the licence, but the risk the operators bear of not knowing what future revenues will be relative to the payment committed for spectrum is not easily insured against. ”¹*
- 3.5 BWA is currently of limited use to fixed-line carriers in that there would be limited mobility, that being the case, it is unjustified and unfair for the TA to auction BWA spectrum which has limited and unknown prospect. Unlike the mobile market, which is mature and has much higher penetration than fixed line market, the effect of pursuing an assignment of BWA spectrum by auction would be reflected on the eventual pricing of fixed-lines services.
- 3.6 WTT is committed to providing consumers with innovative and diversity of services at competitive prices; any unnecessary costs wasted on auctioning would inflate the eventual price to consumers. For this reason, the spectrum should be allocated free of charge to those eligible fixed-line carriers fulfilling the criteria

¹ “Short Response to the Broadband Wireless Access Consultation Paper”, Dr. John Ure, Director of the Telecommunications Research Project, Feb. 2005.

discussed hereinbefore, with due considerations of the financial burden on them, consumer benefits and fairness principle.

- 3.7 The assignment of spectrum to 2G mobile network operators may shed some light on the BWA spectrum assignment. As stated earlier, instead of auction, the TA had made an unprecedented decision to allocate the spectrum to all existing 2G mobile network operators on an equal treatment basis in his 28 February 2005 consultation paper. The TA took the view that the allocation was required as a ‘*capacity expansion*’ by the existing mobile networks operators. This view should be applied to allocation of BWA spectrum to fixed-line carriers affected by the looming effects of the withdrawal of Type II Interconnection at Point A. By analogy of the capacity expansion principle, affected fixed-line carriers should be assigned BWA spectrum in the same way as 2G mobile network operators.

4. SPECTRUM UTILISATION FEE (SUF)

- 4.1 Under the existing licensing framework for new mobile carrier licences issued on expiry of existing licences for 2G mobile services, ‘SUF’ - an annual fee for a stipulated amount calculated on the basis of per MHz will be payable for the first five years². It will be a fallacy to envisage that this approach would be applicable to BWA. Aside from their marked difference in penetration in Hong Kong, BWA has to be distinguished from the 2G or 3G mobile networks in terms of technical maturity and market’s acceptability: -

*“ In the first few years, the BWA technology will not be able to support ‘full mobility’ similar to 3G services. Therefore, its cannot be used inside fast-moving vehicles. ”*³

*“ The timing for the technology to have the capabilities of full mobility and for the widespread availability of consumer equipment as well as the status of development of 3G services at the time cannot be accurately predicted at this point in time. ”*⁴

- 4.2 Under the woes of technical deficiencies of BWA technology, the levy of SUP would engender undue hardships on fixed-line carriers and stifle BWA developments.
- 4.3 WTT submits that SUF should be free, so that fixed-line carriers with the identified needs could focus primarily on developing BWA services without financial constraints, thereby providing consumers with much better quality and range of service.
- 4.4 Some other countries including Singapore and South Korea have already implemented some measures to regulate wireless broadband access. We believe

² “Assignment of the Available Spectrum in the 800 Hz and 1800 MHz Bands to the Existing Mobile Network Operators”, Consultation Paper, 28 February 2005

³ “From ‘Hotspots’ to ‘Hotzones’”, Telecom Perspectives, 20 February 2005

⁴ *ibid*

that it is worth for consideration to follow the IDA, Singapore's move to offer a 6-month market trial licence plus an option to renew for a further 6 months thereafter.

5. SPECTRUM USAGE

- 5.1 We understand it is the preliminary view of the TA not to link the spectrum usage period to the licence validity period. The TA does not see BWA as an essential access technology for a fixed-line carrier, but a supplementary tool to expand the coverage of its fixed-line network.
- 5.2 WTT submits that given the proposal to assign BWA spectrum for wireline based services, the spectrum usage period or licence should be linked to validity period of the fixed-line licence, that is to say we believe both licences should be co-terminus.
- 5.3 WTT supports the proposal to return any unused BWA spectrum to the Government if such spectrum is under-utilized. There would need to be a set of objective criteria to determine the optimal usage of such spectrum.
- 5.4 WTT agrees that any plans to support full mobile applications should require the TA's prior approval and subsequent mobile licence. With respect to SUF thereof, WTT suggests that it is to be further negotiated at the appropriate time taking into consideration the prevailing marketing conditions.

6. CONCLUSION

Notably, the abrupt change of steering of the Telecommunications Policy has triggered both the industry and the TA to hope for the deployment of BWA as a resolution to the withdrawal of Type II Interconnection at Point A. To achieve this objective, the TA should be reminded: "*some measures are necessary to ensure that the BWA spectrum can be used for the provision of the 'last mile' access...*"⁵. For fixed-line carriers suffering the looming effects of Type II Interconnection at Point A, BWA spectrum presents a viable access alternative. However WTT objects to the assignment of BWA spectrum by auction and the proposed SUF analogous to the present 2G mobile regime as this would financially overburden prospective licensees.

Submitted by
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Date: 14 March 2005

⁵ "From 'Hotspots' to 'Hotzones'", Telecom Perspectives, 20 February 2005