



28th October, 2005

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Attention: Telecommunications Engineer (R21)3

Dear sir/madam

Response to OFTA's 'LICENSING FRAMEWORK FOR DEPLOYMENT OF BROADBAND WIRELESS ACCESS: ANALYSIS OF COMMENTS RECEIVED, PRELIMINARY CONCLUSIONS AND FURTHER CONSULTATION', dated 31st August 2005.

Motorola appreciate the opportunity to respond to OFTA's second consultation on "*Licensing Framework for Deployment of Broadband Wireless Access*" and we are pleased to offer our comments below:

Para 7: "TA is of the view that the offer of BWA spectrum for deployment by the industry should be facilitated as soon as possible, with a view to assignment of the relevant spectrum to successful bidders in 2006."

Motorola: We expect WiMax certified products for the 3.5 GHz band to be available in the market by the second half of 2006 and agree with the TA's view of making frequency assignments in 2006.

Para 10: "...the TA is prepared to allow the deployment of any technology which conforms to recognised open standards, for the delivery of BWA services."

Motorola: We support OFTA's technology neutral principle and we believe that this principle should not be limited to open standards only. The TA should allow any technology, based on open standards or proprietary standards, to be employed in the delivery of BWA services. As new and more spectrum efficient technologies emerge, a licensee should have the flexibility to adopt these new technologies. Motorola is strongly committed to the concept of technology neutrality because our long experience in the radio communications and telecommunications industries worldwide has shown that this policy consistently leads to more ready deployment of new technologies and services to the greater benefit of the community.

Para 13: "...Nevertheless the TA is of view that if the market considers using licence-exempt bands is a viable alternative for BWA, consideration will be given to permitting such development under a class/individual licence."

Motorola: We share the TA's view that the market be allowed to determine the viability of licence-exempt spectrum for BWA. The spectrum in 5470 MHz to 5725 MHz is one such frequency band.



Para 22: "... the TA considers it reasonable and proportionate to allocate 3.4 - 3.6 GHz band to be used for BWA services on a primary basis while allowing the frequencies to be used for FSS on a secondary basis."

Motorola: We concur with the proposal that the band 3400 to 3600 MHz be used for BWA on a primary basis and that fixed satellite service be allocated the same frequency band on a secondary basis.

Para 26: "The TA is of the view that a band plan without specification of FDD or TDD mode will best meet market needs. Frequency blocks may be used for either TDD or FDD operation, subject to the operator's own commercial and technical considerations."

Motorola: We concur with the TA's view.

Para 27: "The TA will therefore not fix any guard band but will instead mandate the use of a block edge emission mask in the future licence for BWA operators."

Motorola: We concur with the TA's proposal not to fix any guard band. We have concerns that the TA's proposed block edge mask may be too conservative, which will lead to increased complexity and cost of the radio equipment. A block edge mask is under development in Europe by CEPT ECC and draft proposals are undergoing public consultation until early January 2006.

We respectfully propose that the TA defer the adoption of a block edge mask and to consider frequency coordinating procedures by licencees as an initial measure in mitigating interference before resorting to the use of the block edge emission mask.

Para 31: "... the TA is prepared to allocate 180 MHz spectrum in the 3.5 GHz band for BWA on a primary basis in the forthcoming spectrum allocation exercise. In case the market does not take up all of the spectrum, the frequency blocks which have not been assigned will be put into reserve, and will not be offered again within a certain time frame say before end 2008. The arrangement for the reserved frequency blocks, if any, would be reviewed in due course."

Motorola: The TA could consider emulating the New Zealand¹ government in retaining spectrum in the 3.5 GHz band for the deployment of BWA services in specific areas, "*typically for high speed internet connections in rural/provincial areas*" to further the national objective of widespread availability of broadband services.

In the past, as late as the 1990's, it was not feasible for most government agencies and private enterprises to own and operate their own BWA links. Today, the low cost and ease of installation of BWA equipment have brought the deployment of BWA private networks very well within the reach of such organizations. We believe that the TA should make provisions for the requirements of government agencies for licensed spectrum (such as the 3.5 GHz band) in fulfilling their responsibilities to the community.

Para 36: "The TA is of the view that a territory-wide frequency assignment is more appropriate in the context of Hong Kong."

Motorola: Please refer to Para 31

¹ <http://www.med.govt.nz/rsm/spp/fixed-wireless-access/index.html>



Para 37: "...the TA proposes that the band plan for the 3.4 - 3.6 GHz band for public telecommunications services in Hong Kong should be made up of six frequency blocks, each consisting of a 15 MHz x 2 paired band, spanning from 3410 MHz to 3500 MHz and from 3510 MHz to 3600 MHz. The 10 MHz x 2 spectrum spanning from 3400 MHz to 3410 MHz and from 3500 MHz to 3510 MHz will be reserved. The TA may consider allocating the reserved block to services other than public telecommunications services, subject to a separate review"

Motorola: We concur with the proposed bandplan for public telecommunications services in Hong Kong and further propose that the 10 MHz x 2 spectrum in the sub-bands 3400 – 3410 MHz and 3500 – 3510 MHz be made available to government agencies, educational, health institutions and enterprises, for the deployment of private BWA services. Please refer to Para 31.

Para 42: "... the TA proposes that the scope of permitted services of the future BWA licences should be restricted to fixed telecommunications services initially and be expanded to include full mobility services after 1 January 2008. Fixed telecommunications service will include the conventional fixed services and telecommunications service of "limited mobility" nature. "Limited mobility" means no cell handoff capability will be permitted before 1st January 2008."

Motorola: In Singapore, the Infocomm Development Authority (IDA) made a commitment in its 3G spectrum auction that it will not allocated additional spectrum for 3G services before 1st January 2006. To keep that commitment IDA has, in issuing BWA spectrum assignments for the band 2500-2690 MHz, stipulated that 3G services are not deployed before 1st January 2006.

Unless the TA has made a similar commitment in disallowing full mobility in BWA services before 2008 we would like to propose the removal of the restriction on 'full mobility' before 2008. This is to afford licencees the flexibility in adopting emerging new technologies and in meeting market demands.

Para 43: "It is therefore proposed that a new Unified Carrier Licence will be introduced. The validity period of this new licence will be fifteen (15) years, which is the same as that for the existing fixed/mobile carrier licences. Any interested party, including existing fixed/mobile carriers and new entrants, may bid for the BWA spectrum and, if successful, will be licensed under the Unified Carrier Licence which will permit the licensee to provide fixed telecommunications service using the BWA spectrum from the start of the licence and to provide both fixed and mobile telecommunications service starting from 1 January 2008"

Motorola: As responded to in Para 42, unless there is legal impediments to allowing mobile BWA services in frequency bands other than the 3G band², the TA should allow the introduction of mobile BWA services in Hong Kong as early as possible.

Yours faithfully

Khoo Teng Lock

Motorola Government Relations Office

² 1920 – 1980 MHz and 2110 – 2170 MHz