



Towngas Telecommunications Fixed Network Ltd.

Response to

Licensing Framework for Deployment of Broadband Wireless Access Consultation Paper

INTRODUCTION

Towngas Telecommunications Fixed Network Ltd (“TTFN”) is pleased to response to the above consultation paper issued by the Telecommunications Authority (“TA”) dated 20 December 2004.

GENERAL

TTFN welcomes TA’s initiative to introduce the licensing framework for broadband wireless access (BWA) and believes that the framework can facilitate positive development of the local fixed network market.

COMMENTS

1. Spectrum Sharing between FSS and BWA

TA:

“Having considered the international deployment of spectrum for BWA, the possible benefit that BWA may bring into Hong Kong, the gradual withdrawal of mandatory Type II interconnection in the run up to 2008, the equipment availability, the co-existence between BWA and FSS, the TA is of the preliminary view that the 3.4 - 3.6 GHz band may, depending on the actual requirement of BWA, gradually be allocated to BWA on a primary basis. FSS may still be used in this band on a secondary basis, or in a 600 MHz band outside the 3.4 – 3.6 GHz band on a primary basis. The TA invites views from the industry on this spectrum management issue.”

Comment from TTFN:

TTFN believes that the 3.4 – 3.6 GHz band will be widely used by BWA equipment and becomes a main stream technology. In order to maximize the number of BWA spectrum available and to reduce interference in the 3.4 – 3.6 GHz band, assignment of spectrum outside the 3.4 – 3.6 GHz band for FSS is preferred.

2. Spectrum Sharing between FDD and TDD**TA:**

“For coexistence of TDD and FDD services within the 3.4 – 3.6 GHz band, proper band plan will be devised to address the interference issues. Proper geographical separation of TDD and FDD systems will also be arranged where possible. The TA invites views from the industry on any other measures that will help tackling the interference issue. The TA would also like to receive input from interested parties on their expected bandwidth requirement and modes of operation (TDD or FDD) for BWA.”

Comment from TTFN:

It appears that the availability of both WiMAX and UMTS-TDD based equipment are still limited in the market. In view of this, TTFN believes that most of the operators would not be able to commit to any of the technologies and its bandwidth requirements until major equipment vendors have presented a clearer roadmap on BWA development. Nevertheless, TTFN would like to share that our tested system has a bandwidth requirement of 7 MHz on each sector. For a 4-sectors TDD deployment, a total of 4 x 7 MHz will be required. TTFN have no comment on the interference issue.

4. Spectrum Allocation

TA: “The TA is of the preliminary view that a paired band of 14 MHz x 2 for each block for IEEE 802.16 or ETSI HiperMAN service provision and an unpaired band of 20 MHz for each block for UMTS TDD service provision may serve the need of BWA in the 3.5 GHz band. The TA invites views from the industry on the proposed channel bandwidth and bandwidth for each block.

Subject to the industry demand, the TA may ultimately allocate roughly three 14 MHz x 2 paired frequency blocks and four 20 MHz unpaired frequency blocks. The frequency spectrum allocated for BWA in the initial phase may however be limited, and the TA will decide the spectrum pool to be offered based on the industry’s immediate

need. The TA invites views from the industry on the total bandwidth allocated for BWA in the initial phase.”

Comment from TTFN:

TTFN believes that frequency allocation should be a compromise between the maximum number of available frequency blocks and available bandwidth per block. The allocation of 14 MHz x 2 pair frequency blocks for WiMAX and 20 MHz unpaired frequency blocks for UMTS-TDD should provide enough number of frequency blocks and sufficient bandwidth for last mile access.

5. Standards Issues

TA:

“Consistent with the technology neutrality principle, the TA does not intend to mandate which technology or technologies should be used in the delivery of BWA services in Hong Kong. The TA invites views from the industry on this proposal. In addition, he would like to invite views as to whether the concerned equipment market being dominated by one or just a handful of manufacturers should be a valid regulatory concern from a competition perspective.”

Comment from TTFN:

TTFN supports TA’s principle of technology neutrality and agrees that the type of technology used for BWA should not be restricted.

6. Licensing Issues

TA:

“The TA is of the preliminary view that BWA in Hong Kong may initially be offered as a wireless extension of the conventional wireline based fixed network service. Under this proposal, BWA spectrum should be reserved for carriers with an intention to establish fixed networks in Hong Kong. Interested parties who are not already fixed carrier licensees should apply for a fixed carrier licence before they are eligible to bid for the BWA spectrum.

To differentiate BWA services from a full mobile service, the TA proposes that the service offered by a fixed carrier license through BWA would only be allowed to have ‘limited mobility’. ‘Limited mobility’ here shall be interpreted as no cell handoff capability allowed.”

Comment from TTFN:

TTFN agrees that BWA spectrum should be reserved for those carriers with an intention to establish fixed networks in Hong Kong and we support that only local fixed carriers are eligible to bid for the BWA spectrum.

Regarding the mobility issue, TTFN understand that the existing BWA equipments and applications might not be sophisticated enough to enable distinguish mobile data/voice services. We therefore believe that the “limited mobility” restriction is a reasonable decision at this stage. However, TTFN suggests that TA should review and consider release this restriction when the BWA systems becomes technically mature enough for operators to offer distinguish mobile services.

7. Spectrum Assignment Method

TA:

“The TA is of the preliminary view that the BWA spectrum may be assigned by auction.”

Comment from TTFN:

To avoid the possibility of dominant control of spectrum, TTFN suggest that BWA frequency band should be evenly allocated to each operator.

8. Payment Approach

TA:

“The TA is of the preliminary view that SUF for BWA spectrum may be charged annually on a per MHz basis.”

Comment from TTFN:

TTFN supports that the SUF should be charged on a per MHz basis.