



Submission of Comment on the Consultation Paper on Mobile Television and Related Issues issued on 26 January 2007

Submission by Hong Kong Broadband Network Limited to the Communications and Technology Branch of the Commerce, Industry and Technology Bureau of Hong Kong (the “CITB”)

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Part A - Executive Summary

1. Hong Kong Broadband Network Limited (“**HKBN**”) welcomes the opportunity to comment on Mobile TV.
2. The consultation paper indicates that Mobile TV is getting momentum in many countries and that there is demand for Mobile TV spectrum in Hong Kong. HKBN believes the assignment of Mobile TV spectrum will allow the industry to deliver Mobile TV services and therefore is likely to stimulate the demand for Mobile TV.
3. However, release of new spectrum needs to be set alongside the nearby spectrum that existing services have been in force and the development of new and exciting services that are not available or possible on other broadcasting media. On the other hand, we believe any terms and conditions for the new spectrum should not be more favorable than to those of existing users.
4. Moreover, as Mobile TV services is still rest at the early stage of discussion in Hong Kong, we think the CITB should allow market force to work and decide which technology or frequency band would be most appropriate for the rollout of Mobile TV services in Hong Kong. Hence, the CITB should keep adopting the current light-handed regulatory policy at this stage and only consider adopting a particular technology or frequency band upon emergence of sign of market failure, if any.
5. With the technological advancement, we believe the current market environment is suitable for the rollout of Mobile TV services in Hong Kong. The CITB’s proposal is reasonable which outlined major factors to be considered in rolling out Mobile TV services in Hong

Kong, although it is more difficult to comment on whether the proposal is optimal.

Part B - Statement of Interests

6. HKBN is a FTNS operator in Hong Kong, having obtained the local wireless FTNS licence on February 3, 2000 and having upgraded to a wireline-based FTNS licence on April 16, 2002.
7. HKBN has successfully established one of the largest Metro Ethernet IP networks in the world, and has extended its network coverage to 1.3 million homes, representing about 60% of the total number of households all over Hong Kong.
8. The deployment of our IP Next Generation Network provides an intelligent infrastructure from which application-aware services are delivered by a service-aware network. This infrastructure opens new opportunities to offer customers advanced, highly secured, value-added and personalized all-media services.
9. HKBN makes this submission in response to the consultation paper issued by the CITB on Jan 26, 2007 with regard to Mobile Television and related issues (the “**Consultation Paper**”).

Part C – Specific Comment

(I) Question 1

We welcome advice on other emerging Mobile technologies that support video transmission services and what forward planning the Government should take to facilitate the deployment of such technologies in Hong Kong.

10. In general, we support any allocation of frequency band that encourages the public in enjoying Mobile TV services and which allows the industry to rollout Mobile TV services with ease. Indeed, with a view to uphold the “technology neutrality principle”, HKBN considers there is no essential needs in adopting a specify technology/frequency band for Mobile TV at the early stage of discussion. Otherwise, any further advancement in technology on Mobile TV maybe excluded from up-coming discussions.
11. From the perspective of end-customer, Mobile TV services can occur in a number of different ways, say in the form of video-on-demand or video streaming on their 2.5G or 3G platform. Clearly, these types of Mobile TV services only one of the many possible solutions in offering video services in the local mobile environment. In many cases, advances in technology already have supported the introduction of such services.
12. What is more interesting to note is that as far as the industry concerned, many companies have recognized that there is a potential market for Mobile TV services. As a matter of fact, a number of countries have commenced technical trials on Mobile TV services, it is expected that many of them would commence commercial launch as soon as possible. HKBN thinks with the well-established telecommunications infrastructure in Hong Kong, the Government should consider releasing spectrum to the industry as soon as possible in that the Government’s policy objective to enhance Hong Kong as a regional communications hub could be achieved.

(II) *Question 2*

We welcome views and information on the trial or rollout of Mobile TV services in other parts of the world and comments on the risks and opportunities afforded by Mobile TV services for Hong Kong communications industry and market.

13. The increasing possibilities to access creative content and services anywhere and at anytime are critical for the development of new opportunities for growth. Riding on the well-established telecommunications infrastructure in Hong Kong, a number of value-added services which operate by some enterprises are widely available in the market, like 900 informational services, mobile gaming services, etc. New creative services and contents are diverse: music, films and other forms of audiovisual works, blogs, newspapers, and magazines, books, games, educational contents, etc. Referring to an estimation made by Midday Express¹, it estimated that by 2009 the worldwide Mobile TV market would be more than 11 billion Euro. Hence, we believe Mobile TV services could open new business opportunities for different sectors of the community to offer customers advanced, value-added and personalized all-media services.
14. Further, taking an example of the Japan and South Korea wireless communications market, there is a blooming market demand on personalized, portable, multimedia application; it demonstrated that there emerges room for Mobile TV services. In this situation, it is expected that the increasing demand for mobile and personalized communications in Hong Kong, will definitively create a new room for Mobile TV services.
15. As a matter of fact, the rollout of new services definitely requires some sort of investments which maybe not available or possible on other telecommunications services. New operators have to invest at risk to provide services with unproven demand. We do not know whether there will be a skyrocket demands for Mobile TV services,

¹ Basileio De Rolia, (21/3/2007), "New Business Opportunities for Content Creators and Service Providers"
http://www.businessupdated.com/shownews.asp?news_id=2291&cat=Mobile+TV:+new+business+opportunities+for+content+creators+and+service+providers

we believe the role of the Government is to establish a clear regulatory regime and pace a way for the market to rollout its service. On the other side, operators have to establish a proposal in balancing its investment decisions.

16. In light of the above, HKBN considers the design of the licensing regime for Mobile TV services should aims at setting up a level playing field in the industry instead. However, it is too early to conclude whether customers/operators will benefit while the technologies for the deployment of Mobile TV and the investment involved remain uncertain.

(III) Question 3

We welcome comments on the above analysis of spectrum availability for digital broadcasting services. In particular, we invite comments on whether the spectrum in Band III and L Band and two SFN multiplexes in the UHF Band should also be made available for Mobile TV services, subject to review of the spectrum allocation and assignment arrangements.

17. There is general a trade-off when deciding which frequency band to be used for the deployment of a new service. On the one hand, follow the International trend means allowing end-users to gain access to a wide range of customer premises equipments. On the other hand, the frequency band used by a neighbor country for the same service can cause interference in local territory.
18. In our view the important issue for selecting a frequency band for Mobile TV services would be to ensure that both existing services and new ones would not cause any harmful interference between each others. Though there are no internationally harmonized frequency bands for Mobile TV services, any frequency bands to be allocated for a service under discussion should be handled with caution.
19. Referring to “Question 1”, HKBN supports any allocation of frequency band that encourages the public in enjoying Mobile TV services and which allows the industry to rollout Mobile TV services

with ease. Indeed, with a view to uphold the “technology neutrality principle”, HKBN considers there is no essential needs in adopting a specify technology/frequency band for Mobile TV at the early stage of discussion. Otherwise, any further advancement in technology on Mobile TV maybe excluded from up-coming discussions.

(IV) Question 4

We invite comments on the approach to allocate spectrum resources for the three digital broadcasting services in question. We also welcome any suggestions other than the above three proposed options.

20. Traditionally, in the spectrum allocations and service rules process, a “Frequency Allocation Chart” is developed to show how the spectrum in a given band is to be allocated for new and existing services. Technical standards are also usually adopted that dictate what types of technology may be used. As technologies evolve, however, emerging services have to struggle to obtain new spectrum allocations. That is to say, vacated spectrum could not be deployed for other purposes, which would eventually cause “wastage” in a particularly band. Undoubtedly, it is the shortfall of the “conventional approach”.
21. As prescribed in the Consultation Paper, there are advantages on the “service neutral approach” and the “pro-mobile approach”, say enhance efficiency of spectrum utilization, and avoid congestion in certain parts of the spectrum. New technologies generally move faster than the regulations, market-oriented approaches could definitely allowing licensees to develop any technologically feasible services which best accomplish their business plans.
22. However, adoption of these approaches represents a significant deviation from the prevailing frequency allocation principle. On the other hand, upon the adoption of the “service neutral approach”, detailed arrangement in harmonizing the use of different frequency bands with neighbor countries in preventing interference would be more challenging.

23. In view of keeping in pace with the International trend on the development of Mobile TV services, HKBN therefore considers the CITB may adopt “conventional approach” as an interim solution and further considers the feasibility in adopting “service neutral approach” or “pro-mobile approach” after details related to the “market-based approach”, say the proposed spectrum release plan as suggested in the Radio Spectrum Policy Framework² is available to the investors to decide on the services.

(V) *Question 5*

We invite comments on whether, in pursuance of a market-led approach, we should assign the spectrum available in Band III and L Band and the two SFN multiplexes in the UHF Band for relevant digital broadcasting services by auction with appropriate rollout obligations, and whether a SUF should be charged for such uses.

24. While a market-based approach to allocating spectrum via auction generally favored by regulators in many jurisdictions given that it is generally regarded as a means of putting spectrum in the hands of those who value it most, it may not be the most appropriate mechanism for promoting the new Mobile TV service in Hong Kong.

25. Firstly, allocating spectrum to the bidder who placed the highest bid may not achieve the best outcome in terms of development of competition. A potential new entrant may not possess the financial resources to place the highest bid, but its entry would benefit society in terms of introducing competition to existing mobile multimedia providers. On the other hand, an existing multimedia content provider may possess the financial means to potentially outbid aspiring new entrants but consumers as whole would not be able to benefit from the entry of a new service provider. In this way, the auction mechanism generally favors the “incumbents”, and potentially deters the development of Mobile TV market in Hong Kong, which is one of the key potential benefits of Mobile TV.

26. Secondly, an auction presents a risk of a very high and economically unviable final auction price. Under this scenario, the potential new

² The Commerce, Industry and Technology Bureau, (24/4/2007), “Radio Spectrum Policy Framework”

entrant may experience difficulties in raising the capital to pay for the spectrum and also rollout the network. Essentially, a high spectrum price could take away capital from investments and marketing. Even if the capital can be raised, the high price of spectrum would eliminate the low cost advantages maybe offered by Mobile TV, thus destroying the value of Mobile TV substantially. The high spectrum price would ultimately be borne by consumers.

27. Thirdly, auction is susceptible to manipulation by bidders. Collusive bidding, speculation and predatory bidding could take place to raise the spectrum price and to deter entry of potential new entrants.
28. In the event that the CITB decides to adopt auction as a mechanism to allocate spectrum, we strongly urge the CITB to take measures to mitigate the problems presented by an auction mechanism, say adopting hybrid selection method including elements of pre-qualification and spectrum auction. Otherwise, the potential for the auction design to have an unintended outcome far from that originally envisaged could go unrecognized. We have therefore considered that auction should be design carefully and in some detail. Besides, if the CITB is to promote service and/or technology innovation, the award of new spectrum should be based on a 'selection by merits' approach.
29. Regarding the payment of Spectrum Usage Fee ("SUF"), HKBN is of the view that SUF should be paid over the term of the licence, rather than having an upfront lump sum amount. On the one hand, 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.
30. In light of the above, HKBN considers it would lead to favorable result to consumers as a whole since, after all consumers would be able to benefit from the competition with the entry of new service providers.

(VI) Question 6

We invite comments on whether Mobile TV programme services should be licensed under the Broadcasting Ordinance and regulated accordingly through appropriate licensing conditions and codes of practice by the relevant authorities, and if so, how this should be achieved vis-vis the current licensing framework.

31. As the consultation document recognizes (paragraph 51), there are strong arguments for not licensing Mobile TV under the Broadcasting Ordinance. We believe the current regulatory regime already require content providers in fulfilling certain set of regulations, like the Control of Obscene and Indecent Articles Ordinance. Taking an example of the European Union, there are a considerable number of co- and self-regulatory measures in place to protect the public. These range from Codes of Practice put in place by regulators and self regulatory framework. In addition to these co- and self-regulatory frameworks, a considerable number of institutions provide information and guidance to public and to help educating them about the potential risks of services.
32. In respect of the above, co- and self-regulation play a vital role in the multimedia sector. Besides, there have been huge advances in technology and the services that can be provided. Statutory regulation may fail to deal proportionately or adequately with any potential harms that may arise from any emerging new services. There needs to be the flexibility in regulation to ensure that the public can be adequately protected while innovative industries can continue to develop new services. This can only be successful under co- and self-regulatory regimes. These regimes can provide flexibility, harmonization, simplification, speed and the legal certainty.
33. 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. Who would the regime apply to? Apply solely to Mobile TV operators or also including the present

multimedia Mobile content provider? Would it be regulatory licensing? What are the harms that the scheme would be trying to prevent? 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. Our initial view is that co- and self-regulatory regimes would be more simple, effective and flexible.