By Fax 2803 5111 and Mail

Mr MH Au Director-General of Telecommunications Office of the Telecommunications Authority 29/F Wu Chung House 213 Queen's Road East Wanchai Hong Kong

21 November 2005

Dear MH,

Joint Operator Submission

We refer to:

- (i) Consultation Paper on Licensing Framework for Deployment of Broadband Wireless Access – Analysis of Comments Received, Preliminary Conclusions and Further Consultation ("BWA Consultation");
- (ii) Consultation Paper on *Revision of Regulatory Regimes for Fixed-Mobile Convergence* ("**UCL Consultation**");
- (iii) Our joint letter to the Office of the Telecommunications Authority ("**OFTA**") dated 21 October 2005 outlining our concerns regarding the BWA Consultation and the UCL Consultation;
- (iv) Our meetings with OFTA on 31 October 2005 and 16 November 2005 to discuss our letter of 21 October 2005; and
- (v) Our meeting with the Commerce, industry and Technology Bureau ("**CITB**") on 15 November 2005.

At our two meetings with OFTA, we talked about the need to conduct "policy" consultations before consultations on "implementation matters" and on this basis, we reiterated our request that a broad Spectrum Policy Review ("**SPR**") and a full consultation dealing with the substantive fixed-mobile convergence ("**FMC**") issues ("**FMC Consultation**") be concluded before finalization of the BWA Consultation and the UCL Consultation. We also suggested that the Government and OFTA adopt a more collaborative approach with the operators when implementing regulatory changes, given their far-reaching effects on the market and its stakeholders.

"Policy First" approach

In response to our earnest requests, the Telecommunications Authority ("**TA**") has simply granted the industry a three-week extension on the deadline for submission of comments on the BWA Consultation to 21 November 2005, coinciding with the deadline for written submissions on the UCL Consultation.

Unfortunately, the TA's decision to extend the BWA Consultation does not address the industry's concerns. It is not a question of more time being needed to respond to the BWA Consultation but the more fundamental issue of the inter-related consultations (BWA Consultation, UCL Consultation, FMC Consultation and SPR) needing to be conducted in the proper order. There is a more logical and necessary sequence to follow (i.e. Policy First) and there is no compelling reason why that order should not be followed. Indeed, not following the Policy First approach can only create regulatory uncertainty, undermine the subsequent policy reviews, adversely affect investment levels in the market and harm users.

On a Policy First basis, the proper order of proceedings should therefore be: SPR and FMC Consultation first, followed by the narrower BWA Consultation and UCL Consultation.

Purpose of submission

Due to the TA's decision to conduct the BWA Consultation and UCL Consultation before the SPR and FMC Consultation, and in the absence of a clear spectrum policy and policies on the substantive FMC issues, we feel that we are not in a position to respond fully to the detailed questions raised in the BWA Consultation or the UCL Consultation. In short, we consider that one critical policy consultation (SPR) has not yet been started, that another consultation (UCL Consultation) covers implementation issues and has not dealt with the more critical FMC issues, and that a third consultation (BWA Consultation) is being conducted out of turn. We would therefore strongly advise OFTA and the Government to carry out the consultations in a more logical order so that the industry can properly respond to OFTA's proposals.

Accordingly, the attached submission deals with what we consider to be wrong with the approach adopted by OFTA in the consultation process and how the process can be modified to lessen the confusion and uncertainty presently experienced by the industry.

The submission reflects the joint views of 13 licensees, who are responsible for over 90% of the telecommunications investment in Hong Kong. While the signatories of this letter vigorously compete in the market and are likely to disagree on specific policy issues, we are united in our objection to a policy formation process which:

- Places narrow implementation proceedings before broad policy consultations;
- Disregards critical issues that will impact both users and licensees; and
- Can only result in harm to both users and the industry through ad hoc decisions which prejudge directly-related policy proceedings.

To avoid any doubt or misunderstanding regarding our position, we wish to make it clear again (as we had explained to the CITB at our meeting on 15 November 2005 and to OFTA at our meeting on 16 November 2005) that we are not requesting OFTA to refrain from issuing any more new licences, nor are we trying to hinder the development of new radio technologies or the

introduction of Broadband Wireless Access ("**BWA**"). We are requesting OFTA to minimize unnecessary regulatory risks by addressing the policy issues (SPR and FMC Consultation) first. As long as the Government can provide certainty and transparency in its policy, the industry can make investment decisions on BWA accordingly.

We hope that OFTA and the Government carefully consider the issues and views outlined in our attached joint submission and our proposed way forward. We are encouraged by OFTA's commitment at our last meeting to continue discussions on this subject even after this submission has been made, and we look forward to meeting and working further with OFTA over the next few months to resolve our concerns to the mutual benefit of the industry and the consumer.

You may also receive individual submissions from some of us who wish to supplement the views expressed in this joint submission.

Yours sincerely,

APT Satellite Company Limited	Asia Satellite Telecommunications Company Limited	China Resources Peoples Telephone Company Limited
Chen Xun Assistant President	Peter Jackson Chief Executive Officer	Charles Henshaw Executive Director & Chief Executive Officer
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Wharf T&T Limited

Agnes Tan Director, Legal, Regulatory & Carrier Affairs Joint Operator Submission on:

Consultation Paper on Licensing Framework for Deployment of Broadband Wireless Access – Analysis of Comments Received, Preliminary Conclusions and Further Consultation

and

Consultation Paper on Revision of Regulatory Regimes for Fixed-Mobile Convergence

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A. EXECUTIVE SUMMARY

1. This submission contains the collective views of the **Joint Operators**¹ in response to the consultation papers issued by the Office of the Telecommunications Authority ("**OFTA**") on:

- Licensing Framework for Deployment of Broadband Wireless Access Analysis of Comments Received, Preliminary Conclusions and Further Consultation ("BWA Consultation")²; and
- Revision of Regulatory Regimes for Fixed-Mobile Convergence ("UCL Consultation")³.

2. We are deeply concerned with the approach OFTA has adopted in conducting the BWA Consultation and the UCL Consultation. In the absence of a clear spectrum policy to set the broad ground rules governing all aspects of spectrum in Hong Kong, OFTA is already requesting the industry to comment on specific spectrum issues in the BWA Consultation. At the same time, the UCL Consultation is largely limited to issues concerning the terms and conditions of a proposed Unified Carrier Licence ("UCL"). Bv concentrating on the UCL proposal, OFTA is asking the industry to comment on a limited set of specific issues associated with the implementation of a licence before the Government deals with the substantive policy issues concerning the convergence of fixed and mobile services. At best, therefore, the UCL Consultation is only an implementation consultation on fixed-mobile convergence ("FMC") but one which does not address the substantive policy issues.

3. As OFTA has explained to us, it is the Government's intention to conduct an industry consultation dealing with the substantive FMC issues ("**FMC Consultation**") only after obtaining input from consultants. We understand this consultation will address issues such as: use of public resources, interconnection charging arrangements, numbering, number portability, etc.

Our position

4. Our position is fully explained in the ensuing sections of this submission and can be briefly summarized as follows:

¹ This group of 13 fixed line, mobile and satellite operators consists of the following: APT Satellite Company Limited; Asia Satellite Telecommunications Company Limited; China Resources Peoples Telephone Company Limited; Hong Kong CSL Limited; Hutchison Global Communications Limited; Hutchison Telephone Company Limited; New World PCS Limited; PCCW-HKT Telephone Limited; Reach Networks Hong Kong Limited; SmarTone Mobile Communications Limited; SUNDAY o/b Mandarin Communications Limited; and Wharf T&T Limited.

² Issued by OFTA on 31 August 2005.

³ Issued by OFTA on 21 September 2005.

- Reasoned decision-making requires broad policy consultations such as the FMC Consultation and the Spectrum Policy Review ("SPR") to be initiated and finalized before specific implementation consultations are completed. A "Policy First" approach must be adopted. We note OFTA's agreement with us that this Policy First approach is both logical and preferable. Indeed, the reasons noted by OFTA in the BWA Consultation for departing from the Policy First approach are not convincing.
- There is a clear inter-relationship between Broadband Wireless Access ("BWA") on the one hand and FMC and the SPR on the other hand. The outcomes of the FMC Consultation and SPR will directly determine the rights and obligations of the BWA licensees, including spectrum allocation, scope of use, tradability, interference, interconnection, numbering, etc. If the BWA Consultation is concluded before the FMC Consultation and the SPR, it will either unlawfully prejudge the latter two proceedings or need to be modified based on the outcomes of those proceedings.
- We are concerned with the interference problems that have arisen from OFTA's proposal to allocate the 3.4-3.6 GHz band for BWA services despite this frequency band already being used by Fixed Satellite Services ("FSS") operators per International Telecommunications Union ("ITU") recommendations. These interference concerns, which are supported by the results of tests carried out in Hong Kong and abroad, are both real and substantial. These matters are "primary", not "secondary", to a consideration of how BWA services should be offered and regulated, and need to be fully studied in order to protect the integrity of all voice, data and content services using C-Band. In addition, as the prescribed band range for the forthcoming Ultra Wide Band ("**UWB**") services straddles that for BWA services, there are likely to be similar interference problems. Since interference is an issue affecting all spectrum bands and spectrum users, this matter must be studied comprehensively in the SPR. It is not an exaggeration to say that inattention to this issue will adversely affect every user in Hong Kong.
- OFTA's proposal to specifically devise a new licence for BWA goes against the well-accepted principle of technology neutrality.
- OFTA's proposals, which create unnecessary regulatory and litigation risks, will ultimately harm users, weaken Hong Kong's role as a telecommunications hub, and discourage investment and innovation.

Our request

- 5. On this basis, the Joint Operators collectively request that:
- OFTA and the Government eliminate unnecessary regulatory risks by providing the market with clear and timely articulation of long-term policies through a "Policy First" approach;

- OFTA and the Government commence the SPR as soon as practical and progress the FMC Consultation (covering issues such as: use of public resources, interconnection charging arrangements, numbering, number portability, etc.);
- OFTA and the Government conduct, as soon as possible, more indepth studies on the interference issues pertaining to C-Band/ BWA/ UWB that have so far been identified and resolve these as part of the SPR along with any other relevant interference issues that arise;
- Any decisions on BWA and unified licensing be held in abeyance until completion of both the SPR and the FMC Consultation; and
- A more collaborative mode be adopted for the development of Hong Kong's regulatory regime by sharing with the operators the results of studies conducted by the consultants appointed by the Government, and actively involving the operators throughout the consultancy process.

B. INTRODUCTION

6. This paper has been jointly prepared and submitted by the following fixed line, mobile and satellite operators ("**Joint Operators**"):

- APT Satellite Company Limited;
- Asia Satellite Telecommunications Company Limited;
- China Resources Peoples Telephone Company Limited;
- Hong Kong Cable Television Limited;
- Hong Kong CSL Limited;
- Hutchison Global Communications Limited;
- Hutchison Telephone Company Limited;
- New World PCS Limited;
- PCCW-HKT Telephone Limited;
- Reach Networks Hong Kong Limited;
- SmarTone Mobile Communications Limited;
- SUNDAY o/b Mandarin Communications Limited; and
- Wharf T&T Limited.

7. This submission is prepared in response to the consultation papers issued by the Office of the Telecommunications Authority ("**OFTA**") on:

- Licensing Framework for Deployment of Broadband Wireless Access Analysis of Comments Received, Preliminary Conclusions and Further Consultation ("BWA Consultation")⁴; and
- Revision of Regulatory Regimes for Fixed-Mobile Convergence⁵. This consultation paper relates to aspects of fixed-mobile convergence ("FMC") and focuses on the proposal to introduce a Unified Carrier Licence ("UCL"). Given the subject matter of the paper, we will herein after refer to it as the "UCL Consultation".

8. We are deeply concerned with the approach OFTA has adopted in conducting the BWA Consultation and the UCL Consultation. In the absence of a clear spectrum policy to set the broad ground rules governing all aspects of spectrum in Hong Kong, OFTA is already requesting the industry to comment on specific spectrum issues in the BWA Consultation. At the same time, the UCL Consultation is largely limited to issues concerning the terms and conditions of a proposed UCL. By concentrating on the UCL proposal, OFTA is asking the industry to comment on a limited set of specific issues associated with the implementation of a licence before the Government deals with the substantive policy issues concerning the convergence of fixed and mobile services. At best, therefore, the UCL Consultation is only an

⁴ Issued by OFTA on 31 August 2005.

⁵ Issued by OFTA on 21 September 2005.

implementation consultation on FMC but one which does not address the substantive policy issues.

9. As OFTA has explained to us, it is the Government's intention to conduct a further consultation dealing with the substantive FMC issues such as: use of public resources, interconnection charging arrangements, numbering, number portability, etc. ("FMC Consultation") only after obtaining input from consultants.

10. As a result, we are not able to fully respond to the matters contained in the BWA Consultation (which are largely spectrum-related) because the spectrum policy which directly impacts these issues is still unknown. As to the UCL Consultation, it is difficult to respond to OFTA's implementation proposals regarding a UCL until the more critical FMC issues have been decided under the FMC Consultation.

11. We consider it more appropriate, therefore, to present in this joint submission, our views as to why we consider the BWA Consultation and the UCL Consultation to be flawed, and what should be done to resolve the difficulties we are facing. Our comments on OFTA's approach are outlined in the following section.

C. OUR COMMENTS ON THE CONSULTATION PROCESS ADOPTED BY OFTA

A "Policy First" approach

12. We advocate a "Policy First" approach. In our letter to OFTA dated 21 October 2005 and subsequent meetings on 31 October 2005 and 16 November 2005, we consistently emphasized the logic and importance of adopting such an approach when conducting industry consultations.

13. A Policy First approach means devising a broad policy framework before dealing with detailed implementation matters. This approach avoids policy decisions having to "fit in" with decisions previously made in implementation consultations. Dealing with implementation issues first would in essence prejudge or prejudice broad policy reviews. A Policy First approach also avoids recently made implementation decisions having to be subsequently revised in order to be consistent with the broader policy decisions.

14. We believe that establishing the broad policy first reduces regulatory uncertainty since the telecommunications operators can base their future business decisions on this broad framework, in full knowledge that any subsequent implementation decisions and regulations introduced by the Telecommunications Authority ("TA") will still be in keeping with this framework. The Policy First approach is therefore conducive to transparency, market predictability and investment, and promotes consumer benefits. Devising a policy framework also ensures that OFTA implements decisions that are wholly consistent with one another.

15. It is clear that this Policy First approach has not been adopted by OFTA as demonstrated by the recent BWA Consultation and UCL Consultation. Both consultations raise questions concerning more fundamental policy matters. A Policy First approach would logically require the SPR and the FMC Consultation to be conducted before the consultations on Broadband Wireless Access ("**BWA**") and the need for a UCL.

16. At our meeting on 16 November 2005, the TA clearly accepted the logic of the Policy First approach. This acceptance is not surprising because a Policy First approach is simply logical and represents common sense. Indeed, absent unique circumstances (which do not exist here), any approach other than Policy First would be irrational.

17. On this basis, OFTA and the Government should consider commencing the SPR as soon as practical and completing this review, as well as the FMC Consultation, before finalizing any decisions on unified carrier licensing or BWA. In the following section, we set out our major comments on the manner in which OFTA is conducting the present BWA Consultation and UCL Consultation.

Spectrum Policy Review should come first before further spectrum allocation

18. Issues that arose from the 2G mobile licence renewal process have clearly demonstrated the problems of the lack of a long-term spectrum policy for Hong Kong. A comprehensive long-term spectrum policy is long overdue.

19. Following the consultations on 2G mobile licences renewal, both OFTA and the Commerce, Industry and Technology Bureau ("**CITB**") recognized the need for a spectrum policy review:

(a) In the CITB Press Statement of 29 November 2004, it was stated that the Government would launch a spectrum policy review **in 2005**. Explaining this, the Government said:

Given the rapid pace of advancement in technology development and deployment, we consider that a fundamental review of the policy for allocation and assignment of radio spectrum is warranted.

The objective of the review is to formulate a responsive, transparent and market-led spectrum policy to enable the community to reap the maximum benefit from the deployment of this scarce public resource as technology advances.

(b) This sentiment was also reiterated by the TA in an earlier statement:

The Government intends to initiate a separate spectrum policy review on the allocation and assignment of radio spectrum for telecommunications and related services. In the light of the outcome of the review, the Government will initiate the necessary legislative and administrative procedures to implement the revised spectrum policy. The TA will then determine the way forward for the allocation and assignment of the spectrum vacated by the existing IS-95 CDMA system and other available spectrum for mobile and other telecommunication services. ⁶ [Emphasis Added]

(c) In paragraph 35 of OFTA's Consultation Paper on *Licensing Framework for Deployment of Broadband Wireless Access* issued on 20 December 2004, it stated:

The Government has announced on 29 November that a spectrum policy review would be conducted. Policies on the allocation and assignment of spectrum for mobile and fixed services would be included. The review shall be conducted with a view to constructing a responsive, transparent and market—led spectrum policy for allocating and assigning such spectrum resources.

⁶ Paragraph 42 of the Statement of the TA on *Licensing of Mobile Services on Expiry of Existing Licences for Second Generation Mobile Services* issued on 29 November 2004.

20. On the one hand, we find ourselves at the end of 2005 and the SPR has not yet been initiated. On the other hand, OFTA, with no good reason, has claimed that BWA is an exception to the SPR.

21. The market perception is that the Government is late in commencing the SPR and OFTA is charting its own course on BWA. Such a slip-up in coordination between Government functions is certainly not desirable. Industry observers are, in fact, somewhat puzzled by this delay as the SPR was identified correctly in 2004 by the Government as being both important and timely.

22. The route advocated by OFTA is inconsistent with the Policy First approach. No emergency or exceptional circumstances exist to justify a departure from the logical sequencing of consultations and decisions. On the contrary, decisions which are out of sequence will have a substantial negative effect on users. For example, doing things in the wrong order will act to create significant regulatory uncertainty as the BWA decision would be subject to change in the light of the subsequent final decisions made in the FMC Consultation and SPR.⁷ That is, BWA would be going forward without critically relevant decisions made as to interference issues, spectrum allocation, spectrum use, spectrum trading, technology adoption, interconnection, numbering, etc.

23. Regulatory risk and uncertainties will foster caution in investment, innovation, network build-out plans and service deployment. Litigation risks are also high. Taken together, these will suppress the benefits sought by OFTA via its "implementation first" approach. Hesitancy among bidders will also produce a lower auction price, which the Government should find of concern.

24. At the end of the day, fewer benefits will be realized and indeed it will be seen that the Policy First approach should have been followed as this would have produced more sustainable benefits to users. Indeed, a Policy First approach would cause little or no delay (as apparently feared by OFTA) but will ensure user benefits.

25. The industry has been waiting for a comprehensive spectrum policy. Consistent with international best practices, the SPR should cover all of the following:

- What spectrum to be allocated to which services;
- Manner in which spectrum will be allocated;
- Whether spectrum trading is to be allowed;
- Whether spectrum use will be liberalized;
- Whether spectrum pricing will be standardised;
- How interference issues are to be settled; and

⁷ If OFTA were to state that this was not the case then it would unlawfully be prejudging both the FMC and SPR proceedings.

Alignment with global best practices (including Mainland China policies).

26. If investors were asked to participate in a spectrum auction, they would need to be provided with all essential information including: what is being auctioned, what service the relevant spectrum can be used for, how long they will hold the spectrum, whether the spectrum can be refarmed or traded, interference risks/ protection, the licence terms on which the spectrum will be allocated, and the reserve price of the spectrum so that they can place an appropriate price tag on it and make informed decisions.

27. As long as the important policies regarding spectrum allocation, usage, tradability, refarming, interference and price standardization are not resolved through a comprehensive SPR, it will be virtually impossible for the industry to submit substantive comments on the issues raised in the BWA Consultation, formulate their own commercial position on BWA, or invest and innovate to maximise user benefits.

28. Introducing BWA now would only create uncertainty in the value of both the new BWA licences and current licences. This is both unfair for the new comers and existing licensees. Forcing a BWA auction on the market before there is a clear spectrum policy would only encourage unhealthy speculative bidding and force operators to assume certain outcomes from the SPR. Indeed, a rush to introduce BWA will not be beneficial to end-users, the economy or the industry.

Unified licensing system is only a question of form that can only be evaluated after the substantive issues of FMC are discussed and resolved

29. To date, OFTA has not commenced a consultation covering the substantive issues on FMC, but merely a consultation dealing largely with the terms and conditions of a proposed UCL for fixed-mobile converged services. As OFTA regards BWA as an FMC service, the licensing of BWA spectrum should logically wait until after all aspects of the FMC Consultation and the SPR have been completed, particularly as OFTA has repeatedly indicated a need to examine the market development of fixed-mobile convergence and review other FMC issues (for example as set out in its major tasks and projects for 2004-2005 and 2005-2006).

30. During the course of our meetings, the TA explained that unified licensing was necessary to facilitate BWA service providers offering both fixed and mobile services. Before there can be a rational discussion on the form of the licence and the licence terms applicable to BWA services, there is a need for the Government to develop a clear and logical policy on both spectrum and FMC so that the industry and the public can understand the need for, and longer term objectives (if any) of, a UCL and how it relates to the overall telecommunications licensing regime in Hong Kong.

31. Currently the TA is proposing changes to the licence framework without sufficient articulation of the policy (or policy reasons) for such changes. These proposed changes include the consolidation of the dual carrier structure into a single carrier licence and separately, the introduction of a Services-Based Operator ("**SBO**") licence without regard to the existing licences.

32. Furthermore, it is necessary to explain the rationale for different fees for different carrier-based licences as well as services-based licences. It is uncertain whether these licence fees are based on causally-related costs (as has been represented by the TA) or some other value-based assessment. Currently, there is no sound explanation given as to the difference in licence fees and why the fees range from \$750 per annum for a Public Non-Exclusive Telecommunications Service ("**PNETS**") licence, to \$90,000 per annum under the proposed SBO licence for Voice over Internet Protocol ("**VoIP**") services, to \$1 million per annum under the fixed carrier licence, and to a minimum of \$50 million per annum (escalating) under the 3G mobile carrier licence. This must be addressed in an FMC review.

33. Overhauling a licensing regime is no easy task, given the need to align rights and obligations of new and existing licensees and making provision for transitional arrangements. It must also be done in a way that is technology neutral and maintains a level playing field among providers of substitutable services.

34. In order to contemplate introducing a new form of UCL for BWA or FMC, the TA must first undertake a broad public consultation on the full

package of rights and obligations attached to such a licence, how the rights and obligations of existing licensees are to be dealt with, and other important FMC issues. The consultation needs to cover the following FMC issues:

- (a) The use of public resources (including use of spectrum, telephone numbers, road opening, building access);
- (b) Carrier rights and obligations (including fees and fee structures, accounting manuals and account separation, open network access, sharing of networks, network deployment, anti-avoidance provisions, codes of practice, consumer protection provisions, tariff publication);
- Inter-operator relationships in terms of interconnection arrangements, interconnection charges (including local access charges, fixed-mobile interconnection charges, fixed-fixed interconnection charges, number portability charges);
- (d) Fixed and mobile number portability; and
- (e) The impact upon, and future viability of, the universal service obligation and universal service contributions.

Such issues need to be discussed and resolved in a logical, transparent and orderly manner.

35. India is probably the only place which has recently moved from a licensing regime with separate fixed line and mobile licences to a unified licensing regime. While the benefits of the new licensing regime are yet to be demonstrated, the Indian process has demonstrated the chaos that such change can bring to the market, involving nationwide litigation by mobile operators which ended in a settlement with the Government, and a complicated transitional process which operators can hardly understand.

36. Clarification of FMC issues through defined and transparent policies will ultimately assist BWA auction value. A related issue is spectrum pricing which has been mentioned in the previous section. The TA has stated that such pricing will be market driven via auction but in fact the last auction for 3G spectrum contained a non-market driven requirement for a minimum reserve price and annual royalties. As such, the present technology neutral policy would demand that all spectrum carry similar reserve pricing and pricing structures. Again, transparency about spectrum pricing is lacking.

Specifically devising a new licence for BWA goes against the principle of technology neutrality

37. BWA is the generic name for several unrelated wireless access technologies. Under the technology neutrality principle, it would be inappropriate for OFTA to propose specifically creating a new type of licence for BWA or when any new technology arrives.

38. The same criticism can be made of the proposed licensing regime for VoIP services. VoIP is only a new technology for providing voice service, but OFTA has specifically devised a new two-tier licensing regime for it, with proposed licence fees at small fractions of the licence fee for fixed services. This approach is completely without regard to the existing licences. Such an approach violates the technology neutral principle and creates an unlevel playing field.

39. We do not understand why OFTA has proposed a technology specific licensing approach. This is a substantial departure from the technology neutrality principle and, in the absence of consultation and explicit policy change, turns that neutrality principle on its head. The TA's rush to licence BWA spectrum seems to be a direct reaction to the perceived availability of the technology. This proposed act, in itself, is not a technology neutral stance.

40. New technologies come and go. Previous experience in Hong Kong has shown that not all technologies succeed. In some cases, this has led to operators failing to meet their required performance milestones, failing to deliver against their performance bonds and failing to meet the needs of the market.

41. Another problem with new licences for new technologies is that for each technology, a series of decisions needs to be made on fundamental licence terms, rights and obligations. This in turn leads to discriminatory results which can only upset the level playing field. This is exactly the type of excessive regulatory intervention in the market that the Secretary for Commerce, Industry and Technology, Mr. John Tsang, rejected when he said:

[...] we want a regulator that is lean and skilled. I am referring to a new regulatory philosophy as exemplified by the international paradigm shift from detailed rule-making to competition-based regulation of the communications sector. Detailed rules and guidelines could quickly become obsolete or worse still, hurdles to innovation and investment. We suggest adopting a new regulatory philosophy that the regulator will intervene only when it is necessary to do so.⁸

42. The VoIP example regarding licence fees noted above is a case in point; substitutable services being treated very differently based on technology differences.

⁸ Speech by the Secretary for Commerce, industry and Technology on 27 October 2004 regarding the merger of the Broadcasting Authority and the Telecommunications Authority.

Interference issues are "primary", not "secondary", and such issues go directly to the viability of Hong Kong's proposal to allocate the 3.4-3.6 GHz Band for BWA

43. The TA's "benefits equation" appears to have ignored the very real dangers that have been repeatedly pointed out by the industry: interference across all the services currently using the C-Band satellite frequency.

44. All C-Band inbound communications - voice, data and TV broadcasting - will be affected by BWA transmission on the 3.4-3.6 GHz band. Programme feeds for Star TV, TVB, ATV, HKCTV and NOW will be disrupted, with an impact on over 2 million households. Voice and data traffic running over private networks will be similarly harmed. Indeed, significant interference problems have already been experienced in Australia⁹ under similar circumstances. The very limited BWA trials in Hong Kong have already created satellite service quality problems and have resulted in at least one formal complaint to OFTA.

45. The interference problems are not just limited to Fixed Satellite Services ("**FSS**"). On 27 May 2005, OFTA announced the release of the 3.1–10.6 GHz band for technical trials of Ultra Wide Band ("**UWB**") technology. As the prescribed band range straddles that proposed for BWA services (3.4-3.6 GHz), there are likely to be similar interference issues. Indeed, in a paper issued by the Telecommunications Standards Advisory Committee ("**TSAC**") on *Overview of Ultra Wide Band Radio Technology*¹⁰, it recognized that interference with other services using the same frequency could be a potential problem and hence extensive study would be required:

In real practice, whether actual UWB implementation will cause trouble to incumbent spectrum users in the licensed bands will wait to be seen. Some incumbent spectrum users claim that the cumulative effect of a large number of UWB devices in an area will raise the level of background noise.

It is understandable that telecommunications regulation authorities over the world consider UWB with caution. **Much study and consultation will be required before the UWB radio technology may be introduced.** [Emphasis Added]

This highlights just one reason why the SPR needs to come first: for interference issues to be fully investigated/ analyzed across all the spectrum uses and allocation options on a comprehensive and holistic basis. Any ad hoc approach to resolving interference issues is obviously a recipe for

⁹ See "Death by Overload", Parts 1 and 2 in the February and March 2005 edition of Silicon Chip magazine. The article states that wireless broadband rollout is "[...] already disrupting the reception of over 100,000 C-Band satellite viewers [...]". AsiaSat also has an engineering study on sources of interference which concluded that BWA was a major source of interference at a client's site in Sydney, Australia.

¹⁰ TSAC Paper No.23 /2005 issued in November 2005.

disaster. Rushing a BWA decision can only be harmful to users. Indeed, from the above, it can be seen that BWA may do to FSS what UWB may do to BWA – a vicious cycle of interference to the detriment of established users.

46. Satellite operators have repeatedly raised the subject of interference in the Radio Spectrum Advisory Committee meetings. OFTA did agree that further trials and assessment on the compatibility between FSS and BWA should be conducted. But even this effort misses the point: that interference issues must be addressed broadly in the SPR, not on an ad hoc basis as part of the BWA Consultation.

47. Satellite operators are disappointed with the lack of concern for resolving the interference issue on a comprehensive basis. It was apparent from the special meeting held by OFTA with operators on this issue on 4 November 2005 that OFTA has done little or no research into the impact of its current BWA proposal on C-Band satellite operators. OFTA was not even aware of the interference problems that have occurred in Australia. Critically, the SPR has not yet begun, although we are hopeful that this consultation will address the matter in full in due course.

48. Satellite operators have made significant investments in the use of C-Band and, as such, have a reasonable commercial expectation of continuing use. But instead of ensuring this use, OFTA's proposed solution is to downgrade FSS to a secondary service on C-Band, thus effectively eliminating the right of satellite users to complain about interference.

49. The approach that has been taken by OFTA is surprising. It substantially deviates from the practices normally adopted by regulators around the world when dealing with issues of this nature. For instance, in Singapore, the regulator is currently adopting a much more "collaborative" approach with the industry in deciding on the use of the 3.4-3.6 GHz frequency band. Major users have been contacted to assess, discuss and resolve potential interference issues before the regulator intends to allocate this frequency band for specific services.

50. Surely in a situation where OFTA has admitted to not having a clear idea as to the demand for BWA services or user benefits, and where wireline broadband has already generated globally recognized benefits to users, there can be no basis to rush to a decision. The identified risks simply need to be addressed in a comprehensive manner in the SPR.

51. The interference issue at hand cannot be brushed aside just as a "technical" or a "secondary" issue as depicted by OFTA during our meeting of 31 October 2005. It is a fundamental issue that goes directly to the question of user benefits and the viability of OFTA's proposal of allocating the 3.4-3.6 GHz band for BWA in Hong Kong. This needs to be carefully studied and resolved as a matter of urgency in the SPR.

OFTA's assumption that the industry wants to delay BWA for fear of competition is misguided

52. At our 31 October 2005 meeting, OFTA seemed to suggest that, by asking for the SPR and the FMC Consultation to be finalized before the BWA Consultation, the industry was attempting to "hinder" the development of new technology and the market process for fear of competition.

53. This suggestion is misguided. We are the entities that have invested and innovated in Hong Kong's telecommunications market and have survived the toughest of competition. We are the ones that, on a daily basis, face risks as to technology, user requirements, profit margins and competition. But we are rightly concerned with healthy market development, regulatory certainty and reasoned/ rational decision making.

54. Only by adopting a Policy First approach to rule setting will Hong Kong benefit from a clear and logical set of regulations and ultimately enable consumers in the Hong Kong telecommunications market to enjoy the long-term benefits of investment, innovation and new services. Indeed, if the Policy First approach had been adopted, there would be no delay on BWA. If, on the other hand, BWA is delayed, then it is likely due to the SPR being held up.

OFTA's reasons why licensing of BWA spectrum should take precedence over the Policy First approach are unconvincing

55. In the BWA Consultation Paper, OFTA gave two reasons why the licensing of BWA spectrum cannot wait. These were: (i) It is not necessary to delay BWA until the SPR or FMC Consultation have been completed; and (ii) Mandatory Type II interconnection will be terminated after June 2008. Each of these reasons will be discussed below and shown to be unsubstantiated.

No Need to delay BWA

56. Without any market or other studies, OFTA has assumed that the technologies are available and consumer benefit lies in the immediate licensing of the BWA spectrum. This assumes that the technology is now ripe and that the introduction of BWA will, on balance, be beneficial to users. There are questions about the maturity of the relevant technology associated with BWA, the consumer benefits are hypothetical, and the harm to consumers will be substantial from interference. In short, OFTA has not engaged in a thorough analysis of the relevant factors nor has it balanced the pros with the cons.

57. OFTA must have also assumed that the outcomes of the FMC Consultation and the SPR will have no effect on the BWA decisions. This cannot be the case unless the policies arising out of the FMC Consultation and SPR are intended to be molded to fit into the BWA decision. Industry commentators strongly oppose a process that prejudges policy matters and places "the cart before the horse".

58. One may recall, in a not too dissimilar proceeding, OFTA's claim that consumer benefits justified the granting of a fifth 3G mobile licence for CDMA 2000 technology. Such a claim was subsequently proven to be unsubstantiated through studies conducted by consultants appointed by OFTA.

59. As for OFTA's claim that technologies are available for BWA, the reality is less certain. BWA technology for fixed applications is still developing and WiMax for mobile applications could be delayed for two years.¹¹

60. In any case, there are also other factors to be considered in the balancing exercise as to whether any technology should be pushed by the regulator. The technologies for digital broadcasting and high definition TV have long been available but the Hong Kong Broadcasting Authority has not sought to impose them on market participants through regulatory measures. Many countries have taken a more measured approach to the licensing of new technologies; Mainland China being the most notable example as it has not yet issued 3G mobile or BWA licences.

¹¹ Per Mr. Ferrie Hu, Asia Pacific Director of WiMax Forum, in a recent FMC Forum in Hong Kong.

Termination of mandatory Type II interconnection after June 2008

61. This rationale for urgently introducing BWA is not convincing. First, there has been increased network build-out by fixed line operators. The number of local access links leased from PCCW-HKT Telephone Limited ("**PCCW**") by the competing fixed line operators is on the decline. It is also worth noting that PCCW and the operators who currently lease over 85% of the Type II interconnection links from PCCW support the Policy First approach. Second, there is the safety net offered by the "essential facilities" obligation, which requires bottleneck facilities to continue to be subject to mandatory Type II interconnection. This negates the urgency for licensing BWA. Third, fixed line operators always have the option of negotiating commercial contracts with PCCW for Type II interconnection arrangements that will last beyond July 2008. There is therefore no compelling reason why the logic and the very sound principle of Policy First should be set aside.

62. Even if the Government sees urgency in licensing BWA spectrum, it still has time to undertake and complete the FMC Consultation and SPR. There is still over two and a half years before the termination of mandatory Type II interconnection in July 2008. What is more important is for the FMC Consultation and the SPR to be completed before finalizing any decisions on BWA.

Consumer interests lie in a stable and predictable regulatory environment that generate investors confidence

63. OFTA has emphasized the adverse impact on consumers and the danger of Hong Kong falling behind its counterparts if the regulations for BWA services and unified carrier licensing are not promptly established. This has been shown above to be an over-statement as to the immediate need for BWA, the benefits of BWA and the timing of BWA.

64. The industry recognizes that consumer interests are an important consideration. But the interests of the industry and consumers are not opposed to each other. A more logically prepared set of policies that provides a more predictable operating environment for the industry for investment and innovation is needed to generate greater long-term and sustainable benefits for users in Hong Kong. This is accomplished via the Policy First approach, not via ad hoc decisions which are legally, technically and intellectually flawed.

OFTA's current approach imposes unnecessary regulatory risks on market participants

65. At the FMC Forum hosted by the Wireless Internet Telecom Association on 22 September 2005, and in response to criticism that the TA's approach to BWA and FMC created unnecessary market uncertainty and risk, the TA said:

[...] risks is an everyday thing for doing business and operators should be prepared to take risks.

Such a view unfairly assumes that operators should bear regulatory risks in addition to business risks.

66. As far as taking risks in investing and operating in the competitive marketplace is concerned, clear distinctions need to be drawn between different types of risk.

67. Operators willingly accept **market risks**, meaning market competition with existing and new operators. Operators also accept the risk that consumers will reject their products and that demand will be different from that predicted.

68. Further, operators willingly accept **technology risks**, meaning we accept that telecommunications technologies are rapidly changing and may be disruptive to our businesses. We may make huge investments in one technology which may subsequently turn out to be superseded by newer technologies; not embraced by the market; or unable to support profitable services.

69. Operators, however, justifiably, should not be exposed to **unnecessary regulatory risk**. One of the reasons why Hong Kong has been chosen as our place for investment is because of its stable regulatory environment. While we accept that regulations do change over time with changing market conditions and other developments, we cannot accept unnecessary regulatory risks that arise from a lack of long-term policy, or policies that are illogical or unclear. We also cannot accept a policy formulation process that is ad hoc, excludes consideration of key issues or is done in the wrong order.

70. Under its current proposals to auction BWA spectrum (in the absence of a long-term spectrum policy, decisions on all the FMC issues and a new licensing regime that is yet to be fully defined), OFTA is asking the industry to assume in a vacuum certain policy and technical outcomes. Yet, these assumptions may be wrong in whole or in part, and investors cannot ignore the absence of necessary information.

71. Such regulatory risks could be easily minimized if the Government adopted a Policy First approach. Indeed, it is the duty of OFTA and the CITB to minimize regulatory risks by adopting the Policy First approach.

72. At our meeting on 31 October 2005, OFTA also stated that its slide presentation had explained to us the regulatory roadmap and therefore the risk of uncertainty for operators was eliminated. But this view of risk misses the point. BWA is dependent on outcomes arising from the FMC Consultation and the SPR. To suggest that all is now clear is to either ignore the facts or prejudge the outcome of these proceedings. Indeed, OFTA has accepted the logic of Policy First. Now it needs to act consistently with that acceptance.

Discarding the Policy First approach has increasingly made Hong Kong's telecommunications regulatory policy difficult to predict and understand

73. We are increasingly confused by the statements and actions of OFTA as to its regulatory directions for Hong Kong. The lack of clarification by the Government on this matter is equally unsettling.

74. In addition to the observations we have made in this submission and our letter of 21 October 2005, it is worth noting that:

(a) In the TA's presentation at the Ninth Asia Pacific Telecommunications Roundtable held in Hong Kong on 8 November 2005, he said:

To cope with the rapidly changing technologies, we shall need to make sure that our regulation is technology-neutral. Only when regulation is technology-neutral can it be future-proof. For example, we would not draw a distinction between voice services provided by circuit-switched networks and VoIP services provided by packet-switched networks. Like services should be regulated under like conditions.

But then why is there the current proposal for a two-tiered licence structure for VoIP services with licence fees, rights and obligations that are different from those of the existing fixed line voice service providers when the only difference is the technology ?

(b) In Mr. YK Ha's letter to us dated 8 November 2005, referring to the proposed unified licence and VoIP licence, Mr. Ha stated:

The activities that will be monitored and regulated under the two licences are different and hence the costs would be different. If we adhere to the cost recovery principle in setting the licence fee, the resultant licence fee should therefore be different.

Why are two similar voice services being offered under different licences, with different licence terms, and subject to different licence fees? Is it not the view that services are becoming more substitutable and are converging?

(c) It is intriguing that OFTA should, in its slide presentation to us on 31 October 2005, depict BWA as "the 'access' part of the Future Generation Network", that "BWA provides a broadband connection to a service provider" and that a BWA operator would receive access fees from service providers. We specifically asked if OFTA intended to allocate telephone numbers to BWA licensees and OFTA's answer was in the affirmative. If OFTA only views BWA as a technology for access to other networks, its use should not involve the need to allocate telephone numbers. If OFTA intends BWA to be used for providing services directly to end-users with telephone numbers, OFTA would not have depicted BWA in its slides as a closed circle purely for providing "access" to other transport networks. It is not clear if OFTA is reading limitations into BWA technologies or is just unsure about what may be licensed.

(d) OFTA also has the apparent fear that not licensing BWA now means Hong Kong will lag behind its competitors to maintain its position as the communications hub of choice.

It is important to emphasize that "the fastest is not necessarily the best". There is much more long-term value in developing a clear, logical and well thought out regulatory regime for Hong Kong than simply being the quickest to deliver some new technology to the market. This can only be achieved via a Policy First approach to regulation setting. In fact, the satellite interference issues will harm Hong Kong's position as the communications hub of choice in Asia much more than Hong Kong's lack of BWA.

(e) While the TA repeatedly emphasizes the need for a market-led approach, his insistence on holding firm to his original timetable in the absence of long-term policy formulation on critical issues is more akin to a "regulator-led" ad hoc approach.

This is causing confusion and uncertainty in the market, and is unhealthy for market development and maintaining investment incentives. The regulator needs to take a step back and formulate policies which are more consistent and long-term, and which operators can logically understand so that they can run their businesses accordingly.

What is a true market-led approach ?

75. It is essential to have very clear regulatory principles/ policies so that operators have the confidence to invest and innovate, and consumers can derive the most benefits from such investments and innovation. In defining these principles/ policies, we see the role of the regulator/ Government as follows:

- (a) To clearly articulate Government policies. This includes, in particular, the allocation and use of public resources which are, by their nature, limited, e.g. radio spectrum, road opening rights, access to buildings, etc. In the current context, the SPR and the FMC Consultation, which defines the respective rights and obligations of fixed, mobile and satellite operators over public resources, should be formulated as a priority, consistent with the Policy First approach.
- (b) To conduct adequate analysis of the market environment before formulating policies, so that the regulator takes into account the history and uniqueness of the Hong Kong market. This must be done in industries which require substantial levels of continuous investment.¹²
- (c) To avoid doing harm. That is, to fully analyze all relevant issues before a policy decision is made. In this context, the SPR and the interference issues are clearly relevant.
- (d) To refrain from intervention in the market unless there is market failure.

76. We note that, in the UK regulator's recent announcement regarding the conclusion of its spectrum policy review, it made *"protection of existing users"* a policy objective along with maximizing value from use of radio spectrum. The UK sees any substantial change in spectrum policy as significantly affecting those already using spectrum and *"there needs to be appropriate transitional arrangements to recognize existing investment"*.¹³ Such policy principles rightly give well-deserved recognition to existing operators on their on-going contribution to the development of the telecommunications market.

77. Unfortunately, Hong Kong has a more serious problem. We do not even have a spectrum policy, not to mention investors being affected by a

¹² For instance, in the case of Hong Kong's telecommunications market:

⁻ We are a small market of less than 7 million people. The advantage of maintaining economies of scale must always be considered;

⁻ We are already a very competitive market in which consumers enjoy globally recognized benefits in terms of choice, quality and price;

⁻ We are a major satellite hub and hence deterioration of voice, data or content service quality will not be well tolerated by customers; and

⁻ User benefits will only be maximized if Hong Kong is able to attract operators to invest and encourage them to maintain their investment.

¹³ Section 1.6 of the Spectrum Framework Review issued by the UK's Office of Communications on 28 June 2005.

sudden and significant change in spectrum usage rules. The Government's prime task should therefore be, as it has stated, to define a spectrum policy.

78. It is hard for a regulator or an operator to assess whether the market will embrace a new technology. But if the Government takes good care of the items above to set the right platform for the market to operate, the market can then readily and healthily take care of itself, and consumer benefits will naturally flow. The Government's role is to establish the broad policies and then step back to let the market mechanism work by itself. No regulator should push BWA or, for that matter, any technology as an agenda in itself. This is what we believe a true market-led approach should be about.

D. CONCLUSION

79. The Joint Operators are responsible for over 90% of the telecommunications investment in Hong Kong. We have a common concern that our investments are being subject to an unnecessary degree of regulatory uncertainty due to the delay in formulating important long-term policy.

80. We appreciate that BWA may provide new opportunities to us and other parties. The Government must, however, be careful that in pursuing the possible benefits of new technologies, Hong Kong does not sacrifice reasoned policy formation, healthy market conditions and a stable investment environment. These are the principal drivers of investment incentives and user benefits that go to the very core of long-term industry and consumer interests.

81. In our view, there is no rational need to rush to implement a decision on BWA as this not only neglects the Policy First approach, but endangers all existing satellite C-Band voice, data and content services (thus jeopardizing consumers' ability to use these services); prejudges critical policy consultations and disincentivises investment. It is critical that OFTA adopt a "Policy First" approach.

- 82. On this basis, we strongly urge that:
- OFTA and the Government eliminate unnecessary regulatory risks by providing the market with clear and timely articulation of long-term policies through a "Policy First" approach;
- OFTA and the Government commence the SPR as soon as practical and progress the FMC Consultation (covering issues such as: use of public resources, interconnection charging arrangements, numbering, number portability, etc.);
- OFTA and the Government conduct, as soon as possible, more indepth studies on the interference issues pertaining to C-Band/ BWA/ UWB that have so far been identified and resolve these as part of the SPR along with any other relevant interference issues that arise;
- Any decisions on BWA and unified licensing be held in abeyance until completion of both the SPR and the FMC Consultation; and
- A more collaborative mode be adopted for the development of Hong Kong's regulatory regime by sharing with the operators the results of studies conducted by the consultants appointed by the Government, and actively involving the operators throughout the consultancy process.

Respectfully submitted The Joint Operators 21 November 2005