

**WHARF T&T LIMITED
SUBMISSION IN RESPONSE TO THE
CONSULTATION PAPER DATED 27 OCTOBER 2006
“LICENSING OF SPECTRUM IN THE 850 MHZ BAND TO
ENABLE THE PROVISION OF CDMA2000 SERVICE”
ISSUED BY THE TELECOMMUNICATIONS AUTHORITY**

29 DECEMBER 2006

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INTRODUCTION

- 1 On 27 October 2006 the Telecommunications Authority (“TA”) issued a consultation paper on “Licensing of Spectrum in the 850 MHz Band to Enable the Provision of CDMA 2000 Service” (the “Consultation Paper”).
- 2 In the Consultation Paper the TA invites views from the industry and other interested parties on the need to release spectrum to the market to enable the continuity of CDMA 2000 mobile service. WTT welcomes the opportunity to respond to the Consultation Paper and sets out its response to the various issues raised in the Consultation Paper in this submission.
- 3 At the outset we should make it clear that the views expressed by WTT in this submission is without prejudice to its position and contention in relation to a separate consultation initiated by the TA on Deregulation for Fixed-Mobile Convergence on 14 July 2006. Specifically WTT maintains its views that the TA’s consultation on Deregulation for Fixed-Mobile Convergence is unlawful and prejudicial.

THE SPECTRUM POLICY REVIEW

- 4 We note that the Commerce, Industry and Technology Bureau (“CITB”) have also issued a consultation paper on “Proposed Spectrum Policy Framework” on 25 October 2006 (the “SPR Consultation”). The SPR Consultation is intended to set spectrum policy objectives to be adopted in Hong Kong. As indicated in the Consultation Paper, the TA would follow the spectrum policy objectives adopted for Hong Kong in the management of radio spectrum.

NEED FOR CONTINUITY OF THE CDMA SERVICE

- 5 As the existing spectrum assignment for the provision of CDMA 2000 mobile service will end in November 2008, the TA considers that it is necessary to initiate consultation on whether there is a need to release spectrum to the market in order to enable the continuity of CDMA 2000 mobile service.

- 6 Logically the assignment of spectrum for CDMA 2000 mobile service should wait until the formulation of the spectrum policy objectives to be adopted in Hong Kong, as this would affect the business case for the spectrum. This necessary means that the assignment of spectrum for CDMA 2000 mobile service would have to wait for the conclusion of the SPR Consultation. However the SPR Consultation does not end until towards the end of January 2007, as the spectrum policy objectives set the longer term policy objectives for Hong Kong in managing scarce spectrum resources, it would necessarily take some considerable time for the Government to consider the various responses and perhaps further rounds of consultations before it finalises the spectrum policy objectives. Given that there is a need to continue with the existing service and that the spectrum was previously assigned, we therefore do not object to the assignment of spectrum for the provision of CDMA 2000 mobile service to go before the SPR Consultation. However some adjustment may need to be considered in the finalization of the spectrum policy objectives taking into account the rights and obligations of the existing spectrum licensees.

LICENSING CONSIDERATIONS

- 7 We note the market driven approach adopted by the Government and that the TA will not intervene unless there is market failure. The TA's role in this instance is to make the spectrum available to the market, assign it in a fair, transparent and efficient manner and put in place the appropriate regulatory framework in a timely manner, to ensure continuity of CDMA 2000 mobile service.
- 8 We express concerns on the lack of costs-benefit analysis by OFTA on the spectrum assignment. The TA considers that the principal benefit in releasing the spectrum for CDMA 2000 mobile service is to maintain Hong Kong's strategic position as a world city and the gateway between the Mainland and the world. The TA noted that the four 3G mobile networks based on WCDMA have been rolled out and three networks have been upgraded or are being upgraded to HSDPA technologies and it is expected that the 3G mobile networks and services would become even more established by November 2008. We agree that the costs issues as previously raised would by then become irrelevant and we would only be concerning with the additional investment opportunities and further choices to the consumers with the assignment of spectrum for CDMA 2000 mobile service in Hong Kong.
- 9 In the Consultation Paper the TA has put forward for consideration:

Proposal 1:

The TA should make available to the market spectrum which enables the provision of a CDMA 2000 mobile service after 20 November 2008.

We agree with the TA's proposal to make spectrum available to enable the provision of a CDMA 2000 mobile service after 20 November 2008. The assignment would enable the continuation of CDMA 2000 mobile service after 20 November 2008. This would enhance Hong Kong's position as a world city, maintains Hong Kong's position as a gateway to Mainland China, introduce new player into the market which would in turn bring additional investment opportunities as well as further choices to the consumers. We do not believe the additional player would dampen investment incentives for existing players or bring further costs to the community.

- 10 However we do not agree with the TA's view that the licensee operating the CDMA 2000 mobile service after November 2008 should be required by its licence to adopt the state-of-the-art technology capable of providing high-speed data service with data rates comparable to those using 3G technologies. We believe, given the market development of telecommunications in Hong Kong and to compete with well-established existing players, it is not necessary to impose a requirement on the licensee operating CDMA 2000 mobile service after November 2008 to adopt the state-of-the-art technology capable of providing high-speed data service with data rates comparable to those using 3G technologies. We believe to compete effectively; new licensee would in any case seek to adopt the state-of-the-art technology. Further by imposing such a requirement it contradicts the Government's long-held market driven approach and technology neutrality stance. In this instance there is no compelling reason for the Government to sacrifice such long-held policies stance.
- 11 As spectrum is a scarce public resource, we agree that it should be used in the most efficient manner and the assignment should be left to market forces.
- 12 In the Consultation Paper the TA has put forward for consideration:

Proposal 2:

Auction should be used to determine to whom the spectrum released should be assigned.

We agree in principle that auction provides a fair, transparent and objective means to determine who should be assigned the spectrum. However we do not believe that auction is necessarily an economically efficient means.

SPECTRUM PLAN IN THE 850 MHZ BAND

- 13 The TA has identified two options to assign the available spectrum for the new CDMA 2000 mobile service:

Option 1 – 10 MHz x 2

Option 2 – 12 MHz x 2

For efficient use of scarce public resources, the TA is in favour of Option 1, which implies a maximum amount of frequency spectrum to support 8 carriers. The TA is therefore of the preliminary view that the frequencies 825-835 MHz paired with 870-880 MHz i.e. a total of 10 MHz x 2, may be made available to enable the provision of a CDMA 2000 mobile service.

- 14 In the Consultation Paper the TA has put forward for consideration:

Proposal 3:

The proposed band plan in the 850 MHz band as depicted in Figure 3 should be adopted. While the frequency block from 825 to 835 MHz paired with 870 to 880 MHz may be made available to enable the provision of a CDMA2000 mobile service, views on the optimal amount of frequency spectrum are welcome.

- 15 To better utilize the scarce public resources of frequency, 10 MHz x 2 is supported as it can allow either one licence with 10 MHz x 2 or two licences with 5 MHz x 2. Moreover, with this option, the assignment of the remaining or reserved frequency bands can be considered together with EGSM and GSM frequency bands in the future.
- 16 Although 5 MHz x 2 bandwidth is sufficient for supporting voice services in urban areas, 10MHz x 2 is preferred, as it would allow more capacity to support multimedia services in the future. With 10 MHz x 2 bandwidth assignment, the new CDMA 2000 mobile service licensee would have greater flexibility and would be better placed to compete with existing operators through introduction of new services. Accordingly we support the TA's Proposal 3.

FUTURE RELEASE OF SPECTRUM FOR MOBILE SERVICES

- 17 We note that in the foreseeable future, a number of frequency bands may become available and may be assigned for the deployment of mobile services. We would urge the TA to make the appropriate announcement as soon as practicable as to what frequency would become available and when they may become available. We would support the publication of a 3-year rolling spectrum release plan to keep the industry informed of availability from time to time.

PAYMENT OF SPECTRUM UTILISATION FEE (SUF)

- 18 The concept of SUF was first introduced when the Government auctioned the 3G mobile service licences in 2001. The SUF for 3G mobile licences are:

(a) for the 1st to 5th licence year, the annual SUF will be a flat fee of \$50 million per year; and

(b) for the 6th licence year onward, the annual SUF will be 5% royalty over the annual network turnover of the licensee, subject to a minimum fee that gradually increases from \$60.1 million in the 6th licence year to \$151.2 million in the 15th licence year.¹

19 As announced in the TA's statement of 29 November 2004, the 9 incumbent GSM and PCS licensees will be offered new Mobile Carrier Licences to be issued on the date when their relevant GSM or PCS licence expires, if they agree to the licence conditions in the new licences. As there will not be any bidding exercise, the SUF will be set by the Government broadly consistent with that for the 3G mobile licensees. The SUF for 2G mobile licensees are set as follows:

(a) for the first 5 years of the new licence, the annual SUF will be \$145 per kHz of the total radio frequencies then assigned to the licensee; and

(b) from the 6th licence year onwards to the expiry of the licence, the annual SUF will be 5% of the network turnover, subject to a minimum fee of \$1,450 per kHz of the total radio frequencies then assigned to the licensee.²

20 As indicated in the brief to Legislative Council, the first five-year is a transition period for licensees to factor SUF into their costs structures and to upgrade their networks for the provision of advanced mobile services, hence the relatively low level of SUF for the first five years. Based on the existing frequency allocation, as calculated the annual SUF for the first five years would be \$3.4 million for a PCS licensee and \$2.4 million for a GSM licensee. From the sixth year onwards, the annual SUF would be based on 5% of network turnover, subject to the minimum fee of \$34 million for a PCS licensee and \$24 million for a GSM licensee.

21 In the Consultation Paper the TA has put forward for consideration:

Proposal 4:

The use of spectrum by the licensee should be subject to the payment of one-off SUF the amount of which will be determined through open auction.

We agree that the market is now very different from that faced by the 3G mobile operators when the 3G auction was conducted in 2001. There is no reason why

¹ Legislative Council Brief dated 8 December 2004

² Brief to Legislative Council Panel on Information Technology and Broadcasting on Licensing of Mobile Services on Expiry of Existing Licences for Second Generation Mobile Services and Related Subsidiary Legislation dated 13 December 2004

the SUF should not take a different form from that imposed on the 3G and the 2G mobile operators. We do not have objection to the proposal by the TA, provided the reserve price for the one-off lump sum SUF payment represents a fair value. We would expect the reserve price to be considerably lower than that of the 3G and 2G mobile licences. Given that 2G mobile operators were given transition period to adjust and to upgrade, similar treatment should also be afforded to the new licensee for CDMA 2000 mobile services.

SPECTRUM AUCTION FOR AWARDING THE NEW LICENCE

Pre-qualification requirements

22 The TA proposes to set minimal pre-qualification requirements for registering of bidders interests and for demonstration of the financial capability of the bidders. The TA's preliminary views on pre-qualification requirements are:

(a) lodging with the Government of a specified amount of deposit which may be forfeited if the bidder violates the bidding rules or fails to take up the licence after winning the auction; and

(b) any other relevant supporting information that the TA may deem necessary.

We are of the view that these pre-qualification requirements are inadequate. We submit that as minimum pre-qualification potential bidders must be required to submit their network and services roll out plan with clear targets and time frame for achievements. Only those with the most aggressive and realistic roll out plans should be admitted. With respect to other relevant supporting information required by the TA, they must be made public as soon as possible. As we shall further elaborate below, incumbent 2G and 3G mobile operators and their related parties should be disqualified at the outset.

Auction Process

23 According to the Consultation Paper, it is proposed that, bidders who satisfy the pre-qualification requirements will participate in an open ascending auction and place bids on the amount of one-off lump sum payment for the spectrum assigned. The bidding will start at a pre-determined reserve price, bidders must place open bids in multiples of a pre-determined bid price increment, there will not be any pre-specified number of auction rounds and the auction will stop when there is no further new bid submitted. Bidder with the highest bid will be the winner of the auction who will be granted a licence to operate CDMA 2000 mobile service.

24 In the Consultation Paper the TA has put forward for consideration:

Proposal 5:

It is proposed that a simple MRAA should be adopted in the licensing of the relevant frequency block. Bidders should place open bids in multiples of the bid price increment, starting from the reserve price.

Both the reserve price and the bid price increment will be announced by the Government nearer the time of the auction.

The details of the auction process will be published in due course.

We do not object to the MRAA approach.

Eligibility of Incumbent Carriers or their Related Companies

25 The TA is of the preliminary view that incumbent 2G and 3G mobile licensees or their related companies should be permitted to bid for the spectrum in the relevant frequency block provided that they meet the pre-qualification requirements. The TA also does not intend to impose a bidding restriction in the form of a spectrum cap. We do not agree that the incumbent 2G and 3G mobile licensees or their related companies should be permitted to bid for the spectrum. Nor do we agree to not setting a spectrum cap that can be held by a licensee and its related companies. To be fair and to introduce or encourage new entrant to the mobile services market, we believe the TA should not permit existing 2G and 3G mobile licensees or their affiliates to bid. Further we believe the TA should set a limit on the spectrum that a licensee and its affiliates may hold.

26 The entry of new player to the mobile services market would benefit the community and Hong Kong in general as this would bring additional investment opportunities, further choice and new products and services. The additional investment that would result from new player would be far greater than incremental investments from incumbent licensees. Additional player in the market would further increase competition in the mobile services market bringing further benefits to the consumers through additional choice and innovation.

27 Bidding by incumbent 2G and 3G mobile operators would more likely be for the purpose of ensuring no entry of further player to the market. Notwithstanding the proposal to prevent spectrum hoarding by incumbents, we are doubtful of their effectiveness. To reduce administrative burdens the most effective approach to prevent spectrum hoarding would be to restrict bidding by incumbents.

28 In the Consultation Paper the TA has put forward the following for consideration:

Proposal 6:

Incumbent 2G and 3G licensees should be permitted to take part in the open auction for spectrum in the relevant frequency block provided that they meet the pre-qualification requirements. In this exercise, there will not be any bidding restriction in the form of a spectrum cap i.e. an upper limit on the total amount of spectrum which will disqualify an incumbent 2G/3G licensee from bidding the spectrum.

An individual company or group of companies may not enter more than one bid.

Existing licensees may form joint venture to bid for the licence and prior consent from the TA is not required for participation in the auction.

For reasons as we expressed above, we object to bidding by incumbent 2G and 3G mobile licensees and their affiliates. We agree that an individual company or group of companies may not enter more than one bid. We do not agree that existing mobile licensees or their affiliates should be allowed to form joint venture to bid for the licence.

APPLICABLE REGULATORY FRAMEWORK AND LICENCE CONDITIONS

- 29 The TA proposes to issue successful bidder of the frequency spectrum for CDMA 2000 mobile services with Unified Carrier Licence (UCL) if it were put in place at the time when the licence is to be granted, if not, a mobile carrier licence would be granted. It is proposed that the new licensee will be subject to the same set of licence conditions as the incumbent 2G and 3G mobile licensees on equity grounds as the new licensee will be capable of providing mobile services in direct competition with the incumbent licensees.

Interconnect Regime

- 30 Without prejudice to our position in relation to the TA's consultation on the deregulation for fixed-mobile convergence, specifically that the consultation process is unlawful, we note that the existing fixed-mobile interconnection charge based on mobile party's network pays mechanism will continue to apply. In the case of mobile-to-mobile interconnection charge, this follows the bill and keep arrangement in which no interconnection charge is payable.

Open Network Access Requirement

- 31 Open network access (ONA) requirement was first introduced in 2001 when the Government auctioned 3G mobile licences. It was introduced to meet the following policy objectives:

- (a) to introduce greater competition at the content, application and service level;*
- (b) to enable small and medium sized content or service providers to provide more innovative content, applications and services; and*
- (c) to enable parties who do not have the resources to bid for, or who have failed to obtain, the 3G licence the opportunity to participate in the 3G market.*

32 ONA requirement was also imposed on 2G mobile licensees on expiry of their existing licences and when they take up their new mobile licences in order to preserve level playing field.

33 In the Consultation Paper, the TA proposes to lift the ONA requirement for 3G and 2G mobile licensees for reason that so far the TA has not received any request for regulatory intervention concerning the ONA, numerous non-affiliated application and content providers are now providing services to the mobile users through the 3G platforms and the fixed carrier licensees do not have ONA obligations.

34 Whilst we agree with ONA requirement being best left to market forces, we do not agree that the TA should lift the ONA requirement on 3G and 2G mobile licensees for the time being simply because no request for intervention has been raised to the TA so far. The fixed carrier licensees have obligation for open access similar to that of ONA, in the form of Type II interconnection. The Government has announced in 2004 to withdraw mandatory obligation on Type II interconnection, even that it was subject to extensive public consultation and is subject to phased withdrawal over a set transition period. We believe, in order to avoid abrupt disruption and regulatory uncertainty to existing application and content service providers who rely on ONA from 3G and 2G mobile operators, the TA should initiate a separate consultation on the withdrawal of ONA and any withdrawal should be subject to a reasonable transition period.

35 In the Consultation Paper the TA has put forward the following for consideration:

Proposal 7

The new licensee using spectrum in the relevant frequency block should not be subject to the Open Network Access requirement.

Also, the Open Network Access Requirement as applicable to the existing 2G and 3G licensees should be withdrawn altogether.

We do not agree that ONA requirement as applicable to the existing 2G and 3G mobile licensees should be withdrawn altogether, any withdrawal should be

subject to a separate consultation and in any case any withdrawal should be subject to reasonable transition period.

Network and Service Coverage Obligation

- 36 The TA indicated that he is inclined to impose a network and service coverage obligation on the new licensee in order to ensure the timely provision of CDMA inbound roaming service immediately after the expiry of migration period offered to the former licensee of CDMA service. We do not agree that the TA should draw parallel to the 3G mobile licensees in proposing network and service coverage obligation for the new CDMA 2000 mobile licensee.
- 37 Other than the roll out plan submitted during the pre-qualification stage, we do not believe there is any need for the TA to be concerned that the new licensee would not roll out their network and services in a timely manner. Having paid for the licence, the new licensee would have every incentive to roll out their network and services in order to recoup its investment and to compete with the incumbent 3G and 2G mobile operators who are very well established in the market.
- 38 We note the proposed one year period to provide network and service coverage to the “Golden Bowl Area” plus other strategic locations like the MTR and KCR railways systems, the airport and other border control points. For new entrant to the mobile services market, this proposal is simply not realistic in view of the time that would be required to construct the network, to negotiate for access, for interconnection and so forth. To be realistic we urge the TA to allow for greater flexibility and reasonable time for network and service roll out of at least three years from the date of grant of licence with phased developments.
- 39 In the Consultation Paper the TA has put forward the following for consideration:

Proposal 8:

The new licensee should be subject to the following special licence conditions:

- *Network and Service Coverage Obligation*
- *Performance Bond*
- *Denial of Service to Suspected Stolen Handsets*

The new licensee will NOT be subject to the Domestic Roaming Requirements.

For reasons as stated above, we do not agree that new licensee should be subject to the special licence conditions to meet network and service coverage obligation and provision of performance bond to ensure compliance.

- 40 With respect to the proposed licence condition to deny service to suspected stolen handsets, we believe this is a matter to be left to market forces, i.e. a contractual or service issue between the customer and the service provider.
- 41 We agree that the new licensee should not be subject to the domestic roaming requirements. If necessary, the new licensee may choose to become a MVNO and negotiate for a commercial deal with the incumbent mobile operators for access to their network platforms. We expect that as a reserved position, if commercial agreement cannot be reached within a reasonable time that the new licensee may seek the TA's intervention pursuant to section 36A of the Telecommunications Ordinance.

TIMELINE

- 42 The tentative schedule as put forward by the TA in the Consultation Paper is as follows:

1	End of public consultation	Dec 2006
2	Completion of legislative process	Jul 2007
3	Publication of guidance notes for application and other related bidding documents	Aug 2007
4	Conduction of auction	Early Oct 2007
5	Issue of new licence	End Oct 2007

This would allow for at least one year lead time for licensee to construct a CDMA 2000 network with adequate coverage by 20 November 2008. As we submitted above, this one year lead time is unrealistic, particularly for new entrant. The tentative schedule is very tight and appears to be without any buffer in the event of delay in any of the action items.

CONCLUSION

- 43 We welcome the issue of a new licence to provide CDMA 2000 mobile service after 20 November 2008. We believe the Government should encourage the entry of new player to the mobile services market. We believe the new licence would bring in additional investment opportunities by new entrant and would introduce further choice for the benefits of the community. Accordingly we believe incumbent 2G and 3G mobile licensees and their related parties should not be allowed to take part in the auction contemplated.
- 44 As a minimum pre-qualification requirement, contenders should submit their network and services roll out plan with clear targets and time frame. Only those with the most aggressive and realistic roll out plan should be qualified to enter the auction process.

- 45 We believe the lifting of ONA requirements for incumbent 2G and 3G mobile operators should be subject to further consultation and if it were to be withdrawn, such withdrawal should be subject to a reasonable transition period.
- 46 We are of the view that the one year period required for new licensee to roll out their network and services is unrealistic, if such requirement is deemed necessary, the Government should allow for greater flexibility and reasonable time frame for their compliance. A period of three years with phased developments would be more realistic.

Submitted by Wharf T&T Limited
29 December 2006