

# **CLARIFICATION OF QUERIES RELATING TO THE AUCTION OF PCMTS SPECTRUM RIGHTS**

## **IMPORTANT NOTICE**

Terms and expressions used in this document ("Clarification") are as defined in the Auction Rules relating to the Auction of PCMTS Spectrum Rights released by IDA on 18 January 2008.

This Clarification sets out IDA's response to the queries submitted by the industry relating to the Auction. This Clarification is for informational purposes only and does not form any part of the Auction Rules or the Information Memorandum. Nothing in this Clarification shall be construed as imposing any binding legal obligation on IDA.

This Clarification is not intended to form any part of the basis of any investment decision or other evaluation of any decision to participate in the Auction and should not be considered as a recommendation by IDA or IDA's advisers to participate in the Auction. Each interested person must make its own independent assessment of the potential value of a PCMTS Spectrum Right after making such investigation as it may deem necessary.

While the information contained in this Clarification is believed to be accurate as at the time of posting on IDA's website, it has not been independently verified by IDA or its advisers. Neither IDA nor any of IDA's advisers nor any of their respective directors, partners, officers or employees make any representation or warranty (express or implied) nor has nor will have any responsibility or liability in relation to the accuracy or completeness of the information contained in this Clarification or any other written or oral information made available to any interested person or its advisers. Any responsibility or liability in respect of any such information or any inaccuracy in this Clarification or omission from this Clarification is expressly disclaimed.

Each recipient of this Clarification should consult its own professional advisers as to financial, legal, tax and other matters concerning any potential participation in the Auction or any grant of a PCMTS Spectrum Right.

## **Use of the PCMTS Spectrum**

**Q1.** While IDA allows the use of the PCMTS spectrum for 2G, 3G and other data services (on a case-by-case basis), is it mandatory for operators to provide *Voice (over Circuit-switched)* service?

**IDA's Response:** Operators will be required to provide public mobile voice telephony services. However, operators can arrive at their own commercial decisions as to whether to use circuit-switched platforms or other platforms to deliver their services.

**Q2.** Is there a deadline whereby a mobile operator must deploy 3G technologies on the PCMTS Spectrum Lots that are acquired through this auction?

**IDA's Response:** There is no deadline nor a requirement for the deployment of 3G on the PCMTS Spectrum Lots acquired through this auction.

**Q3.** If a current 2G operator, which has already met its roll-out obligations to provide coverage for the whole island of Singapore, obtains the EGSM lot that IDA has made available in this Auction, would the operator be required to meet the coverage obligation for the EGSM lot?

**IDA's Response:** The roll-out obligation to provide coverage for the whole island of Singapore applies on a per-operator basis, as stated in the operator's FBO licence, rather than a per-spectrum lot basis. This means that each operator is required to provide nationwide PCMTS coverage, but has the flexibility to use and manage its spectrum use as it sees fit in order to achieve this outcome.

**Q4.** IDA requires an operator to provide a guard band of at least 200 KHz on the left (ie. lower frequency boundary) of every contiguous spectrum band they have obtained. In addition, operators that deploy 3G or other UMTS services will be required to set aside additional spectrum for larger guard bands between their 3G networks and other operators 2G networks, based on the ECC Report 082, so as to ensure that they do not interfere with other operators 2G networks. Are operators that deploy 3G or other UMTS services required to set aside additional spectrum for larger guard bands on both the ends of the contiguous spectrum band they have obtained, or only on the left?

**IDA's Response:** As stated in the Explanatory Memorandum issued by IDA on the Framework for the Reallocation of Spectrum in the 900 MHz and 1800 MHz Frequency Band ("Explanatory Memorandum"), operators that deploy 3G or other UMTS services will be required to provide additional spectrum for larger guard bands between their 3G networks and other operators 2G networks, so as to ensure that they do not interfere with other operators 2G networks. They would have to provide the additional spectrum on the left and/or right of a contiguous

spectrum band, depending on which portion of the band is being used to deploy 3G or other UMTS services as described below:

Scenario 1:

Operator A (2G)	Operator B (3G)	Operator C (2G)
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In this scenario, Operator B uses its entire contiguous spectrum band for 3G and must set aside additional spectrum on both ends of its contiguous spectrum band.

Scenario 2:

Operator A (2G)	2G      Operator B 3G	Operator C (2G)
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In this scenario, Operator B uses the lower half of its contiguous spectrum band to provide 2G while using the upper half to deploy 3G. Operator B must set aside a guard band of at least 200 KHz on the left and additional spectrum on the right of its contiguous spectrum band.

Scenario 3:

Operator A (2G)	3G      Operator B 2G	Operator C (2G)
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In this scenario, Operator B uses the upper half of its contiguous spectrum band to provide 2G while using the lower half to deploy 3G. Operator B must set aside additional spectrum on the left of its contiguous spectrum band. It is not required to set aside additional spectrum on the right of its contiguous spectrum band.

Scenario 4:

Operator A (2G)	2G	Operator B 3G	2G	Operator C (2G)
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In this scenario, Operator B uses the middle portion of its contiguous spectrum band to deploy 3G. Operator B is required to set aside a guard band of at least 200 KHz on the left of its contiguous block. It is not required to set aside additional spectrum on the right of its contiguous spectrum band.

Note: In all the above scenarios, Operators A and C are 2G operators and set aside a guard band of at least 200 KHz on the left of each of their contiguous spectrum bands.

**Q5.** In the case that a 3G Licensee deploys 3G over the PCMTS Spectrum Right, would there be any changes to the current method of determining the 3G revenue?

**IDA's Response:** As stated in paragraph 27 of the Explanatory Memorandum, if a 3G Licensee successfully obtains the PCMTS Spectrum Rights through the auction, and wishes to use the spectrum to provide 3G services, IDA will require the payment of FBO annual licence fees of 1% Annual Gross Turnover (AGTO) for the 3G services that are provided over the Bands. The method of segregating revenues from 3G services over the Bands from revenues from 3G services over their existing 1900/2100 MHz 3G Spectrum Rights will be determined when the Licensee seeks IDA's approval for the necessary amendments to its 3G FBO Licence and Radio-Communications Network Licence.

**Q6.** Will IDA allow successful bidders to swap the PCMTS Spectrum Lots that they acquired at the Auction? If so, does IDA have any specific restrictions on how and in what manner a Bidder can trade PCMTS spectrum?

**IDA's Response:** As stated in Section 15 of the Information Memorandum, IDA will permit the trading of PCMTS spectrum. Bidders will have to obtain IDA's approval before trading spectrum, in accordance with Section 13 of the Telecommunications (Radio-Communications) Regulations. IDA will assess each application for spectrum trading on a case-by-case basis.

### **Pre-Auction**

**Q7.** The Auction is a significant event and requires considerable review and preparation on the part of a mobile telecommunications operator. Furthermore, the deadline for submission of queries only closes on 1 Feb 2008. Can the timeframe for the submission of the Application Form, First Initial Offer and the Banker's guarantee be extended?

**IDA's Response:** IDA has considered the feedback of interested bidders and will extend the deadline for the submission of the Application Form, First Initial Offer and the Bank Guarantee for the Initial Guaranteed Amount by one week. The new Application Date is 22 February 2008. Please refer to Section C of the updated Information Memo released on 6 February 2008 for the revised indicative timelines of the Auction. The definition of Application Date has also been revised accordingly in the updated Auction Rules and the Appendix 3 Bank Guarantee released on 6 February 2008

**Q8.** Please provide details as to the criteria that IDA will use to assess "financial and technical capabilities" (ref. Section 6.3 of the Information Memorandum)

**IDA's Response:** The applicant must provide evidence to demonstrate to the satisfaction of IDA that the applicant has sufficient financial and technical

resources to both acquire a PCMTS Spectrum Right and to operate a network in relation to that PCMTS Spectrum Right.

**Financial capability:** Paragraph 1.7 of the Application Form requires a brief summary of the applicant's financial proposal for acquiring a PCMTS Spectrum Right and operating a network in relation to that PCMTS Spectrum Right, and the explanatory note thereto explains that only brief details are required of the applicant's proposals to finance payment for any PCMTS Spectrum Right granted to it and the roll out and operation of its network.

**Technical Capability:** Paragraph 1.6 of the Application Form requires a brief summary of the applicants relevant technical capability to be provided, and the explanatory note thereto explains that only brief details are required of the capability of, or which is available to, the applicant to operate a network in relation to a PCMTS Spectrum Right, including brief details of similar experience and/or technical expertise of, or which is available to, the applicant or its shareholders.

**Q9.** Please provide details as to the criteria that IDA will use to assess whether it is in the public interest to grant a person a PCMTS Spectrum Right? (ref. Section 6.3 of the Information Memorandum)

**IDA's Response:** IDA will consider whether the grant of a PCMTS Spectrum Right to the applicant could in any way have any adverse impact or consequence on consumer welfare and/or national interest.

**Q10.** Is there any limit to the number of persons that can be named in the Disclosure List in the Application Form?

**IDA's Response:** There is no limit to the number of persons that can be named in the Disclosure List.

**Q11.** Can the undertaking under Paragraphs 1.10 (a) and (b) of the Application form be limited to the best of the Applicant's knowledge, information and belief?

**IDA's Response:** IDA has amended the Application Form to limit the undertaking under Paragraph 1.10 to the Applicants' best knowledge and belief, having made all reasonable enquiries. Please refer to Paragraph 1.10 of the updated Appendix 1 of the Auction Rules (Application Form) released on 6 February 2008.

**Q12.** Would IDA dispense with the requirement under Paragraph 1.12(c) of the Application Form for incumbent 2G operators?

**IDA's Response:** IDA will dispense with the requirement under Paragraph 1.12(c) of the Application Form for operators that already hold FBO licences for

the provision of 2G PCMTS services. Please refer to Note 1.12 of the updated Appendix 1 of the Auction Rules (Application Form) released on 6 February 2008.

**Q13.** Under Section 2.4.1(b) of the Auction Rules, applicants are to submit documentary evidence of the appointment of each Authorized Representatives as a person having authority to act alone on behalf of, and bind, the Bidder in the Auction. Would a letter from the CEO or a representative of the Applicant, confirming the appointment of the Authorised Representatives suffice?

**IDA's Response:** Yes, a letter from the CEO confirming the appointment of the Authorised Representatives would suffice.

**Q14.** Under Section 3.4 of the Auction Rules, a Bidder may replace any of its Authorised Representatives at any time prior to the commencement of the Information Session. For purpose of facilitating the Bidders, we ask that the IDA permit changes (where necessary) to be submitted up till the day before the commencement of the Auction.

**IDA's Response:** To ensure a smooth running Auction, all Authorised Representatives are required to attend the Information Session and take part in the Trial Auction. Hence, any replacement of a Bidder's Authorised Representative should take place before the commencement of the Information Session.

**Q15.** Would IDA consider increasing the maximum number of Authorised Representatives to eight?

**IDA's Response:** To ensure a smooth running and secure Auction, IDA will keep the number of Authorised Representatives capped at 5.

**Q16.** With reference to Section 2.6.5 of the Auction Rules, would IDA include the number and identity of qualified bidders in the notification, where an auction proceeds?

**IDA's Response:** Should an Auction proceed, IDA will list the registered Bidders on its website.

### **Auction**

**Q17.** The reserve price in the 2G spectrum auction in 2001 was lower than the Reserve Price in this PCMTS Spectrum Auction. How did IDA set the Reserve Price of \$300,000 per PCMTS Spectrum Lot?

**IDA's Response:** The Reserve Price for PCMTS Spectrum Lots is different from the reserve price in the 2G spectrum auction as the terms of the PCMTS Spectrum Rights are different from the 2G Spectrum Rights. In setting the reserve price at \$300,000 per PCMTS Spectrum Lot, IDA considered that the price should not be too high to deter interested bidders from participating in the auction, and yet should be set at an appropriate level to reflect that the PCMTS Spectrum is a scarce and valuable national resource.

**Q18.** Why is the Initial Guaranteed Amount set at \$3m when each bidder can only bid for a maximum of 6 lots, which have a reserve price of \$300,000 each?

**IDA's Response:** The Initial Guaranteed Amount is set as such to cater for increases in the value of the lots if the Auction proceeds.

**Q19.** Section 7.5.1 of the Auction Rules allows Bidders to request two Recesses during the Auction, and the duration of each Recess is 90 minutes. Can a Bidder request a break of 180 minutes using both its 90-minute Recesses?

**IDA's Response:** If a bidder has not requested a Recess in any previous Round in the Clock Auction, it may request for two consecutive 90-minute Recesses, i.e. a total of 180 minutes of recess. It would subsequently not be entitled to request for any more Recesses in the Clock Auction. To ensure a smooth running Auction, all Authorised Representatives are reminded that they have to attend the Information Session and take part in the Trial Auction.

### **Transitional Issues**

**Q20.** Will IDA waive the Quality of Service (QOS) requirements in relation to PCMTS provided over the 900 MHz and 1800 MHz frequency bands for the period during which network migration will take place (if there is a change in an incumbent's frequency allocation)?

**IDA's Response:** The QOS requirement applicable to mobile operators is meant to ensure that they provide at least a basic level of service coverage to their customers. Such minimum standards will still be necessary during any network migration, and hence the QOS requirements will still apply. Operators should plan their network migration in such a way as to minimize any service disruption.

**Q21.** How are the pro-rated fees for the existing 2G Spectrum Rights extension calculated?

**IDA's Response:** As stated in the Explanatory Memorandum, the pro-rated fees are based on an annual management spectrum fee of \$140,000.00 per 2G spectrum lot. The \$35,287.67 fee per 2G spectrum lot is derived by pro-rating the annual spectrum management fee based on the number of days in the 3 month extension.

**Q22.** The expiry of the extended 2G Spectrum Rights on 31 December 2008 coincides with the festive season where there will be high volumes of traffic. Will IDA consider revising this date such that the extended 2G Spectrum Rights expire only after the festive season, eg. March 2009?

**IDA's Response:** The 2G Spectrum Rights are due to expire on 30 September 2008. IDA's offer to extend the 2G Spectrum Rights for the current 2G operators is in view of possible network migration and major international events taking place in Singapore in September 2008 that require close spectrum coordination. Operators should strive to complete their network migration before 31 December 2008. Operators should prepare their networks to cope with the high volume of traffic during the festive seasons as part of their normal course of business. This is no different from any other years.

### **Others**

**Q23.** IDA has reserved 1 lot of EGSM spectrum and 3 lots of 1800 MHz spectrum. Could IDA advise if it has any plans for these lots?

**IDA's Response:** As highlighted in paragraph 12 of the Explanatory Memorandum, the reserved spectrum may be used to cater for future demand for spectrum to deploy telecommunication services such as PCMTS or otherwise. It may also be made available for other uses, such as technical or market trials, research and development, mobile equipment testing, etc.