

## **Submission in response to Consultation Paper**

### **Arrangements for Assignment of the Spectrum in the 850/900 MHz and 2.3 GHz Bands upon Expiry of the Existing Assignments for the Provision of Public Mobile Services and the Related Spectrum Utilisation Fee**

#### **Introduction**

1 SmarTone Mobile Communications Limited (“SmarTone”) is pleased to provide its comments to the captioned Consultation Paper jointly issued by the Communications Authority (“CA”) and the Secretary for Commerce and Economic Development (“SCED”) on 17 November 2022.

2 SmarTone welcomes the opportunity to comment on the proposed arrangements for the re-assignment of spectrum in the 850 MHz, 900 MHz and 2.3 GHz bands. SmarTone submits that the long-term interest of mobile service users would be best served by a regulatory framework and competition policy that fosters fair and effective competition in the market. The regulator has a key role to play in facilitating and ensuring effective competition in the market by implementing specific measures in the auction design to prevent over-concentration of spectrum.

3. With the above in mind, SmarTone would like to provide its views with regard to the questions contained in the Consultation Paper.

#### **Scope of Service**

*Question 1: Do you have any views on re-assigning the spectrum in the 2.3 GHz band for the provision of mobile services only?*

4. SmarTone agrees that the 2.3 GHz band should be confined for the provision of mobile service only in the coming assignment term to maximize efficient use of the spectrum.

## **Band Plan**

*Question 2: Do you have any views on the proposal that 20 MHz of spectrum in the 850/900 MHz bands be divided into two paired frequency blocks with a bandwidth of 2 x 5 MHz each?*

5. SmarTone agrees that the 20 MHz of spectrum in the 850 MHz and 900 MHz bands be divided into two frequency blocks each with a bandwidth of 2 x 5 MHz, which is the minimum allowable channel bandwidth for the band according to the 3GPP standard.

*Question 3: Do you have any views on the proposal that 90 MHz of spectrum in the 2.3 GHz band be divided into nine frequency blocks with a bandwidth of 10 MHz each?*

6. SmarTone agrees that the 90 MHz of spectrum in the 2.3 GHz band be divided into nine frequency blocks each with a bandwidth of 10 MHz, which is the minimum allowable channel bandwidth for the band according to the 3GPP standard.

## **Spectrum Cap**

*Question 4: Do you have any views on the proposal of imposing a spectrum cap of 2 x 5 MHz on each bidder for the re-assignment 2 x 10 MHz of spectrum in the 850/900 MHz bands?*

7. As stated in footnote 9 of the Consultation Paper, the 850 MHz band belongs to Band 5 or Band 26 while the 900 MHz band belongs to Band 8. These two bands belong to two discrete bands which require different sets of radio network equipment. Also, the 850 MHz is widely used in America, Australia and a number of Asian countries such as Korea and Japan for the provision of various generation of mobile services. The 850 MHz band is therefore important to support inbound roamers and allows more choices of user devices. Given that the minimum allowable channel bandwidth for the 850 MHz and 900 MHz bands is 2 x 5 MHz, SmarTone agrees with the proposed spectrum cap of 2 x 5 MHz.

*Question 5: Do you have any views on the proposed spectrum cap of 50 MHz to be imposed on each bidder for the re-assignment 90 MHz of spectrum in the 2.3 GHz band?*

8. Given the good radio propagation characteristics and the limited supply of the sub-6 GHz bands, it is important to prevent over-concentration of spectrum in the bands. The proposed spectrum cap (50 MHz out of 90 MHz) represents 56% of the total available spectrum in the 2.3 GHz band, which is significantly higher than the previously set spectrum caps in 4G and 5G spectrum auctions generally.

9. A summary of spectrum caps previously set is provided in Annex 1. There were only two exceptions where the spectrum cap was set at 50% or above as in the auctions of 4.9 GHz band in 2019 and 2.5/2.6 GHz band in 2021. It is noteworthy that the spectrum caps set in these two exception cases are with specific reasons. The former case (i.e., 4.9 GHz band) was set according to the minimum spectrum bandwidth as defined in the 3GPP standard. For the latter case (i.e., 2.5/2.6 GHz band), the spectrum cap was taken into consideration the existing holding of incumbent assignees. As mentioned in the CA Statement concluding the arrangement for the auction of 2.5/2.6 GHz band in 2021, the level of spectrum cap (i.e., 50 MHz) was set to enable the existing assignees currently using the spectrum to acquire in the auction an amount of the spectrum no less than what they are currently holding.

10. However, in the current re-assignment exercise, each of the 3 incumbent assignees currently only holds 30 MHz of the spectrum in the band. The proposed spectrum cap at 50 MHz would enable any one of them to acquire significantly more spectrum than their current spectrum holding in the 2.3 GHz band.

11. It appears that the only reason for setting the spectrum cap at 50 MHz is to achieve higher spectrum efficiency (as mentioned in paragraph 29 of the Consultation Paper). There is no quantitative analysis of such benefit, and it is doubtful whether such benefit would be significant as each incumbent assignees are already holding 30 MHz. Also, it appears that the consultation paper has not fully considered the potential competition issues from an uneven distribution of the spectrum. SmarTone submits that spectrum cap should be set at a level which strikes a proper balance between the benefit of spectral efficiency and the competition concern of spectrum concentration. To set the spectrum cap at 50 MHz, which equals to more than 56% of the available spectrum in the 2.3 GHz band, would create a highly disproportionate risk of spectrum

concentration as compared to the marginal benefit of higher spectral efficiency. The proposed spectrum cap at 50 MHz would result in the whole 2.3 GHz band being acquired by two MNOs only.

12. In line with the principle of previously set spectrum caps (except the two exception cases), the spectrum cap should be set at 30 MHz such that the incumbent assignees may acquire the same amount of spectrum they are currently using. This is an appropriate pro-competition measure to prevent excessive spectrum concentration in the band. However, if the CA/SCED is minded to allow the incumbent assignees to acquire more spectrum than their current holdings in the band to achieve higher spectrum efficiency, the spectrum cap should be at most set at 40 MHz of spectrum in the band. This already represents a 33% increase in the spectrum holding of the incumbent assignees. The setting of spectrum cap at 40 MHz would achieve the objective of increasing spectrum efficiency in the band on one hand, and mitigate the potential competition issues arising from spectrum concentration in the band on the other. In any event, it is our submission that the spectrum cap should not be set at a level which allow any bidder to acquire more than 50% of the spectrum in the band.

13. Furthermore, to safeguard any bypass of the spectrum cap rule, the restriction on connected bidder should apply as in previous spectrum auctions so that connected bidders will not be allowed to participate in the auction.

### **Eligible bidders**

*Question 6: Do you have any views on re-assigning in the 850/900 MHz and 2.3 GHz bands by allowing all interested parties to apply for participation in the auction?*

14. SmarTone has no objection to the proposal and submits that the restriction of connected bidder should be upheld so that no connected bidder should be allowed to participate in the auction.

### **Auction Format**

*Question 7: Do you have any views on the adoption of the SMRA auction format for the re-assignment of the spectrum in the 850/900 MHz and 2.3 GHz bands?*

15. SmarTone agrees that the spectrum in the 850 MHz, 900 MHz and 2.3 GHz bands will be assigned by a single auction using the SMRA auction format, similar to the auction conducted for 600 MHz, 700 MHz, 850 MHz, 2.5/2.6 GHz and 4.9 GHz Bands in 2021. The design of the auction, which put all the available spectrum together for assignment under a single auction in the SMRA auction format, will enable bidders to switch their bids between different frequency bands during the bidding process based on their business needs and according to the actual bidding situation for all the available frequency blocks, thus allowing maximum flexibility for bidders to devise their bidding strategy in a holistic manner. The arrangement is also consistent with the market-based approach which would allow market force to determine the optimal value of the spectrum in an open and transparent way.

### **Licensing Arrangements**

*Question 8: Do you have any views on the proposed licensing arrangements as specified in paragraphs 28 – 34 of the Consultation Paper? In particular, do you have any views on the network and service rollout obligations proposed to be imposed on the successful bidders of spectrum in the 850 MHz, 900 MHz and 2.3 GHz bands, and the associated performance bond or network coverage statistics as the case may be proposed for ensuring compliance?*

16. SmarTone has no objection to the proposed licensing arrangements.

### **Spectrum Utilization Fee**

*Question 7: Do you have any views on the proposal in relation to the setting and collection of SUF as specified in paragraphs 43 and 44 of the Consultation Paper?*

17. SmarTone has no objection to the proposal that spectrum assignees will be given a choice to pay the SUF either by one-off or annual payments.

18. SmarTone submits that minimal reserve price should be set in order to avoid unnecessary intervention of the setting of spectrum price by the market force.

SmarTone Mobile Communications Limited

5 January 2023

## Annex 1

| Auction time | Auction band | Available bandwidth                       | Spectrum Cap                               | Block size     | Spectrum Cap/ bandwidth |
|--------------|--------------|---|--|----------------|-------------------------|
| 2014         | 1.9-2.2GHz   | 49.2MHz x 2                               | 40MHz                                      | ~10MHz x 2     | 40.1%                   |
| 2018         | 900/1800MHz  | 60MHz x 2 (auction)<br>105MHz x 2 (Total) | 20MHz in 900MHz or<br>90MHz in 900/1800MHz | 10MHz/5MHz x 2 | 42.9%                   |
| 2019         | 3.3GHz       | 100MHz                                    | 40MHz                                      | 10MHz          | 40%                     |
| 2019         | 3.5GHz       | 200MHz                                    | 70MHz                                      | 10MHz          | 35%                     |
| 2019         | 4.9GHz       | 80MHz                                     | 40MHz                                      | 40MHz          | 50%                     |
| 2021         | 600MHz       | 35MHz x 2                                 | 30MHz                                      | 5MHz x 2       | 42.9%                   |
| 2021         | 700MHz       | 35MHz x 2                                 | 30MHz                                      | 5MHz x 2       | 42.9%                   |
| 2021         | 2.5/2.6GHz   | 45MHz x 2                                 | 50MHz                                      | 5MHz x 2       | 55.6%                   |
| 2021         | 4.9GHz       | 80MHz                                     | 40MHz                                      | 40MHz          | 50%                     |