

**Arrangements for Assignment of the Spectrum
in the 6/7 GHz Bands for the
Provision of Public Mobile Services and the related Spectrum Utilisation Fee**

**Submission by
SmarTone Mobile Communications Limited**

Introduction

1. SmarTone Mobile Communications Limited (“SmarTone”) is pleased to provide its comments on the above consultation paper jointly issued by the Communications Authority (“CA”) and the Secretary for Commerce and Economic Development (“SCED”) on 18 July 2023 (“Consultation Paper”).

Comments on the Consultation Paper

2. The following sections set out SmarTone’s views with respect to the questions raised in the Consultation Paper.

Question 1 – Do you have any views on the proposed amendment to the HKTFA regarding the allocation of the 6425 - 7075 MHz band for mobile service with FS and FSS (Earth-to-space) on a co-primary basis ?

3. SmarTone welcomes the CA and SCED’s proposed amendments in the HKTFA to allocate 6425 – 7075 MHz band for public mobile services along with FS and FSS on a co-primary basis. As mentioned in paragraph 3 of the Consultation Paper, the Ministry of Industry and Information technology (“MIIT”) of the Mainland China has announced its decision in June 2023 that the 6425 – 7125 MHz band would be allocated for International Mobile Telecommunications (“IMT”) in Mainland China. The proposed allocation is also consistent with the proposed agenda item for the allocation of the same spectrum for IMT at the WRC-2023.
4. However, while the entire 700 MHz in the 6425 - 7125 MHz was allocated for IMT in Mainland China and is proposed to be allocated for IMT at the WRC-2023, the Consultation Paper currently only proposes to allocate 400 MHz out of the

total 700 MHz to mobile services in Hong Kong. Given the geographical proximity of the Mainland China and Hong Kong, it is logical to align the frequency allocation as much as possible.

5. Also, it is our view that the entire 700 MHz of spectrum in the 6/7 GHz band should be allocated for public mobile services in order to meet the ever-increasing demand for high-speed mobile broadband services. The CA and SCED should offer the entire 700 MHz in the band, instead of only 400 MHz of which, to ensure that the allocation is on par with that of the Mainland China. According to a report published by GSMA entitled “*Vision 2030 – Insights for Mid-Band Spectrum Needs*” released in July 2021¹, it is stated that more spectrum will be needed to maintain 5G quality of service and meet growing demand in the longer term (e.g., 3.3 - 4.2 GHz, 4.8 GHz and 6 GHz). The analysis shows a spectrum demand for, on average, a total of 2 GHz of mid-band spectrum will be required to support the growth of 5G in the 2025 - 2030 time frame. In view of the above, we submit that the entire 700 MHz spectrum in the 6/7 GHz band should be allocated and assigned for mobile uses, instead of releasing the 6/7 GHz band in a fragmented manner as currently proposed. It is important to offer the entire 6/7 GHz band for assignment to avoid any potential spectrum fragmentation.
6. We also wish to point out that there is no urgency to assign the 6/7 GHz band as early as in 2024 / 2025 timeframe as the decision of WRC-2023 is still pending. Major decisions with regard to the technical guidance and harmonization of the spectrum band will be made in the WRC-2023. Hence any views submitted by the industry pursuant to this consultation exercise may be later on affected by the decision of the WRC-2023. It is noted that currently there is no solid plan on using the 6/7 GHz band elsewhere, except Mainland China. We are also not aware of any 6 GHz device or equipment currently available. Based on past experience, it may take a few years from standardization in 3GPP/WRC before the eco-system of the spectrum band is mature.
7. We also wish to point out that most of the markets, Hong Kong included, are still focusing on the rollout of 5G using mid-band spectrum (primarily on 3.5 GHz, but also on 2.3 GHz, 2.5 GHz and 4.9 GHz) or refarmed low-band spectrum. Currently, the 3.6 - 4.2 GHz band has not been allocated for mobile services in Hong Kong. It is a large block of mid-band spectrum with mature eco-system. In particular, a number of countries have made available 3.8 – 4.2 GHz band for mobile uses, such as UK, US, France, Japan, Norway and Saudi Arabia. In light of the GSMA

¹ <https://www.gsma.com/spectrum/wp-content/uploads/2022/07/5G-Mid-Band-Spectrum-Needs.pdf>

report as mentioned above and the world-wide development, we would like to take this opportunity to urge the CA and SCED to allocate more spectrum in the 3.6 – 4.2 GHz band which will bring new technologies and use cases to market sooner than deploying the 6/7 GHz band spectrum. In view of the above, we would respectfully request the CA and SCED to provide a timeline on when the 3.6 - 4.2 GHz band could be vacated for mobile services in Hong Kong.

Question 2 – Do you have any views on assigning the spectrum in the 6/7 GHz band by way of auction and allowing all interested parties, subject to minimal qualification requirements and the connected bidders restrictions, to apply for participation in the auction?

8. Spectrum in the 6/7 GHz band would mainly serve to enhance the existing 5G network by providing additional capacity especially for hotspots or heavy traffic locations. It is unlikely that a new player would be interested in acquiring the spectrum in the 6/7 GHz band for deploying a new territory-wide 5G mobile network. Also, as explained above, there is no urgency to assign the spectrum in the 2024/25 timeframe as the ecosystem of the 6/7 GHz band is still at a very early stage. We consider that there is still time to vacate the entire 700 MHz of spectrum in the 6/7 GHz band for public mobile services, instead of releasing the 6/7 GHz band in a fragmented manner.
9. To ensure that there is sufficient mid-band spectrum in the 6/7 GHz band to safeguard the sustainable development of 5G and future generation of mobile technologies and to allow the industry to make an informed decision when the eco-system of the 6/7 GHz band has become clearer, the assignment of the 6/7 GHz spectrum could be conducted at a later time, after the entire 700 MHz is vacated for mobile uses. Given that the spectrum is supplemental to existing 5G network, using an administrative approach, instead of auction, to assign the spectrum to existing 5G network operators would help the industry to focus their efforts in enhancing the 5G network infrastructure and technologies, which is critical to the development of smart city and as an enabler of R&D to support Hong Kong as the technology hub in the Greater Bay Area.
10. In any event, the connected bidder restriction which has been consistently adopted in spectrum assignment exercises should continue to apply.

Question 3 – Do you have any views on the proposal that 400 MHz of spectrum in the 6/7 GHz band be divided into twenty frequency blocks, with a bandwidth of 20 MHz each, for assignment?

11. As explained above, we consider that the entire 700 MHz of spectrum in the 6/7 GHz band should be allocated for public mobile services at the same time. Leaving the remaining 300MHz spectrum in two separate blocks of 145 MHz (in 6425 - 6570MHz band) and 155 MHz (6770 - 6925MHz band) in bandwidth for subsequent assignment will increase spectrum fragmentation in the upcoming as well as subsequent assignments and reduce spectral efficiency of the whole 6/7 GHz band. Hence, we consider that the current proposal of offering only 400 MHz of spectrum in the 6/7 GHz band and to divide the spectrum into twenty frequency blocks will limit the full potential of 5G technologies using the spectrum band.

Question 4 – Do you have any views on the proposed spectrum cap of 140 MHz to be imposed on each bidder in the auction of spectrum in the 6/7 GHz band?

12. We have no particular comment on this issue.

Question 5 – Do you have any views on the proposed format of the auction for the assignment of spectrum in the 6/7 GHz band?

13. At the Annex of the Consultation Paper, there is a detailed frequency assignment arrangement to be adopted at the assignment stage. It is noted that successful bidders will be invited to comment on the provisional assignment plan, or to agree among themselves an alternative assignment plan and make a joint submission with full justifications for consideration by OFCA, within the time period specified by OFCA. In this regard, we submit that a reasonable time period should be allowed so that the successful bidders would have sufficient time to make the decision and/or submission as required.

Question 6 – Do you have any views on the proposed licensing arrangements as specified in paragraphs 26 to 31 above (of the Consultation Paper)? Among others, do you have any views on the network and service rollout obligations proposed to be imposed on the successful bidders of spectrum in the 6/7 GHz band?

14. As a densely populated city, the vertical demand (i.e., at hotspots) for mobile network capacity is particularly high. The mid-band spectrum is better suited to meet such demand for densely populated area or hot spots, instead of using it for providing wide-area mobile coverage. As such, we consider that the proposed network rollout obligations for a minimum coverage of 50% of populated area may not be suitable or not necessary for the 6/7 GHz band assigned to existing 5G operators.

Question 7 – Do you have any views on the proposal in relation to the setting and collection of SUF as specified in paragraphs 32 to 34 above (of the Consultation Paper)?

15. SmarTone has no objection that the spectrum assignees will be given a choice to pay the SUF either by lump sum payment upfront or annual instalments.
16. In the event that the CA/SCED is minded to assign the spectrum via auction, SmarTone submits that the reserve price should be set as low as possible to avoid unnecessary intervention of the setting of spectrum price.

SmarTone Mobile Communications Limited

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