



GRID Communications Pte Ltd
1 Lorong 2 Toa Payoh
#03-01 Yellow Pages Building,
Singapore 319637
Fax +65 6482 7555

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Aileen Chia (Ms)
Deputy Director-General (Telecoms & Post)

Infocomm Development Authority of Singapore
10 Pasir Panjang Road
#10-01 Mapletree Business City
Singapore 117438
Fax: +65 6211 2116

RESPONSE TO THE SECOND CONSULTATION ON PROPOSED FRAMEWORK FOR THE ALLOCATION OF SPECTRUM FOR INTERNATIONAL MOBILE TELECOMMUNICATIONS (“IMT”) AND IMT-ADVANCED SERVICES AND FOR THE ENHANCEMENT OF COMPETITION IN THE MOBILE MARKET

Dear Ms Chia,

Grid Communications Pte Ltd (“GRID”) is licensed to provide public digital trunked radio service with island wide coverage. We are existing users in the 800MHz band.

We would like to thank IDA for the opportunity to provide comments on the “SECOND CONSULTATION ON PROPOSED FRAMEWORK FOR THE ALLOCATION OF SPECTRUM FOR INTERNATIONAL MOBILE TELECOMMUNICATIONS (“IMT”) AND IMT-ADVANCED SERVICES AND FOR THE ENHANCEMENT OF COMPETITION IN THE MOBILE MARKET”.

GRID will focus only on “Part II: Spectrum Bands to be allocated” and in particular question 2 on the 800MHz band.

GRID welcomes any opportunity to discuss further with the IDA on working towards a more spectral efficient allocation for trunked radio users in the 800 MHz band. Please do not hesitate to contact us if you have any questions.

Yours sincerely,

Lim Meng Poo
CEO, GRID Communications Pte Ltd

Question 2: IDA seeks views on:

- a) The proposed 800 MHz band plan based on the 3GPP band 26, or a combination of 3GPP band 27 and band 5 (excluding the EGSM band), including views on the possible phased approach and timeline to migrate existing users of the band; and
- b) The impact to existing users (i.e., Trunked radio and SRD) of the 800 MHz band plan based on the 3GPP band 26, or a combination of 3GPP band 27 and band 5 (excluding the EGSM band).

- (a) ***The proposed 800 MHz band plan based on the 3GPP band 26, or a combination of 3GPP band 27 and band 5 (excluding the EGSM band), including views on the possible phased approach and timeline to migrate existing users of the band;***

GRID welcomes IDA's proposal on adopting a combination of 3GPP band 5 and band 27 (excluding the EGSM band) in the longer term for the 800MHz band in consideration for future broadband trunked radio technologies such as Public Safety LTE.

GRID is supportive of IDA's recommendation of a phased approach for the re-farming of 800MHz band trunked radio frequencies from the existing 806 – 821MHz/851- 866MHz to 806- 814MHz/ 851 – 859 MHz and is of the views that it is reasonable and achievable in a 3 - 5 years' timeline.

- (b) ***The impact to existing users (i.e., Trunked radio and SRD) of the 800 MHz band plan based on the 3GPP band 26, or a combination of 3GPP band 27 and band 5 (excluding the EGSM band)***

GRID's iDEN network is currently the most spectrally efficient trunked radio technology where it can support up to 6 calls per 25KHz compared to other trunked radio technologies like Tetra which can support only 4 calls on the same channel or DMR (Digital Mobile Radio) which supports only 2 calls per 12.5KHz channels. Therefore, iDEN is still 50% more spectrally efficient than other current trunking technologies like Tetra & DMR.

GRID current frequencies are allocated sporadically across the current band 806 - 821MHz/851 - 866MHz which is also interleaved by the Malaysia trunked radio frequencies. In fact, the useable frequencies in Singapore within this band are already much less than the actual 15 MHz due to the border communications coordination and agreement with the Malaysian regulator. By further reducing the public trunked radio band to 2 x 8MHz would add pressure to the availability of 800MHz frequencies needed by private trunked radio users.

However, GRID views the impact on the proposed re-farming of the current trunked radio allocations into 2 x 8 MHz band can be managed if IDA can rationalize with the existing private trunked Radio users who could be underutilizing or not efficiently using these frequencies in this

band to consider to use the more spectrally efficient public trunked radio operator's network whenever feasible.

GRID welcomes any opportunity to work with IDA to encourage current private trunked radio users to consider using GRID's iDEN public network as an alternative once their radio frequency allocation or license expires.

GRID will collaborate closely with IDA on the re-farming of our current frequencies allocations into the proposed 2 x 8MHz band from 806 – 814MHz/ 851 – 859MHz and works towards transforming the current fragmented frequencies allocation into a contiguous band allocation within the frequency band. GRID views this re-farming exercise as a positive step forward as it allows GRID to, in the longer term, plan for newer and better broadband PTT technology based on a positive business proposition.

GRID is currently exploring upcoming new technology like the mission-critical LTE based PTT technology that could be able to support higher bandwidth data services compared to existing trunked radio technology and therefore would require a minimum of 5 MHz or more spectrums.

During the frequencies re-farming exercise, GRID foresee the impact on GRID's users to be minimal as the frequency changes are done on the base stations' end and will not affect the customers' terminals since the 2 x 8 MHz (806 - 814MHz/ 851 - 859MHz) is still within the existing operating band of 806 - 821MHz/851 - 86MHz of our iDEN network.