

## **THAICOM's Comments Specifically to the Band 3 400-4 200 MHz to TRAI Consultation Paper**

For more than four decades, the 3 400-4 200 MHz spectrum in the C-band has been globally allocated for a satellite service. There are a large number of existing geostationary satellites including those to be deployed in the future providing services in this band with both regional and global coverage, and this circumstance will still be continued. With respect to the fact of the matured technology and wide coverage of the C-band in nature, this band therefore offers low-cost equipment and provides high reliable link in the high rain zone due to the rain attenuation. This reliability cannot be replaced by Ku and Ka bands. With all of the above, C-band has played an important role to the telecommunications infrastructure in various countries.

Regarding the possibility of interference to FSS receivers from IMT station, the band 3 400-4 200 was once identified as a potential candidate band for IMT under Agenda item 1.4 of the WRC in 2007. The result of the ITU-R studies concluded that sharing compatibility between IMT and FSS is not feasible. This conclusion is shown in the Report ITU-R M.2109 – *“Sharing studies between IMT-Advanced systems and geostationary satellite networks in the fixed-satellite service in the 3 400-4 200 and 4 500-4 800 MHz frequency bands.”* As well, in WRC-07 conference, some countries had their country footnotes of **5.432B** and **5.433A** to allocate and identify the spectrum in 3 400-3 600 MHz for IMT. And in case of India, starting with the 200 MHz spectrum assigned, later it was found that due to harmful interference encountered to FSS receivers, this 200 MHz band is no longer suitable for the mobile broadband service, and this is in line with information on page 40 of the consultation paper.

Additional requirement of the IMT spectrum has been revisited and will be discussed in WRC-15 under Agenda item 1.1. However, the ITU-R sharing study that has been accomplished still provided a similar conclusion to the studies performed in 2007, which also showed that sharing between the two services is not feasible in the same geographical area due to:

- a large separation distance required from tens to hundreds of kilometers for a protection of FSS receivers,
- a fact that this separation distance to protect FSS receivers cannot be guaranteed because of the ubiquitously deployed and unknown locations of FSS receivers.

Further information can be found in Annex 17 to Document 4-5-6-7/715 , the JTG 4-5-6-7 Chairman's Report.

### **Conclusion**

With regard to the above mentioned information, Thaicom would like to thank the Telecom Regulatory Authority of India (TRAI) for this opportunity to raise our concerns to the possible consideration of the bands 3 400-3 600 MHz as well as 3 600-4 200 MHz that may be allocated to the mobile broadband in India since these bands, as shown by all relevant ITU-R studies, are not suitable to be allocated for the mobile broadband.

Contact Details:

Mr. Pramook Chaiwongwutthikul ([pramookc@thaicom.net](mailto:pramookc@thaicom.net))

Senior Vice President, Satellite Engineering and Operation

Thaicom Public Co. Ltd.

Mr. Pongsak Ngammitsomboon ([pongsakn@thaicom.net](mailto:pongsakn@thaicom.net))

Manager, Frequency Regulations and Coordination Department

Thaicom Public Co. Ltd.