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Sub : TRAI Consultation Paper No. 10/2016 on "In-Building Access by Telecom Service Providers"

Dear Sir,

This has reference to the subject consultation paper on In-Building Access by Telecom Service Providers.

The paper brings out an important aspect that based on the studies that people spend a large part of their time inside buildings hence it is critical to have quality telecom services inside a building, be it residential, commercial, hotel or airport.

While access inside the buildings for the TSPs is critical to install the telecom infrastructure or lay their cables, in our view, it is very important that we shall have a holistic view and look at other technological and regulatory aspects to help ensure the quality of services insider the buildings.

The traditional mobile infrastructure deployment being used by mobile operators is primarily aimed at extending coverage and capacity needs in the street level (outside buildings). This approach is not an optimal & efficient way to ensure ubiquitous mobile coverage inside the buildings and significantly lead to call-drops and failure to meet the requisite Quality of Service parameters inside the building. Moreover, as we understand, it is not a roll-out obligation for the TSPs as per their license conditions, to ensure coverage inside the building.

In this backdrop, we would like to bring to your notice that the National Frequency Allocation Plan - 2011 (NFAP 2011) identifies provisions under IND 50 & IND 55 to consider small chunks of spectrum in 900/1800 MHz band for requirement of microcellular low powered telecom systems using indigenously developed systems and technologies with Max EIRP of 4 Watts subject to coordination on a case by case basis.

Globally, countries like UK, Sweden, Belgium & Netherlands etc., have de-licensed frequency bands for private networks and indoor purposes to decongest the spectrum allocated for macro coverage and to minimize the power of RF radiation from macro towers.

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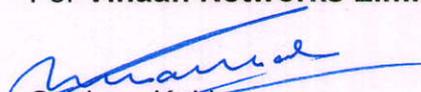
- Netherlands: In 2008, the Dutch regulator "Sumoto" exempted license to 2x2.5 MHz spectrum (1782.5-1785 MHz paired with 1877.5-1989.9 MHz) in 1800 MHz frequency band with limitation on EIRP of 200mW and ETSI GSM spectrum mask. This has opened up a new business, high tech and employment for Dutch companies. Thousands of users in hospital, local city governments and in companies are using it.
- Sweden : The Swedish regulator PTS auctioned the main part of the 1800 MHz (2x70 MHz) in the end of 2011 and at that time reserved 2x5 MHz for use in buildings, campuses etc.
- Belgium : The Belgium regulator- BIPT have recommended the DECT Guard band designated as 2x 5 Mhz (1780 – 1785 MHz paired with 1875-1880 MHz) should be made available for local GSM network using License exempt regime with EIRP limited to 200 mw. The services are limited to pico-cell coverage and interference is limited.
- UK : In 2006, OFCOM allowed 3.3 MHz in 1800 MHz band (1781.7 – 1785 MHz paired with 1876.7 – 1880 MHz) and licensed to 12 licensees to operate nationwide for indefinite period. However, all licensees use the same frequencies at low power with 200 mw EIRP. The licensees were also required to operate on a shared basis (self-coordination basis).
- Germany: It is also understood that small chunk of spectrum in GSM 1800 MHz band has been considered and allowed for PICO based networks on the license free basis in Europe.

In our considered opinion, by deploying In-Building mobile solutions with dedicated frequency spectrum can provide better Quality of Service (QoS) inside the buildings and ensure efficient spectrum utilisation.

It is our earnest submission that in line with the best international practices and provisions envisaged under NFAP provisions the authority may consider recommending identification of small chunk of frequencies in GSM bands and allocate about 3 MHz for micro cellular low powered systems operations inside the buildings, without causing interference to the existing mobile networks.

Thanking you,

For Vihaan Networks Limited


Sanjeev Kakkar

President & Chief Strategy Officer