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To :

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Dear Sir:

Subject: Comments on TRAI Consultation Paper No. 9/2011

"Allocation of Spectrum Resources for Residential and Enterprise Intra-telecommunication Requirements/ Cordless Telecommunication Systems (CTS)".

Company Presentation

Brief Profile attached.

Issues for Consultation

3.1 Whether the current allocation of spectrum for CTS is sufficient to meet the requirements? If not, then how to meet the demand of cordless telephony spectrum requirements?

For an acceptable voice quality service the CTS band must not be shared with the ISM band. The ISM band gathers all the data applications products which have the

mechanism for accommodating interferences on a non real time basis. That is not the case of the voice real time streaming.

A CTS system must assure a high communication density either in residential or professional usage. This was the successful key point of the DECT technology making use of the Dynamic Channel Selection and Time Duplex Division over 20 MHz band.

3.2 In view of the availability of cellular mobile services in the country and possibility of Fixed Mobile Convergence (FMC), is there any need to have DECT Phones?

Yes there is a need for DECT phones in the residential SOHO and enterprise area. The FMC should keep the whole house coverage as a basic service. The Femto cell by nature will not offer such a performance. The current residential Femto Gateways in the market have a limited range.

For enterprise system the DECT Pico cell offer a scalable system with no frequency planning and services including the cell handover.

3.3 Is there any requirement of allocating spectrum for digital CTS, inview of similar solutions being available in already de-licensed band2.4 & 5.8 GHz?

The ISM band is sharing a lot of different uncoordinated application including the microwave oven. The data applications make use of this crowded environment thanks to data retransmission and algorithm. Such mechanism doesn't apply to voice real time transmission. WiFi handset didn't have any success in EU and US in spite of large access point deployment. The DECT technology was quickly adopted for voice service rather than the WiFi phone on a world basis.

3.4 Whether de-licensing of the spectrum for digital CTS applications will be the right path?

The residential and SOHO products cannot accommodate a licensing regime.
A good example is the UPCS band 1920 1930 MHz allocated by the FCC which made attractive the DECT 6.0. The result is a fast adoption and deployment.

3.5 Do you agree that the 1880-1900 or 1910-1920 MHz band (TDDMode) be allocated for digital CTS applications? If yes, what should be the limits of emitted power (EIRP), power flux density (pfd), antenna gain etc?

The Power limit should be the one given by the EN 301406. The specified Nominal Transmit Power of 24dBm allows a good in house coverage.

3.6 Do you see any coexistence issues between existing cellular systems using adjacent band with low power CTS allocations in 1880-1900 or1910-1920 MHz band?

3.7 Whether the de-licensing of either 1880-1900 MHz or 1910-1920MHz band for low power CTS applications will result in loss of revenue to the government?

Considering the CTS products don't support licensing charge for using the spectrum, like any mass market products, the revenues are more related to the taxes applied.
For the network operator a large product deployment may help to maintain the revenue of the fix line.
Manufacturing and R&D investment may occur for CTS development having benefit for the Nation.

3.8 Will there be any potential security threat using CTS? If yes, how to address the same.

The DECT protocol offers authentication and ciphering between the base station and the handset.

3.9 Amongst the various options of digital technologies available to meet the cordless telephony requirements, either spectrum allocation can be considered according to technology or the etiquettes/ specifications can be defined for the de-licensed spectrum band. What method of allocation of spectrum for digital CTS applications should be adopted?

3.10 Any other issue?

Thanking you

Yours faithfully,

Pawan Kapur

Encl: Profile