



RCOM Comments on TRAI CONSULTATION PAPER

RCOM Response to the Consultation Paper on Allocation of Spectrum Resources for Residential and Enterprise Intra-Telecommunication Requirements/ Cordless Telecommunications System (CTS)

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Summary of Comments

1. RCOM does not consider it appropriate to assign dedicated spectrum to low-powered, unlicensed use except where an economic evaluation suggests that this is the most efficient use of the spectrum and society is going to benefit from it. The Cordless Telecommunication Systems are mainly used for intra-telecom requirement of large corporate. RCOM does not see any rationale to de-license spectrum in premium 1800 Mhz and 1900 MHz spectrum bands for these large enterprises which otherwise can fetch hundreds of crores of rupees through auction. The proposal to de-license spectrum is equivalent to providing subsidy to large enterprises at the cost of licensed users and their millions of subscribers.
2. RCOM is of view that the spectrum band in 1910-1920 MHz spectrum band if de-licensed can also be used for WLL service or for indoor coverage in areas like airports, railway stations, multi tenant residential and enterprise high rise buildings. Thus de-licensing of spectrum may also result in back door entry of unlicensed in-building solution. These service providers would not be covered by any TRAI regulation on pricing and quality of service.
3. The case to a dedicated unlicensed spectrum for DECT based Cordless Telephone systems has not been made out adequately. There are likely to be only few urban corporate users and few users there does not seem to be sufficient and compelling reason to delicense spectrum for DECT based cordless telephone systems. Large and wide adoption of wi-fi for internet access and availability of substitute cordless telephone systems based on 2.4 GHz unlicensed spectrum band further weakens the case for allocation of unlicensed spectrum for DECT technologies. Considering the very low demand for DECT based

cordless telephone systems and availability of substitutes in other unlicensed spectrum bands there does not seem to be enough justification for allocation of any unlicensed spectrum. RCOM believe there should be assessment/Audit of existing use of unlicensed spectrum before any new spectrum is delicensed.

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5. The cost of unlicensed spectrum is effectively paid for by licensed users as they face higher charges for their spectrum as a consequence of overall reduced supply of individually licensed frequencies and therefore decision to allocate spectrum free of cost should be taken only when benefit outweighs possible loss to exchequer and consumers.
6. The DECT Forum seems to have made submissions to the TRAI to suggest that unlicensed spectrum use will bring forth many varied users and services but no data has been submitted to justify allocation of premium 20 MHz or more spectrum for this service. Voice or data related offerings, such as DECT, have not been a great success. As there is no strong commercial interest in providing DECT based residential/ commercial/public access cordless systems, it would not be prudent to reserve 20MHz of unlicensed spectrum for DECT.
7. The spectrum bands 1880-1900 or 1910-1920 are in the vicinity of GSM and 3G spectrum bands and can be better utilised for mobile services. In-fact TRAI has already recommended 1910-1920 MHz to be used for growth path to CDMA operators. The TRAI should recommend to make 1910-1920 MHz spectrum available for auction for mobile services before any decision is taken to de-license the band.
8. As submitted above there is no case to allocate unlicensed spectrum for DECT cordless systems. However, if TRAI still believes that such systems should be introduced, the main regulatory consideration lie in setting appropriate technical conditions to ensure co-existence between all DECT applications including CorDECT and non-interference with

adjacent GSM/3G spectrum users. Since this spectrum is designated on an exclusive basis to DECT based technologies, the co-existence with other systems or services can be largely discounted. However, enough etiquettes be defined so that there is no interference with adjacent GSM and 3G bands.

9. The DECT specification technology operates throughout Europe in the frequency band 1880 - 1900 MHz under EC directive 91/287/EEC. Although there is no strong reason to de-license any spectrum band for introduction of DECT CTS but if it is imminent then the most appropriate band for DECT services would be in the 1880-1900 MHz spectrum band it has advantage of being harmonized band.

10. The case to provide DECT services commercially by a third party has also been discussed in the consultation paper. The cordless telecommunications systems besides having uses as a residential cordless telephone providing mobility within the home and enterprise, the same handset can be used at other locations to access wireless PABX or public access CTS. If TRAI is contemplating to introduce such services through new service providers then that would require license under the Indian Telegraph Act, 1885. The operators providing this service should be subject to same obligations as applicable to UASL or CMTS operator.

RCOM comments on Issues for Consultation:

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?

- A. RCOM does not support de-license spectrum for DECT based Cordless Systems. If TRAI believes that this may be required for public good then 1880-1900 MHz spectrum may be considered for the following reasons:

- i. The CorDECT, which is evolution of DECT technology, has been implemented in the band 1880-1900 MHz band for providing Wireless in Local Loop (WLL) in various service areas.
- ii. As per NFAP's IND57, "Requirements of micro cellular wireless access systems (fixed/mobile) based on TDD access techniques, especially indigenously developed technologies and low power digital cordless telephones systems and devices with maximum transmit power of 250 mW, capable of coexistence with multiple operators may be considered in the frequency band 1880-1900 MHz may be considered subject to coordination on a case-by-case basis. Thus DECT systems can be allocated spectrum under the NFAP,2011
- iii. 1880-1900 Mhz spectrum band is sparsely being used for corDECT systems

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?

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3 Is there any requirement of allocating spectrum for digital CTS, in view of similar solutions being available in already de-licensed band 2.4 & 5.8 GHz?

- A. There is no need to have DECT Phones as short range service as de-licensed 2.4 & 5.8 GHz band adequately meets the intra-telecommunication requirement. The majority of wireless based PABX solutions are already available in the Indian market which operate in 2.4 GHz de-licensed Industrial, Scientific and Medical (ISM) bands. De-licensing new spectrum band for DECT phones will not only cause loss to the exchequer but would also result in loss of precious spectrum resources as there is not enough demand for these systems.

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

- A. De-licensing of spectrum in 1880-1900 or 1910-1920 MHz spectrum band is not justified. The requirement of Residential CTS, Enterprise Intra-telecommunication through wireless PABX & wireless LAN but this requirement is already being met

through unlicensed spectrum in 2.4 GHz and 5.8 GHz bands. Thus de-licensing new spectrum band for DECT Phones is not a correct approach.

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

A. Frequency band 1900-1910 paired with 1980-1990 MHz is for CDMA network for their growth path for which successful field trials have already been conducted under the aegis of WPC. 1910-1920 is adjacent to the CDMA band. De-licensing 1910-1920 MHz spectrum band may be considered only if there is no interference. Spectrum in 1880-1900 MHz band has been earmarked for certain indigenous technology like CorDECT. As there are very few CorDECT users, this spectrum should also be used for mobile voice and broadband services

6 Do you see any coexistence issues between existing cellular systems using adjacent band with low power CTS allocations in 1880-1900 or 1910-1920 MHz band?

A. Proper Guard bands and filters should be defined for eliminating interference and to ensure co-existence of DECT Phones with adjacent 2G and 3G systems. Proper testing should be done under the aegis of TRAI and TEC to decide specifications for DECT CTS and Guard Band and filters may be used so that there is no interference..

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

A. Yes de-licensed spectrum use would cause huge loss to the Government revenues. The de-licensing is not justified as there is limited use of cordless systems mainly in urban areas by large enterprises. De-licensing of spectrum for large enterprises which otherwise can fetch hundreds of crores rupees for government exchequer is not at all justified.

B. As per the license condition 43.5(iii) of the UASL, the value of 1880-1900 MHz has same value as 2G spectrum. The relevant license condition is reproduced below:

43.5(iii) In the event, a dedicated carrier for micro-cellular architecture based system is assigned in 1880 – 1900 MHz band, the spectrum not more than 3.75 + 3.75 MHz in respect of CDMA system or 4.4 + 4.4 MHz in respect of TDMA system shall be assigned to any new Unified Access Services Licensee.

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

A. The cordless applications are unlikely to cause security threat in case such calls are routed on the public networks of existing UASL/CMTS operators. However in case third parties are allowed to operate cordless systems then they should also be subject to same security guidelines as other UAS/CMTS operators.

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?

A. It is not possible to define specifications for DECT CTS as that would favour only selected technology which is not be consistent with the government policy of technology neutrality.

B. The etiquettes/ specifications based guidelines for de-licensed spectrum band is an appropriate method and it is suggested to follow this approach.

10 Any other issue?

No comments