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To

Dr. J S Sarma
Chairman,
Telecom Regulatory Authority of India
Mahanagar Door Sanchar Bhawan
New Delhi

Subject : **Comments on Allocation of Spectrum for Technologies such as DECT to meet the Residential and Enterprise Intra - Telecommunication Requirements.**

Sir,

TRAI has sought some comments on a proposal placed on its website on 19th February 2010 regarding 'Allocation of Resources in India for DECT Technology to meet the Residential and Enterprise Intra-Telecommunication Requirement". In this regard we are pleased to submit following comments for your consideration.

(i) **Low Demand for DECT based Residential and Enterprise intra-telecom systems – No rationale to earmark pan-India 10 MHz IMT spectrum for unlicensed use for DECT Technology**

2. The application of DECT technology in the private domain is predominantly either for domestic use (cordless phone as a replacement for fixed link wired phone), or in the corporate environment, for instance to provide wireless PBXs. The DECT technology can also be used in public access environments and for this reason number of countries including UK have issued licence with the objective of allowing third party providers to offer cordless office systems on a commercial basis. **However, there has been little take-up of this licence in any country.**

3. DECT can also be used to provide large area coverage for local area mobility within a town or city. The 'Cordless Terminal Mobility' systems for city based mobility were launched in a number of European countries, most notably Italy where the 'Fido' system used DECT base stations to cover a number of Italian cities. The Fido system eventually failed and there is little evidence that the market for such systems still exists in Europe, given the ubiquitous nature of GSM based mobile services coverage.

4. Since there is not a strong commercial interest in providing DECT based residential, commercial or public access cordless systems, it would not be prudent to reserve 10 MHz bandwidth for exclusive un-licensed use for DECT based residential cordless and enterprises EPABX uses. Since there is hardly any demand for DECT based solutions we feel there is no pressing requirement for allocation pan-India 10 Mhz precious spectrum.

5. The 1880-1930 spectrum is an IMT band and 10 MHz spectrum can fetch upto Rs 10,000 crores for the government. Therefore, allocation of spectrum for unlicensed DECT services would be total waste as it has no demand resulting in in-efficient use of spectrum and also causing huge loss to the government exchequer.

(ii) Short Range Services in Unlicensed Band are most efficient in above 5Ghz spectrum bands

6. Unlicensed devices like Wi-fi have been successful in providing short range services to residential consumers and enterprises. However, it may be noted that such services being intrinsically local services, using lower frequency bands would not be appropriate. Most appropriate bands for licence-exempt spectrum for short range services are at higher frequencies, above 5GHz, where more bandwidth is available and propagation characteristics are more suited.

7. Un-licensed operation at lower frequency bands like 1880-1930 MHz could actually be counter-productive for such services, as interference is likely to be caused in the adjacent spectrum for 3G services.

8. The IMT band in 1900 Mhz has favorable propagation condition and therefore it should be reserved for licenced services for pan-India use and not for short range unlicensed service. Considering the strategic value and use of the 1880-1930 spectrum band, we recommend the band should only be used for licensed operation for IMT services and not for unlicensed DECT services.

(iii) Unlicensed Bands are allocated on technology Neutral Basis

9. One of the main regulatory considerations for introduction of DECT is that it should be reserved only for DECT technologies as co-existence of DECT technologies with other technologies in the same band is not possible. The general requirement of unlicensed bands is that it should be technology neutral. However, this spectrum is proposed to be designated on an exclusive basis to DECT like licensed band. We feel that there is no rationale for supporting a particular technology by TRAI since DECT has only limited demand mostly for enterprise solutions in urban areas.

(iv) **DECT and Radio Based Local Loop Services Cannot Co-exist in Contiguous bands**

10. The use of the 1880-1930 to offer unlicensed DECT based is feasible only if band used for exclusive DECT operating parameters (e.g. 250 mW EIRP). However, it has been established through a study carried out by the Smith Group[1] on behalf of the Radio communications Agency of the erstwhile OFTEL that that higher gain Radio Local loop services cause problems to DECT private systems. Therefore there would be a potential problems to future users of 3G and other bands in the vicinity.

(v) **Frequency band 1900-1910 paired with 1980-1990 MHz is for CDMA network for their growth path**

11. Around 150 million subscribers in India are using CDMA services and it is unfair that they are being deprived of 3G services in the country. CDMA operators can deploy 3G networks in 1900 MHz bands. In US, Canada and Mexico, spectrum to CDMA operators has been allotted in 1900 MHz band for advanced 3G services.

12. The Authority had recommended to conduct the trial to verify practical feasibility of coexistence of mixed band and in case the co-existence is found feasible and economically practicable, then 2 x 10 MHz in PCS 1900 band be allocated to enable the future growth of 3G cellular services in India. AUSPI has already conducted a successful field trials under the aegis of WPC to demonstrate the coexistence of PCS1900 and 2.1 GHz band services without any interference. Considering the use of the spectrum for CDMA based 3G services, allocation of spectrum for DECT technology is not possible.

Conclusions and Suggestions

13. In view of the above we request the authority that the **proposal regarding delicensing and allocating spectrum for DECT Technology to meet the Residential and Enterprise Intra-Telecommunication Requirement should be summarily rejected** for the following reasons:

(a) Spectrum will not be used efficiently as DECT based Residential and Enterprise Intra-Telecommunication solution requirement is very low confined to urban areas;
(b) Higher frequency bands above 5 GHz are preferable for Short Range Service.
(c) Allocating 10 Mhz of IMT band for unlicensed use would cause loss of around Rs 10,000 crores to the Government exchequer;
(d) DECT technologies cannot be used along with any other technology in unlicensed band.

[1] The Smith Group, Study to investigate the provision of public access services in the DECT spectrum: Final Report, March 1999

(e) Higher gain Radio Local loop services would problems to DECT private systems and therefore there is potential problem.

(f) Frequency band 1900-1910 paired with 1980-1990 MHz is for CDMA network for their growth path

Thanks & regards,

For **Reliance Communications Ltd.**

(Authorised Signatory)

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