



31st January 2012

**Mr. Sudhir Gupta,
Principal Advisor (MS)
Telecom Regulatory Authority of India
Mahanagar Doorsanchar Bhawan
Jawahar Lal Nehru Marg (Old Minto road)
New Delhi-110002**

Subject: TRAI Consultation Paper on Allocation of Spectrum Resources for Residential and Enterprise Intra-telecommunication Requirements/ Cordless Telecommunications System (CTS) dated 26th December 2011

Dear Sir,

With reference to your Consultation Paper dated 26th December 2011 on '**Allocation of Spectrum Resources for Residential and Enterprise Intra-telecommunication Requirements/ Cordless Telecommunications System (CTS)**' seeking comments of the stakeholders, please find attached herewith the comments of Tata Teleservices Limited and Tata Teleservices (Maharashtra) Limited (together referred as TTL).

Thanking you,

Yours sincerely,

A handwritten signature in blue ink, appearing to be 'AD', written over a light blue horizontal line.

**Anand Dalal
Senior Vice President – Corporate Regulatory Affairs
Tata Teleservices Limited
And
Authorized Signatory
Tata Teleservices (Maharashtra) limited**

Enclosure: As above



Tata Teleservices Response to TRAI Consultation Paper on Allocation of Spectrum Resources for Residential and Enterprise Intra-telecommunication Requirements/ Cordless Telecommunications System (CTS) dated 26th December 2011

Issues for Consultation

Given the dense coverage of the cities and towns by multiple operators, and use of mobile as the primary means of communication, and the affordability that exists with the users, TTL is of the view that there is no need for private networks. Hence no spectrum should be allocated for digital CTS application. Further, mobility can easily be provided through mobile phones under the existing UASL/ CMTS licenses.

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?

TTL is of the view that there is no requirement of this service and of the spectrum. Anywhere & everywhere, mobile-based solutions can easily be provided under the existing UASL/ CMTS licenses. Closed User Group (CUG) plans that use mobiles and provide intra-office communications are already very popular with the enterprises. Such solutions not only support communications in a given location but also among various branches of the enterprise at different locations across the country, there by providing most effective intra-office communications. The ease of operations is enhanced by the fact that the same phone continues to be used as means for PSTN communications. Other highlights of such (CUG) plans are complete compliance with National Security and all Regulatory conformance (Subscriber verification, Billing, Lawful Intercept, etc). Wireless mobile phone market is highly competitive and consumers have a lot of choices and getting quality services at a very low cost, hence CTS type of services are not required.

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?

Given that the mobile penetration is so complete with the users, across the enterprise and with other segments, users will benefit more if the Fixed Mobile Convergence or FMC solutions are offered that make use of existing Mobiles solution.



No Sir, there is no need to have DECT phones.

Mobile service has unprecedented growth rates and Mobile service providers are extending their coverage to the underserved rural areas at an affordable rate with world class quality of service and therefore there is no necessity for introduction of parallel service such as DECT.

3.3 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?

There is no requirement of allocating licensed band spectrums for digital CTS. NFAP, 2011 provides enough de-licensed band for provisioning of service like CTS.

Quote

“ IND62

Use of low power equipments in the frequency band 2.4-2.4835 GHz using a maximum transmitter output power of 1 Watt (4 Watts Effective Radiated Power) with spectrum spread of 10 MHz or higher has been exempted from licensing requirement (see also GSR 45E dated 28.1.2005)

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Use of low power equipments for wireless access systems including Radio Local Area Networks, in the frequency band 5.150-5.350 GHz and 5.725 – 5.875 GHz using a maximum mean Effective Isotropic Radiated Power of 200 mW and a maximum mean Effective Isotropic Radiated Power density of 10 mW/ MHz in any 1 MHz bandwidth, for the indoor applications has been exempted from licensing requirement. (See also GSR No 46E dated 28.1.2005) ”

Unquote

There are similar solutions being made available in already de-licensed band 2.4, 5.3 & 5.8 GHz, hence, there is no requirement of allocating spectrum specifically for a service like CTS.

The unified access service licenses are based on the principle of technology neutrality. The Authority also has categorically stated in its Recommendations of 27th September 2006 on Allocation and pricing of spectrum for 3G and Broadband Wireless Access that TRAI being a technology neutral regulator, do not want to



project specific technology biases and this is a macro level approach for spectrum management.

Draft NTP- 2011 also emphasize on technology neutrality

Quote

“ To orient, review and harmonise the legal, regulatory and licensing framework in a time bound manner to enable seamless delivery of converged services in technology neutral environment. ”

Unquote

TTL therefore feel that there is no rationale for supporting a cause of a particular technology by the regulator which doesn't support technology neutrality approach.

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

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3.7 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?

De-licensing the band is not a solution because it will create interference and huge revenue loss to the Government exchequer in the form of no revenue share, license fee etc from the service providers.

Any change in the fundamentals of transparency of allocating the spectrum would raise serious issues of losses to the exchequer, threat to national security and competitive distortions.

There is no strong commercial interest in providing DECT based residential/ commercial/ public access cordless systems, it would not be prudent to de-license a band for it. For large local mobility within a town/ city, the “cordless terminal mobility” was launched in a number of European countries (Fido system in Italy) but the system eventually failed.

In view of the above, we strongly recommend that spectrum should not be de-licensed for digital CTS applications. There are enough de-licensed bands available in the current NFAP to offer service like CTS.



Further the bands under discussion are either adjacent to the 2G, 3G spectrums or overlapping the "TRAI *identified*" growth band (reference made to 1900-1910 paired with 1980-1990) and any allocation in these bands could adversely affect the commercial interests of service providers that have paid huge sums in procuring these licenses / spectrums.

3.5 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?

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3.6 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?

No, the 1880-1900 or 1910-1920 MHz band (TDD Mode) should not be allocated for digital CTS applications. The band 1880-1930 MHz (TDD mode) is in overlap with the 3G band 1920-1980/2110-2170 and adjoining the 2G band 1710-1785/ 1805-1880 MHz. As per NFAP the band 1900- 1910/ 1980-1990 MHz have been identified for growth of the CDMA networks; TRAI has also recommended 1900 MHz band for CDMA; therefore, in no case DECT be allowed in this band.

Un-licensed operation in this band could be counterproductive due to likelihood of interference to adjacent bands 3G / 2G. Therefore 1900 MHz band be kept for licensed operation of IMT only.

Spectrum in 1.9 GHz for DECT will also be dysfunctional because of higher gain antennas deployed for Mobile and WLL services in this band which will cause interference to DECT service.

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

It may raise issues of subscriber verification and strategic issues, such as lack of call records at central locations (to verify calls in case of fraud / illegal activity, etc) and need for Lawful Intercept (consider several small and independent networks across the country!), etc.

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?

We are of the view that the way mobile phone density has increased and the availability of Mobile-based solutions for closed user groups (CUG), in an extremely affordable manner in our country; there is no need for a separate network for small areas. Hence additional spectrum for CTS / DECT phone is not justified/ recommended.

We earnestly request the Authority that the allocation of spectrum for technologies such as DECT to meet the residential and enterprise intra-telecommunication requirements is not feasible and should be summarily rejected as on various grounds including interference of various bands and reduce government revenue from the licensed bands. Hence no spectrum should be allocated for digital CTS application.

3.10 Any other issue?

Spectrums that support growth path for existing service providers (SP) of CDMA and GSM bands should be reserved for these SPs. As an example, 1900 MHz, identified by TRAI and is Global in nature for CDMA operations must be reserved for expansion needs of the CDMA based SPs. Similarly, spectrums in 900 and 1800 MHz should be completely made available to GSM – bases SPs growth.

A well defined spectrum plan, considering a long-term view of 10-20 years must be prepared and published. This will help in efficient business and network planning for SPs and augurs well for a coordinated growth between Govt. and Industry.