

**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?**
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?**

*(Combined response to 1 and 2)*

Digital Enhanced Cordless Telecommunications, usually known as DECT, is a digital communication standard, primarily used for creating cordless phone systems. DECT standard originally envisaged three major areas of application:

- Domestic cordless telephony, using a single base station to connect one or more handsets to the public telecoms network.
- Enterprise premises cordless PABXs and wireless LANs, using many base stations for coverage. Calls continue as users move between different coverage cells, through a mechanism called handover. Calls can be both within the system and to the public telecoms network.
- Public access, using large numbers of base stations to provide high capacity building or urban area coverage as part of a public telecoms network.

Femtocell is a small cellular base station, typically designed for use in a home or small business. It connects to the service provider's network via broadband (such as DSL or cable). Femtocell allows service providers to extend service coverage indoors, especially where access would otherwise be limited or unavailable. Concept of a Femtocell is very similar to EPBAX – Main lines terminate at EPBAX and from there last mile connectivity is provided.

We believe that the basic concept underlying DECT as well as pico/femtocells is very similar; only difference being that pico/femtocells operate in licensed band while DECT does not. Pico/Femtocell provides the same service as DECT but in a licensed spectrum. In view of the same, we believe that DECT becomes a redundant concept.

Moreover, DECT is also likely to provide limited mobility. A concept which has been much abused in past and resulted in loads of controversy and loss of revenue to exchequer, because of back door entry to full mobility.

Moving forward, we are of the view that Government should adopt technology and service neutral approach. Let service providers bid for and buy a scarce national



resource – spectrum, and then provide services according to business case. Giving away free air-waves for one service/application is like negative bias towards rest of the industry who has invested much in past decade.

With this reasoning, we are of the view that no separate free airwaves should be allotted for DECT services and as such question of whether sufficient spectrum or not does not sustain.

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

*(Combined response to 3 and 4)*

Time and again, we have advocated that regulator should adopt a technology neutral approach towards provisioning of services.

Any operator wishing to provide services that require spectrum should be subjected to same rules and regulatory principles. Spectrum for any type of services should be given at market price determined by transparent mechanisms such as auction. Spectrum or any other national resource should not be handed over for free, on the premise/basis of perceived benefit/utilisation of the same by service providers for the good of the consumer.

We are of the view that government should not handover spectrum for free for DECT or any other niche technology. Service providers should bid for and pay market price for the use of the same. If buying of spectrum does not make business case then service providers will not enter such services.

**De-licensing the spectrum will not only result in heavy revenue losses but will also set a wrong precedence.** Apart from loss of revenue to exchequer, it may also result in threats to national security as well as distortion of competitive landscape, which may be counterproductive to the sustained growth of the telecom sector.

Telecom intenders may use this as a pseudo-entry point for entry into Indian telecom market and this may result in repeat fiasco associated with conversion of limited mobility licenses into full mobility as in 2001-03.



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?**

WE do not agree with any free allocations in view of the foregoing. However, either way, provisioning of any type of services should be as per internationally acceptable parameters of EIRP, pfd, Antenna gain, etc.

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?**

Since, proposed DECT bands exist as guard bands with 3G 1920-1980/2110-2170 bands and 2G 1710-1785/ 1805-1880 bands, interference issues are highly likely to occur. Moreover, by varying system power, DECT providers may be able to cross-utilise/exist in main 3G/2G bands, which may also cause limited snooping/sniffing issues.

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?**

If the presently unallocated 1910-1920 MHz spectrum band gets delicensed for cordless applications, the services deployed over these bands are easily capable of being extended to mobility. Once DECT services become an alternative to mobile services, DECT providers would get unjustified cost advantage. If there is a huge demand for CTS application, let the service provider customise the application according to the existing de-licensed band (for low power application).

Moreover, **de-licensing the spectrum will not only result in heavy revenue losses but will also set a wrong precedence.** Apart from loss of revenue to exchequer, it may also result in threats to national security as well as distortion of competitive landscape, which may be counterproductive to the sustained growth of the telecom sector.

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

CTS is a CUG (closed user group) application. The bands mentioned in the consultation paper are actually window/guard bands for other service providers. The proposed DECT band is an overlap of the existing 3G & 2G bands, therefore snooping and sniffing of bands are possible.

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Yes, there are chances of potential security threats using CTS as there will be no monitoring of communications. It would be difficult to ensure subscriber verification and to impose necessary obligation regarding interception and monitoring.

- 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 24 etiquettes/ specifications can be defined for the de-licensed spectrum band. What method of allocation of spectrum for digital CTS applications should be adopted?**

Government should adopt technology neutral and service neutral approach. Spectrum should be made available for auction and specifications of the service should be as per applicable international standards such as ITU-T, ISO, IEEE etc.

- 10. Any other issue?**

Time and again, we have advocated that the way forward for provisioning of telecom services should be via a plain vanilla license to prove intention of operating and buying of media (ie spectrum) at market determined prices such as auction.

Basic idea is that, any entity interested in providing telecom services and/or operating in telecom sector in the country, should apply for and obtain a plain vanilla license at a nominal fee. This license should make an entity eligible for operating in telecom space in India. This fee should be refundable upon exit of said entity from telecom business in the country. Fees towards provisioning media whether, spectrum, fibre, cable, satellite, etc should be extra at market driven prices. Essentially this would mean that, the entity should pay extra for spectrum (basis auction/reserved price), NLD/ILD license, etc depending upon the services provided by the entity.

Regulator should not ration resources on the basis of services but let it be determined by business case of service provider as well as market forces. A 100% technology and service neutral approach is required to make the system transparent, reduce ambiguity and contribute of success story of telecom sector in India.