

Comments on TRAI Consultation Paper “Next Generation Public Protection and Disaster Relief (PPDR) communication networks”.

- 1. Do you consider the existing fragmented model of PPDR communication network in the country adequate to meet the present day challenges? If not, what are the deficiencies in the existing model of PPDR?**
 - No, the existing fragmented model of PPDR communication network in the country is not adequate to meet the present day challenge. In India, primary PPDR communication systems are designed and run by many independent state agencies. The communication infrastructure in India is either old Analog systems or it uses narrow-band radios, with no inherent support for high-bandwidth transmission requirements, such as interactive video communication, remote video surveillance of security or disaster sites. Such systems suffer from problems like interoperability failures, inefficient use of spectrum, and higher costs.

- 2. In the various models described in para 2.11-2.15, in your opinion which of the model (dedicated, commercial, hybrid) will be more suitable for Indian conditions? or Is there any other alternate model which would be more suitable for Indian telecom environment? Please provide rationale for the suggested model.**
 - The hybrid model is more suitable for India as this will be cost effective and optimum utilization of existing telecom/mobile infrastructure.

- 3. Should PSUs be earmarked for providing nationwide broadband PPDR communication network? Please justify your answer.**
 - Yes, since these PSUs have vast infrastructure and presence across the length and breadth of the nation which could help in minimize time to market and reduce overall deployment, operation and maintenance cost by leveraging the existing infrastructure and assets.

- 4. Will it be technically feasible and beneficial to permit PPDR trunking service roaming on public telecom networks? If yes, what challenges do you foresee in implementation of such an arrangement? Please justify your answer.**
 - Yes. The challenges are (i) availability of the service by the provider, (ii) interoperability between different service providers etc.

- 5. Can frequency bands be identified exclusively for public protection and disaster relief? What are the candidate bands for PPDR operations in India?**
 - Yes. 700 MHz/800 MHz band, is most suitable.

- 6. If wideband/broadband PPDR is to be implemented in India, what quantum of spectrum will be needed for such solution for PPDR?**
 - Mixture of lower frequencies for wide area coverage and higher frequencies for hot-spots of activity will provide a more balanced choice for PPDR users. The spectrum allocation of Australia may be better suited for India because of the mixture of lower and higher frequencies.

7. What is the cost and benefits tradeoff envisaged for public protection and disaster relief viz-a-viz commercial value of spectrum?

- No reply.

8. Do you suggest any other workable option that can be adopted?

- No.

9. Please give your comments on any related matter not covered in this consultation paper.

- For achieving high availability of PPDR Communication Network, alternative communication channel such as drone mounted or hot air balloon based platform for communication may be explored during any emergencies situation when land based and fixed communication infrastructures are not available.
