

From: **ARTI SHENMAR** <arti.shenmar@tcil-india.com>

Date: Dec 5, 2017 5:11:05 PM

Subject: Comments to Consultation Paper on Next Generation Public Protection and Disaster Relief(PPDR) Communication Networks

To: "advmn@tra.gov.in" <advmn@tra.gov.in>

Cc: ATUL RASTOGI <atul.rastogi@Tcil-India.com>

Kind Attention:

Shri S.T. Abbas,
Advisor(Networks, Spectrum and Licensing)

Respected Sir,

The comments prepared for the questions listed on page number 50 of TRAI Consultation paper on Next Generation Public Protection and Disaster Relief (PPDR) Communication Network are attached in file TCIL_Comments.

With due Regards

Arti Shenmar, PMP
Senior Manager
Wireless Infrastructure Division
Telecommunications Consultants India Limited
Greater Kailash-Part -I,
New Delhi-110048
Tel:011-26202425

From: ATUL RASTOGI

Sent: Tuesday, November 14, 2017 1:41 PM

To: ARTI SHENMAR

Subject: print and discuss

With Best Regards

Atul K. Rastogi

Executive Director

Telecommunications Consultants India Ltd.,

(A Government of India Enterprise) Greater Kailash- I,

New Delhi - 110048, India

Div:Wireless Infrastructure

Tel:+91-11-26242048

Mob:+919868393832

Fax:+91-11-26241538

E-mail- atul.rastogi@tcil-india.com

CONSULTATION PAPER ON NEXT GENERATION PUBLIC PROTECTION AND DISASTER RELIEF (PPDR) COMMUNICATION NETWORK

Consultation Paper No. 15/2017

CHAPTER V: ISSUES FOR CONSULTATION

Q1. 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?

1. Comments –TCIL

About existing PPDR Communication Network

(Legacy Analog Radios)

As it has been already highlighted in this TRAI Paper that in India primary PPDR communication systems designed and run by many independent state agencies are either old Analog Systems or it uses narrowband radios. These radios employ narrowband channels and are operated on spot frequencies that are assigned to different public safety entities on a case-by-case basis.

The narrowband nature of these radios basically focuses on 2-way voice communications with limitations pertaining to high-bandwidth transmissions such as interactive video communication, remote video surveillance of security or disaster sites etc. Legacy Analog systems face quite number of such problems.

However, now the scenarios are changing with most of the states implementing Digital Radios comprising of the Digital Trunked radio systems which have resulted in the highly secure, rugged and tough equipments which find their applications for the Public Safety and Disaster operations.

Que 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.

2. Comments –TCIL

The Security of the PPDR network is the foremost concern and the dedicated network for data traffic of the Public Safety Agencies (mission oriented categories, such as police, fire brigades, emergency medical response Armed forces etc. is a must as at the times of emergencies when the mobile networks suffer from traffic congestion.

The Radio Communication Networks and equipments are built rugged and tough based on the, extreme environmental conditions in which the public safety Agencies have to work in.

Solutions such as Digital Radio Trunking System like TETRA, DMR and P25 have been tried and tested for the Public safety agencies and cannot be replaced by standards suggested- 3GPP LTE. However, both can co-exist if the need persists. But the network of 3GPP LTE will demand very high investment in terms of number of BTS and Infrastructure to be put in place. High cost will be a concern for the dedicated network as highlighted in the paper also however the security of these networks hold equal importance and needs to be given due importance.

Que. 3 Should PSUs be earmarked for providing nationwide broadband PPDR communication network? Please justify your answer.

3. Comments –TCIL

Telecommunications Consultants India Ltd., (TCIL), set up in 1978, is a Government of India Enterprise, under the administrative control of the Department of Telecommunications (DOT), Ministry of Communications and Information Technology, New Delhi. TCIL has a consistent track record of providing Telecom and IT Services for over 39 years executing multidisciplinary projects. TCIL has a strong manpower base ranging from experts in varied Telecom, Information technology and Civil Projects. TCIL has to its credits number of high value projects implemented for the Government Clients and TCIL should be also taken onboard for implementation of PPDR networks.

Que. 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.

4. Comments –TCIL

The challenges forseen in such implementations would be at the time of disaster and emergencies the public telecom network will get congested with high volume of traffic. PPDR trunking service roaming on public telecom network will have lots of challenges in terms of guaranteed security requirements and SLAs.

Q5. Can frequency bands be identified exclusively for public protection and disaster relief? What are the candidate bands for PPDR operations in India?

5. Comments –TCIL

Yes frequency bands can be identified exclusively for public protection and disaster relief.

Q6. If wideband/broadband PPDR is to be implemented in India, what quantum of spectrum will be needed for such solution for PPDR?

6. [Comments –TCIL](#)

No Comments

Q7. What is the cost and benefits tradeoff envisaged for public protection and disaster relief viz-a-viz commercial value of spectrum?

7. [Comments –TCIL](#)

No Comments

Q8. Do you suggest any other workable option that can be adopted?

8. [Comments-TCIL](#)

Solutions such as Digital Radio Trunking System like TETRA, DMR and P25 have been tried and tested for the Public safety agencies and cannot be replaced by standards suggested- 3GPP LTE. However, both can co-exist if the need persists. But the network of 3GPP LTE will demand very high investment in terms of number of BTS and Infrastructure to be put in place. Government has already invested a lot in other schemes such as the optical fiber network of Bharat Net. Same can be tapped for the high bandwidth requirement which Bharat Net shall offer in due course of time.

Q9. Please give your comments on any related matter not covered in this consultation paper.

9. [Comments-TCIL](#)

Page 54 highlights the disadvantage of TETRA as “TETRA is not designed for backwards compatibility or migration from legacy analog networks.....

This is to convey that the backward compatibility of TETRA networks with analog networks is possible and said fact illustrated in the paper needs to be revised/updated accordingly.