

## **Recommendations of TRAI on issues concerning Public Mobile Radio Trunked Service (PMRTS) referred by the DOT**

### **A. Background**

This refers to the Department of Telecommunication's letter no. 311-80/2001-VAS dated November 1, 2002 requesting the TRAI, for recommendations on issues concerning Public Mobile Radio Trunked Service (PMRTS) raised by Mobile Trunked Radio Operators Association (MTROA). These issues are:

1. Increase in Quantum of PSTN connectivity
2. Separate numbering scheme for PMRTS
3. Extension of service area to cover Local Charging Area.

#### Other issues raised by MTROA:

In addition to these three issues DOT has also sought TRAI's recommendations on other issues raised by MTROA in their representation to DOT. These issues as clarified by MTROA are:

4. Licence Fee
  - i. Total Licence fee including WPC charges
  - ii. Fee for captive users
  - iii. Definition of AGR (Sale of Handset)
5. Choice of Technology for new Licences
6. Service Area
  - i. Circle-wise licensing
  - ii. New Licence areas e.g. Highways

Following DOT's request for recommendations, TRAI had a discussion with MTROA to understand the requirements involved on the various issues raised by the Association and the views of the Authority on the same are indicated below:

### **B. Recommendations:**

#### **B.1 Increase in Quantum of PSTN connectivity**

MTROA demanded unrestricted PSTN connectivity. MTROA also mentioned that in countries like Canada, Singapore, Japan, U.K, Germany, etc. where unrestricted PSTN connectivity has been permitted the PMRTS subscriber base is not even 3-5% of cellular subscriber base. Therefore, unrestricted PSTN connectivity to PMRTS gives no threat to cellular industry. MTROA has also

mentioned that in any event, the minimum requirement is around 1 E1 (30 circuits) for every 5000 subscribers.

In our earlier recommendations to DOT we had mentioned that total permitted usage of such interconnection (interconnectivity with PSTN) in a month should not exceed 15% (based on Minutes of Use earmarked for inter-network calls) of total airtime usage of the network during the previous month.

As per amendment to the existing PMRTS licences PSTN connectivity shall be given as one PSTN line for 5 RF channels (of 25 KHz each) to start with, only with one Licensed Basic Service Operator for analog systems and one E1 link for every 10000 subscribers, only with one licensed Basic Service Operator for digital systems.

**Recommendations of TRAI on PSTN Connectivity:** The Authority as mentioned in our earlier recommendations to the DOT is of the view that the PMRT service is primarily a Closed User Group service and therefore, it is reiterated that the total permitted usage of such interconnection in a month should not exceed 15% of total airtime usage of the network during the previous month.

## **B.2 Separate numbering scheme for PMRTS**

MTROA represented that a separate numbering scheme should be allotted for PMRT services. MTROA mentioned that in the absence of numbering scheme subscribers of other public networks like cellular/WLL/basic services cannot access PMRTS subscriber. In case this facility is not permitted then PMRTS subscriber may have to carry two different handsets viz. one PMRTS and the other WLL/Cellular to remain in touch with outside world.

### **Recommendations of TRAI on Separate numbering scheme for PMRTS:**

The PMRT Service is basically a Closed User Group (CUG) service. To retain the CUG characteristic of the PMRT Services it is felt that only one-way PSTN connectivity should be allowed. This negates the requirement for a separate numbering scheme.

## **B.3 Extension of service area to cover Local Charging Area**

MTROA clarified that the issue has been addressed in the amendment to the existing PMRTS Licence agreements. MTROA mentioned that they had represented to DOT before the issue of the amendment to the existing PMRTS Licence agreements, therefore, the issue was mentioned in their representation to DOT.

Since the issue has been resolved no further recommendation from TRAI is required in this regard.

## **Other issues raised by MTROA**

### **B.4 Licence Fee**

#### **B4.1 Total Licence fee including WPC Charges:**

MTROA has represented that the Licence fee and the Royalty for spectrum together should work out to not more than 5% of the revenue as has been recommended by TRAI earlier. MTROA mentioned that the current WPC charges (Royalty for spectrum plus license fee) amounts to approximately Rs. 200-300 per subscriber as a result total Licence fee payable becomes 7.4%-8.6% instead of 5%.

As per the Licence agreement the licence fee for commercial PMRTS system is 5% of the 'Adjusted Gross Revenue' (AGR). In addition to 5% Licence fee, WPC charges shall be paid to WPC Wing separately, as fixed by WPC Wing, and shall be subject to changes made by WPC Wing from time to time.

**Recommendations of TRAI on total Licence fee:** The current Licence fee (including WPC Charges) has been found to be significantly more than 5%. The Authority as mentioned in its earlier recommendations to the DOT is of the view that there should be a reduction in this fee to facilitate the growth in this sector. It is, therefore, reiterated that the licence fee ( to be paid to DOT as well as WPC) and the Royalty for spectrum together should work out to not more than 5% of the Adjusted Gross Revenue (AGR).

#### **B4.2 Fee for captive licencees**

MTROA mentioned that the Captive network operators are at present not paying any Licence fee. They just obtain the clearance from WPC and start their operation without paying any Licence fee, as a result commercial service providers are losing their business.

**Recommendations of TRAI on fee for captive licencees:** As mentioned in our earlier recommendations to the DOT we are of the view that if the captive licencees do not pay any license fee then it would not only have a negative effect on the financial viability of commercial service provider's operations but also result in inefficient utilization of the available radio spectrum as well as existing infrastructure of commercial service provider. Therefore, the same fee as paid by PMRT service providers should be payable by the Captive licencees of Mobile Radio Trunking Service as well. Since the commercial PMRT service providers have migrated to revenue sharing regime it is recommended that captive licencees pay a licence fee of Rs. 300 per annum per terminal with a minimum of Rs. 25,000/- per annum as recommended by TRAI earlier. It is also recommended that the licensor must ensure that the captive licencees pay their licence fee like commercial PMRTS operators.

**B4.3 Definition of AGR (Sale of Handset):** MTROA represented that PMRTS industry has no "common technology standard", the subscriber numbers are still small and there is no open market for availability of Handsets, as in the case of GSM Handsets or pagers. Therefore, the PMRTS Handsets have to be necessarily procured by PMRTS operators and sold to customers. The service providers have further submitted that if Licence fee at the rate of 5% is also

levied on the Handsets costing Rs. 16,000/- it negates the very recommendations of a reasonable licence fee regime made by TRAI for the fledgeling PMRTS industry.

In our earlier recommendations we had mentioned that the definition of revenue will be the same as already given in TRAI's recent recommendations in respect of other service providers viz. N.L.D operators, fixed service providers and VSAT service providers. TRAI considers that there should be a common definition of AGR for all service providers unless it states otherwise in any specific case.

The definition of Adjusted Gross revenue as defined in our recommendations for other services viz Basic services, excludes the sale proceeds of instruments in the definition of the "Adjusted Gross Revenue" .

**Recommendations of TRAI on definition of AGR:** Keeping in view the high cost of PMRTS Handset, it is recommended that DoT should exclude the sale proceeds of instruments in the definition of the "Adjusted Gross Revenue" especially in case of PMRTS services.

#### **B.5 Choice of Technology for new Licences**

In our earlier recommendations to the DOT we had mentioned that all present licencees are using analogue technologies which are not spectrum-efficient and do not provide for tele-services relating to data communication. Efforts, therefore, need to be made to ensure transition of the current licensees to spectrally efficient digital technologies based on open protocol. We had also mentioned that TRAI is of the view that use of analogue technology is coming in the way of the growth of the service, therefore, effective steps be taken to facilitate and incentivise transition of the services offered by the existing service providers from their analogue technology to standard digital technologies.

In the DOT guidelines it is mentioned that fresh PMRTS licensees shall be bound to use only digital technology. Accordingly it has been reflected in the amendment to the existing PMRTS license agreement.

MTROA has represented that the choice of technology should be left to market forces as has been done all over the world. Moreover a Metro market cannot be equated with a Non-Metro or other smaller towns, where a digital System can just not be viable. MTROA also mentioned that for some closed user group applications, which involve large user group sizes (spread all over the city, more or less uniformly like a taxi fleet) analog technology is more spectrum efficient than digital systems. MTROA mentioned that with the new Licence agreement mandating digital technology deployment, the whole purpose of spectral efficiency is defeated. MTROA also mentioned that several customers have made large investments in analog subscriber terminals. Their investment in subscriber terminals would go waste if analog networks were replaced by digital networks. Hence customer requirements might compel an existing PMRTS operator to maintain analog service as well as digital service within the same service area. Therefore, the choice of the technology should be left for the operators to decide.

**Recommendations of TRAI on Technology for PMRTS:** Keeping in view the high investment cost involved in deployment of digital technology and the health

of the industry in last 2-3 years, the Authority is of the view that with the new Licence agreement mandating digital technology the investment in subscriber terminals and other analog equipment would go waste if analog networks were replaced by digital networks . It is, therefore, recommended that the choice of the technology should be left to the service providers.

## B.6 Service Area

### B6.1 Circle-wise licensing

MTROA has demanded that in PMRT Services licenses should be given telecom circle wise. There are two main reasons for requesting circle wise licensing:

1. **Increased coverage:** By locating the radio base station at a vantage point in their service area the operators can provide coverage in a much larger area covering various cities, highways, etc.
2. **Efficient utilisation of network:** By sharing various network elements, the optimum utilisation of resources could be achieved.

The above would result in the service providers offering the service to the consumers at a lower cost. This would not only benefit the consumer but also facilitate growth of the industry.

MTROA has also mentioned that sharing of infrastructure across Service Areas should be allowed by using the services of leased lines from a licensed NLDO. Further, the PMRTS Operator should be free to deploy the infrastructure at vantage sites to ensure optimum coverage in the Service area.

### B6.2 New Licence areas e.g. Highways

TRAI in its recommendations had mentioned that new types of service areas may be defined for PMRT services along the Highways, which DOT had accepted in their guidelines. However, Highway service areas are not reflected in the amendment to the existing PMRTS Licence agreements.

**Recommendations of TRAI on service area:** It is reiterated that new type of service areas may be defined for PMRT services along the Highways. To enable the PMRTS service provider to optimally use the expensive infrastructure cost effectively the Authority is of the view that for Highway coverage PMRTS Operator should be free to deploy the infrastructure at vantage sites along the Highway to ensure optimum coverage along the Highway.

The Authority is of the view that if circle-wise licensing for PMRTS is permitted alongwith the licenses for providing services along Highways, then this service will be having all India connectivity along with roaming also and become competitive with that of Cellular Mobile Services. Therefore, it is recommended that further extension of the service area i.e. from city-wise to circle-wise licensing may not be permitted.