

## **TELECOMMUNICATIONS NUMBERING ADVISORY COMMITTEE**

### **Mobile Network Code (MNC) for Tetra System**

#### **Introduction**

At the 35<sup>th</sup> meeting held on January 2000, NAC Paper No. 2/2000 discussed the assignment of MNC for the operation of Tetra systems in Hong Kong. The TA has adopted the proposal of assigning MNC in the number range “4x” to Tetra systems. Currently, the MNC “47” has been assigned to the Tetra system of the Hong Kong Police. There are nine spare Tetra MNC available.

2. This paper discusses the latest development in the requirement of MNC for Tetra system and the TA’s proposal on opening additional number range for the MNC of private Tetra systems.

#### **Demand for MNC of Tetra network**

3 Recently, OFTA has received several enquiries on the request for MNC of their proposed private Tetra systems. Some of these systems are upgrading of analogue trunked radio systems while the others are new ones. Although it is uncertain about the number of Tetra systems to be implemented in Hong Kong, it is likely that the nine available Tetra MNC might not be sufficient to cope with the long term demand of Tetra systems (including public and private systems) in Hong Kong. The TA considers that it is essential to make available sufficient amount of MNC for the operation of these Tetra systems.

#### **Proposed New Number Range for MNC of Tetra**

4. Currently, Tetra and GSM systems share the same 2-digits MNC in the numbering plan. This arrangement has the potential benefit of facilitating the roaming between these systems in future (although the technical arrangement for roaming is still being discussed). However, this arrangement also has the drawback in consuming MNC resource of the GSM and the 3G mobile systems including the mobile virtual networks. Having considered that:

- sufficient MNC should be made available to support the GSM systems, 3G systems and Tetra systems;
- private Tetra systems do not have the requirement to roam into GSM systems;
- in accordance with ITU Recommendation E.212, the 2-digits MNC of the International Mobile Station Identification (IMSI) for GSM/3G systems could be expanded into 3-digits; and
- in accordance with ETSI Specification ETSI ETS 300-392-1, Tetra systems operate on 4-digit (in 14 bits binary format) MNC.

The TA proposes to open the number range “4xxx” in the numbering plan for MNC of private Tetra systems.

### **Implication**

5. The proposed opening of a new number range “4xxx” for the MNC of private Tetra systems would not have any adverse impact on the supply of MNC for GSM/3G systems. ITU Recommendation E.212 stipulates that the maximum length of MNC for IMSI is three digits only and hence would not overlap with the 4-digit MNC for Tetra. On the other hand, the new number range has the advantage of ensuring the assignment and deployment of MNC to local private Tetra systems in a coordinated and orderly manner.

### **Advice Sought**

6. Members are invited to give their views and comments on this paper.

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