

## **5. LEVEL '6' NUMBERS**

### **5.1 General**

Level '6' numbers are allocated to PSTN services (including Public Switched Telephone Services (PSTS) and Public Switched Integrated Services Digital Network Services), and IP Telephony (IPT) service as 8-digit numbers.

The first four digits of the 8-digit numbers (i.e. ABCD XXXX) which uniquely define a set of numbers are referred to as a number level. One number level thus consists of 10 000 numbers.

### **5.2 PSTN and IPT Services**

5.2.1 PSTN services include Direct Exchange Line (DEL), Direct Inward Dialling (DID), Direct Dialling Inwards (DDI) for ISDN and Internet access dial-up.

5.2.2 IPT service refers to a form of VoIP<sup>18</sup> that requires telephone or E.164 numbers. This service allows a user to make and receive voice, data and video calls with the same telephone number in any domestic or overseas location where Internet access is available.

### **5.3 Level '6' Numbers Eligibility Criteria**

FBO licensees offering domestic telephony services including PSTS, Public Switched Integrated Services Digital Network Services, are eligible for level '6' numbers. FBO licensees offering IPT service are also eligible for level '6' numbers provided that they are able to meet the licensing obligations imposed by IMDA.

### **5.4 Level '6' Numbers Allocation Criteria**

5.4.1 To facilitate IMDA's assessment of numbers application, operators are required to submit to IMDA the status of their numbering resource on a quarterly basis. Information submitted should include number level assignment, level of utilisation and projected number usage within their networks.

5.4.2 Operators may be allocated numbers through either administrative allocation or an auction process.

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<sup>18</sup> VoIP (Voice over Internet Protocol) is a generic name for the transport of voice traffic using IP technology. VoIP traffic can be carried on a private managed network or the public Internet or a combination of both.

### Administrative Allocation

5.4.3 Operators may approach IMDA for assignment of DEL numbers to their exchanges under the following circumstances:

- a) An exchange has used up 80% of the existing allocated DEL numbers. In the event that excess numbering capacity is required for turnaround purpose, it should not exceed 20% of the equipped capacity of the total exchange capacity.

Illustration:

Assuming that an operator's exchange has been allocated 100 000 numbers, the operator may apply for additional numbers for that exchange when 80 000 numbers out of the 100 000 numbers are in use.

- b) A switch residing within an exchange experiences numbers recycling problem. In such cases, additional PSTN numbers may be allocated in groups of **thousands** to switches facing recycling problem under the following conditions:
  - i) Numbers recycling period of the switch residing in that exchange is less than 6 months; and
  - ii) The additional assignment of numbers does not exceed the 20% of the total exchange capacity

5.4.4 For DID and Direct Dialling Inward (DDI) numbers, the minimum utilisation threshold is set at 80% per exchange.

### Auction

The following are two procedures whereby operators may acquire level "6" numbers through a bidding process:

#### **Bidding of Number Levels Initiated by IMDA**

In this procedure (see Annex 7 for details), IMDA will progressively make available level "6" 8-digit number levels in a sequential order for bidding by operators. For each bidding session, IMDA will make available about 100 levels for bidding. Operators are eligible to bid for an unrestricted number of number levels for each number pool (e.g. DEL, DID number pool) which has achieved 50% utilization. For number pool which has an utilization percentage

of less than 50%, operators are however eligible to bid only for one number level in a bidding session.

All remaining number levels that are not allocated during the bidding session will be placed in a common pool for subsequent sequential allocation by IMDA via Administrative Allocation.

### **Bidding of Choice Number Level(s) Requested by An Operator**

In this procedure (see Annex 8 for details), an operator eligible for allocation of numbers may request for out-of-sequence level “6” numbers not covered by Administrative Allocation or the sequential number level bidding scheme initiated by IMDA. Such number level desired by the operator is referred to as a choice number level. Operators do not need to meet any number utilisation criteria before they can request to bid for a choice number level.

## **5.5 Level ‘6’ Numbers Allocation Procedure**

5.5.1 Generally, numbers are sequentially allocated to operators in levels (i.e. in blocks of 10,000). This is considered as the primary allocation. Allocation of numbers to individual subscribers, considered as secondary allocation, is made through the operators.

5.5.2 Existing assignments of Level ‘6’ Numbers are shown in Annex 3.

## **5.6 Application for Level ‘6’ Numbers**

5.6.1 To request numbers for new services, the following are to be submitted to IMDA for consideration:

- a) Number resource requirement;
- b) Technical and operation details relating to the requirement of the number resource;
- c) Target service date; and
- d) Contact person for clarification.

5.6.2 For additional numbers for an existing service, an operator must meet the required minimum utilisation with the numbers already allocated. Otherwise, the operator must provide justifications to substantiate the application.