

TELECOMMUNICATIONS NUMBERING ADVISORY COMMITTEE

Expanding the Number Supply for Fixed and Mobile Services

Purpose

This paper offers a brief review on the number resources available for allocation to the fixed and mobile services and the options for increasing the number supply in order to cope with future demand.

Background

2. The local Fixed Telecommunications Network Services (FTNS) market has been fully liberalized since 1 January 2003. There is no pre-set limit on the number of the FTNS licences to be issued, and there is no time limit on the submission of applications for the FTNS licences. As at March 2003, there were a total of ten FTNS licensees that provided local fixed services in Hong Kong.

3. In the mobile sector, four third-generation (3G) mobile services licences were issued in 2001. The licensing of the Mobile Virtual Network Operators (MVNO) has also been introduced since then. Similar to the licensing regime for FTNS, there is no pre-set limit on the number of MVNO licences to be issued, nor any time limit on the submission of applications for the MVNO licences. As at March 2003, there were six MVNO licences issued by the Telecommunications Authority (TA).

4. In accordance with the Code of Practice relating to the use of numbers and codes in the Hong Kong Numbering Plan, the new fixed and mobile operators might initially be allocated with a number block of 50k and 100k numbers respectively. With the increase in the number of FTNS and MVNO licensees, it is anticipated that the rate of consumption of the subscriber numbers for both fixed and mobile services will be accelerated. It is therefore necessary to ensure that sufficient subscriber numbers should be made available.

Current Number Resources

5. Numbers with leading digits 2 and 3 are allocated for fixed services. At present, there are 4.7 million subscriber numbers available for fixed services. As the TA will allocate to the qualified applicant 50k numbers from a 100k number block and reserve the remaining 50k numbers for that applicant, the existing number resources for fixed services can cater for about 47 successful applications.

6. Numbers with leading digits 6 and 9 are allocated for mobile services. In total, there are 3.5 million subscriber numbers available for mobile services. As the TA will allocate to the qualified applicant the whole 100k number block, the existing number resources for mobile services can cater for about 35 successful applications.

7. As previously discussed in the NAC Paper No. 10/1999, certain number blocks are being reserved as Special Numbers which would only be available for allocation after the implementation of the Special Numbers Arrangement. Currently, there are 1.3 million fixed numbers and 1.7 mobile numbers available through the Special Number Arrangement.

8. In addition, there are 10 million numbers in the number level "5" reserved for long digit migration. There are also 4 million numbers in the number levels "32, 33, 66 and 69" reserved (discussed via NAC Paper No. 8/1999) in order to allow for flexibility in number migration from the current 8-digit numbering plan to 9-digit. In the NAC meeting held on July 1999, the latter was raised as a possible alternative to increase the number supply.

Partial Migration to 9-Digit

9. The leading digits "32, 33" and "66, 69" are reserved to allow the separate migration to 9 digits number according to the actual market demand. If the subscriber numbers for mobile services run out first, 9-digit migration for mobile services can be introduced by adding the digit "6" in front of mobile subscriber numbers. The case is similar for fixed services. It is expected that the public will be less affected through this phased approach to 9-digit migration. However, this approach has a draw back in limiting the supply of numbers. Currently, four million numbers in the "32, 33" and "66, 69" levels are reserved for partial migration. Additional number level "67" might need to be reserved if prefix 7 numbers were deployed for mobile services.

Opening Levels 32, 33, 66 and 69

10. The reserved "32, 33" and "66, 69" levels in the current 8-digit numbering plan can be released for allocation to the fixed and mobile services respectively. The supply of subscriber numbers for the fixed and mobile services will each be increased by 2 million immediately. Under this approach, future migration to the 9-digit numbering plan can only make use of the leading digit "5". This method is relatively easy and requires the least effort. However, the future migration to longer digits cannot be individually done for fixed or mobile services, but must be done all at once for all services.

Advice Sought

11. Members are invited to consider this alternative to increase the supply of number resources for the fixed and mobile services.

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