

EACO MODEL GUIDELINES

FOR MANAGEMENT OF TELECOM NUMBERING RESOURCES IN EACO MEMBER STATES

Prepared by EACO

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1.0 INTRODUCTION

Numbering is a scarce national resource that must be managed fairly in the public interest of each individual sovereign country. They need proper allocation, assignment and management since rising amount of electronic communication users and services presumes an effective control and supervision of numbers. This document details model guidelines for Administration, Usage and Management of Numbering Resources in EACO Members States.

2.0 PURPOSE

The purposes of these guidelines are to provide model and general rules for the management of electronic numbering resources and identifiers. Steps should be taken to facilitate the use of electronic numbering management systems which increases simplicity and transparency, fast allocations and assignment and simplified application procedures.

The electronic numbering resources being addressed include but no limited to the following:-

- a) Subscriber Numbers
- b) Network destination codes
- c) Service numbers (like free phone numbers, premium rate numbers, etc.).
- d) Value Added Service Codes (USSD & SMS)
- e) National Portable Network Access Numbers
- f) National Signalling Point Codes (SPCs)
- g) International Signalling Point Codes (ISPCs)
- h) Mobile Network Identification Codes (MNIC) Operator Identifiers
- i) Network color code (NCC)
- j) Data Network Identification Codes (DNICs)
- k) Corporate Services Numbers, e.g. VoIP Number ranges
- l) SIM Headers.

3.0 GUIDING PRINCIPLES AND GENERAL GUIDELINES

The principles and responsibilities for broad framework for the administration of the telecommunications numbering resources include the following:

3.1 Numbers as Valuable Scarce Resource

Numbering resources used in the provision of telecommunications services should be recognized as a valuable scarce national resource, finite in size whose management and administration affects the National interest.

3.2 Responsibility for the Management and Administration of the Numbering Resources

The National Communications Regulatory Authorities shall have the responsibility of developing a national numbering plan, the management and Administration of numbering resources including the assignment, allocations, reservation and reclamation of the numbering resources.

3.3 National Numbering Plan and Its Development

There shall be a prescribed National Numbering Plan that shall ensure availability of adequate capacity to support current and future needs of the industry and flexibility to support migration to higher levels of service and technology without number changes.

In the development of the numbering plan, consideration shall be given to the relevant ITU standards, consultation of industry stakeholders and public participation.

3.4 Responsibility of Resource Assignee

All assignees and users of numbering resources shall ensure that such assignments are utilized in accordance with the National Numbering Plan, the national ICT laws, Regulations, Guidelines and shall be assigned and used in accordance with relevant ITU Recommendations.

3.5 Use of Numbering Resources

All numbering resources shall be used in accordance with the prescribed national numbering plan, prescribed dialling plans and for the intended purposes and that such assignments, allocations and reservations are not transferrable to a third party, if allowed without approval of the assigning Authority.

3.6 Transfer of the Assigned Resource

Numbering resources assigned not transferable to another entity or another service without the prior written approval of the Authority. The Authority shall conduct regular audits on the utilization to ensure that the resources are utilized in accordance prescribed, Procedures and Guidelines and for the intended purposes.

3.7 Accessibility to the Resource and Competition

The national numbering resources (NNR) shall be assigned to those eligible in a fair, transparent, non-discriminatory and equitable manner.

3.8 Cost Effective Developments and Management

Any developments and management of the numbering resources shall take into account costs and convenience to Consumers, Operators and Service Providers.

3.9 Routing of Traffic to Unassigned Numbers

Network operators and service providers shall ensure that traffic is not delivered to numbers that do not exist within the National Numbering Plans.

3.10 Compliance to Regional and International Agreements

The National Numbering Plans shall take into account regional and international agreements, standards and recommendations.

3.11 Numbering Regulations

National Communications Regulators shall develop Regulations on Management of the national numbering resources including procedures and requirements for the Assignment, Allocations, Reservations and withdrawal of Numbering Resources.

4.0 NUMBERING RESOURCES ALLOCATION, ASSIGNMENT AND MANAGEMENT

Numbering allocation and assignment are processes of allowing the use of the respective number or number block by the assigned entity. Allocation and assignment of Numbering Resources shall be guided by the Regulations, National Numbering Plan and Numbering Guidelines and assignment procedures.

4.1 Eligibility of Assignments

Numbering resources shall be assigned to those entities licenced for the provision of communications services or eligible entities that need numbers for value added services based on numbering guidelines. The applications for numbering resources shall be completed in prescribed time interval, preferably within 15 working days.

4.2 Automation of Numbering Management and Administration Processes

In order to ensure efficient management and administration of Numbering Resources, administrations need to be automated. National Numbering Administrators shall endeavor to have electronic numbering management system.

5.0 CHARGING OF NUMBERS

The scarce numbering resources and rising amount of electronic communication users and services, presumes an effective control and supervision of numbers. The introduction of numbering fees promotes fairness and efficient use of the electronic communication numbering resources. Numbers have been chosen as the object for the fees because the operation of telecommunications generally demands numbers. All numbering related activities (allocation, assignment, management and monitoring) can be covered by numbering fees.

5.1 Number Categories for Charging

Regulatory Authorities may consider what numbering resources to charge or not, but may consider for charging the following:

- a) Subscriber Numbers
- b) Network destination codes

- c) Service numbers (like free phone numbers, premium rate numbers, etc.).
- d) Value Added Service Codes (USSD & SMS)
- e) National Portable Network Access Numbers
- f) National Signalling Point Codes (SPCs)
- g) International Signalling Point Codes (ISPCs)
- h) Mobile Network Identification Codes (MNIC) Operator Identifiers
- i) Network color code (NCC)
- j) Data Network Identification Codes (DNICs)
- k) Corporate Services Numbers, e.g. VoIP Number ranges
- l) SIM Headers.

The following numbering should not be considered for charging:

- a) National emergency numbers e.g. 112
- b) Child Helpline (116) and other helplines using short codes for life and safety services.
- c) Key customer care numbers e.g. 100,
- d) EACO harmonized Short Codes ;
- e) Harmonized Network Colour Code at borders,
- f) All other number that must be prescribed to increase competition and facilitate key service operations like Credit check, Credit loading, Number Portability Routing Code, etc.

5.2 Charging Methods

The following are recommended numbering charging methods which NRAs may decide to consider:

1. Direct Charging Method

Operators are charged directly for the numbering ranges they are assigned. This is usually in the form of assignment fees and/or ongoing annual fees paid to the NRA, calculated either on a per number basis or per block of numbers. In this model, the NRA would have all the facilities in place to invoice operators and receive payment for these resources.

a) Registration/Assignment fee

The registration fee is a onetime payment to be made upon successful application of a numbering resource with eventual issuance of certificate of number allocation.

b) Annual maintenance fee

The annual maintenance fee for numbering resources is the recurrent payment payable each year after numbering resource allocation.

Annual maintenance fee for utilized subscriber numbers of Fixed and Cellular Network Operators can be computed based on fixed charges and number of active numbers in the respective numbering range as per below formula:

$$F = B \times C$$

Where: -

F is the annual fee; **B** is the utilised numbers; and

C is the cost per utilised number

2. Indirect Charging Method

NRAs recover the cost of their administration indirectly by imposing a general levy on the industry (e.g. a percentage of turnovers). No direct fees apply for the assignment of numbering resources.

3. Hybrid model Charging Method

NRAs impose a general levy and additionally charge for some resources (incentivizing an operator to use them efficiently, which is crucial for scarce resources).