

# Guidelines for effective and efficient national numbering resources administration

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# Telecom Numbering Resources, What does it mean?

- International or National.
- International Numbering Resources is administrated by ITU TSB (ITU-T SG02)
- Different Recommendations
  - E.164 (The International Public Telecommunication Numbering Plan).
  - E.212 (The international identification plan for public networks and subscriptions).
  - E.118 (The international telecommunication charge card).

## National Numbering Resources

- National numbering resources is administrated by member states.
- National resources could be:
  - Fixed telephone numbers
  - Mobile telephone numbers.
  - Geographic numbers (fixed – mobile).
  - Short Codes.
  - USSD codes.

## National Numbering Plan 1

- National numbering plan is a structure to “sort” national numbering resources following E.164.
- National administrations design NNP to meet the current and future demand of numbers.
- NNP should be advertised to different stakeholders (Subscribers, Operators, other Regulators and ITU).
- NNP should be flexible.

## National Numbering Plan 2

- The following is a quotation from E.164.

### **7.4.1 Characteristics of a national numbering plan**

Each national numbering plan administrator should give the most careful consideration to the preparation of a national numbering plan for its own network. This plan should be designed:

- a) to allow generous provision for future growth in the number of subscribers and services to the national system;
- b) with the consideration that the national network will ultimately be accessible to subscribers in other countries by means of international dialling procedures;
- c) so that subscribers would always be called by either the same N(S)N or SN, a national matter, regardless of where the call originated from within the national numbering plan.

The numbering plan will be based on and evolve from the existing numbering plans applicable to national and international public telephone networks.

Where multiple destinations (e.g., ROAs or operators) serve the called party's geographical area, the national numbering plan in the country of destination shall provide for discrimination between these ROAs or operators.

## Factors led to numbering demand increase

- New technologies.
- Convergence.
- Competition.
- Smart Phone capabilities.
- Other Players usage.
- Rich content.

## National Administrations have new roles ..

- Meet the growing demand.
- Managing competition.
- Considering new directions (M2M\IoT)
- Flexibility (Sub allocations)

## Issues should be taken into consideration

- The ability of networks to meet growing demand of numbers.
- Customer protection.
- Customer education.
- Misuse, Fraud avoidance.



# Guidelines for effective and efficient numbering resources administration 1

- Numbering fees (upfront + annual).
- Allocation of small ranges rather than huge ranges.
- Monitoring numbering utilization.
- Geographical numbers reduction.

## Guidelines for effective and efficient numbering resources administration 2

- Different ranges for M2M and IoT.
- Number length unification.
- Ensure number registration for subscribers.
- Harmonization of short codes\USSD.



**Thank you  
Questions?**