



INDEPENDENT COMMUNICATIONS
AUTHORITY OF SOUTH AFRICA

Experience and Combating Numbering Misuse- South African National Numbering Plan

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Discussion points

- South African National Numbering Plan Overview
- Condition of allocation to prevent misuse
- Portability and prevention of misuse
- New improvement in the South African National Numbering Regulations



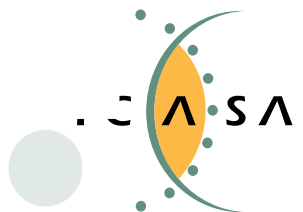
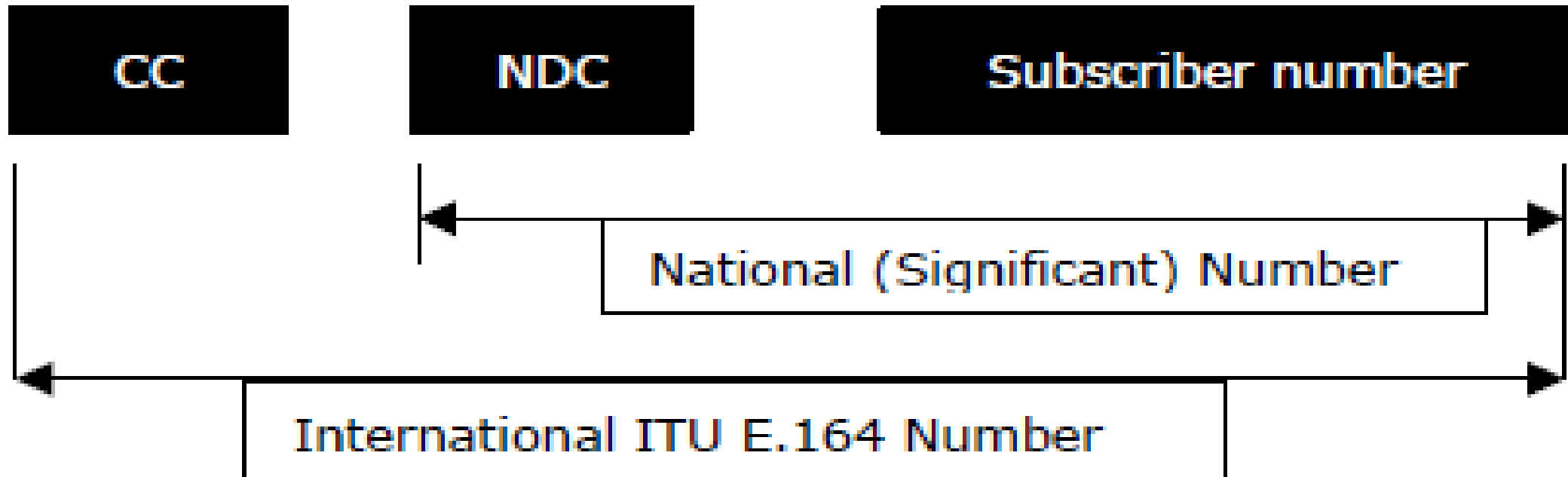
SA NUMBERING PLAN OVERVIEW

- ✓ South Africa is a closed numbering system effective 16 January 2007.
- ✓ It is mandatory to dial the full 10-digit telephone number.
- ✓ The format for an international number is guided by the International Telecommunication Union (ITU) Recommendation E.164. It is composed of decimal digits arranged in two code fields: the country code (CC) and the national (significant) number (N(S)N).
- ✓ The national (significant) number (either geographic or non-geographic) is subdivided into the national destination code (NDC) and the subscriber number.



SA NUMBERING PLAN OVERVIEW- continues

- ✓ The format for international and national numbers is as per figure:



SA NUMBERING PLAN OVERVIEW- continues

- ✓ National numbers, geographic or non-geographic are set out in Geographic and Non-Geographic Numbers

Digits	Significance
00	International prefix
01	
02	
03	
04	
05	Geographic numbers
06	Geographic and Non-geographic numbers
07	
08	
09	
	Non-geographic numbers

Regulatory Licensing Framework - Numbering

- ✓ Service Providers are required to obtain licenses from the regulatory authority. Compliance with licensing conditions includes adhering to numbering resource regulations
- ✓ The application (for numbering) set out in sub-regulation (1) must be furnished in the format prescribed by the Authority with the following information:
 - a) A copy of the Individual Electronic Communications Service licence (I-ECS) licence issued by the Authority where applicable;
 - a) A copy of a valid Ship Station licence issued by the Authority for certain classes of vessel, both for commercial and pleasure, that are required under the Merchant Shipping Act, 1951 (Act No. 57 of 1951).
 - a) A copy of a valid competency certificate issued by the relevant institution and certified by the South African Maritime Safety Authority (SAMSA) for certain classes of vessel, both commercial and pleasure, that are required under the Merchant Shipping Act, 1951 (Act No. 57 of 1951).

Conditions of allocation to prevent misuse

- ✓ the allocation must be used for the purpose specified in the application and within the designated range for use;
- ✓ the allocation must be controlled by the provider to whom the Authority has allocated to and assigned numbers must not be traded;
- ✓ the holder of the allocation shall maintain a record of the percentage of numbers in use and reserved;
- ✓ The allocation shall be used under any specific conditions made by the Authority;
- ✓ A provider shall not make use of numbers that have not been allocated to them or which the Authority has not authorized them to use;
- ✓ MSISDNless SIM starter packs shall apply to all allocated mobile numbers as well as recycled numbers; and
- ✓ A provider must comply with regulations, variations, and conditions imposed on the allocation and the applicable sections in the Act.

Principles to prevention of misuse- Portability -1

- ✓ A Licensee that has been allocated block(s) of geographic numbers must offer number portability to subscribers who have been assigned a block of ten or more numbers (in multiples of 10, 100, 1000 and 10 000) within the same allocated block(s) provided that:
 - a) No numbers within the block to be ported are assigned to other subscribers;
 - b) A number block shall be ported as a complete range and no individual numbers shall be ported from the assigned number block; and
 - c) The network termination points remain within the geographic boundaries associated with the allocated number block.

- ✓ A Licensee must ensure it receives, stores, and updates a local copy of its database of ported numbers to originate, routing, and receive calls to and from ported numbers daily.

- ✓ If a ported number or number block(s) cease(s) to be active on the recipient operator's network, the recipient operator must within three (3) months and in writing return the number or number block(s) to the donor operator.

- ✓ The recipient operator who was serving the number or number block(s) must not re-assign the number or number block(s) to another subscriber.



Principles to prevention of misuse- Portability- 2

- ✓ A Licensee that originates or routes a call to a ported number must ensure that:
 - a) A is routed to the licensee currently serving the number; and
 - b) any value of the original calling line identification (CLI) remains unchanged by the routing process.

Subscriber Authentication

- ✓ Donor operator shall validate a mobile number porting request using a one-time pin (OTP). The OTP shall be valid for four (4) hours after which if no response to the OTP is sent the port request is rejected. (*emphasis*).
- ✓ A donor operator shall validate a geographic or non-geographic number or number block (excluding mobile numbers) using an Interactive Voice Response (IVR) to the contact number of the subscriber or nominated accounting officer in the case of a port request from a legal entity
- ✓ The OTP is be structured as follows: "*(Donor operator name) has received a request from (Recipient name) to port this number: (subscriber number). If this information is incorrect, please send the following PIN: xxxxx to xxxxx. This PIN is valid for 4 hours. Failure to respond to this message shall result with the port request being declined.*"

Compliance, Monitoring, and Audits

- ✓ All service providers must submit their number audit data to the Authority in a prescribed form, annually, on a date which must not be later than 31 March for regular monitoring and audits to ensure compliance and to review allocations, usage, and adherence to the National Numbering Plan
- ✓ A provider may be required to submit further information needed by the Authority to complete the number audit exercise.
- ✓ The number portability company activates only allocated numbers for portability on the central numbering database using the regulator certificates. (*no number protected/ not authorized can be allocated*)
- ✓ NPC submits statistical reports to the Regulator on the performance.

New amendments regulations- to prevent misuse

- ✓ The new insertion in the National Numbering Plan Regulations had proposed that licensees:
 - a) Collect biometric data of subscribers to whom they have assigned mobile numbers;
 - b) Link the biometric data to the subscriber number;
 - c) Utilize the biometric data to confirm identity to “reactivate” an assigned number in the event of a SIM swap; and
 - d) Subject to confirmation of identity using biometric data, decline “reactivation” of the assigned number.

- ✓ Consultation process- to create a functional specification and a collaborative effort with home affairs.

- ✓ Most of service providers use a biometric verification process – the intention is to obligate all the service providers and standardize the operations for monitoring and compliance process.



Thank You

<https://www.icasa.org.za/pages/numbering>