Séminaire sur les systèmes de numérotation et leurs convergences

Workshop on numbering planning and convergence of numbering

Accra, Ghana 28-30 April 2010

DEVELOPMENT OF BEST PRACTICES AND GUIDELINES IN NUMBERING ISSUES (Case Study)

Martha Onyeajuwa

Introduction

Numbering requires change as a result of liberalization, cross-country coordination, deployment of new technologies and introduction of new services.

- Growth in demand of numbers.
- New demand for service numbers (country- wide commonly recognized numbers).
- Harmonized numbering plans.

DEVELOPMENT OF BEST PRACTICES AND GUIDELINES IN NUMBERING ISSUES

- Adequacy of National Numbering Plan for effective competition and future demands.
- Creating of numbering space for country-wide services /commonly recognized national services.
- Defining explicit policy and rules for allocating, withdrawal and use of numbers.
- Creating possibility for number portability and carrier selection.
- Amending for Regional/International harmonization.
- Indicating number space reserved for future allocation to different service: mobile, short code, carrier selection.

DEVELOPMENT OF BEST PRACTICES AND GUIDELINES IN NUMBERING ISSUES

- Increasing demand for country wide commonly recognized numbers

FREEPHONE:

• Service Code	0-800
• Main Characteristics	The calling party does not have to pay for call
• Typical Usage	Company Hotlines (Customer service) Government or NGO help lines
• Other Characteristics	Digits after the NDC are often connected with vanity numbers e.g. 0800-FLOWERS

DEVELOPMENT OF BEST PRACTICES AND GUIDELINES IN NUMBERING ISSUES CONT'D

PERSONAL NUMBER

•Service Code	0-700
•Main Characteristic	Telephone number is not permanently associated with physical network termination point but person
•Typical Usage	Life-long "Vanity Number" for companies and individuals
•Other Characteristics	Digit after the service code (NDC) are often connected with Vanity numbers e.g. 0700 –FLOWERS

DEVELOPMENT OF BEST PRACTICES AND GUIDELINES IN NUMBERING ISSUES CONTD.

SHARED COST:

Service code	0-808
Main Characteristics	The calling party has to pay only the share of the telephone cost predetermined by the called Party (service provider).
Typical Usage	Company Hotlines value added services.
Other Characteristics	First digit after the service code (808) may be used to indicate tariff (e.g. 0808-xxxxxxx 10 kobo per second)

DEVELOPMENT OF BEST PRACTICES AND GUIDELINES IN NUMBERING ISSUES Contd.

PREMIUM RATE:

- Service Code — 0-900
- Main Characteristic — The Fee paid by the calling party covers both the telephone charge plus the service received.
- Typical Usage — Non-telecom service providers (content providers).
- Other Characteristics — First digit after service code (0-900) may be used to indicate type of service e.g. (0900 2xxxxxx for ring tones -, 0900 3 xxxxxx for entertainment).

DEVELOPMENT OF BEST PRACTICES AND GUIDELINES IN NUMBERING ISSUES /CONT'D

- Harmonization and non-discriminatory use of short numbers
- Short numbers usage.
  - Country wide important social and emergency numbers within the network.
    - Carrier selection.
    - Number portability.
- Main Characteristics No national prefix for national security and emergency services (emergency, fire, police).
  - No national prefix for emergency services{emergency, fire, police}

DEVELOPMENT OF BEST PRACTICES AND GUIDELINES IN NUMBERING ISSUES / CONT'D

- Maximum length of codes for Carrier Selection (usually four digits) or services provided by competing service providers (e.g. directory inquiry in Germany).
- No prefix for internal services of network operators

DEVELOPMENT OF BEST PRACTICES AND GUIDELINES IN NUMBERING ISSUES /CONT'D

- **Usual Practice**
- Short codes in the numbering plan should not be operator specific (non-discrimination).
- There should be a sufficient number of available short codes.
- Harmonization of short codes within the country (one nation-wide numbers for emergency) and across countries (Global and Regional).
- Charging policies (e.g. emergency calls etc. to be provided for free from all networks).
- Although the introduction of short codes for carrier selection and number portability depends on policy for introduction of service competition, number space should be created in advance.

DEVELOPMENT OF BEST PRACTICES AND GUIDELINES IN NUMBERING ISSUES / CONT'D

- **SUMMARY**
  - The regulatory approach with respect to the assignment , allocation, withdrawal and use of numbers should enhance competition in communications markets.
  - Establish consultation procedures and consider establishing institutionalized consultation body.
  - Elaboration of policy/rules and review of National Numbering Plan should be carried out in close consultation with stakeholders.

Summary -What the Market Wants

AVAILABILITY

- … of services
- In-building
- At home
- On the road

USER EXPERIENCE

- Quality
- Consistency
- Personalized

INTERWORKING

Circuit-Packet

Hand-offs

Virtual Home Environment

Fast & Easy Authorization

Flexible Charging/Billing

EASE-OF-USE

- Transparent to Users
- Same Services/Same user Experience
- Network-Resident User Profile- ensures seamless services across devices

AFFORDABILITY

- Best Price/Performance (for consumers)
- Best Cost/Performance (for operators)
- Take Advantage of Embedded Home/Enterprise Networks

- **DISTRIBUTED…**
- Networks
- Operations (ownership)
- Services
- Data

For the last 100 years it was all about the network…Now it's all about the Customer Experience enabled by the network

DEVELOPMENT OF BEST PRACTICES AND GUIDELINES IN NUMBERING ISSUES

Recommended Activities for:

OPERATORS

- Consolidate number management to better centralize historic tracking reporting and forecasting tools
- Implement reconciliation processes among network, billing, and TN inventory databases
- Implement periodic audits on reported utilization
- Implement periodic audits on utilization forecasts

DEVELOPMENT OF BEST PRACTICES AND GUIDELINES IN NUMBERING ISSUES

Recommended Activities

NATIONAL REGULATORY AUTHORITY (NRA)

- Standardize Prepaid number reclamation policies
- View number
- Plan as a tariff-based rather than technology based
- Report on utilization levels for currently allocated number ranges
- Justify forecast for assignment of additional number ranges
- Audit reporting and forecasting functions
- Implement reclamation of resources from unutilized or underutilized ranges

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Case Study

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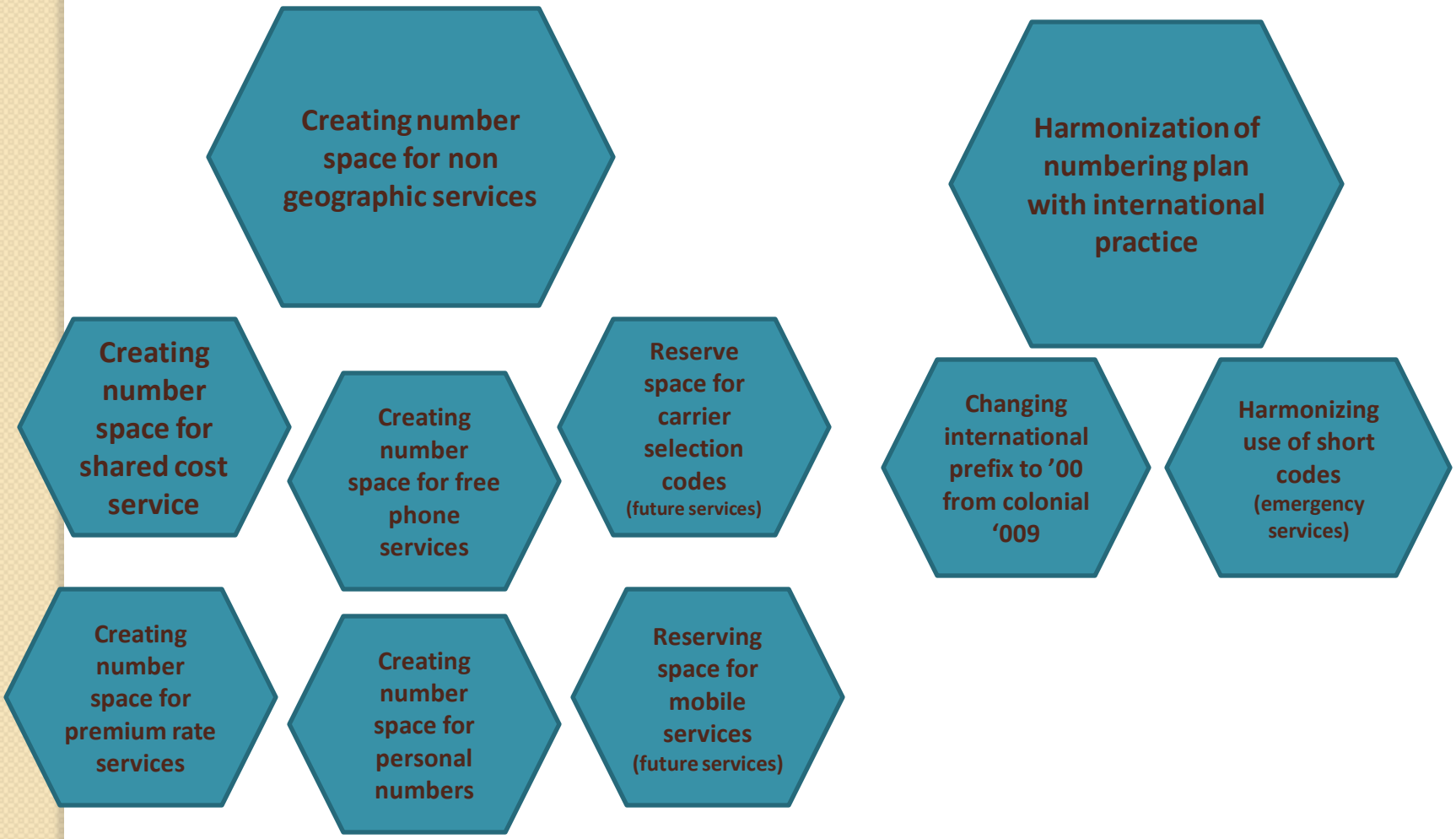
Reforming the Numbering Plan
Development areas for the Numbering Plan
Main areas for reform in the National Numbering Plan of Nigeria



Objectives of the new plan (1)

- The primary objective of the review is to create sufficient non-geographic services codes to cater for the anticipated innovative services as well as sufficient numbers to meet all reasonable future demands.
- The existing NNP is based on the International convention which adopted 11 –'n' (where 'n' = number of digits in the country code). It accomodates a maximum of 73 600 000 telephone lines and has only four spare Area/Access codes.
- The existing NNP has no free leading digit in the NDC; all the leading digits have been used for geographic numbering.
- Furthermore, the competitive environment that evolved from the liberalization of the Nigerian Telecoms industry in 1997 has recently placed a huge demand on the numbering resource.

Objectives of the new plan (2)

- Thus, it is obvious that the existing NNP can no longer adequately cater for:
  - Continuous growth in the number of network service operators,
  - Exponential growth in the number of subscribers and services (shortage of service codes),
  - Convergence of voice, data and video in the new technologies,
  - Harmonization with international best practices,
  - Competition for both telecommunications operators and users.

Objectives of the new plan (3)

- The major features of the Draft NNP include:
- Being fully service based,
- Numbers are harmonized and fitted into logical group to indicate to the subscribers the type of number/service they are calling and subsequent tariff,
- Many new service codes are introduced; of particular interest are codes for carrier selection/pre-selection and Number portability that will further enhance competition among service operators.

Objectives of the new plan (4)

- Uniform length for National Significant Number (NSN) across the country, still retaining relevant subscriber numbers,
- Uniform dialing within the country is proposed nationally (i.e., NDC+SN) and within each National Destination Code area (NDC),
- In all, the strategy adopted for the draft NNP tends to be evolutionary rather than revolutionary; also disruption to services/cost to users will be kept at minimum acceptable level.

The current NNP

- Three distinct formats exist for the geographic numbers:

1. NDC of 1 digit and subscriber number of seven digits,
2. NDC of 2 digits and subscriber number of six digits,
3. NDC of 2 digits and subscriber number of five digits.

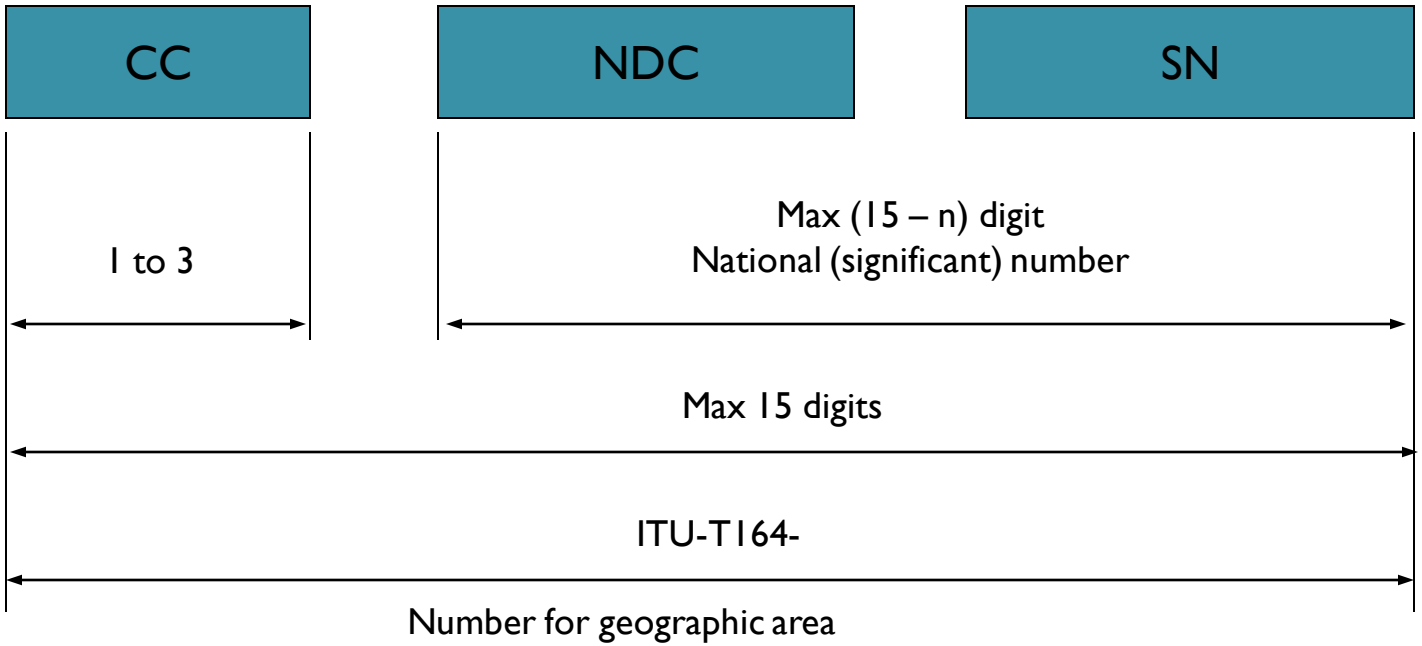
N.B.: each subscriber number includes exchange code, i.e., the 1st one or two or three digit(s) of the subscriber number is the exchange code.

The draft NNP

- The lead digit 2 is reserved for geographic numbering.
- The following steps have been adopted to ensure an adequate supply of numbering capacity and also that the National Significant Number (NSN) length is harmonized to ten digits.
- In the draft NNP, the complementary amendment to the identified three formats of the current NNP are as follows:

1. Digits "20" precedes the NDC of 1 digit,
2. Digit "2" precedes the NDC of 2 digits and digit 2 precedes the subscriber number of six digits,
3. Digit "2" precedes the NDC of two digits and "20" precedes the subscriber number of 5 digits.

Fig. 1/E.164 – ITU-T E.164-NUMBER STRUCTURE FOR GEOGRAPHIC AREAS

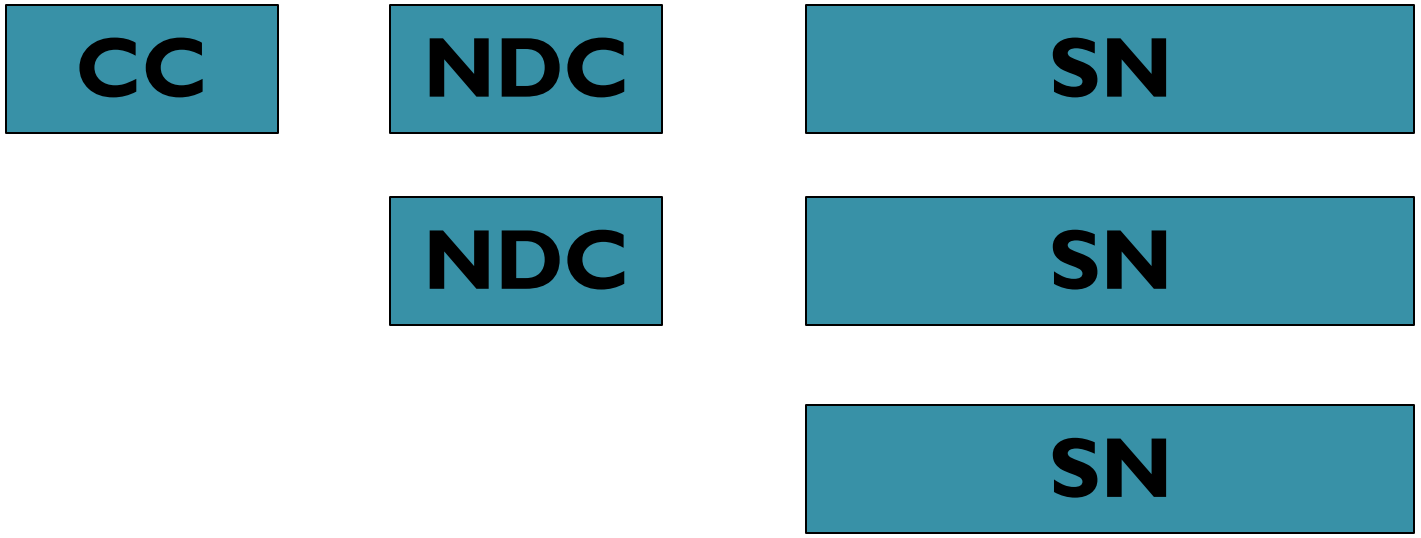


CC	Country Code for geographic area
NDC	National Destination Code
SN	Subscriber Number
N	Number of digits in the country code

Draft NNP

Structures and options

Numbers for geographical areas, formats for national use.
Option 1: separated NDC and SN



Structures and options

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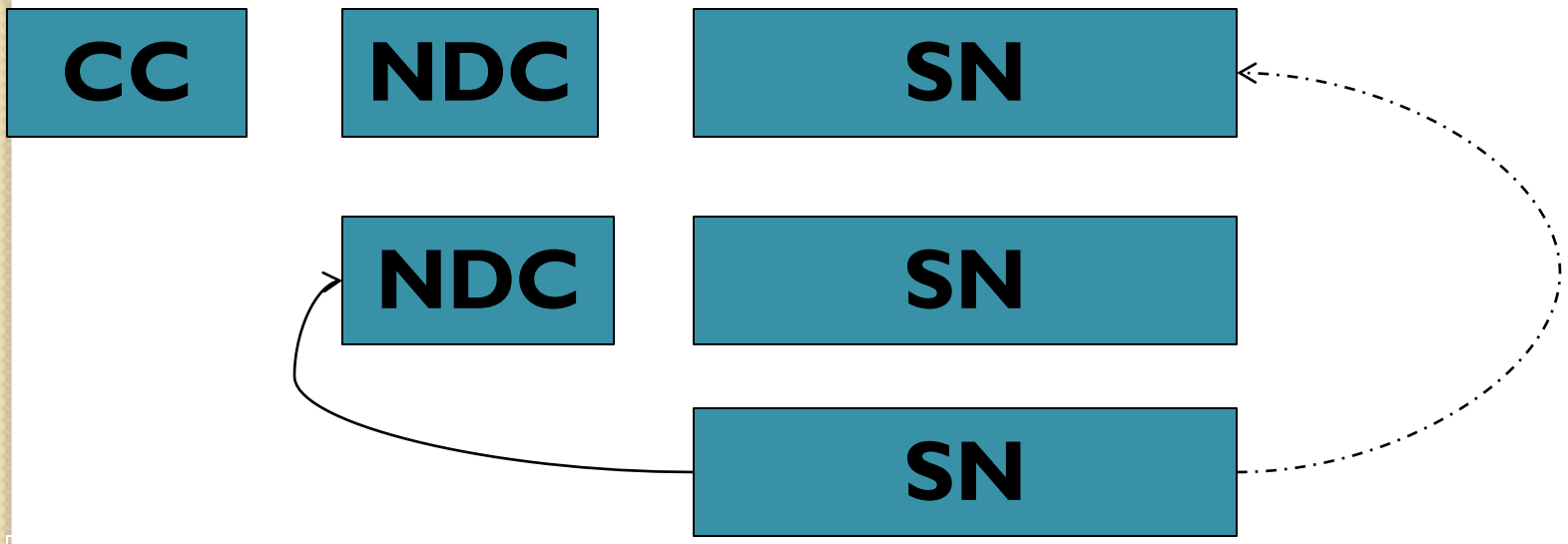
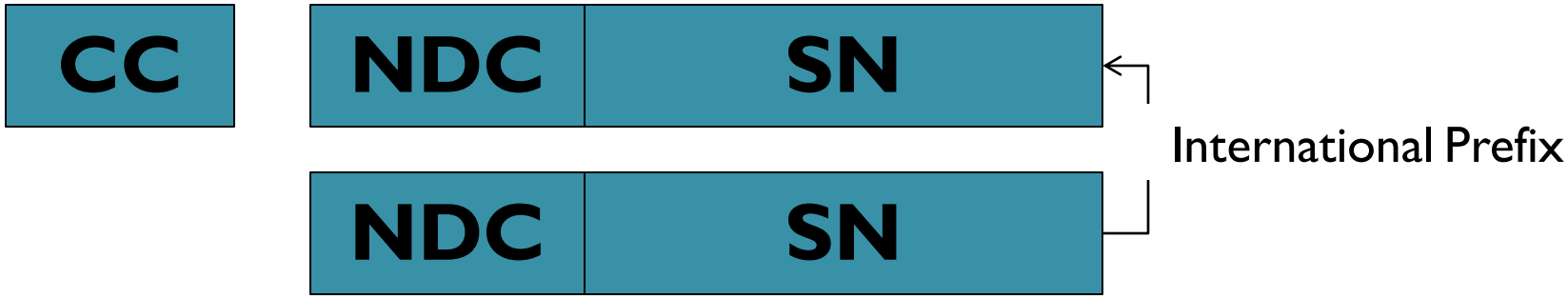


Structures and options

Numbers for geographical areas, formats for national use.
Option 2: NDC linked to SN

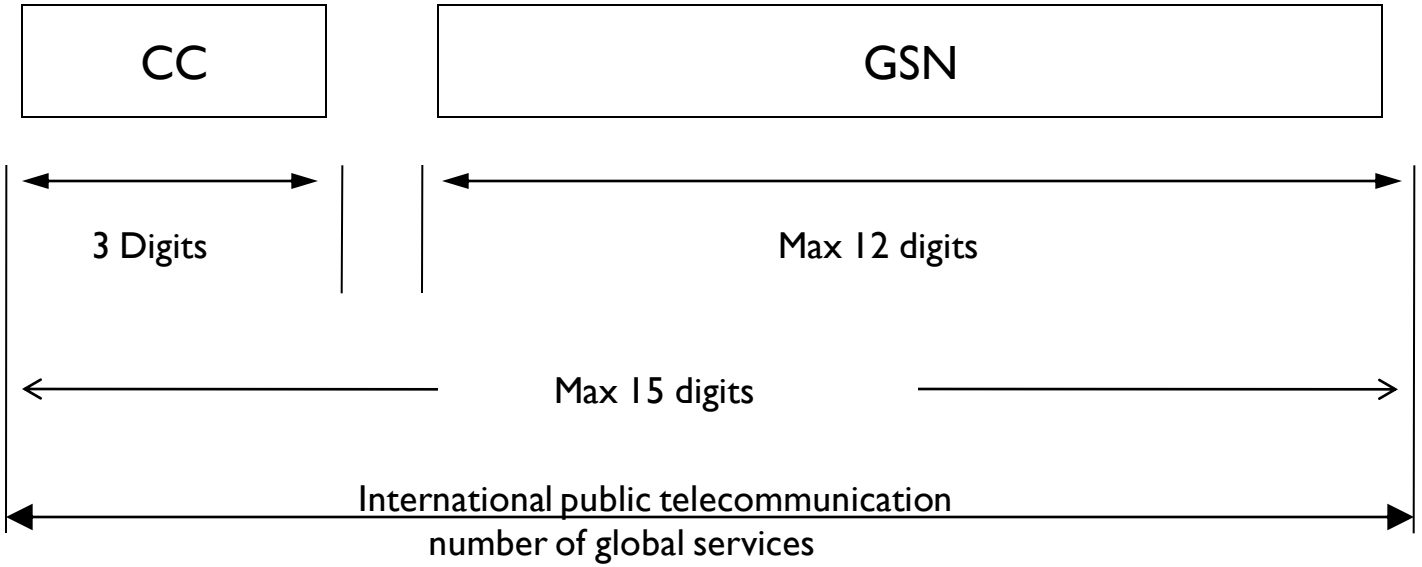


When NDC and SN are linked together to form a single dialling Sequence, a national prefix is not necessary.

In general, option 1 is used for geographic numbers, option 2 for National 'location independent' numbers.

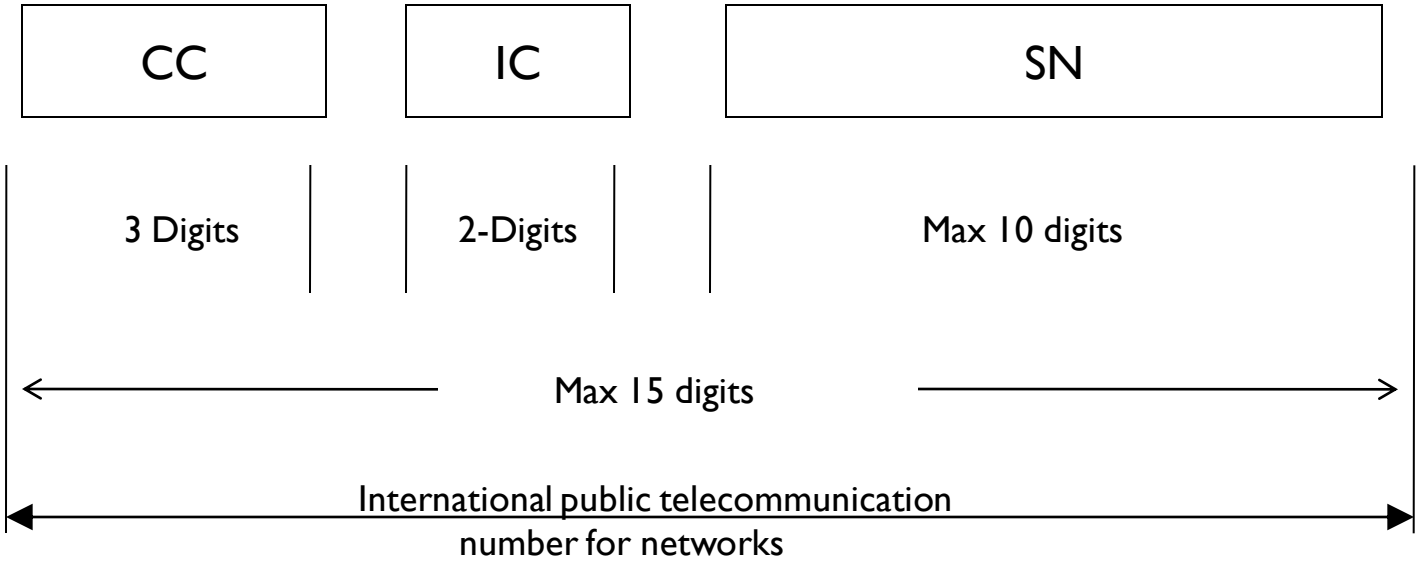
Note: Option 2 can serve for both type of numbers, nationally.

E.164 Numbers – Global Services

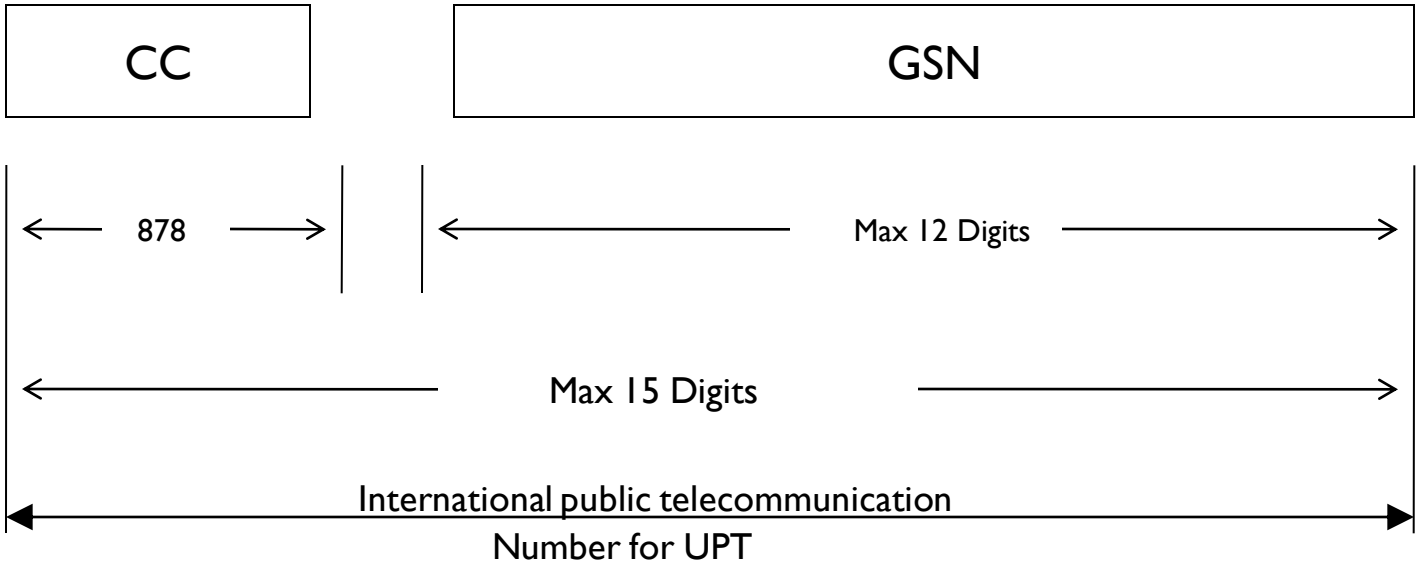


Draft NNP

E.164 Numbers – Networks

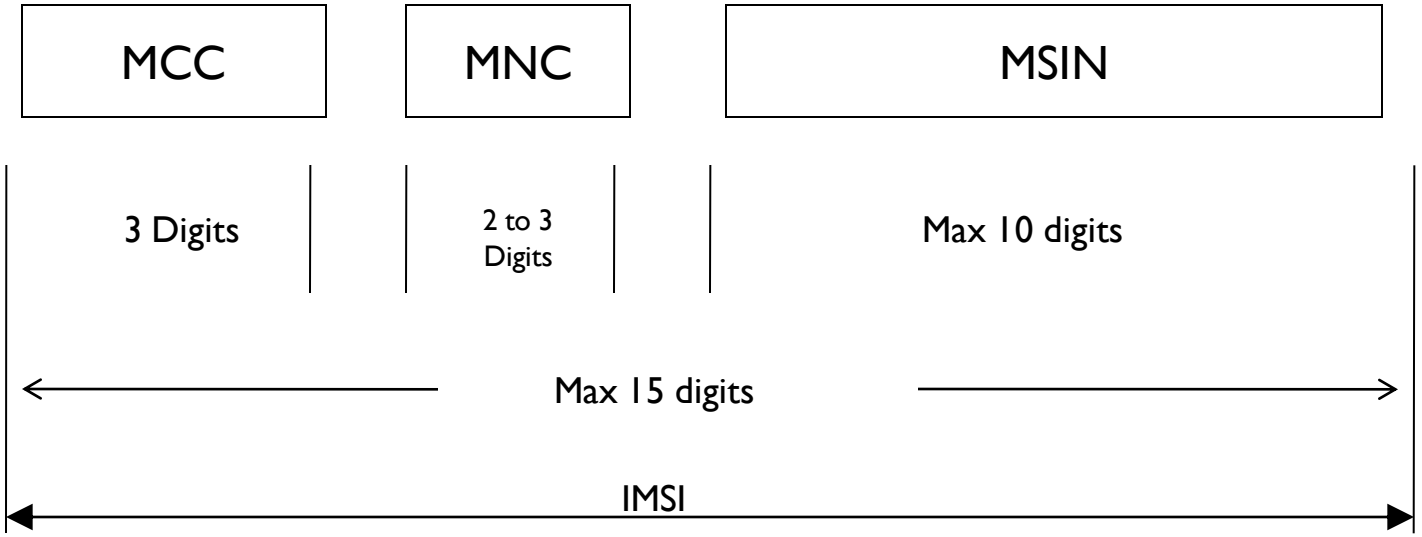


E.168 Numbers – UPT



Draft NNP

E.212 – International Mobile Subscriber Identity



MCC – Mobile Country Code
MNC – Mobile Network Code
MSIN – Mobile Subscriber Identification Number
IMSI – International Mobile Subscriber Identity

Country Code Developments

New non-country codes:

+800, +808 freephone, shared cost
+979 X premium rate
+881 UPT
+881X, +882XX GMSS, global networks
+388X country groups (+3883 Europe)

Fig. 1/E.164 – International E.164-number structure for geographic areas - contd

- The digit analysis should not be more than 7 digits to determine the country of destination, the most appropriate routing and the proper charging (i.e. Four digits of the N(S)N for a country like Nigeria with a three-digit country code.
- Prefixes are not part of the E.164 number and not signalled over international boundaries
- E.164 indicates preference for the use of digit 0 as national prefix.
- E.164 recommends that Administrations that are revising their Numbering Plans adopt 00 as an international prefix.

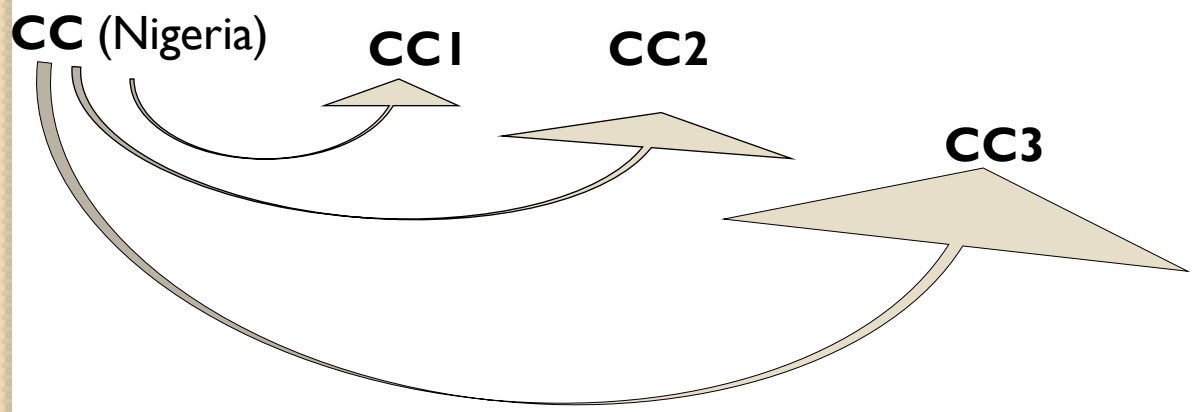


Table 1: EXISTING PLAN

1st digit in NDC (Area/Access code)	Representation (Six Secondary Centres and Abuja)
1	Geographic (Lagos)
2 and 3	Geographic (Ibadan)
5	Geographic (Benin)
4 and 8	Geographic (Enugu)
6	Geographic (Kaduna)
7	Geographic (Bauchi)
9	Geographic (Abuja)

Table 2: DRAFT NNP

1st digit in NDC (Area/Access Code)	Representation
1	For Short/Network Codes.
2	For geographic Numbering.
3	Reserved (For Future Use)
4	Reserved (For Future Use)
5	Reserved (For Future Use)
6	Reserved (For Future Use)
7	Unified License Paging and Mobile services.
8	Special services: Toll free, Internet access, shared cost services and mobile services.
9	Premium rate services, ETACS, and Broadband / Multimedia services.

Table 3: ASSIGNED PUBLIC TELEPHONE NETWORK NUMBERS (10 DIGITS LONG, EXCLUDING TRUNK PREFIX "0"

Number(s) beginning	Designation
01	Short/Network Codes.
02	Geographic Numbers.
700	RESERVED
070-1	RESERVED
070-20-070-99	Mobile services (under UNIFIED LICENCE)
07020 07052 07062 07064	Temporarily occupied by a fixed network.
071 - 074	RESERVED
0750	Corporate Numbering/IP Telephony
0760	Paging Service and similar services
077 - 079	RESERVED
080-0	Special services: Free phone numbers (No, charge to callers)
080-2-080-9 (Inclusive)	GSM mobile services
0818	Universal Access/Service

Draft NNP

082	Special services: Internet to schools
083	Special services: priced at local rate
084	Special services: priced at National rates
085	RESERVED
086	RESERVED
087	RESERVED
088-0	Special services: Shared cost services
881x 882xx	GMSS, global Networks
888	RESERVED
089	RESERVED
0900	Premium Rate Services
0901	Reserved
0902	Premium Rate Services: content services
0903	Premium Rate Services: non-content services
090 – 0909	Reserved
091	Reserved
092	Broadband/multimedia services
093 – 099 inclusive	Reserved

N/B: Free phone shared cost and universal access are services in which a component of the total charge is not paid by the caller.

Table 4.0: NATIONAL SIGNFICANT NUMBER

NATIONAL NUMBER (10 Digits)	
National Destination Code (NDC)	Subscriber Number (SN)
3 digits	7 digits

Table 4.1: Illustrating the three formats of NNP

CURRENT NNP	NDC	Subscriber Number (SN)	
		Exchange Code	Subscriber Identity
	Y	NXX	XXXX
	YY	NX	XXXX
	YY	N	XXXX
DRAFT NNP	20Y	NXX	XXXX
	2YY	2NX	XXXX
	2YY	20N	XXXX

Key

N = 2 – 9
Y = 1 – 9
X = 0 - 9

Number Plan Capacity

The total capacity of a NNP = 10^n

Power (n)	**Capacity (ct)**
n = 6	ct = 1,000,000 (1m)
n = 7	ct = 10,000,000 (10m)

0 is used for trunk prefix. It is added when dialing nationally, 1 is reserved for short codes.
The local numbers do not start with digit 0 or 1, thus the usable capacity of numbers = $8 \times 10^{n-1}$
Consequently, an area code with 6 digits local numbers will have number capacity of 0.8million while that with 7-digit local numbers will have capacity 8 million.

Table 4.2: MOBILE CALL LAYOUT

O + NDC	Subscriber Number Length	O + NDC and Subscriber Number
$080X_1$ (X_1=2-9)	7	($080X_1$) XXX XXXX)
070XX (X_1X=20-99)	6	($070X_1$X) XXX XXX)

The mobile numbers currently in use today begin with area codes 0802, 0803, 0804, 0805, 0806, 0807, 0808. (0809 – free) while the subscriber numbers are 7 digits in length.

80 million lines are available for existing mobile operators. These numbers will not be affected by the number change and dialing mobile numbers will always require the full 11 digits.

Table 5.0: INTERNATIONAL SUBSCRIBER NUMBER

INTERNATIONAL NUMBER (13 DIGITS)		
Country Code (CC)	National (significant) number (NSN)	
234	National Destination Code (NDC)	Subscriber Number (SN)
3 digits	2 – 3 digits	6 – 8 digits

Draft NNP

6.1: Layout for Mobile Numbers

GSM: 80 N xxx xxxx

NDC ID SN

Unified : 70 NX xx xxxx

NDC ID SN

Draft NNP: 90 Y x xxxx

NDC ID SN

Current NNP: 90 II N x xxxx

NDC ID SN

Table 6.2: LAYOUT FOR SPECIAL NUMBERS

	Personal	Toll Free	Shared Cost	Premium Rate	Short Code
Structure	0700 x yyyyyy	0800 x yyyyyy	0880 xx yyyyy	0900 xx yyyyy	1xx, 1xxx, 1xxxxx
Length	10 digits	10 digits	10 digits	10 digits	3 – 6 digits
Operator Identifier	x (0-9)	x (0-9)	xx (00-99)	xx (00-99)	xxx (000-999)
Subscriber Number	000000-999999	00000-99999	00000 - 99999	00000 - 99999	Public

Table 7.0: SHORT CODES

Numbers	Designation
0	National Prefix
00	International Prefix (To replace 009)
100	Operator Service (for Assistance)
101	Customer Care Service
102 103 104 109	Reserved for network harmonized services. Example Information and reference services – weather forecast and time bound services
*118xxx	Directory Information Services.
199 (112)	Access to Emergency Answering Services.
12x – 18x	Reserved

- The Short Codes and prefixes are of national significance and are to be harmonised for use across all networks, without allocation.

- '112' is a GSM/European standard and it is deployed globally for emergency assistance, for the mobile service.

* '118xxx' will allow telecom operators to offer range of services, to the subscribers, at different cost.

Table 7.0.1: REVIEW OF EXISTING NUMBER PRICING

	Type of Number	Allocation Fee per Number	Annual Usage (Renewal) Fee per Number	Annual Fee in Euro	Benchmark Europe	Comment
1	Area / Access Code	2,500.000	500,000	769	600-120,000 Euro	Fee level within European range (Oftel proposed 4000 Euro)
2	Special Numbers	500,000	10000	77	50-100 Euro	Needs to be defined for new commonly recognized numbers
3	Emergency numbers	5000	1000	8	No charges	Will not be applied
4	Rural Application	5000	1000	8	Not applied in Europe	Will not be used unless within universal access concept
5	Subscriber Numbers					
5a	5,000 – 10,000 lines	50	30	0.23		
5b	10,001-20,000 lines	40	30	0.23		Discount for high volume sets incentive to obtain high number will be abolished
5c	Above 20,000 lines	30	30	0.23	0.2-0.5 Euro	

7.0.2: REVIEW OF TARIFF FOR SHORT CODES

The price for the number of subscriber lines suppressed (N) must be taken into account in calculating the minimum tariff to be paid by the operator (= N **x** subscriber line charge **+** fixed charge for special numbers/access codes).

For example, for a directory information service operator allocated a short code: 108001:

Subscriber numbers being suppressed, N, = 10,000

Applying the current charges = 10,000 x ₦50 + ₦500, 000

An operator allocated a short code –
will pay NCC in the first year = ₦1m

Draft NNP

7.0.3: Further Tariff Review

The elements of existing NNP tariff structure are reviewed as follows:

The fee for Area/Code Code will be retained as the fee is within the European operating range (benchmarked below).

Fees for allocated subscriber numbers will be 50k flat per number and 30k flat per number for renewal purposes. The usual discounts for high volume (above 10,000 and 20,000 subscriber numbers) will be discouraged because the practice promotes number abuses which include number hoarding, deploying numbers outside their geographic boundaries and number trading.

Table 7.1: NETWORK SPECIFIC SHORT CODES

1160	1163	1167
1161	1164	1168
1162	1165	1169
	1166	

All network codes operators are free to deploy the above Network Specific Short Codes for various applications within their individual network. These codes do not attract any fees and will be replenished, should the need arise

Table 7.2: NETWORK ROUTING CODES

Numbers	Designation
105000 – 105999	Calling card/Prepaid services
106000 - 106999	Carrier selection
107000 – 107999	Mobile number portability

8.0: DIALING PROCEDURES

The Nigerian NNP is part of the global numbering plan through compliance to the ITU-T recommendation E.164. the ITU-T global plan facilitates allocation of a unique number consisting of country code (CC), national Destination Code (NDC) and the Subscriber Number (SN) to a subscriber (refer to the ITU-T E-164 number structure for geographic areas).

The unique number identifies the subscriber unambiguously, all over the world. The dialing procedure for various type of calls are given below.

8.1: LOCAL DIALING

Users generally prefer to dial only subscriber numbers locally for various reasons including giving them better idea of the type of call, the applicable tariff as well as possible reduction in their chances of misdialing calls. On the other hand, statistics has shown that the existence of local dialing procedure leads to misdialing for mobile users who forget to insert the "O" + NDC code when calling fixed (geographic) numbers.

In January 2007, Nigeria had about 1.7m of fixed lines and 33.6m of mobile lines. Hence, as the gap between the fixed and mobile lines widens the users' value of local dialing procedures tend to reduce. Other factors that tend to reduce value to users as a result of local dialing include widespread use of push button tone signaling and increase in the use of memory dialing/mobile terminals. Therefore, it becomes necessary that fixed networks be programmed to accept local calls set up using national dialing procedure (O + DNC + SN) or local dialing procedure (SN only).

The dual dialing procedures will facilitate future migration to the **closed Numbering Scheme**, as advocated by WATRA.

8.2: Dialing Using Carrier Selection

Type of Call	Dialing Sequence	Comments
Outgoing and International Call	International Prefix (00) + Carrier Selection Code (103xx) + Country Code (CC) + NDC Code + Subscriber Number (SN)	**Implementation March, 2008**
National Geographic (Trunk) Calls	Trunk Prefix (0) + Carrier Selection Code 100xxx + NDC + Subscriber Number (SN)	**March, 2008**
Local Geographic Calls (within the same NDC)	+ Subscriber Number (SN)	
Land to Mobile	Trunk Prefix (0) + NDC + Exchange ID + Subscriber Number	
Mobile to Landline anywhere	+ Trunk Prefix (0) + NDC + Subscriber Number	
Local to Local	+ Trunk Prefix (0) + NDC + Subscriber Number or SN only	
Local to Local	Subscriber Number (SN)	

8.3: Examples of Dialing for Geographic Number

Type of Number	National Significant Number		Subscriber Dialing (X=0-9) (Y=1-9) (N=2-9)	
	NDC Code	Number Length		
Geographic Numbers	209	7	Abuja:	0209 NXX XXXX
	201	7	Lagos:	0201 NXX XXXX
	276	7	Maiduguri:	0276 2NX XXXX
	241	7	Wukari:	0241 20N XXXX

Table 8.4: Examples of Dialing for International Number

International Number Layout	Code Area for Call Destination
+234 29 XXXX XXXX	Abuja
+234 21 XXX XXXX	Badagry
+234 276 XXX XXXX	Maiduguri
+234 241 XX XXXX	Wukari

"234" is the country code for Nigeria. So this code **should only** be dialed from outside Nigeria.

"+" is the international prefix applicable to the country from where the call originated (currently in Nigeria it is 009)

8.5: Examples of Dialing for Mobile / Special Numbers

Type of Number	National Significant Number		Operators ID	Subscribers Dialing (X=0-9) (Y=1-9) (N=2-9)
	NDC CODE	NUMBER LENGTH		
Mobile Number GSM	80	7	N	080 N XXX XXXX
Unified	70	6	NX	070 NX XX XXXX
ETACS	90	5	11N	090 11N X XXXX
Toll Free	800	4	XXX	0800 XXX XXXXX
Shared Cots	880	4	XXX	0880 XXX XXXX
Premium Rate	900	4	XXX	0900 XXX XXXX

SIX (6) ZONES WITHIN THE NUMBERING PLAN

Draft NNP

Table 9: Lagos Zone

National Trunk Prefix	NDC (Area Code)	Subscriber Number		Numbering Area
		Exchange Code	Subscriber Number	
0	201	NXX	XXXX	Lagos

Table 9 (contd.): South West Zone

National Trunk Prefix	NDC (Area Code)	Subscriber Number		Numbering Area
		Exchange Code	Subscriber Number	
0	202	NXX	XXXX	Ibadan
0	230	2 NX	XXXX	Ado-Ekit
0	234	2 NX	XXXX	Akwe
0	235	2 NX	XXXX	Oshogbo
0	236	2 NX	XXXX	Ile-Ife
0	237	2 NX	XXXX	Ijebu-Ode
0	238	2 NX	XXXX	Oyo
0	239	2 NX	XXXX	Abeokuta
0	250	2 NX	XXXX	Ikare
0	251	2 NX	XXXX	Owo
0	252	2 NX	XXXX	Benin
0	253	2 NX	XXXX	Warri
0	254	2 NX	XXXX	Sapele
0	255	2 NX	XXXX	Agbor
0	256	2 NX	XXXX	Asaba
0	257	2 NX	XXXX	Auchi
0	259	2 NX	XXXX	Otitpupa

Table 9 (contd.): South East Zone

National Trunk Prefix	NDC (Area Code)	Subscriber Number		Numbering Area
		Exchange Code	Subscriber Number	
0	242	NXX	XXXX	Enugu
0	243	2 NX	XXXX	Abakiliki
0	245	2 NX	XXXX	Ogoja
0	246	2 NX	XXXX	Onitsha
0	248	2 NX	XXXX	Awka
0	282	2 NX	XXXX	Aba
0	283	2 NX	XXXX	Owerri
0	284	2 NX	XXXX	Port Harcourt
0	285	2 NX	XXXX	Uyo
0	286	2 NX	XXXX	Ahoada
0	287	2 NX	XXXX	Calabar
0	288	2 NX	XXXX	Umuahia
0	289	2 NX	XXXX	Yenagwa

Table 9 (contd.): North East Zone

National Trunk Prefix	NDC (Area Code)	Subscriber Number		Numbering Area
		Exchange Code	Subscriber Number	
0	241	NXX	XXXX	Enugu
0	244	2 NX	XXXX	Abakiliki
0	247	2 NX	XXXX	Ogoja
0	270	2 NX	XXXX	Onitsha
0	271	2 NX	XXXX	Awka
0	272	2 NX	XXXX	Aba
0	273	2 NX	XXXX	Owerri
0	274	2 NX	XXXX	Port Harcourt
0	275	2 NX	XXXX	Uyo
0	276	2 NX	XXXX	Ahoada
0	277	2 NX	XXXX	Calabar

Table 9 (contd.): North West Zone

National Trunk Prefix	NDC (Area Code)	Subscriber Number		Numbering Area
		Exchange Code	Subscriber Number	
0	260	NXX	XXXX	Sokoto
0	261	2 NX	XXXX	Kafachan
0	262	2 NX	XXXX	Kaduna
0	263	2 NX	XXXX	Gusua
0	264	2 NX	XXXX	Kano
0	265	2 NX	XXXX	Katsina
0	268	2 NX	XXXX	Birnin-Kebbi
0	269	2 NX	XXXX	Zaria
0	278	2 NX	XXXX	Hadejia

Table 9 (contd.): Central Zone

National Trunk Prefix	NDC (Area Code)	Subscriber Number		Numbering Area
		Exchange Code	Subscriber Number	
0	231	NXX	XXXX	Ilorin
0	244	2 NX	XXXX	Makurdi
0	258	2 NX	XXXX	Lokoja
0	266	2 NX	XXXX	Minna
0	267	2 NX	XXXX	Kontagora
0	233	2 NX	XXXX	New Bussa
0	209	2 NX	XXXX	Abuja

Table 9 (contd.): UNIFIED LICENSE (Mobile): 070

EXCH. CODE	EXCHANGE	DIRECTORY NUMBER	EXCH. CODE	EXCHANGE	DIRECTORY NUMBER
20	OCCUPIED		41		
21			42		
22			43		
23			44		
24			45		
25			46		
26			47		
27			48		
28			49		
29			50		
30			51		
31			52	OCCUPIED	
32			53		
33			54		
34			55		
35			56		
36			57		
37			58		
38			59		
39			60		
40			61		

Table 9(contd): UNIFIED LICENSE (Mobile): 070

EXCH. CODE	EXCHANGE	DIRECTORY NUMBER	EXCH. CODE	EXCHANGE	DIRECTORY NUMBER
62	OCCUPIED		81		
63			82		
64	OCCUPIED		83		
65			84		
66			85		
67			86		
68			87		
69			88		
70			89		
71			90		
72			91		
73			92		
74			93		
75			94		
76			95		
77			96		
78			97		
79			98		
80			99		

- Temporarily occupied by a Fixed Network Number Block: 1 million numbers

Draft NNP

MEASURES AND PROCEDURES TO EASE MIGRATION FROM CURRENT NNP TO THE DRAFT NNP

a) Produce the draft NNP consultation document; publish/circulate to all telecom stakeholders.

b) Develop the draft NNP Transition Plan.

c) Organize two workshops, in April, 2007 to sensitize industry stakeholders on the draft of NNP and to evolve a coherent and clear strategy for the number cut-over transition NNP.

d) Develop an adequate notification and publicity program targeted towards the end users, on the rationale and benefit s of the number change six months before, the number change commences.

e) A big bang is proposed in two phases, starting with international prefix (009 to 00) together with the introduction of career selection.

f) At an appropriate time, within the transition period, I intend to facilitate the publication of telephone directory and user's guideline on the use of the new numbers, which will be circulated within the country and to all number administrators outside the country.

MEASURES AND PROCEDURES TO EASE MIGRATION FROM CURRENT NNP TO THE DRAFT NNP (Cont'd)

g) At the end of each bang, the old numbers will have recorded announcements for 1-6months, at least one month, conveying the message that the numbers have been changed, after which, the old numbers must be completely removed from the networks.

h) At the same time, all other international operators will be advised through their respective regularities body to remove old numbers from their networks after providing, at least, one month, "change number recorded announcement" in their network.

i) Monitoring/tracking of misdialed numbers will then commence, for about three months.

CONCLUSION

One of the ultimate goals of the draft NNP is to create effective competition that will greatly benefit the subscribers.

Since removal of unnecessary regulator barriers to innovation is fundamental to competition in telecommunications market, it explains why the introduction of new services like premium rate, Toll free, Number portability and carrier selection are considered in the draft NNP.

The overall benefit of planned number change is that numbers the numbers will be fitted into logical groups (refer to table 2b) and in addition sufficient services codes and numbers have been created, for use by telecoms network/service providers, now and in the future.

The timing for the planned number change is about right considering the recent licensing of eight operators for unified services provisioning, etc.

The draft NNP created vast number resource for geographic and non-geographic services provisioned for in the plan. Each subset: geographic and non-geographic, totals equal or greater than 1 billion subscriber numbers. Hence the draft for the NNP is very optimistic.

In summary, the existing NNP has no 1st digit of the NDC free, refer to Table1, as all lead digits have been used for geographic numbering while the draft NNP has 1st digits of NDC namely: 3, 4, 5, and 6 completely free, reserved for further growth/innovative services.

What next?

Draft NNP

"NNP CHANGE" PROJECT IMPLEMENTATION ROAD MAP

1. Discuss with the EVC the Terms of Reference (TOR) to hire ITU expert, who will deliver the two workshops, NCC slated in October, 2006.

   Obtain EVC's approval for Pre-Consultation meeting with key industry groups, to review TOR. The need to carry industry stakeholders along from the onset, to ensure successful "NNP change" project implementation, cannot be overemphasized.

2. Development of draft NNP consultation document circulation to all industry stakeholders and publication of the finalized draft NNP document

3. NCC hosts the two slated workshops.

Workshop 1:

Impact and Challenges of Implementing New Numbering Plan and Number Portability (3 – 4 October, 2006)

Workshop 2:

Challenges of Convergence and Implementing ENUM Trial Projects (5 – 6 October, 2006)

4. The "Significant NNP" to be formerly presented to the ITU; TSB publishes it in ITU website. (ITU recommends that number Administrators give them notification of at least 2 years in advance of implementation).

The same information to be circulated to other Regulators/Number Administrators for deployment in own networks.

5. Development of the draft NNP Transition Plan (NNP TP)

Elements of NNP TP include:

- Identify all the telecommunications equipment/devices and support systems that will be affected by the NNP project implementation.
- Outline in detail the various network modifications/upgrades to support NNP project implementation, responsibilities (NCC, vendor, operators, manufacturers, etc.), other requirements and estimated time for the completion for each task.
- Formulate strategy for sensitizing the end users on the planned NNP change and also means to disseminate relevant information to them.

6. Development of Tracking and Inspection Plan (TIP)

Elements of TIP include:

- Inaugurate "NNP change" project implementation **Task Force** (drawn from stakeholders) that will manage the NNP implementation/transition plan. Their task involves monitoring/ensuring that network/service operators strictly comply with the NNP implementation/transition plan. During project implementation period, the task force is empowered to proffer solutions as well as recommend corrective actions to resolve issues arising from non-compliance among implementing operators .

- Produce detailed description of tasks to be performed by each task force participants with relevant schedule and time line for each task .

7. Produce scheduled for media/publicity plan necessary to launch and sustain the NNP implementation project.

8. Produce milestones for collaborative/coordinated network testing and develop procedures that will be adopted to assess progress performance.

9. Evolve measures that will be put in place to ensure uninterrupted telecommunication services and minimal inconveniences to all end users, home and abroad.

10. Highlight the project **Critical Part**, risk factors and the relevant contingency plan.

The duration for the "NNP change" project implementation/transition management is envisaged to last between 6 – 12 months depending on how long it takes operators to effect their network modification/upgrades, necessary to accommodate the planned number change.

11. Review and Submission of the Final Project Report.

Thank you for your time