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TELECOMMUNICATION STANDARDIZATION SECTOR OF ITU (11/2009)

SERIES E: OVERALL NETWORK OPERATION, TELEPHONE SERVICE, SERVICE OPERATION AND HUMAN FACTORS

International operation – General provisions concerning users

Presentation of national numbering plans

Recommendation ITU-T E.129



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Recommendation ITU-T E.129

Presentation of national numbering plans

Summary

The objective of Recommendation ITU-T E.129 is to specify a methodology that will provide a standardized method for presenting ITU-T E.164 numbers in the national numbering plans of all countries (i.e., each country's application of ITU-T E.164). This Recommendation also includes a method by which this information is made available to all interested parties, as well as timely information on numbering plan changes that influence the routing, charging and accounting of international telecommunications traffic.

Source

Recommendation ITU-T E.129 was approved on 24 November 2009 by ITU-T Study Group 2 (2009-2012) under the WTSA Resolution 1 procedure.

FOREWORD

The International Telecommunication Union (ITU) is the United Nations specialized agency in the field of telecommunications, information and communication technologies (ICTs). The ITU Telecommunication Standardization Sector (ITU-T) is a permanent organ of ITU. ITU-T is responsible for studying technical, operating and tariff questions and issuing Recommendations on them with a view to standardizing telecommunications on a worldwide basis.

The World Telecommunication Standardization Assembly (WTSA), which meets every four years, establishes the topics for study by the ITU-T study groups which, in turn, produce Recommendations on these topics.

The approval of ITU-T Recommendations is covered by the procedure laid down in WTSA Resolution 1.

In some areas of information technology which fall within ITU-T's purview, the necessary standards are prepared on a collaborative basis with ISO and IEC.

NOTE

In this Recommendation, the expression "Administration" is used for conciseness to indicate both a telecommunication administration and a recognized operating agency.

Compliance with this Recommendation is voluntary. However, the Recommendation may contain certain mandatory provisions (to ensure e.g., interoperability or applicability) and compliance with the Recommendation is achieved when all of these mandatory provisions are met. The words "shall" or some other obligatory language such as "must" and the negative equivalents are used to express requirements. The use of such words does not suggest that compliance with the Recommendation is required of any party.

INTELLECTUAL PROPERTY RIGHTS

ITU draws attention to the possibility that the practice or implementation of this Recommendation may involve the use of a claimed Intellectual Property Right. ITU takes no position concerning the evidence, validity or applicability of claimed Intellectual Property Rights, whether asserted by ITU members or others outside of the Recommendation development process.

As of the date of approval of this Recommendation, ITU had not received notice of intellectual property, protected by patents, which may be required to implement this Recommendation. However, implementers are cautioned that this may not represent the latest information and are therefore strongly urged to consult the TSB patent database at http://www.itu.int/ITU-T/ipr/.

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Recommendation ITU-T E.129

Presentation of national numbering plans

1 Scope

The scope of this Recommendation is dedicated to assist and make available timely access to ITU-T E.164 numbering information in each country's national numbering plan (NNP). This includes, but is not limited to, how to obtain information on national numbering plans, how they should be described, and the timely posting of numbering plan changes in a standardized presentation that is consistent with [ITU-T E.164].

While the basic objective of this Recommendation is to present geographic country code information, it may also be used to communicate numbering information for network code applications and for country codes assigned to groups of countries (GoC).

2 References

The following ITU-T Recommendations and other references contain provisions which, through reference in this text, constitute provisions of this Recommendation. At the time of publication, the editions indicated were valid. All Recommendations and other references are subject to revision; users of this Recommendation are therefore encouraged to investigate the possibility of applying the most recent edition of the Recommendations and other references listed below. A list of the currently valid ITU-T Recommendations is regularly published. The reference to a document within this Recommendation does not give it, as a stand-alone document, the status of a Recommendation.

[ITU-T E.101] Recommendation ITU-T E.101 (2009), Definitions of terms used for

identifiers (names, numbers, addresses and other identifiers) for public

telecommunication services and networks in the E-series

Recommendations.

[ITU-T E.164] Recommendation ITU-T E.164 (2005), *The international public*

telecommunication numbering plan.

[ITU-T E.164 Sup.2] Recommendation ITU-T E.164 Supplement 2 (1998), Number

Portability.

3 Definitions

This Recommendation defines the following term:

3.1 parallel running: Refers to the co-existence of the new and old numbers during a limited period of time (e.g., 6 months) to support a gentle transition to a new numbering plan.

NOTE – The term "Operator" is used in this Recommendation as a generic term to describe the entity to which the number block is assigned (e.g., service provider, ISP, MVNOs, etc., depending on the national context).

4 Abbreviations

This Recommendation uses the following abbreviations:

CC ITU-T E.164 Country Code (as specified in [ITU-T E.164])

CRefDB Central Reference Database

GoC Group of Countries

MVNO Mobile Virtual Network Operator

NDC National Destination CodeNNP National Numbering Plan

NP Number Portability

NPA Numbering Plan Administrator
UTC Coordinated Universal Time

5 Background

The establishment of a timely standardized methodology and presentation of each country's application of [ITU-T E.164] is required to address the difficulties in gaining access to information relating to newly assigned and implemented numbering resources on a worldwide basis. In this regard, this Recommendation presents and identifies a process for worldwide notification of such openings and changes of ITU-T E.164 numbers in the NNPs. Notification of applicability of NP in each country is also included in this process, whilst it is recognized that NP may not have been implemented in each country.

The assistance of NPAs worldwide has been requested and, as a result, this Recommendation was developed to provide a solution to the problem of disseminating international numbering information including requirements associated with the use of ITU-T E.164 numbers, such as NP. ITU-T has been involved in this process and its Telecommunication Standardization Bureau's (TSB's) efforts are integral to its implementation and its success.

6 Description of approach and recommended solution

To meet the objectives of this Recommendation, a standardized methodology is herein described to:

- a) Recommend the gathering of and availability of Internet web addresses and hyperlinks to and from the ITU-T home page entitled "International Numbering Resources" to the websites of national numbering plan administrators to obtain descriptions of each country's numbering plan(s), including requirements associated with the use of ITU-T E.164 numbers such as NP in the NNP.
- b) Recommend a format to describe a country's application of [ITU-T E.164]. This information can be posted on the national numbering plan administrator's website of each country.
- c) Recommend a standardized format to post and describe changes to a country's numbering plan. This information will be posted on the ITU-T website under the specific country for which it applies.
- d) Recommend a method to inform all requesting parties to subscribe and participate in an exploder list that will broadcast relevant changes to a country's numbering plan.

The remainder of this Recommendation expands on these objectives and describes how they are implemented.

7 ITU-T website and exploder list

7.1 General

The ITU-T website is a critical component in the success and implementation of this solution to provide free, accurate, and timely access to the most current international numbering information. The section of the ITU-T home page entitled "National Numbering Plans". (At present the URL is http://www.itu.int/oth/T0202.aspx?parent=T0202) is the focal point for obtaining accurate and

timely numbering information for all world countries¹. The ITU-T will post both the current contact and website information of the national numbering plan administrators from all world countries that provide the ITU-T with this information.

In addition, the ITU-T will email, via an exploder list, the latest numbering change information that they receive to all parties who register with them to receive numbering plan updates as they are made available. Details of how to subscribe to receive and submit numbering information are available on the ITU-T website referenced above.

The ITU-T Databases accessible via the ITU-T website and the ITU Operational Bulletin remain the authoritative sources for ITU-T E.164 numbering information. The exploder email list is merely a method for providing early information. In case of discrepancies, the databases and Operational Bulletin shall be authoritative.

7.2 Responsibilities of national numbering plan administrators

This clause outlines a list of recommended tasks and responsibilities for national NPAs in order to describe their numbering plans as well as describing any changes to these numbering plans. The ITU-T involvement is also included.

- All national NPAs should provide their web address information to the ITU-T along with the names, address, phone, and E-mail addresses of all current contact individuals. This information should be updated annually, or as changes occur, to keep the contact information current.
- All national NPAs are encouraged to have their national numbering information accessed via Internet links from the ITU-T website.
- National NPAs are encouraged to describe their national ITU-T E.164 numbering plans per the format shown in clause 8.2.
- Any NPA's website containing a NNP that is hyperlinked with the ITU-T website should, if
 possible, contain explanatory guidance or notes up front regarding how to easily access and
 retrieve information.
- National NPAs are responsible for numbering plan information and for keeping TSB informed of any changes, in order to update the information posted on the website accordingly. The accuracy of the information is the responsibility of the national NPA(s).
- With respect to numbering plan change information, all national NPAs should advise TSB, on a non-binding informational basis, of significant NNP changes well in advance of the event, so that this information can be published by TSB. It is recommended that this notification be submitted sufficiently in advance to ensure formal and timely information to the widest possible distribution.
- It is recommended that national NPAs should describe their NNP changes per the format shown in clause 9.
- An NPA may designate another entity to provide the above functions.

8 Presentation of ITU-T E.164 numbers in the NNP

8.1 General

This clause specifies the information that national NPAs should provide to describe and record their respective national ITU-T E.164 numbering plans. A proposed format (that should be used where

¹ The primary purpose of the ITU-T website referenced in this Recommendation is for national ITU-T E.164 numbering plan information. However, NPA's websites may also include information on other national naming, numbering, addressing or identification plans.

practicable) is provided, and the key requirement is that national presentations should at least contain the information described in the following clause. Additional information may be provided as considered appropriate.

8.2 Tabular presentation

Table 8.2 is a presentation that has been designed to accommodate ITU-T E.164-based number plans. This standardized format has been chosen to allow all countries to present their specific ITU-T E.164 application regardless of their national language. Any additional information may be added to clarify this table.

Table 8.2 – Presentation of national ITU-T E.164 numbering plan for country code ______

a)	Overview:	
	The minimum number length (excluding the country code) is	digits.
	The maximum number length (excluding the country code) is	digits.
b)	Detail of numbering scheme:	

(1)	(2)	(3)	(4)
NDC (notional destination ands) on loading	N(S)N number length		Hanna of	A 1 12/2 1
NDC (national destination code) or leading digits of N(S)N (national (significant) number)	Maximum length	Minimum length	Usage of E.164 number	Additional information

The following is a brief description of each column with an indication if each column is essential or not for the description.

Column (1): The information to be inserted in this column consists of the values of the leading national digits for which the lengths in column 2 apply. In most cases, this is the NDC as defined in [ITU-T E.164], or information equivalent to a city code, area code, regional code, service specific indicator, etc. Any prefix in the national dialling plan should not be included. This is a required column unless it is not applicable in a particular numbering plan. Please indicate if the values entered are the NDC (see examples in Appendix I).

Column (2): The information to be inserted in these columns is the minimum and maximum number lengths, i.e., the minimum and maximum number of digits following the country code. This is a required column.

NOTE – This includes the digits whose values are in column 1.

Column (3): The information to be inserted in this column is the ITU-T E.164 number usage (e.g., geographic area code, mobile numbers, routing address). As an option, this field can be used to represent the assignee of the number block.

Column (4): This column contains any comment information and it is optional.

Examples of sample data inserted in this table are shown in Appendix I.

9 ITU-T E.164 numbering plan changes

9.1 Introduction

Three change categories are supported in this Recommendation:

- 1) Introduction of a new numbering resource.
- 2) Deletion of an existing numbering resource.
- 3) Change to an existing number resource.

The following clauses provide the details necessary to report each of these three changes. These standardized formats have been chosen to allow all countries to present changes to their specific national ITU-T E.164 numbering plans regardless of their national language.

9.2 Introduction of a new numbering resource

The following is a tabular presentation that accommodates the introduction of all ITU-T E.164-based number resources. This standardized format has been chosen to allow all countries to present changes to their specific national ITU-T E.164 numbering plan regardless of their national language.

Table 9.2 – Description of introduction of new resource for national E.164 numbering plan for country code :

(1)	(2)		(3)	(4)
NDC (national destination code) or leading	N(S)N number length		Usaga of F 164	Time and date
digits of N(S)N (national (significant) number)	Maximum length	Minimum length	Usage of E.164 number	Time and date of introduction

Column (1): The information to be inserted in this column consists of the values of the leading national digits for which the lengths in column 2 apply. In most cases, this is the equivalent to a city code, area code, regional code, etc., as it is defined in [ITU-T E.164]. This is a required column.

Column (2): The information to be inserted in this column is the subscriber number length. This is a required column unless it is not applicable or used in a particular numbering plan.

Column (3): The information to be inserted in this column is the usage to which the new numbering resource will be put (e.g., geographic area code, mobile service, etc., or operator where the code is for the sole use of an individual operator). This is a required column.

Column (4): The information to be inserted in this column is the time and date of introduction of the new numbering resource. The date of introduction should be indicated in the column as YYYY - MM - DD - HH: mm (UTC). This is a required column.

9.3 Deletion of an existing numbering resource

The following is a tabular presentation that accommodates the deletion of ITU-T E.164-based number resources. This standardized format has been chosen to allow all countries to present changes to their specific national ITU-T E.164 numbering plan regardless of their national language.

Table 9.3 – Description of deletion of resource for national E.164 numbering plan for country code :

(1)	(2)	(3)
NDC (national destination code) or leading digits of N(S)N (national (significant) number)	Usage of E.164 number	Time and date of deletion

Column (1): The information to be inserted in this column consists of the values of the leading national digits for which the lengths in column 2 apply. In most cases, this is the equivalent to a city code, area code, regional code, etc., as it is defined in [ITU-T E.164]. This is a required column.

Column (2): The information to be inserted in this column is the type of ITU-T E.164 number (e.g., geographic area code, mobile service, etc., operator where the code was for the sole use of an individual operator). This is a required column in order to validate against the NDC from existing records.

Column (3): The information to be inserted in this column is the time and date of deletion of the numbering resource. The date of deletion should be indicated in the column as YYYY – MM – DD – HH: mm (UTC). This is a required column.

9.4 Changes to existing resource

The following is a tabular presentation that accommodates all ITU-T E.164-based number plans changes.

Table 9.4 – Description of number change for national ITU-T E.164 numbering plan for country code ______:

(1)	(2	2)	(3)	(4))	(5)	(6)
Communicated	N(\$	S)N	Usaga of	Parallel running			Proposed
time and date of change	Old number	New number E.164 number Begins		Ends	Operator	wording of announcement	

In filling out the above table, please use the information below as a guide.

In completing the above table, specific numbers should be inserted where necessary. If specific numbers are not required, please use generalized representations (i.e., X = 0 through 9 or Y = 0 and 1, etc.) as applicable. In all cases, the number of digits needs to be shown as well as the allowable values of these digits. A legend should be noted with all tables as necessary.

All dates and times should be given according to the coordinated universal time (UTC).

Column (1): The information to be inserted in this column consists of the date of the number change, as communicated to customers. This is a required column.

Column (2): The information to be inserted in this column is the ITU-T E.164 presentation of the complete N(S)N within a given country's numbering plan before and after the change. This is a required column.

Column (3): The information to be inserted in this column is the usage (e.g., geographic area code, mobile service, operator code for the sole use of an individual operator, etc.). This is a required column in order to validate against the current usage from existing records.

Column (4): The information to be inserted in this column indicates if parallel running (permissive dialling) is being supported. If parallel running applies, the dates that it commences and ends should be indicated in the column as YYYY – MM – DD – HH: mm (UTC). For the avoidance of doubt, the commencement of parallel running is that time/date from which the new format of the number should be operational, while the end is the time/date from which the old format of the number will no longer be operational. If parallel running does not apply, "N/A" should be entered into the columns. This is a required column.

Column (5): The information to be inserted in this column is the name of the operator to whom the numbering resource has been assigned. This is an optional column. In some countries, there may be multiple operators to whom these numbering resources may be assigned and this may be confusing and too voluminous to be captured.

Column (6): The information to be inserted in this column should provide any guidance as to the wording for announcements to be played to customers dialling the old number after it has been ceased. Note that this wording is a recommendation only, and there is no compulsion on originating operators to implement it. This is an optional column.

An example of sample data inserted in this table is shown in Appendix II.

10 NP applicability of ITU-T E.164 numbers in the NNP

The following paragraph provides the details necessary to report and update NP information in each country. Recognizing that the implementation of NP in one country will not impact operators/networks in another country, the report and update of NP information is encouraged, but should be provided on a voluntary basis. These standardized formats have been chosen to allow all countries to present updates on NP implementations regardless of their national language.

The following is a tabular presentation that accommodates the introduction and update of the national implementation of NP in the national ITU-T E.164 numbering plan. This standardized format has been chosen to allow all countries to present the introduction and updates regardless of their national language.

Table 10 – Description of implementation of NP of ITU-T E.164 numbers in the NNP:

	Geographic numbers	Non-geographic numbers other than mobile numbers (e.g., premium rate services, freephone services, nomadic services)	Mobile numbers
State of NP (1)			
Regulatory obligation for operators to implement NP? (2)			
Type of NP implementation (3)			
Limitations (4)			
Specifications available on website (5)			
Contact information for national Administration/NPA (6)			
Central reference database (if any) managed/operated by (7)			

(1) State of NP:

This row may include information on the state of the NP, such as the date when the NP was implemented or the date that it is anticipated to be implemented.

(2) Regulatory obligation:

In this row, the administration will confirm whether or not the regulatory framework provides for an obligation for operators to implement the NP.

(3) Type of NP implementation:

This row gives information on the type of NP implementation used in a particular country. The NP implementation includes one of the routing schemes set forth in clause 8 of [ITU-T E.164 Sup.2]:

- All call query (ACQ)
- Query on release (QoR)
- Call dropback (also known as Return to Pivot (RoP))
- Onward routing (OR) (also known as indirect routing)

In an NGN and or other IP-based environments (e.g., 3GGP-based mobile networks), some of these NP routing schemes might not be applicable.

Another implementation issue is if a central reference database (CRefDB) is used for both fixed and mobile numbers, a separate reference database for fixed and mobile numbers, or no reference database at all. The use of ENUM in the database architecture for NP could also be an implementation issue.

(4) Limitations:

Limitations may include limitations in terms of numbering area coverage (e.g., numbers may only be ported within the numbering area to which the number belongs) or the technology used to convey calls.

(5) Specifications:

To the extent that the specifications with regard to NP are published, the administration may refer to the URL where the specifications can be found.

(6) Contact information for national Administration/NPA:

This row provides for the contact information of the individuals or department dealing with the NP. Contact information typically includes name and title of the point of contact, postal address, telephone number, telefax number and e-mail address.

(7) Contact information CRefDB:

To the extent that a central reference database is used, this row will provide the contact information of the company and point of contact that manages/operates the reference database. Contact information typically includes name and title of the point of contact, postal address, telephone number, telefax number and e-mail address.

An example of sample data inserted in this table is shown in Appendix III.

Appendix I

(This appendix does not form an integral part of this Recommendation)

This appendix contains an example of how to complete Table 8.2 as described in this Recommendation. The data from Sweden is presented for illustrative purposes and should not be used for any technical applications. The most current, accurate, and complete data for the sample country code shown should be obtained from the appropriate website.

Example of presentation of ITU-T E.164 national numbering for country code 46

a)	Overview:		
	The minimum number length (excluding the country code) is	7	digits
	The maximum number length (excluding the country code) is _	9	digits
b)	Detail of numbering scheme:		

(1)	(2)		(3)	(4)
NDC (national destination code) or leading digits of N(S)N (national (significant) number) Nationall destinationskod eller inledande siffror i det nationella (signifikanta) numret	N(S)N number length $N(S)N$ nummerlängd			
	Maximum length Maximum längd	Minimum length Minimum längd	Usage of E.164 number Typ av E.164-nummer	Additional information Ytterligare information
10 (NDC)	9	9	Non-geographic number – Location independent services	Use of leading digits of SN for 10 AXX XX XX: A=1 - 8 used for location independent services A=0 and 9 not in use
11 (NDC)	9	7	Geographic number – Area code for Norrköping	
120 (NDC)	9	8	Geographic number – Area code for Åtvidaberg	
•••				
252 (NDC)	12	12	Routing address – Assigned to Tele2 Sverige AB	Voice mail, mobile telephony service/ Röstbrevlåda mobiltelefonitjänst
•••				

For country code 46

(1)	(2)		(3)	(4)
NDC (national destination code) or leading digits of N(S)N (national (significant) number) National destinationskod	N(S)N numl N(S)N num			
	Maximum length	Minimum length	Usage of E.164 number Typ av E.164-nummer	Additional information Ytterligare information
eller inledande siffror i det nationella (signifikanta) numret	Maximum längd	Minimum längd		injormation
378 (NDC)	10	10	Non-geographic number – Telematic services (M2M)	Fixed networks/ Fasta nät
31 (NDC)	9	8	Geographic number – Area code for Göteborg	
655 (NDC)	Maximum, or less, according to ITU-T Recommendation E.164	-	Trial number – Assigned to TeliaSonera Sverige AB	Test numbers/ Provnummer
•••				
70 (NDC)	9	9	Non-geographic number – Mobile telephony services	
•••				
74 (NDC)	9	9	Non-geographic number – Paging services	
•••				

The following table is an additional example of how to complete Table 8.2, as described in this Recommendation. Data from France is presented for illustrative purposes and should not be used for any technical applications. The most current, accurate, and complete data for the sample country code shown should be obtained from the appropriate website.

Additional example of presentation of ITU-T E.164 national numbering for country code 33

a)	Overview:		
	The minimum number length (excluding the country code) is	9	digits
	The maximum number length (excluding the country code) is _	9	digits
b)	Detail of numbering scheme:		

(1)	(2)		(3)	(4)
NDC (national destination code) or	N(S)N number length Longueur des numéros N(S)N			
leading digits of N(S)N (national (significant) number) Chiffres de poids fort du N(S)N Numéro national significatif	Maximum length Longueur maximale	Minimum length Longueur minimale	Usage of E.164 number Utilisation du numéro	Additional information Information Additionelle
1 23	9 chiffres	9 chiffres	service téléphonique fixe	NOOS TÉLÉ- COMMUNICATIONS
1 30	9 chiffres	9 chiffres	service téléphonique fixe	FRANCE TÉLÉCOM
	9 chiffres	9 chiffres	•••	
2 72	9 chiffres	9 chiffres	service téléphonique fixe	opérateurs divers
2 76	9 chiffres	9 chiffres	service téléphonique fixe	opérateurs divers
2 90	9 chiffres	9 chiffres	service téléphonique fixe	opérateurs divers
	9 chiffres	9 chiffres	•••	•••
5 87	9 chiffres	9 chiffres	service téléphonique fixe	opérateurs divers

This is a final example of how to complete Table 8.2, as described in this Recommendation. The data from the United Republic of Tanzania is presented for illustrative purposes and should not be used for any technical applications. The most current accurate data for the sample country code shown should be obtained from the appropriate website.

Final example of presentation of ITU-T E.164 national numbering for country code 255

a)	Overview:		
	The minimum number length (excluding the country code) is	7	digits
	The maximum number length (excluding the country code) is _	9	digits
b)	Detail of numbering scheme:		

(1) (2)		(3)	(4)	
NDC (national	N(S)N number length			
destination code) or leading digits of N(S)N (national (significant) number)	Maximum length	Minimum length	Usage of E.164 number	Additional information
22 (NDC)	Nine	Nine	Geographic number for fixed telephony services (area code)	Area code for Dar Es Salaam Region
23 (NDC)	Nine	Seven	Geographic number for fixed telephony services (area code)	Area code for Coast, Morogoro, Lindi and Mtwara Regions
24 (NDC)	Nine	Nine	Geographic number for fixed telephony services (area code)	Area code for Zanzibar (Unguja & Pemba) Regions
25 (NDC)	Nine	Seven	Geographic number for fixed telephony services (area code)	Area code for Mbeya, Ruvuma and Rukwa Regions
26 (NDC)	Nine	Seven	Geographic number for fixed telephony services (area code)	Area code for Dodoma, Iringa, Singida and Tabora Regions
27 (NDC)	Nine	Seven	Geographic number for fixed telephony services (area code)	Area code for Arusha, Kilimanjaro, Manyara and Tanga Regions
28 (NDC)	Nine	Seven	Geographic number for fixed telephony services (area code)	Area code for Mwanza, Shinyanga, Mara, Kagera and Kigoma Regions
61 (NDC)	Nine	Nine	Non-geographic number – (Find Me Anywhere)	Digital mobile (GSM) telephony services; NDC assigned to Dovetel (T) Ltd
65 (NDC) and 71 (NDC)	Nine	Nine	Non-geographic number – (Find Me Anywhere)	Digital mobile (GSM) telephony services; NDC assigned to MIC (T) Ltd
72 (NDC)	Nine	Nine	Non-geographic number – (Find Me Anywhere)	Digital mobile telephony services; NDC assigned to Mycel Co. Ltd

For country code 255

(1)	(2)		(3)	(4)
NDC (national destination code) or	N(S)N numl	ber length		
leading digits of N(S)N (national (significant) number)	Maximum length	Minimum length	Usage of E.164 number	Additional information
73 (NDC)	Nine	Nine	Non-geographic number – (Find Me Anywhere)	Digital mobile (CDMA) telephony services; NDC assigned to TTCL
74 (NDC)	Nine	Nine	Non-geographic number – (Find Me Anywhere)	Digital mobile telephony services; NDC assigned to Excellentcom (T) Ltd
75 (NDC) and 76 (NDC)	Nine	Nine	Non-geographic number – (Find Me Anywhere)	Digital mobile (GSM) telephony services; NDC assigned to Vodacom (T) Ltd
77 (NDC)	Nine	Nine	Non-geographic number – (Find Me Anywhere)	Digital mobile (GSM) telephony services; NDC assigned to Zantel Ltd for Zanzibar
78 (NDC) and 68 (NDC)	Nine	Nine	Non-geographic number – (Find Me Anywhere)	Digital mobile (GSM) telephony services; NDC assigned to Celtel (T) Ltd
79 (NDC)	Nine	Nine	Non-geographic number – (Find Me Anywhere)	Digital mobile (CDMA) telephony services; NDC assigned to BoL

Appendix II

(This appendix does not form an integral part of this Recommendation)

This appendix contains an example of how to complete Table 9.4, as described in this Recommendation. Data from the UK for the year 2000 London numbering change is presented for illustrative purposes only and should not be used for any technical applications.

In this change, the NDCs 171 and 181 were replaced by the NDC 20, and local subscriber numbers were extended from 7 to 8 digits. The subscriber number values that followed 171 were transferred with a period of parallel running to the range 20 7, and the subscriber number values that followed 181 were transferred with a period of parallel running to the range 20 8, as shown in the entries in the table below.

Description of number change for national numbering plan for country code_44

(1)	((2)	(3)		(4)	(5)	(6)
Communicated	N(S)N	Usage of	Parallel running			Proposed
time and date of change	Old number	New number	E.164 number		Ends	Operator	wording of announcement
2000-04-22 - 01:00	171 xxxxxxx	20 7xxxxxxx	Geographic number Central London	1999- 06-01- 01:00	2000-10-14- 01:00	N/A	London codes and numbers have changed. Please redial, replacing 44171 with 44207.
2000-04-22 - 01:00	181 xxxxxxx	20 8xxxxxxx	Geographic number Outer London	1999- 06-01- 01:00	2000-10-14- 01:00	N/A	London codes and numbers have changed. Please redial, replacing 44181 with 44208.

Appendix III

(This appendix does not form an integral part of this Recommendation)

This appendix contains an example of how to complete Table 10, as described in this Recommendation. Data from Belgium is presented for illustrative purposes only and should not be used for any technical applications.

	Geographic numbers	Non-geographic numbers other than mobile numbers (e.g., premium rate services, freephone services, nomadic services)	Mobile numbers
State of NP (1)	Implemented since 2000	Implemented since 2002	Implemented since 2002
Regulatory obligation for operator to implement NP? (2)	yes	yes	yes
Type of NP implementation (3)	Central reference database both for geo and mobile with QoR	Central reference database both for geo and mobile with QoR	Central reference database both for geo and mobile with QoR
Limitations (4)	numbering area coverage		
Specifications available on website (5)	www.bipt.be	www.bipt.be	www.bipt.be
Contact information for national Administration/NPA (6)	Numbering department tel + 32 2 226 87 59 (NL) tel + 32 2 226 88 74 (FR) fax + 32 2 226 88 41 e-mail numbering@bipt.be	Numbering department tel + 32 2 226 87 59 (NL) tel + 32 2 226 88 74 (FR) fax + 32 2 226 88 41 e-mail numbering@bipt.be	Numbering department tel + 32 2 226 87 59 (NL) tel + 32 2 226 88 74 (FR) fax + 32 2 226 88 41 e-mail numbering@bipt.be
Central reference database (if any) managed/operated by (7)	Vzw/asbl for NP in Belgium Postal Address: Diamant Building, Bd. A. Reyers Ln 80, 1030 Brussels NPA Email: info@crdc.be	Vzw/asbl for NP in Belgium Postal Address: Diamant Building, Bd. A. Reyers Ln 80, 1030 Brussels NPA Email: info@crdc.be	Vzw/asbl for NP in Belgium Postal Address: Diamant Building, Bd. A. Reyers Ln 80, 1030 Brussels NPA Email: info@crdc.be

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