International Telecommunication Union

ITU-T

TELECOMMUNICATION
STANDARDIZATION SECTOR
OF ITU

E.129

(01/2013)

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

ITU International Telecommunication Union

ITU-T E-SERIES RECOMMENDATIONS

OVERALL NETWORK OPERATION, TELEPHONE SERVICE, SERVICE OPERATION AND HUMAN FACTORS

INTERNATIONAL OPERATION	
Definitions	E.100–E.103
General provisions concerning Administrations	E.104–E.119
General provisions concerning users	**E.120–E.139**
Operation of international telephone services	E.140–E.159
Numbering plan of the international telephone service	E.160–E.169
International routing plan	E.170–E.179
Tones in national signalling systems	E.180–E.189
Numbering plan of the international telephone service	E.190–E.199
Maritime mobile service and public land mobile service	E.200–E.229
OPERATIONAL PROVISIONS RELATING TO CHARGING AND ACCOUNTING IN THE INTERNATIONAL TELEPHONE SERVICE	
Charging in the international telephone service	E.230–E.249
Measuring and recording call durations for accounting purposes	E.260–E.269
UTILIZATION OF THE INTERNATIONAL TELEPHONE NETWORK FOR NON-TELEPHONY APPLICATIONS	
General	E.300–E.319
Phototelegraphy	E.320–E.329
ISDN PROVISIONS CONCERNING USERS	E.330–E.349
INTERNATIONAL ROUTING PLAN	E.350–E.399
NETWORK MANAGEMENT	
International service statistics	E.400–E.404
International network management	E.405–E.419
Checking the quality of the international telephone service	E.420–E.489
TRAFFIC ENGINEERING	
Measurement and recording of traffic	E.490–E.505
Forecasting of traffic	E.506–E.509
Determination of the number of circuits in manual operation	E.510–E.519
Determination of the number of circuits in automatic and semi-automatic operation	E.520–E.539
Grade of service	E.540–E.599
Definitions	E.600–E.649
Traffic engineering for IP-networks	E.650–E.699
ISDN traffic engineering	E.700–E.749
Mobile network traffic engineering	E.750–E.799
QUALITY OF TELECOMMUNICATION SERVICES: CONCEPTS, MODELS, OBJECTIVES AND DEPENDABILITY PLANNING	
Terms and definitions related to the quality of telecommunication services	E.800–E.809
Models for telecommunication services	E.810–E.844
Objectives for quality of service and related concepts of telecommunication services	E.845–E.859
Use of quality of service objectives for planning of telecommunication networks	E.860–E.879
Field data collection and evaluation on the performance of equipment, networks and services	E.880–E.899
OTHER	E.900–E.999
INTERNATIONAL OPERATION	
Numbering plan of the international telephone service	E.1100–E.1199
NETWORK MANAGEMENT	
International network management	E.4100–E.4199

For further details, please refer to the list of ITU-T Recommendations.

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 (NNPs) of all countries (i.e., each country's application of Recommendation ITU-T E.164). This Recommendation also includes a method to make such NNP information available to all interested parties, as well as timely information on numbering plan changes that influence the routing, charging and accounting of international telecommunication traffic. This Recommendation also helps to collect other information that may be relevant, such as numbers related to important services like emergency services (emergency numbers) and services of social value, as well as information on the implementation of number portability (NP) of ITU-T E.164 numbers.

History

Edition	Recommendation	Approval	Study Group
1.0	ITU-T E.129	2002-09-06	2
2.0	ITU-T E.129	2009-11-24	2
3.0	ITU-T E.129	2013-01-31	2

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/.

Table of Contents

		Page
1	Scope	1
2	References	1
3	Definitions	1
4	Abbreviations and acronyms	2
5	Background	2
6	Description of approach and recommended solution	2
7	ITU-T website and exploder list	3
	7.1 General	3
	7.2 Responsibilities of national numbering plan administrators	4
8	Presentation of ITU-T E.164 numbers in the national numbering plan	4
	8.1 General	4
	8.2 Tabular presentation	4
9	Changes in the national numbering plan	5
	9.1 Introduction	5
	9.2 Introduction of a new numbering resource	6
	9.3 Deletion of an existing numbering resource	6
	9.4 Changes to an existing resource	7
Annex A – Presentation of important numbers related to emergency services and other services of social value		9
	A.1 General	9
	A.2 Tabular presentation	9
Annex B – Number portability of ITU-T E.164 numbers in the national numbering plan		10
	B.1 General	10
	B.2 Tabular presentation	10
Appendix I – Examples of presentation of ITU-T E.164 numbers in the national numbering plan (NNP)		12
Appendix II – Examples of changes in ITU-T E.164 numbers in national numbering plan		17
Appendix III – Examples of presentation of important numbers related to emergency services and other services of social value		18
Appendix IV – Examples of implementation of number portability (NP) of ITU-T E.164 numbers in the national numbering plan (NNP)		21
Bibliography		22

Recommendation ITU-T E.129

Presentation of national numbering plans

1 Scope

This Recommendation assists numbering plan administrators by describing a methodology to access and provide ITU-T E.164 numbering information on their country's national numbering plan (NNP) in a timely manner. Guidance includes, but is not limited to, methods on how to obtain information on national numbering plans, how to present and describe the numbering plans, and how to ensure 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 (CC) information, it may also be used to communicate numbering information for network code applications and for country codes assigned to groups of countries (GoC). In addition, this Recommendation helps to collect other information that may be relevant, such as numbers related to important services like emergency services (emergency numbers) and other services of social value[1], as well as information on the implementation of number portability (NP) of ITU-T E.164 numbers.

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 (2010), *The international public telecommunication numbering plan*.

[ITU-T E.164 Sup.2] Recommendation ITU-T E.164 – Supplement 2 (2012), *Number Portability*.

3 Definitions

This Recommendation defines the following terms:

3.1 mail exploder list: Part of an electronic mail delivery system which allows a message to be delivered to a list of addresses.

3.2 parallel running: The co-existence of new and old numbers during a limited period of time (e.g., six months) to support a smooth transition to a new numbering plan.

[1] As defined in [b-ITU-T E.164 Sup.6].

4 Abbreviations and acronyms

This Recommendation uses the following abbreviations and acronyms:

ACQ All Call Query

CC Country Code

CRDB Central Reference Database

ENUM TElephone NUmber Mapping

GoC Group of Countries

NDC National Destination Code

NGN Next-Generation Network

NNP National Numbering Plan

NP Number Portability

NPA Numbering Plan Administrator

OR Onward Routing

QoR Query on Release

RtP Return to Pivot

N(S)N National (Significant) Number

UTC Coordinated Universal Time

5 Background

The establishment of a standardized methodology and presentation for each country's application of [ITU-T E.164] has been required to address difficulties in gaining access to information on newly assigned and implemented numbering resources on a worldwide basis. To meet this need, this Recommendation presents and identifies a process for worldwide notification of new assignments and changes of ITU-T E.164 numbers in the NNPs. In addition, the applicability of number portability (NP) and the assignment of important numbers within a specific jurisdiction are essential information to be shared. Therefore, notification of applicability of NP in each country is also included in this process, although it is recognized that NP may not have been implemented in every country. Reference is also made to numbers defined in the national numbering plan for allocation to important services like emergency services and services of social value.

A request for assistance in providing and receiving worldwide information on operation and numbering was addressed to numbering plan administrators (NPAs). As a result, this Recommendation has been developed to provide a solution to the problem of disseminating national operational and numbering information, including requirements associated with the use of ITU-T E.164 numbers, like the implementation of NP and important numbers such as those allocated to emergency services and services of social value. ITU-T has been involved in this process and the efforts of the Telecommunication Standardization Bureau (TSB) are integral to its implementation and success.

6 Description of approach and recommended solution

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

a) the gathering of Internet web addresses and hyperlinks, made available on the ITU-T home page entitled "International Numbering Resources", to access the websites of national numbering plan administrators to obtain descriptions of national numbering plan(s).

b) the gathering of Internet web addresses and hyperlinks, made available on the ITU-T home page entitled "Implementation of Number Portability", to access the websites of national numbering plan administrators to obtain descriptions of each country's number portability.

c) a standardized format to describe a country's implementation of emergency numbers and other important numbers related to services of social value. This information can be posted on the national numbering plan administrator's website.

d) 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 to which it applies.

e) a standardized format to describe a country's implementation of number portability and a format to post this information on the ITU-T website.

f) a method to inform all requesting parties to subscribe and participate in an e-mail exploder list that will announce relevant changes to a country's numbering plan and number portability implementation.

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 successful application of the 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"[2] is the focal point for obtaining accurate and timely numbering information for countries worldwide[3]. The section of the ITU-T home page entitled "Implementation of National Number Portability"[4] is the focal point for obtaining accurate and timely portability information for countries worldwide. The section of the ITU website entitled "ITU-T E.129 National-only numbers linked with emergency services and other services of social value"[5] is the focal point for obtaining accurate and timely information on important numbers worldwide. The ITU-T will post both the current contact and website information for national numbering plan administrators worldwide that provide the ITU-T with this information.

In addition, the ITU-T will e-mail updates to all parties who register with them, via an exploder list. In this way, subscribers will receive the latest information on changes in numbering and/or number portability, as soon as it is notified to the TSB. Details of how to subscribe to receive and/or submit numbering information are available on the ITU-T website: http://www.itu.int/oth/T0202.aspx?parent=T0202.

The ITU-T databases accessible via the ITU-T website, and the ITU Operational Bulletin http://www.itu.int/pub/T-SP/e, remain the authoritative sources for ITU-T E.164 numbering information.

---

2 Currently available at the following URL: http://www.itu.int/oth/T0202.aspx?parent=T0202

3 The primary purpose of the ITU-T website referenced in this Recommendation is for national numbering plan information. However, NPA websites may also include information on other national naming, numbering, addressing or identification plans.

4 Currently available at the following URL: http://www.itu.int/oth/T0202.aspx?parent=T0202

5 Currently available at the following URL: http://www.itu.int/net/itu-t/inrdb/e129_important_numbers.aspx

The exploder e-mail list is merely a method for providing early information. If there are discrepancies, the ITU-T databases and ITU 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 numbering plan administrators (NPAs) to consider when describing their numbering plans (including important numbers) or implementation of number portability (NP).

- National NPAs should provide ITU-T with their current web address, contact names, address, telephone numbers and e-mail addresses. This information should be updated annually, or as soon as significant changes occur, in order to maintain valid contact information.
- National NPAs are encouraged to have their national numbering information, including information on implementation of important numbers and number portability, accessible via Internet links from the ITU-T website.
- National NPAs are encouraged to describe their national numbering plans in accordance with the format shown in clause 8.2.
- Any national NPA website containing an NNP that is hyperlinked with the ITU-T website should, if possible, contain guidance or notes up front to explain how to easily access and retrieve information.
- National NPAs are responsible for their numbering plan information and for keeping TSB informed of any changes in numbering and/or operation, thereby contributing to the availability of updated information on the website. The accuracy of the information is the responsibility of the national NPA(s).
- With respect to implementation or changes in numbering plans, including NP, all national NPAs should advise TSB well in advance of the introduction date, on a non-binding informational basis, to enable timely publication and wide distribution.
- It is recommended that national NPAs should describe their NNP changes in accordance with the format presented in clause 9.
- An NPA may designate another entity to carry out the functions listed above.

8 Presentation of ITU-T E.164 numbers in the national numbering plan

8.1 General

This clause specifies the information that national NPAs should provide to describe and record their respective national numbering plans (NNPs). A proposed format (that should be used where practicable) is provided, and the key requirement is that national presentations should, as a minimum, contain the information described in the following clause. Additional information may be provided as considered appropriate.

8.2 Tabular presentation

Table 8-1 is a presentation that has been designed to accommodate national numbering plans (NNPs). This standardized format has been chosen to allow all countries to present their specific national numbering plans regardless of their national language. Any additional information may be added to clarify this table.

Table 8-1 – Presentation of national 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) Link to the national database (or any applicable list) with assigned ITU-T E.164 numbers within the national numbering plan (if any): (reference of the URL)

c) Link to the real-time database reflecting ported ITU-T E.164 numbers (if any): (reference of the URL)

d) Detail of numbering plan:

(1)	(2)		(3)	(4)
National destination code (NDC) or leading digits of national (significant) number (N(S)N))	N(S)N number length		Usage of ITU-T E.164 number	Additional information
	Maximum length	Minimum length		
...				

The following is a brief description of each column with an indication as to whether 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 an area code, city 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 whether the values entered are NDCs or N(S)Ns (see examples in Appendix I).

Column (2): Information on the minimum and maximum number lengths is to be inserted in the two sub-columns, 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 indicated in Column (1).

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

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

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

9 Changes in the national numbering plan

9.1 Introduction

Three change categories in national numbering plans 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. The standardized formats have been chosen to allow all countries to present changes to their specific national 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 numbering plan regardless of their national language.

Table 9-1 – Description of introduction of new resource for national numbering plan for country code +_____:

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

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 an area code, city code, regional code, etc. as it is defined in [ITU-T E.101]. 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 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., operator where the code is for the sole use of an individual operator, or area code, mobile service, etc.). 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 numbering plan regardless of their national language.

Table 9-2 – Description of deletion of resource for national numbering plan for country code _____:

(1)	(2)	(3)
National destination code (NDC) or leading digits of (N(S)N)	Usage of ITU-T E.164 number	Time and date of deletion

(1)	(2)	(3)
National destination code (NDC) or leading digits of (N(S)N)	**Usage of ITU-T 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 an area code, city code, regional code, etc., as it is defined in [ITU-T E.101]. 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., operator where the code was for the sole use of an individual operator, or area code, mobile service, etc.). This is a required column to enable validation against the NDC listed in 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 an existing resource

The following is a tabular presentation that accommodates all changes in national numbering plans.

Table 9-3 – Description of number change for national numbering plan for country code +_____:

(1)	(2)		(3)	(4)		(5)	(6)
Communicated time and date of change	**National (significant) number (N(S)N)**		**Usage of ITU-T E.164 number**	**Parallel running**		**Operator**	**Proposed wording of announcement**
	Old number	**New number**		**Begins**	**Ends**		

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 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 presentation of the complete N(S)N within a given country's national 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., area code, mobile service, operator code for the sole use of an individual operator, etc.). This is a required column in order to enable validation against the current usage published in existing records.

Column (4): The information to be inserted in this column indicates whether parallel running (permissive dialling) is supported. If parallel running applies, the dates on which it begins and ends should be indicated in the column as YYYY – MM – DD – HH: mm (UTC). For the avoidance of doubt, the beginning of parallel running is the time/date from which the new format of the number should be operational, while the end of parallel running is the time/date at which the old format of the number will cease to be operational. If parallel running does not apply, "N/A" should be entered into the sub-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 lengthy to be published.

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

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

Annex A

Presentation of important numbers related to emergency services and other services of social value

(This annex forms an integral part of this Recommendation.)

A.1 General

This annex provides the details necessary to report and update important numbers linked to emergency services and other services of social value. The following standardized format has been chosen to allow all countries to present the introduction and update of such important numbers in their national numbering plans (NNPs), regardless of their national language. Numbering plan administrators (NPAs) are encouraged to use this format to present information for publication on the specific ITU-T website "National-only numbers linked with emergency services and other services of social value".

A.2 Tabular presentation

Table A.1 – Description of important numbers related to emergency services and other services of social value

Country:				
(1)	**(2)**	**(3)**	**(4)**	**(5)**
Important number	**Service**	**Allocated or assigned**	**ITU-T E.164 number or national-only number**	**Note**

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

Column (1): Information to be inserted in this column relates to the specific important number within a specific NNP.

Column (2): Information to be inserted in this column relates to the usage of this important number. This usage may identify emergency services or other services of social value, depending on the applicable jurisdiction.

Column (3): Information that may be inserted in this column relates to the fact that the specific important number may be allocated within the NNP, but not assigned to a specific service/entity. Note that this column might not be applicable for some jurisdictions.

Column (4): Information that may be inserted in this column relates to the nature of the important number, which may be either an ITU-T E.164 number or a national-only number.

Column (5): Information that may be inserted in this column relates to remarks that an administration might wish to make regarding a specific important number.

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

Annex B

Number portability of ITU-T E.164 numbers in the national numbering plan

(This annex forms an integral part of this Recommendation.)

B.1 General

The following table provides the details necessary for each country to report and update its number portability (NP) information, if any. 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. Standardized formats have been chosen to allow countries to present updates on national implementation of NP, regardless of their national language.

The following is a tabular presentation to present the introduction and update of the NP implementation in the national numbering plan. This standardized format has been chosen to allow all countries to present information regardless of their national language. Numbering plan administrators (NPAs) are encouraged to use this format to present information for publication on the ITU-T specific website "Implementation of National Number Portability"

B.2 Tabular presentation

Table B.1 – Description of implementation of number portability (NP) of ITU-T E.164 numbers in the national numbering plan (NNP)

	Country:			
		Geographic numbers	**Non-geographic numbers other than mobile numbers (e.g., premium rate services, freephone services)**	**Mobile numbers**
(1)	**State of number portability (NP)**			
(2)	**Regulatory obligation for operators to implement NP**			
(3)	**Type of NP implementation**			
(4)	**NP database solution (if any)**			
(5)	**Limitations**			
(6)	**Specifications available on website**			
(7)	**Contact information for national administration/numbering plan administrator (NPA)**			
(8)	**Central reference database (CRDB) (if any) managed/operated by _____**			

(1) State of NP:

This row may include information on the state of NP, such as the date when NP was first implemented or the date on which it is anticipated that it will 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 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) (also known as direct routing)
- query on release (QoR)
- call dropback (CD) (also known as return to pivot (RtP))
- onward routing (OR) (also known as indirect routing)

In a next-generation network (NGN) and/or other IP-based environments (e.g., 3G-/4G-based mobile networks), some of these NP routing schemes might not be applicable.

(4) Number portability database solution (if any):

This section gives information on the type of number portability database solution implemented in a particular country. The NP database solution includes one of the database solutions set forth in clause 11 of [ITU-T E.164 Sup.2]:

- distributed database (solution A, solution B)
- centralized database (solution C, solution D)
- combination of distributed and centralized database (solution E)

Another question concerning implementation is whether the same number portability database solution, or a separate number portability database, is used for both fixed and mobile numbers. The use of telephone number mapping (ENUM) in the database architecture is also a possibility.

(5) 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.

(6) 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.

(7) Contact information for national administration/NPA:

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

(8) Contact information CRDB:

To the extent that a central reference database (CRDB) is used, this row will provide the contact information of the company and point of contact that manages/operates the central reference database. Contact information typically includes the 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 IV.

Appendix I

Examples of presentation of ITU-T E.164 numbers in the national numbering plan (NNP)

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

This appendix contains examples of how to complete Table 8-1 as described in this Recommendation.

The following data from Sweden is presented for illustrative purposes only 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 national numbering plan for country code +46

a) Overview:

The minimum number length (excluding the country code) is seven (**7**) digits.

The maximum number length (excluding the country code) is thirteen (13**)** digits.

b) Link to the national database (or any applicable list) with assigned ITU-T E.164 numbers within the national numbering plan (if any): http://e-tjanster.pts.se/telefoni/nummertjanster/nummerplan

c) Link to the real-time database reflecting ported E.164 numbers (if any): http://e-tjanster.pts.se/telefoni/nummertjanster/enskiltnummer

d) Detail of numbering plan:

(1)	**(2)**		**(3)**	**(4)**
National destination code (NDC) or leading digits of national (significant) number (N(S)N) *Nationell destinationskod eller inledande siffror i det nationella (signifikanta) numret*	**N(S)N number length** *N(S)N nummerlängd*		**Usage of ITU-T E.164 number** *Typ av E.164-nummer*	**Additional information** *Ytterligare information*
	Maximum length *Maximum längd*	**Minimum length** *Minimum längd*		
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

(1)	(2)		(3)	(4)
National destination code (NDC) or leading digits of national (significant) number (N(S)N) *Nationell destinationskod eller inledande siffror i det nationella (signifikanta) numret*	**N(S)N number length** *N(S)N nummerlängd*		**Usage of ITU-T E.164 number** *Typ av E.164-nummer*	**Additional information** *Ytterligare information*
	Maximum length *Maximum längd*	**Minimum length** *Minimum längd*		
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*
…				
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 Recommendation ITU-T 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 8-1, as described in this Recommendation. Data from France is presented for illustrative purposes only 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 national numbering plan for country code +33

a) Overview:

The minimum number length (excluding the country code) is nine (9) digits.

The maximum number length (excluding the country code) is nine (9) digits.

b) Link to the national database (or any applicable list) with assigned ITU-T E.164 numbers within the national numbering plan (if any):

c) Link to the real-time database reflecting ITU-T E.164 ported numbers (if any):

d) Detail of numbering plan:

(1)	(2)		(3)	(4)
National destination code (NDC) or leading digits of national (significant) number (N(S)N) *Chiffres de poids fort du N(S)N* *Numéro national significatif*	**N(S)N number length** *Longueur des numéros N(S)N*		**Usage of ITU-T E.164 number** *Utilisation du numéro*	**Additional information** *Information additionelle*
	Maximum length *Longueur maximale*	**Minimum length** *Longueur minimale*		
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
.....	....	....	....	....

The table below provides a final example of how to complete Table 8-1, as described in this Recommendation. The following data from the United Republic of Tanzania is presented for illustrative purposes only 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 national numbering plan for country code +255

a) Overview:

The minimum number length (excluding the country code) is seven (7) digits.

The maximum number length (excluding the country code) is nine (9) digits.

b) Link to the national database (or any applicable list) with assigned ITU-T E164 numbers within the national numbering plan (if any):

c) Link to the real-time database reflecting ITU-T E164 ported numbers (if any):

d) Detail of numbering plan:

(1)	(2)		(3)	(4)
National destination code (NDC) or leading digits of national (significant) number (N(S)N)	**N(S)N number length**		**Usage of ITU-T E.164 number**	**Additional information**
	Maximum length	**Minimum length**		
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

(1)	(2)		(3)	(4)
National destination code (NDC) or leading digits of national (significant) number (N(S)N)	**N(S)N number length**		**Usage of ITU-T E.164 number**	**Additional information**
	Maximum length	**Minimum length**		
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
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

Examples of changes in ITU-T E.164 numbers in national numbering plan

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

This appendix contains an example of how to complete Table 9-3, as described in this Recommendation. Data from the United Kingdom for London numbering change in the year 2000 is presented for illustrative purposes only, and should not be used for any technical applications.

In this change, the national destination codes (NDCs) 171 and 181 were replaced by the NDC 20, and local subscriber numbers were extended from seven to eight 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 time and date of change	**National (significant) number (N(S)N)**		**Usage of ITU-T E.164 number**	**Parallel running**		**Operator**	**Proposed wording of announcement**
	Old number	**New number**		**Begins**	**Ends**		
01:00 2000-04-22	171 XXX XXXX	20 7XXX XXXX	Geographic number Central London	01:00 1999-06-01	01:00 2000-10-14	N/A	London codes and numbers have changed. Please redial, replacing 44171 with 44207.
01:00 2000-04-22	181 XXX XXXX	20 8XX XXXXX	Geographic number Outer London	01:00 1999-06-01	01:00 2000-10-14	N/A	London codes and numbers have changed. Please redial, replacing 44181 with 44208.

Appendix III

Examples of presentation of important numbers related to emergency services and other services of social value

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

This appendix contains an example of how to complete Table A.1, as described in this Recommendation. Data from Sweden is presented for illustrative purposes only.

Presentation of important numbers related to emergency services and other services of social value

Country: Sweden				
(1)	**(2)**	**(3)**	**(4)**	**(5)**
Important number	**Service**	**Allocated or assigned**	**ITU-T E.164 number or national-only number**	**Note**
112	Emergency service	Allocated in the NNP	National-only number	Introduced 1 July 1996 112 covers the following emergency response according to the Swedish Government agreement with SOS Alarm AB (http://www.sosalarm.se/sv/112/Att-larma-112/English/): Ambulance Ambulance transport by air Doctor on duty Municipal fire and rescue services Police Mountain rescue services (police) Aeronautical search and rescue services (Swedish Civil Aviation Authority) Maritime search and rescue services (Swedish Maritime Administration) Marine pollution rescue services (Swedish Coast Guard) Rescue services in connection with releases of radioactive substances (County Administrative Board) Social services on duty Swedish Customs Service (Drug Tip-offs)

Country: Sweden				
(1)	**(2)**	**(3)**	**(4)**	**(5)**
Important number	**Service**	**Allocated or assigned**	**ITU-T E.164 number or national-only number**	**Note**
				Swedish Poison Information Centre Religious councillor Dentist on duty The emergency alarm services under 1 – 13 above shall be free of charge. For other services, SOS Alarm is entitled to take a reasonable fee in accordance with an agreement with the relevant organisations.
90 000	Emergency service	Allocated in the NNP	National-only number	Introduced 1956 – runs in parallel with 112
113 13	National information number for non-emergent events	Assigned to SOS Alarm	National-only number	Assigned 10 October 2012 http://www.sosalarm.se/sv/112/Aktuellt1/Nytt-om-112/Seminarier-infor-Informationsnumret/
114 14	Police (non-emergency)	Assigned to Rikspolisstyrelsen (RPS)	National-only number	Assigned 14 June 2004 http://www.polisen.se/en/Languages/Startpage/
...				
116 111	Child help-line	Assigned to BRIS (Children's Rights in Society)	National-only number	Assigned 25 January 2008 http://www.bris.se/?pageID=61
116 117	Medical help-line	Assigned to Inera	National-only number	Assigned 18 May 2010 http://www.inera.se/
...				
117 7	Medical help-line	Assigned to SALAR/SKL (Swedish Association of Local Authorities and Regions)	National-only number	Assigned 14 November 2003 http://www.1177.se/Other-languages/Engelska/

Appendix IV

Examples of implementation of number portability (NP) of ITU-T E.164 numbers in the national numbering plan (NNP)

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

This appendix contains an example of how to complete Table B.1, as described in Annex B of this Recommendation. Data from Belgium is presented for illustrative purposes only, and should not be used for any technical applications.

Description of implementation of number portability (NP) of ITU-T E.164 numbers in the national numbering plan (NNP)

	Country: Belgium			
		Geographic numbers	**Non-geographic numbers other than mobile numbers (e.g., premium rate services, freephone services)**	**Mobile numbers**
(1)	**State of number portability (NP)**	Implemented since 2000	Implemented since 2002	Implemented since 2002
(2)	**Regulatory obligation for operators to implement NP**	Yes	Yes	Yes
(3)	**Type of NP implementation**	Central reference database both for geographic and mobile with query on release (QoR)	Central reference database both for geographic and mobile with QoR	Central reference database both for geographic and mobile with QoR
(4)	**NP database solution (if any)**	Solution C – Centralized database approach	Solution C – Centralized database approach	Solution C – Centralized database approach
(5)	**Limitations**	Numbering area coverage		
(6)	**Specifications available on website**	www.bipt.be	www.bipt.be	www.bipt.be
(7)	**Contact information for national administration/ numbering plan administrator (NPA)**	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
(8)	**Central reference database (CRDB) (if any) managed/operated by _____**	Vzw/asbl for NP in Belgium Postal Address: Diamant Building, Bd. A. Reyers Ln 80, 1030 Brussels NPA e-mail: info@crdc.be	Vzw/asbl for NP in Belgium Postal Address: Diamant Building, Bd. A. Reyers Ln 80, 1030 Brussels NPA e-mail: info@crdc.be	Vzw/asbl for NP in Belgium Postal Address: Diamant Building, Bd. A. Reyers Ln 80, 1030 Brussels NPA e-mail: info@crdc.be

Bibliography

[b-ITU.T E.164 Sup.6] Recommendation ITU-T E.164 – Supplement 6, *Guidelines for identifying and selecting globally harmonized numbers*.

SERIES OF ITU-T RECOMMENDATIONS

Series A	Organization of the work of ITU-T
Series D	General tariff principles
Series E	**Overall network operation, telephone service, service operation and human factors**
Series F	Non-telephone telecommunication services
Series G	Transmission systems and media, digital systems and networks
Series H	Audiovisual and multimedia systems
Series I	Integrated services digital network
Series J	Cable networks and transmission of television, sound programme and other multimedia signals
Series K	Protection against interference
Series L	Construction, installation and protection of cables and other elements of outside plant
Series M	Telecommunication management, including TMN and network maintenance
Series N	Maintenance: international sound programme and television transmission circuits
Series O	Specifications of measuring equipment
Series P	Terminals and subjective and objective assessment methods
Series Q	Switching and signalling
Series R	Telegraph transmission
Series S	Telegraph services terminal equipment
Series T	Terminals for telematic services
Series U	Telegraph switching
Series V	Data communication over the telephone network
Series X	Data networks, open system communications and security
Series Y	Global information infrastructure, Internet protocol aspects and next-generation networks
Series Z	Languages and general software aspects for telecommunication systems

Printed in Switzerland
Geneva, 2013