INTERNATIONAL TELECOMMUNICATION UNION

TELECOMMUNICATION STANDARDIZATION SECTOR

STUDY PERIOD 2005-2008

COM 2 – LS 100 – E

English only

Original: English

Question(s):	ALL	Geneva, 6-15 May 2008

Ref.: TD 145 Rev.1 (PLEN/2)

Source:	ITU-T SG2 (Geneva, 6-15 May 2008)
Title:	Recommendation E.101 – Definition of terms used for identifiers (names, numbers, addresses and other identifiers) in telecommunications networks in the E-series Recommendations

LIAISON STATEMENT

To:	**ITU-T SG17, SG13, SG11, JCA-NID, ETSI TISPAN WG4, 3GPP TSG CT4, IETF**
Approval:	**ITU-T SG2 plenary, 15 May 2008**
For:	**Information**
Deadline:	**August 2008**

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Please don't change the structure of this table, just insert the necessary information.

ITU-T Study Group 2 has at its May 2008 meeting determined new Recommendation E.101 (former E.IDs-DEF) concerning definitions in the E-series of Recommendations. This Recommendation provides basic terms and definitions for use in the field of identifiers (e.g. names, numbers, addresses and other identifiers (IDs)) for public telecommunication services and networks.

Recommendation E.101 includes present unchanged definitions from E-series of Recommendations and new terms not defined before in E-series of Recommendations.

Recommendation E.101 also includes present definitions that have been revised during this work. These revised terms are in included in E.101. SG2 will here take a future action to revise Recommendations that are affected[1] by these revised terms in E.101.

The determined Recommendation E.101 is enclosed for your information.

SG2 also thanks for comments (3 LSs[2] from SG17) that have been provided during our work with this Recommendation.

Attachment: TD 262 Rev.1 (WP 1/2)

[1] ITU-T Rec. E.164, E.190, E.191, E.191.1, E.195 and Sup. 2 and 3 to E.164.

[2] COM 17 – LS 170, 253 and 278.

INTERNATIONAL TELECOMMUNICATION UNION

TELECOMMUNICATION STANDARDIZATION SECTOR

STUDY PERIOD 2005-2008

STUDY GROUP 2

TD 262 Rev.1 (WP 1/2)

English only

Original: English

Question(s): 1/2 Geneva, 6-15 May 2008

TEMPORARY DOCUMENT

Source: Editor, E.101 (former E.IDs-DEF)

Title: Draft new Recommendation E.101 (former E.IDs-DEF)

Draft ITU-T Recommendation E.101 (formerly E.IDs-DEF)

Definitions of terms used for identifiers (names, numbers, addresses and other identifiers) for public telecommunication services and networks in the E-series Recommendations

Summary

The purpose of this Recommendation is to define basic terms in the area of identifiers covering names, numbers, addresses and other identifiers in ITU-T E-series Recommendations.

Source

ITU-T Recommendation E.101 was approved on xx 2008 by ITU-T Study Group 2 (2005-2008) under the WTSA Resolution 1 procedure.

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Draft ITU-T Recommendation E.101 (formerly E.IDs-DEF)

Definitions of terms used for identifiers (names, numbers, addresses and other identifiers) for public telecommunication services and networks in the E-series Recommendations

1 Scope/Introduction

This Recommendation provides terms and definitions for use in the field of identifiers (e.g. names, numbers, addresses and other identifiers (IDs)) for public telecommunication services and networks. The purpose of this set of definitions is to aid in the understanding of different IDs used in different telecommunications networks and related Recommendations. Consistent terminology is seen as an important factor in ITU-T Recommendations especially in Recommendations having some form of regulatory implications. For the area covering *Identifiers* there are important Recommendations in the E-/F-series, but also in the Q- and X-series. The E-/F-series recommendations falls under the responsibility of SG2 and Q-series lay under SG11 and SG17 covers the X-series Recommendations.

These terms and definitions have been developed, for the most part, from the practice of the use of IDs in traditional telephone networks such as PSTN, ISDN and PLMN based networks (e.g. 1G and 2G).

These terms will continue to be applicable with their current definitions for other telecommunications networks like NGNs, 3G based PLMNs and other IP based networks.

Alternatives for the preferred terms are given following a semi-colon.

The listings of the terms are contains the following:

- Definition of terms for different types of plans (clause 3)
- Definition of generic terms for resources used in the plans (clause 4)
- Definition of terms for specific resources used in the plans (clause 4)
- Definition of terms for the structure and sub-parts of specific resources (clause 5)
- Definition of terms concerning administrative aspects for plans and resources (clause 6)

Every time a new Recommendation within the scope series is developed or an existing Recommendation is modified or deleted, this Recommendation shall be reviewed accordingly to ensure the information being accurate and up to date.

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.

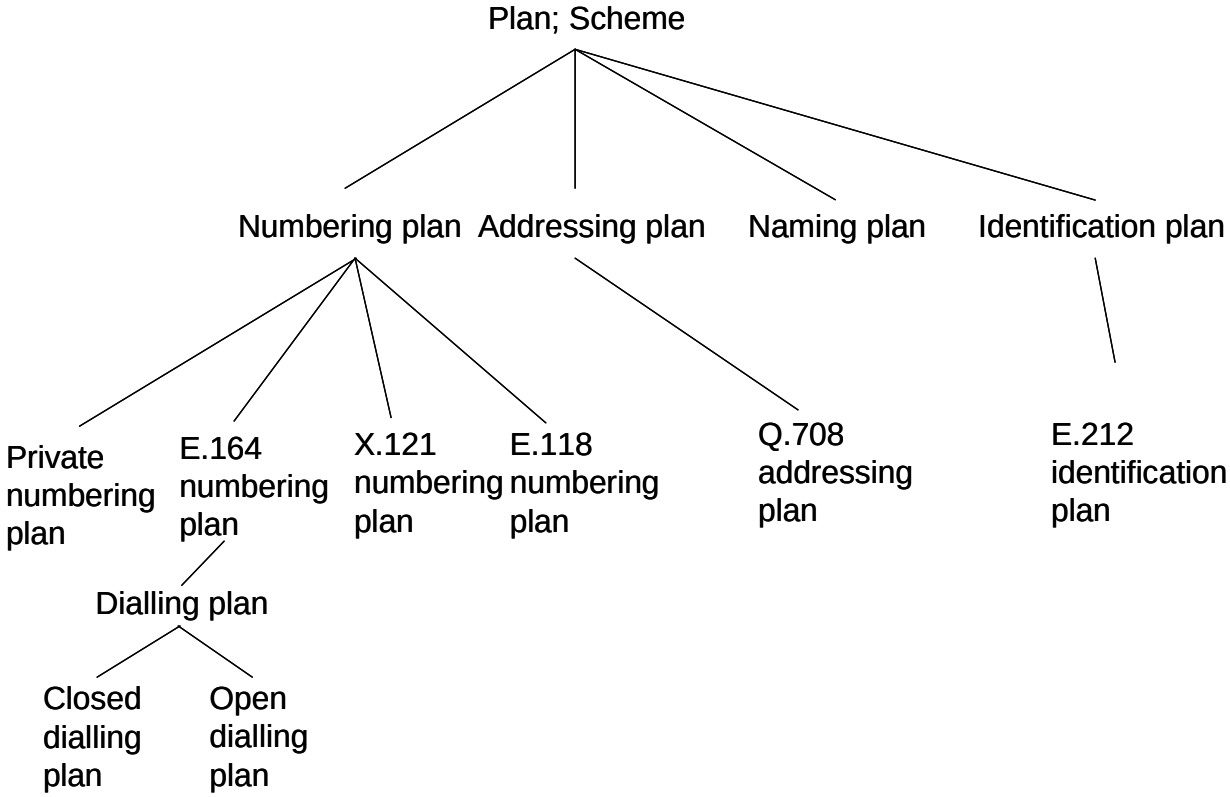
– ITU-T Recommendation E.164 (02/2005), *The international public telecommunication numbering plan*.

- ITU-T Supplement 2, E.164 (11/98), *Supplement 2: Number Portability*

- ITU-T Supplement 3, E.164 (05/2004), *Supplement 3: Operational and administrative issues associated with national implementations of the ENUM functions*
- ITU-T Recommendation E.190 (1997), *Principles and responsibilities for the management, assignment and reclamation of E-series international numbering resources*.
- ITU-T Recommendation E.191 (2000), *B-ISDN addressing*
- ITU-T Recommendation E.191.1 (02/2001), *Criteria and procedures for the allocation of the ITU-T International Network Designator addresses*
- ITU-T Recommendation E.195 (2000), *ITU-T International numbering resource administration.*
- ITU-T Recommendatio E.910 (12/2005), *Procedures for registration within the domain ".int"*
- ITU-T Recommendation E.212 (revised 2008), *The international identification plan for mobile terminals and mobile users*.
- ITU-T Recommendation Y.2091 (03/2007), *Terms and definitions for Next Generation Networks*
- ITU-T Recommendation E.161.1 (xx/2008), *Guidelines to select Emergency Number for public telecommunications networks*
- ETSI TS 184 002 (2006-10), *Identifiers (IDs) in NGN*
- ETSI TR 184 005 (2007-11), *Types of numbers used in an NGN environment*.
- 3GPP TS 23.003, *Numbering, addressing and identification*
- 3GPP TR 21.905 V8.0.0 (2007-03), *Vocabulary for 3GPP specifications*
- IETF RFC3966, *The tel URI for Telephone Numbers*

3 Definitions of terms for the different types of plans

This section consist of terms for different naming, numbering and addressing plans. The concept diagram below gives an example of some of these plans.



3.1 addressing plan

A:

C:

E: Plan de direccionamiento;

F:

R:

An addressing plan specifies the format and structure of addresses used within that plan.

3.2 closed dialing plan

A:

C:

E: plan de marcación cerrado

F:

R:

A dialling plan where the national (significant) numbers [N(S)N] are used when dialling geographic numbers.

3.3 dialing plan [ITU-T E.164]

A:

C:

E: plan de marcación

F:

R:

A string or combination of decimal digits, symbols, and additional information that defines the method by which the numbering plan is used. A dialling plan includes the use of prefixes, suffixes, and additional information, supplemental to the numbering plan, required to complete the call.

3.4 E.164 numbering plan

A:

C:

E:

F:

R:

A type of numbering plan that specifies the format and structure of the numbers used within that plan. It typically consists of decimal digits segmented into groups in order to identify specific elements used for identification, routing and charging capabilities, e.g., to identify countries, national destinations and subscribers. An E.164 numbering plan does not include prefixes, suffixes, and additional information required to complete a call. The national numbering plan is the national implementation of the international E.164-numbering plan (also called the international public telecommunication numbering plan).

3.5 naming plan

A:

C:

E: plan de denominación

F:

R:

A plan that specifies the format and structure of the names used within telecommunication networks.

3.6 numbering plan

A:

C:

E: plan de numeración

F: plan de numérotage

R:

A plan that specifies the format and structure of the numbers used within telecommunication networks. The numbers in the plan can either have uniform length or variable length or include both numbers of uniform and variable lengths.

3.7 open dialing plan

A:

C:

E: plan de marcación abierto

F:

R:

A dialling plan where both numbers on the local level (subscriber numbers (SN) without area code) and numbers on the national level are used when dialling geographic numbers.

3.8 plan; scheme

A:

C:

E: plan: esquema

F:

R:

A plan/scheme specifies the format and structure of identifiers used within a telecommunication network.

3.9 private numbering plan (PNP)

A:

C:

E: Plan de numeración privado; plan de numeración corporativo

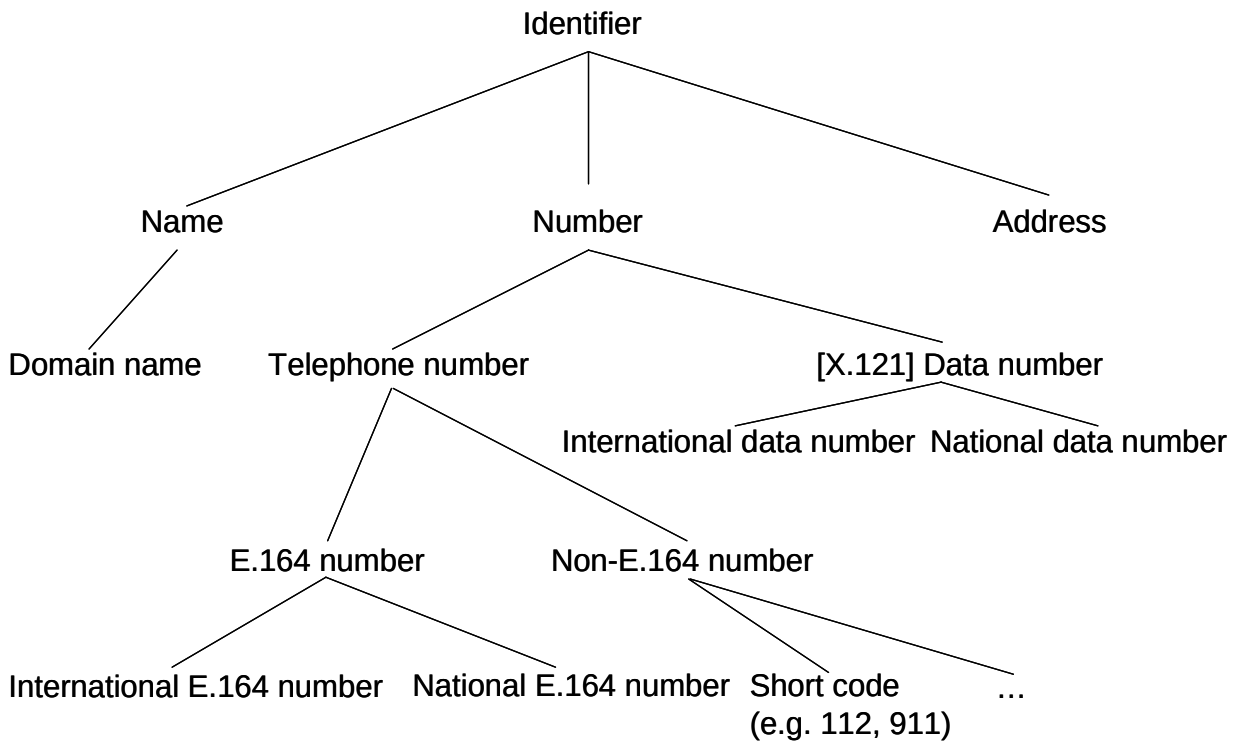
F:

R:

A numbering plan that specifies the format and structure of the numbers used within an organizations private/enterprise telecommunication network. PNPs may be wholly separate from the E.164 numbering plan or may overlap with it e.g in the case of DDI.

4 Definitions of terms for generic and specific resources used in the plans

This section consist of terms for generic and specific resources used in the different plans. The concept diagram below gives an example of different identifiers mostly from the E.164 numbering plan.



4.1 address

A:

C:

E: dirección

F:

R:

An address identifies a specific network termination point and can be used for routing to this physical and logical termination point inside a public or private network.

4.2 code

A:

C:

E: código

F:

R:

A character or a sequence of characters, digits or symbols used as an identifier.

4.3 domain name [ITU-T E.910]

A:

C:

E: nombre de dominio

F:

R:

An alphanumeric name that when combined with an Internet top level domain (TLD) represents a unique name which is the sequence of labels from the node at the root of the domain to the root of the whole tree, with dots separating the labels.

4.4 E.164 number

A:

C:

E: número E.164

F:

R:

A string of decimal digits that satisfies the three characteristics of structure, number length and uniqueness specified in ITU-T Recommendation E.164. The number contains the information necessary to route the call to the end user or to a point where a service is provided.

4.5 emergency number [ITU-T E.161.1]

A:

C:

E: número de emergencia

F:

R:

A non-E.164 number allocated in the national numbering plan to enable emergency calls. Normally the emergency number is a short code.

4.6 geographic number (GN) [ITU-T Supplement 2 to E.164]

A:

C:

E: número geográfico

F:

R:

An E.164 number which corresponds to a discrete geographic area.

4.7 global number

A:

C:

E:

F:

R:

NOTE: Please see “International E.164 number”

4.8 identifier (ID)

A:

C:

E: identificador (ID)

F:

R:

A series of digits, characters and symbols used to identify uniquely subscriber, a user, a network element, a function a network entity, a service or an application. Identifiers can be used for registration or authorization. They can be either public to all networks or private to a specific network (private IDs are normally not disclosed to third parties).

4.9 international E.164 number; international public telecommunication number; international number

A:

C:

E: número E.164 internacional; número para las telecomunicaciones públicas internacionales; número internacional

F:

R:

A string of decimal digits that, for a geographic country code, uniquely identifies a subscriber or a point where a service is provided. For the case of a global service code, it identifies the subscriber of the service. For Networks, it identifies a subscriber of the Network. An international E.164 number can act in the "role" of both a name and an address. Portability is reducing a number's role as an address. Numbers are increasingly acting in the role of a name only. The number, which includes the country code and subsequent digits, but not the international prefix, contains the information necessary to route the call to this termination point on a public network (it may also contain the supplementary information necessary to forward it on a private network). It is sometimes referred to as an "international number".

Regarding IETF RFC 3966, that defines tel URI notation for telephone numbers, an international E.164 number is referred to as a global number.

4.10 international numbering resource [ITU-T E,190]

A:

C:

E: recurso de numeración internacional

F:

R:

A numbering resource derived from an international number plan and assigned by the ITU-T, e.g. Recommendations E.164 and E.212.

4.11 local number

A:

C:

E: número local

F:

R:

NOTE**:** Please see “National E.164 number” and “Non-E.164 number”

4.12 MSISDN; mobile directory number

A:

C:

E: número de identificación de abonado del servicio móvil

F:

R:

The mobile E.164 number used by the calling party to establish a call to the end user.

4.13 name

A:

C:

E: nombre

F:

R:

A name is a combination of characters and is used to identify entities (e.g. subscriber, network element) that may be resolved/translated into an address. Characters may include numbers, letters and symbols.

4.14 national E.164 number

A:

C:

E:

F:

R:

The national numbering plan and the national dialling plan are defined by the national Numbering Plan Administrator. These plans are based on and consistent with ITU-T Rec. E.164 and defines the prefixes, non-E.164 numbers and how the national formats (both at the local and national level) of the international E.164 numbers are structured and allocated

On the national level the E.164 number is structured through the national (significant) number [N(S)N] format, i.e. the national destination code (NDC) and the subscriber number (SN), not including, if present, the national (trunk) prefix.

Regarding IETF RFC 3966, that defines tel URI notation for telephone numbers, a national E.164 number is referred to as one type of local number.

4.15 non-E.164 number; Local Special Purpuse number

A:

C:

E: número no E.164, número local de propósito específico

F:

R:

Any number, defined inside national numbering plan, which does not conform to the structure of international E.164 numbers as defined in ITU-T Recommendation E.164 and is only used and meaningful in the national dialling plan and is not reachable from abroad.

Regarding IETF RFC 3966, that defines tel URI notation for telephone numbers, a non-E.164 number is referred to as one type of local number.

4.16 non-geographic number [ITU-T Supplement 2 to E.164]

A:

C:

E: número no geográfico

F:

R:

An E.164 number which has no geographic significance.

4.17 number [ITU-T E.191]

A:

C:

E: número

F:

R:

A number is a string of decimal digits.

4.18 routing address; routing number

A:

C:

E: dirección para el encaminamiento; número para el encaminamiento

F:

R:

An address/number, only used for routing purposes and not known by end users, that is derived and used by the public telecommunications network to route the call/session towards the network termination point. This address/number can also be used to route calls towards a ported number.

4.19 service number [ITU-T Supplement 2 to E.164]; universal service number

A:

C:

E: número de servicio

F:

R:

A non-geographic E.164 number allocated to a specific category of services.

4.20 short code

A:

C:

E: Códigos cortos, códigos especiales

F:

R:

String of digits in the national numbering plan as defined by the national Numbering Plan Administrator which can be used as a complete dialling sequence on public networks to access a specific type of service/network. The short code is referred as a non-E.164 number and its length is normally shorter than a subscriber number. An example is the emergency number 112 used in the EU.

4.21 tel URI

A:

C:

E: tel URI

F:

R:

The tel URI is the representation of an E.164 or non-E.164 number with the context defined signalling information. This is one URI scheme that conveys telephone numbers in SIP context and defines an identifier associated to a network termination point (NTP) or a service/application.

4.22 telephone number; phone number; directory number (DN)

A:

C:

E: número telefónico, número de Directorio

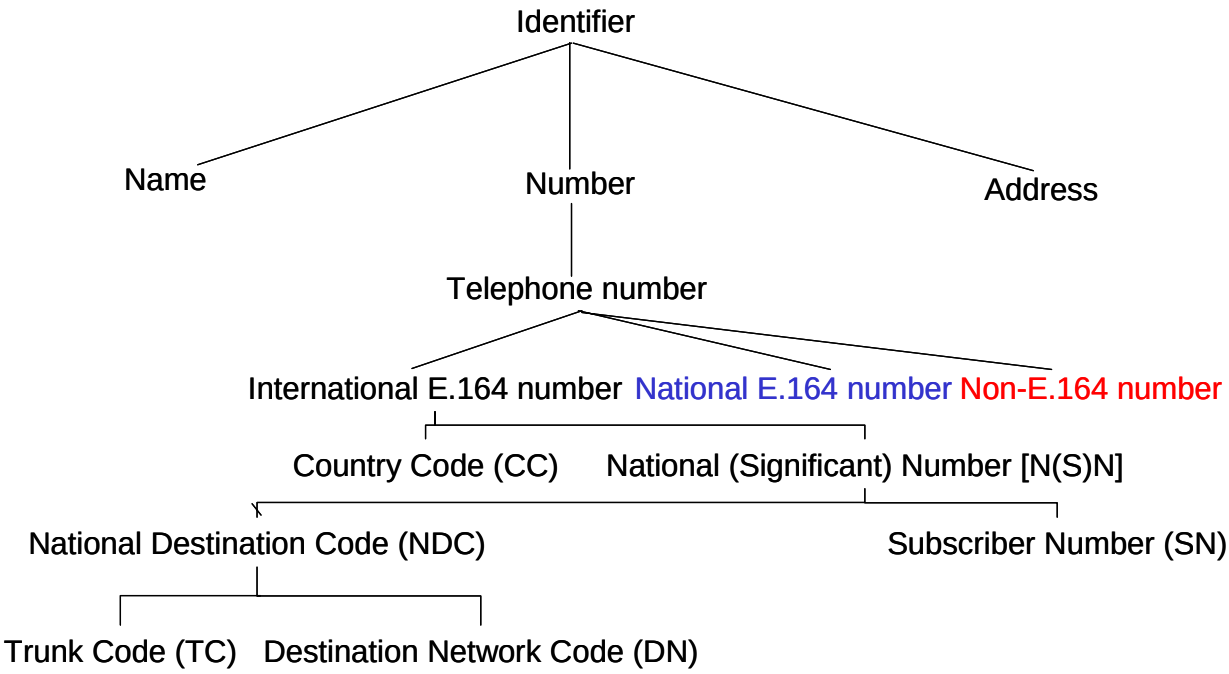
F:

R:

The number, derived from the E.164 numbering plan, used by the calling party to establish a call to an end user or a service. The number may also be used for presentation services like Calling Line Identification Presentation (CLIP) and Connected Line Identification Presentation (COLP) and may also be published in different directories and/or directory enquiry services

5 Definitions of terms for the structure and sub-parts of specific resources

This section consist of terms for the structure and sub-parts of specific resources. The concept diagram below gives an example of the relationship for the structure and sub-parts of an international E.164 number.



5.1 area code

A:

C:

E: código de área

F:

R:

The combination of the national (trunk) prefix and the trunk code (TC) that identifies a specific geographic region/numbering area of the national numbering plan.

5.2 country code (CC)

A:

C:

E: indicativo de país

F:

R:

Country codes are used to identify either a specific country, countries in an integrated numbering plan, a specific geographic area, a group of countries, a Network or global services.

5.3 international prefix [ITU-T E.164]

A:

C:

E: prefijo internacional

F:

R:

A digit or combination of digits used to indicate that the number following is an international E.164-number.

5.4 mobile country code (MCC) [revised ITU-T E.212]

A:

C:

E: indicativo de país para el servicio móvil

F:

R:

The MCC is the first field of the IMSI and is three digits in length and identifies a country. The Director of the TSB may assign more than one MCC to a country. MCCs in the 90x range are administered by the Director of the TSB.

5.5 national destination code (NDC)

A:

C:

E: indicativo nacional de destino

F:

R:

A nationally optional code field, within the international public telecommunication numbering plan (hereafter referred to as the "international E.164-numbering plan"), which – combined with the Subscriber's Number (SN) – will constitute the national (significant) number of the international E.164-number for geographic areas. The NDC denotes a network and/or a service.

The NDC can be a decimal digit or a combination of decimal digits (not including any prefix) identifying a numbering area within a country (or group of countries included in one integrated numbering plan or a specific geographic area) and/or network/services.

5.6 national (significant) number [N(S)N]

A:

C:

E: número nacional (significativo)

F:

R:

That portion of the international E.164 number that follows the country code for geographic areas and is defined in national numbering plans. The national (significant) number consists of the National Destination Code (NDC), if present, and the Subscriber Number (SN). In some cases the NDC could be absent or to form part of the SN and in that case the N(S)N and the SN coincide. The function and format of the N(S)N is nationally determined.

5.7 national (trunk) prefix

A:

C:

E: prefijo (interurbano) nacional

F:

R:

A digit or combination of digits defined in a dialling plan and used by a calling subscriber, making a call to a subscriber in his own country but outside his own numbering area.

5.8 prefix

A:

C:

E: prefijo

F:

R:

A prefix is an indicator consisting of one or more digits that allows the selection of different types of number formats, networks and/or service. Prefixes are part of the dialling plan do not form part of the numbering plan.

5.9 subscriber number (SN)

A:

C:

E: número de abonado

F:

R:

The portion of the E.164 number that identifies a subscriber in a network or numbering area.

5.10 trunk code (TC) [ITU-T E.164]

A:

C:

E: Indicativo interurbano

F:

R:

A digit or combination of digits, not including the national (trunk) prefix, identifying the numbering area within a country (or group of countries included in one integrated numbering plan or a specific geographic area).

The trunk code has to be used before the called subscriber's number when the calling and called subscribers are in different numbering areas. The trunk code is a particular application of NDC.

6 Definitions of terms concerning administrative aspects for plans and resources

6.1 administrator

A:

C:

E: administrador

F:

R:

The organization, on global, regional or national level, entrusted with the administration of a resource derived from a numbering, naming or addressing plan.

6.2 allocation

A:

C:

E: atribución

F:

R:

The process of opening a numbering, naming or addressing resource in a plan for the purpose of its use by a telecommunication service under specified conditions. The allocation in itself does not yet give rights for any user, whether an operator, service provider, user or some one else, to use the resource.

6.3 applicant

A:

C:

E: solicitante

F:

R:

The petitioner applying for the assignment of a resource derived from a numbering, naming or addressing plan.

6.4 assignee

A:

C:

E: asignatario

F:

R:

The applicant to whom a numbering, naming or addressing resources have been assigned.

6.5 assignment

A:

C:

E: asignación

F:

R:

Authorization given to an applicant for the right of use of number, naming or addressing resources under specified conditions.

6.6 country [ITU-T Supplement 3 to E.164]

A:

C:

E:

F:

R:

A specific country, a group of countries in an integrated numbering plan or a specific geographical area.

6.7 national numbering plan administrator [revised ITU-T E.212]

A:

C:

E: administrador del plan nacional de numeración

F:

R:

The organization (e.g. National Regulatory Authority/Administration) in charge of the administration of national naming, numbering and addressing plans.

6.8 numbering area

A:

C:

E: Area de numeración

F:

R:

A geographic area covered by a national destination code (NDC) or area code inside a national numbering plan.

6.9 operator [revised E.212]

A:

C:

E:

F:

R:

An operating agency providing public telecommunications networks or public telecommunication services.

6.10 range; series

A:

C:

E: rango; serie

F:

R:

A set of contiguous numbers or addresses identified by the first digit(s) (e.g. the range 1XX).

6.11 reclamation

A:

C:

E:

F:

R:

The process through which the right of use given to the assignee for the assigned number, name or address is withdrawn. The resource may be used for future potential re-assignment.

6.12 resource

A:

C:

E: recurso

F:

R:

Codes, numbers, names, addresses and identifiers used in the provisioning of telecommunication services or the operations of the telecommunications networks offering such services.

7 Abbreviations

This Recommendation uses the following abbreviations:

1G	First Generation mobile networks
2G	Second Generation mobile networks
3G	Third Generation mobile networks
CC	Country Code
CLIP	Calling Line Identification Presentation
COLP	Connected Line Identification Presentation
DDI	Direct-Dial-In
DN	Directory Number
	Destination Network
EU	European Union
ID	Identifier
GN	Geographic Number
IETF	Internet Engineering Task Force
IMSI	International Mobile Subscription Identity
ISDN	Integrated Services Digital Network
ITU-T	International Telecommunication Union – Telecommunication Standardization Sector
LSPN	Local Special Purpose Number

MCC Mobile Country Code

MNC Mobil Network Code

MSISDN Mobile Subscriber ISDN Number

NDC National Destination Code

NGN Next Generation Networks

NNP National Numbering Plan

NPA Numbering Plan Administrator

NRA National Regulatory Authority

N(S)N National (Significant) Number

NTP Network Termination Point

PLMN Public Land Mobile Network

PNP Private Numbering Plan

PSTN Public Switched Telephone Network

RFC Request For Comments

SIP Session Initiation Protocol

SN Subscriber Number

TC Trunk Code

TSB Telecommunication Standardization Bureau

URI Uniform Resource Identifier