

INTERNATIONAL TELECOMMUNICATION UNION

COM 2 – LS 88 – E

## TELECOMMUNICATION STANDARDIZATION SECTOR

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Original: English

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| <b>Ref.: TD 116 Rev. 1 (PLEN/2)</b> |  |                                    |
| Source:                             | ITU-T SG2  |                                    |
| Title:                              | Draft Recommendation E.IDs-DEF – Definition of terms used for identifiers (names, numbers, addresses and other identifiers) in telecommunications networks |                                    |
| LIAISON STATEMENT                   |  |                                    |
| То:                                 | SG17, SG13, SG11, JCA-NID, ETSI TISPAN WG4, 3GPP TSG CT4, IESG   |                                    |
| Approval:                           | ITU-T SG2 Plenary (Geneva, 8 November 2007)  |                                    |
| For:                                | Information/Action/Comment   |                                    |
| Deadline:                           | 13 of March 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 an on-ongoing project to produce a Recommendation (working name E.IDs-DEF) concerning definitions. This Recommendation provides terms and definitions for use in the field of identifiers (e.g. names, numbers, addresses and other identifiers (IDs)) for telecommunication services.

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.

The listing of the terms in E.IDs-DEF are structured as follows:

- Definition of the overall terms plan/scheme
- Definition of terms for the different types of plans and schemes
- Definition of generic terms for resources used in the plans/schemes
- Definition of terms for specific resources used in the plans/schemes
- Definition of terms for the structure and sub-parts of the specific resources (only some included in this draft, i.e CC, MCC)
- Definition of terms concerning administrative aspects for plans/schemes and resources

SG2 sends this for information and invites comments on the work with E.IDs-DEF - a shorter version of the draft, including accepted working definitions, is enclosed.

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## ANNEX

## Draft ITU-T Recommendation E.IDs-DEF (Short Liasion Version November 2007)

# Definitions of terms used for identifiers (names, numbers, addresses and other identifiers) in telecommunications networks

#### 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 telecommunication services. 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 (PSTN), ISDN and PLMN based networks (e.g. 1G, 2G and 3G).

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

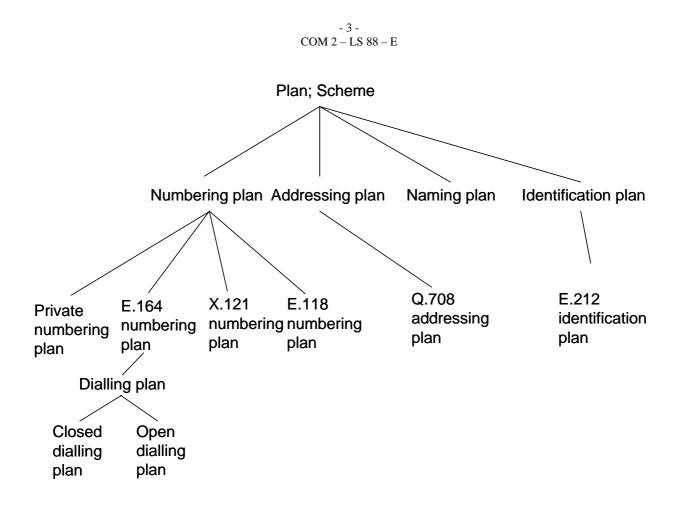
The purpose of this set of definitions is to aid in the understanding of different IDs used in different telecommunications networks and related Recommendations.

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

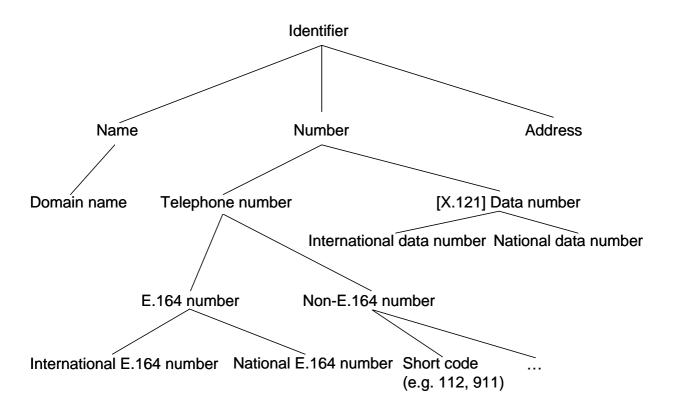
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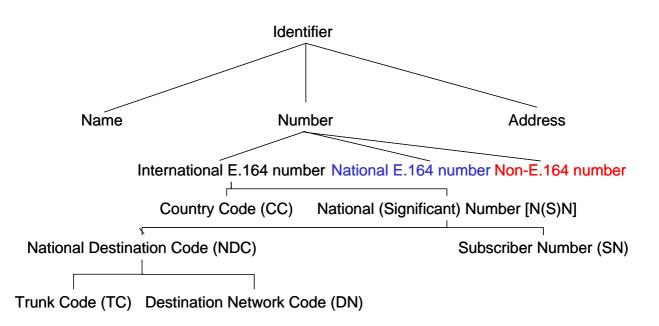
The concept diagram below shows the relationship for some of the terms associated with different naming, numbering and addressing plans.



The concept diagram below shows the relationship for some of the terms associated with different identifiers and the figure mostly covering identifiers from the E.164 numbering plan.



The last concept diagram below shows the relationship for some of the terms associated with different sub-parts of an international E.164 number.



The terms in this draft have not been checked with similar terms in the ITU-T SANCHO<sup>1</sup> (Sector Abbreviations and defiNitions for a teleCommunications tHesaurus Oriented) database of terms & definitions or from the Prototype integrated Database<sup>2</sup> of ITU-R/ITU-T Terms and Definitions.

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 (2005), The international public telecommunication numbering plan.
- 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.212 (2004), *The international identification plan for mobile terminals and mobile users*.
  - ITU-T Recommendation Q.951.1 (1992), Stage 3 description for number identification supplementary services using DSS 1

<sup>&</sup>lt;sup>1</sup> http://www.itu.int/sancho/index.asp.

<sup>&</sup>lt;sup>2</sup> http://www.itu.int/ITU-R/information/terminology/index.asp?link=&lang=en.

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- ITU-T Recommendation Y.2091 (03/2007), Terms and definitions for Next Generation Networks
- ETSI TS 184 002 (2006-10), Identifiers (IDs) in NGN
- Draft ETSI TR 184 005 (2007-09), Types of numbers used in an NGN environment.
- 3GPP TS 23.003, Numbering, addressing and identification
- RFC3966, The tel URI for Telephone Numbers.

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```

## **3** Definitions

This Recommendation defines the following term.

## 3.1 Plan/scheme

#### plan: scheme

A: C: E: plan: esquema F: R:

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

Editors Note: ...

## 3.2 Types of plans

## addressing plan

A: C: E: Plan de direccionamiento; F: R:

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

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Editors Note: ...
```

## closed dialing plan

A: C: E: plan de marcación cerrado F: R:

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```

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

Editors Note: ...

#### dialing plan

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.

Editors Note: Used in E.164

## 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 E.164 numbering plan is the national implementation of the international E.164-numbering plan (also called the international public telecommunication numbering plan).

Editors Note: Based on the present definition for "numbering plan" in E.164.

## identification plan

A: C: E: plan de identificación F: R:

An identification plan is a non-diallable string of digits which is used to create unique and unambiguous identifiers for network internal purposes.

Editors Note: ...

#### 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.

Editors Note: ...

## 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 length.

Editors Note: Affects the present definition in E.164 and Supplement 2 to E.164.

## 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.

Editors Note: ...

## private numbering plan (PNP); corporate numbering plan

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/corporate/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.

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Editors Note: ...

#### 3.3 Generic/umbrella term of the resources

code

A: C: E: código F: R:

•••

Editors Note: Work in progress in ITU-T SG2 until the May 2008 SG2 meeting

#### identifier (ID)

A: C: E: identificador (ID) F: R:

A series of digits, characters and symbols used to identify uniquely subscriber, user, network element, function or network entity providing services/applications. 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).

Editors Note: ....

#### international numbering resource

A: C: E: recurso de numeración internacional F:

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

Editors Note: Used in E.190.

#### 3.4 Specific resources in the plans

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.

*Editors Note:* Affects the present definition in E.164, Supplement 2, Supplement 3 and E.191.

#### domain name

A: C: E: nombre de dominio F: R:

*Editors Note:* Work in progress in ITU-T SG2 until the May 2008 SG2 meeting – present definition in E.910 and Supplement 3 to E.164

#### 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.

Editors Note: Affects present definition in Supplement 3 to E.164

#### general directory number (GDN)

A: C: E: número general de directorio F: R:

•••

*Editors Note:* Work in progress in ITU-T SG2 until the May 2008 SG2 meeting. Defined in CEPT Handbook about PABX.

#### geographic number (GN)

A: C: E: número geográfico F: R:

•••

*Editors Note:* Work in progress in ITU-T SG2 until the May 2008 SG2 meeting – present definition in Supplement 2 to E.164

#### global number

A: C: E: F: R:

•••

Editors Note: See International E.164 number

## 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:

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". According to IETF RFC 3966 an international E.164 number is referred to as a global number.

Editors Note: Affects the present definition in E.164.

#### local number

A: C: E: número local F: R:

#### •••

Editors Note: See National E.164 number and Non-E.164 number.

#### MSISDN; mobile directory number

| <i>A</i> :  |
|---|
| <i>C</i> :  |
| E: número de identificación de abonado del servicio móvil |
| <i>F</i> :  |
| <i>R</i> :  |

•••

Editors Note: Work in progress in ITU-T SG2 until the May 2008 SG2 meeting

#### name

A: C: E: nombre F: R:

•••

*Editors Note:* Work in progress in ITU-T SG2 until the May 2008 SG2 meeting – present definition in E.164, E.191 and Supplement 3 to E.164

#### national E.164 number

A: C: E: F: R:

Each country (except countries covered by integrated numbering plans, e.g. CC 1) defines its own national E.164 numbering plan and the national dialling plan. These plans are based on ITU-T Rec. E.164 and defines the prefixes, non-E.164 numbers and how the national formats (i.e. the local and national level) of the international E.164 number are allocated

National level:

On the national level the number is used in the national (significant) number [N(S)N] format, i.e. the national destination code (NDC) and the subscriber number (SN), eventually together with the national (trunk) prefix.

Countries with a closed dialling plan do not have a local format. This may also be the case for certain networks (mostly mobile networks). In countries with a closed dialling plan there is no national (trunk) prefix required to dial geographic numbers.

Local level:

In Countries with an open dialling plan a user may also dial a geographic number in the local format. This means dialling just the subscriber number (SN) without any area code (i.e. national (trunk) prefix and trunk code). This dialling procedure might not be applicable in some countries and networks.

In this case there is always an area code required to access other geographic numbers on the national level.

According to IETF RFC 3966 a national E.164 number is referred to as one kind local number.

Editors Note: Telecom Italia will provide a shorter definition.

## non-E.164 number; Local Special Purpose number

```
A:
C:
E: número no E.164
F:
R:
```

Any number, defined inside national E.164 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. According to IETF RFC 3966 a non-E.164 number is referred to as one kind of local number.

Editors Note: ...

#### non-geographic umber

A: C:

E: número no geográfico

*F*:

*R:* 

•••

*Editors Note:* Work in progress in ITU-T SG2 until the May 2008 SG2 meeting – present definition in Supplement 2 to E.164

#### number

A: C: E: número F: R:

A number is a string of decimal digits.

Editors Note: Used in E.191.

## private number

A: C: E: número privado F:

*R:* 

...

Editors Note: Work in progress in ITU-T SG2 until the May 2008 SG2 meeting

## routing address; routing number

A: C: E: dirección para el encaminamiento; número para el encaminamiento F:

•••

*Editors Note:* Work in progress in ITU-T SG2 until the May 2008 SG2 meeting – present definition in Supplement 2 to E.164

#### short code

A: C: E: Códigos cortos, códigos especiales

*F*:

*R:* 

•••

Editors Note: Work in progress in ITU-T SG2 until the May 2008 SG2 meeting

#### service URN

A: C: E: número F: R:

•••

Editors Note: Work in progress in ITU-T SG2 until the May 2008 SG2 meeting

## SIP[S] URI; SIP address;

A: C: E: F: R:

•••

Editors Note: Work in progress in ITU-T SG2 until the May 2008 SG2 meeting

#### tel URI

*A*:

*C*:

E: F: R:

•••

Editors Note: Work in progress in ITU-T SG2 until the May 2008 SG2 meeting

#### telephone number: phone number; Directory number (DN)

A: C: E: número telefónico F: R:

Any international E.164 number, national E.164 number or non-E.164 number derived from the E.164 numbering plan. The number is 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 (CLI) and Connected Line Identification Presentation (COLP) and may also be published in different directories and/or directory enqury services

*Editors Note:* New definition and will affect present definition of "Directory number" in Supplement 2 (NP) to Rec. E.164

## uniform resource identifier (URI)

A: C: E: identificador de recurso uniforme F: R:

•••

Editors Note: Work in progress in ITU-T SG2 until the May 2008 SG2 meeting

#### 3.5 Structure and sub-parts of the specific resources in the plans/schemes

#### area code

A: C: E: código de área F:

#### •••

Editors Note: Work in progress in ITU-T SG2 until the May 2008 SG2 meeting

#### country code (CC)

A: C: E: indicativo de país F: R:

•••

Editors Note: Work in progress in ITU-T SG2 until the May 2008 SG2 meeting

#### extension number

A: C: E: número de extensión F: R:

•••

Editors Note: Work in progress in ITU-T SG2 until the May 2008 SG2 meeting

## international prefix

A: C: E: prefijo internacional F: R:

•••

*Editors Note:* Work in progress in ITU-T SG2 until the May 2008 SG2 meeting – present definition in E.164

#### mobile country code (MCC)

*A*:

*C*:

E: indicativo de país para el servicio móvil

*F*:

*R*:

•••

*Editors Note:* Work in progress in ITU-T SG2 until the May 2008 SG2 meeting – present definition in E.212

#### national destination code (NDC)

A: C: E: indicativo nacional de destino F: R:

•••

*Editors Note:* Work in progress in ITU-T SG2 until the May 2008 SG2 meeting – present definition in E.164

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

A: C: E: número nacional (significativo) F:

*R*:

•••

*Editors Note:* Work in progress in ITU-T SG2 until the May 2008 SG2 meeting – present definition in E.164

#### national (trunk) prefix

*A*:

*C*:

*E: prefijo (interurbano) nacional* 

F:

*R*:

•••

*Editors Note:* Work in progress in ITU-T SG2 until the May 2008 SG2 meeting – present definition in E.164

## prefix

A: C: E: prefijo F: R:

•••

*Editors Note:* Work in progress in ITU-T SG2 until the May 2008 SG2 meeting – present definition in E.164

#### subaddress; ISDN subaddress

A: C: E: subdirección; subdirección ISDN F: R:

•••

Editors Note: Work in progress in ITU-T SG2 until the May 2008 SG2 meeting

#### 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.

Editors Note: Affects the present definition in E.164.

#### trunk code (TC)

A: C: E:

F:

*Editors Note:* Work in progress in ITU-T SG2 until the May 2008 SG2 meeting – present definition in E.164

#### 3.6 Administrative aspects of the plans/schemes and resources

#### administrator

A: C: E: administrador F: R:

•••

. . .

*Editors Note:* Work in progress in ITU-T SG2 until the May 2008 SG2 meeting – present definition in E.190, E.195 and Supplement 3 to E.164

#### allocation

A: C: E: atribución F: R:

•••

Editors Note: Work in progress in ITU-T SG2 until the May 2008 SG2 meeting

#### applicant

A: C: E: solicitante F: R:

•••

*Editors Note:* Work in progress in ITU-T SG2 until the May 2008 SG2 meeting – present definition in E.190 and E.191.1

assignee

A: C: E: asignatario F: R:

•••

*Editors Note:* Work in progress in ITU-T SG2 until the May 2008 SG2 meeting – present definition in E.190 and Supplement 3 to E.164

#### assignment

*A:* 

*C*:

E: asignación

*F*:

*R*:

...

*Editors Note:* Work in progress in ITU-T SG2 until the May 2008 SG2 meeting – present definition in E.190 and Supplement 3 to E.164

#### block

A: C: E: bloque F: R:

•••

Editors Note: Work in progress in ITU-T SG2 until the May 2008 SG2 meeting

## designated administrator

A: C: E: administrador designado F: R: Editors Note: Work in progress in ITU-T SG2 until the May 2008 SG2 meeting

#### national numbering plan administrator

A: C: E: administrador del plan nacional de numeración F: R:

•••

*Editors Note:* Work in progress in ITU-T SG2 until the May 2008 SG2 meeting - Used in E.129 and E.190 but not defined.

#### numbering area

A: C: E: Area de numeración F: R:

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•••
```

Editors Note: Work in progress in ITU-T SG2 until the May 2008 SG2 meeting

#### numbering conventions; naming conventions; addressing conventions

A: C: E: F: R:

```
•••
```

Editors Note: Work in progress in ITU-T SG2 until the May 2008 SG2 meeting

#### range; series

*A*:

*C*:

E: rango; serie

*F*:

*R:* 

•••

Editors Note: Work in progress in ITU-T SG2 until the May 2008 SG2 meeting

#### resource

A: C: E: recurso F: R:

•••

*Editors Note:* Work in progress in ITU-T SG2 until the May 2008 SG2 meeting – present definition in E.195

#### space

A: C: E: espacio F: R:

•••

Editors Note: Work in progress in ITU-T SG2 until the May 2008 SG2 meeting

## 4 Abbreviations

This Recommendation uses the following abbreviations:

- CC E.164 Country Code
- EU European Union
- ID Identifier
- IMSI International Mobile Subscriber Identity
- ITU-T International Telecommunication Union Telecommunication Standardization Sector
- LSPN Local Special Purpose Number
- MCC Mobile Country Code
- MNC Mobil Network Code
- NDC National Destination Code
- NPA Numbering Plan Administrator

- N(S)N National (Significant) Number
- PNP Private Numbering Plan
- TSB Telecommunication Standardization Bureau
- URN Uniform Resource Name
- URI Uniform Resource Identifier

•••