



**ETSI
TECHNICAL
REPORT**

ETR 213

November 1995

Source: ETSI TC-NA

Reference: DTR/NA-007001

ICS: 33.040

Key words: Numbering, addressing, identification

**Universal Personal Telecommunication (UPT);
Phase 1 (restricted UPT service scenario);
Service requirements on UPT numbering, addressing
and identification**

ETSI

European Telecommunications Standards Institute

ETSI Secretariat

Postal address: F-06921 Sophia Antipolis CEDEX - FRANCE

Office address: 650 Route des Lucioles - Sophia Antipolis - Valbonne - FRANCE

X.400: c=fr, a=atlas, p=etsi, s=secretariat - **Internet:** secretariat@etsi.fr

Tel.: +33 92 94 42 00 - Fax: +33 93 65 47 16

Copyright Notification: No part may be reproduced except as authorized by written permission. The copyright and the foregoing restriction extend to reproduction in all media.

© European Telecommunications Standards Institute 1995. All rights reserved.

Contents

Foreword	5
1 Scope	7
2 References	7
3 Abbreviations.....	7
4 Service requirements	7
4.1 General requirements	7
4.2 Specific UPT numbers and identities.....	8
4.2.1 The UPT number.....	8
4.2.2 The PUI	8
4.2.3 The PIN code	9
4.2.4 UPT access addressing	9
4.2.4.1 The UPTAC	9
4.2.4.2 The UPTAN	9
4.2.5 International UPT prefix.....	9
5 Administration.....	9
History.....	10

Blank page

Foreword

This ETSI Technical Report (ETR) has been produced by the Network Aspects (NA) Technical Committee of the European Telecommunications Standards Institute (ETSI).

ETRs are informative documents resulting from ETSI studies which are not appropriate for European Telecommunication Standard (ETS) or Interim European Telecommunication Standard (I-ETS) status. An ETR may be used to publish material which is either of an informative nature, relating to the use or the application of ETSs or I-ETSs, or which is immature and not yet suitable for formal adoption as an ETS or an I-ETS.

This ETR gives service requirements on Universal Personal Telecommunication (UPT) numbering, addressing and identification, i.e. requirements from the user's perspective. The detailed UPT numbering, addressing and identifications plans are, however, defined in other technical reports, taking into account all relevant CCITT/ITU-T Recommendations.

Blank page

1 Scope

This ETSI Technical Report (ETR) gives service requirements on phase 1 Universal Personal Telecommunication (UPT) numbering, addressing and identification, i.e. requirements from the user's perspective. The detailed UPT numbering, addressing and identifications plans are, however, defined in other technical reports, taking into account all relevant CCITT/ITU-T Recommendations.

NOTE: All "UPT access code" should read "UPT (service) access code."
All "UPT access number" should read "UPT (service) access number."
All "UPT access address" should read "UPT (service) access address."

2 References

This ETR incorporates by dated and undated reference, provisions from other publications. These references are cited at the appropriate places in the text and the publications are listed hereafter. For dated references, subsequent amendments to or revisions of any of these publications apply to this ETR only when incorporated in it by amendment or revision. For undated references the latest edition of the publication referred to applies.

- [1] CCITT Recommendation E.164: "Numbering plan for the ISDN era".
[2] ITU-T Recommendation E.168: "Application of E.164 numbering plan for UPT".

3 Abbreviations

For the purposes of this ETR, the following abbreviations apply:

PIN	Personal Identification Number
PSTN	Public Switched Telephone Network
PUI	Personal User Identity
UPT	Universal Personal Telecommunication
UPTAC	UPT Access Code
UPTAN	UPT Access Number

4 Service requirements

4.1 General requirements

From a service point of view, the following general requirements should apply to UPT numbering, addressing and identification:

- issues related to the caller:
 - the dialled number to reach a UPT user should be easily recognisable and should be distinguishable from a non-UPT number. This informs the calling user that he may be subject to specific arrangements (e.g. for charging);
 - the dialled UPT number should be as short as practicable;
 - the UPT number should be diallable from any terminal on the Public Switched Telephone Network (PSTN);
 - the UPT number should not increase the likelihood of misdialling;
 - it is desirable that the UPT prefix(es), if required, used for dialling a UPT number are the same national and/or international in all networks.

- issues related to the UPT user:
 - it is desirable that the UPT Access Number (UPTAN), used for accessing UPT procedures in a specific UPT service entity, may have significance across national and international boundaries;
 - it is desirable that the UPT Access Code (UPTAC) used for accessing UPT procedures, if any, is the same across national and international boundaries, amongst UPT service providers and across networks;
 - it is desirable that the various types of UPTACs are as few as possible, and as short as possible, if they need to be dialled.

4.2 Specific UPT numbers and identities

The following numbers and identities are used by the UPT service to identify the UPT users:

- 1) a UPT number;
- 2) a Personal User Identity (PUI).

In addition, some numbers/identities must be used by the UPT user in order to access the UPT service:

- 3) a Personal Identification Number (PIN) code, if applicable;
- 4) a UPTAC;
- 5) a UPTAN;
- 6) a UPT prefix(es) (national, international).

NOTE: From a network point of view, there may also be other numbers and identities associated with a UPT call. These are, however, purely of interest to the network and are discussed in other specifications.

4.2.1 The UPT number

A UPT number uniquely and unambiguously identifies each UPT user. It is used by a calling party to reach the UPT user, and may be identical to the PUI in phase 1.

This number is independent of terminal, network or service used and must conform to CCITT Recommendation E.164 [1].

4.2.2 The PUI

The PUI is the identity by which a user is known to the UPT service providers and networks supporting UPT, and identifies a UPT user unambiguously. The PUI is not used by the calling subscribers and does not need to be known to the UPT users or to any third parties.

The UPT number and PUI are different numbers/identities in order to allow for a more flexible network evolution, e.g. in case of numbering plan change. If, for instance, the PUI is implemented in some user equipment, the administration of a numbering plan change can be considerably facilitated by the separation of UPT number and PUI.

Conversely, the combination of a UPT number and a PUI may offer a UPT user the opportunity of use of the same UPT number, even in case of changing his PUI (e.g. by change of UPT service provider).

The use of a non-public PUI will also increase the UPT users general security.

The UPT number and the PUI will, although being different numbers/identities, normally have a one-to-one relationship.

The use of the PUI is optionally considered for phase 1.

4.2.3 The PIN code

Whenever a UPT user authenticates himself to the UPT service entity, this authentication procedure may involve the use of a PIN code.

4.2.4 UPT access addressing

The UPT service may be accessed by two numbers, a UPTAC, or a UPTAN. These numbers address UPT service entities, which may be managed by UPT service providers or network operators.

4.2.4.1 The UPTAC

To access the facilities of the UPT service from any communications terminal (e.g. registration), in a network supporting the UPT service, a UPTAC may be used (e.g. when using a plain telephone, the UPT user would dial a service access code). UPT specific service access codes of global significance would be preferred.

The use of a UPTAC implies that the originating network supports the functionality to access a UPT service entity, which in turn is able to gain access to the UPT user's UPT service profile from the home UPT service provider's database.

This service access code may be used to access UPT facilities generally, or different UPTACs may be used for different purposes. Whether to allow the use of one or several UPTACs is for further study.

4.2.4.2 The UPTAN

The UPTAN is a CCITT Recommendation E.164 [1] number used by a UPT user to access a specific UPT service entity under the control of a specific UPT service provider.

The use of UPTAC(s) may not always be possible, or the caller may not know them or wish to use them. This specific access number enables the UPT User to directly access the services of the home UPT service provider (e.g. to receive announcements in their native tongue, or provide improved data security).

This method of access will allow UPT users to access the UPT service from within networks which cannot fully support the UPT service. This may be used to directly access specific UPT procedures, or to invoke a dialogue with the UPT service entity.

4.2.5 International UPT prefix

The use of an international UPT prefix within a dialling plan may be required (e.g. when using a plain telephone, the user would dial an international prefix followed by the international UPT, ITU-T Recommendation E.168 [2], number). It would be preferable to have an international UPT prefix of global significance. However the establishment of such a prefix is for further study.

The issue of a specific UPT prefix for national/international UPT calls is for further study

5 Administration

The following principles apply to the administration of the UPT dialling/numbering plan:

- should not be too complex;
- should not give cause to long delays getting individual numbers into use;
- needs to be reliable (e.g. shall prevent double allocations);
- shall not be too expensive.

History

Document history	
November 1995	First Edition
February 1996	Converted into Adobe Acrobat Portable Document Format (PDF)