



**ETSI
TECHNICAL
REPORT**

ETR 055-1

December 1992

Source: ETSI TC-NA

Reference: DTR/NA-70102

ICS: 33.080

Key words: UPT, principles, objectives

**Universal Personal Telecommunication (UPT);
The service concept
Part 1: Principles and objectives**

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 1992. All rights reserved.

Contents

Foreword5

1 Scope7

2 Technical objectives of UPT.....7

3 Technical constraints on UPT from market considerations7

 3.1 Constraints on the UPT service provision.....8

 3.2 Constraints on UPT terminals.....8

 3.3 Constraints on UPT access devices8

History.....9

Blank page

Foreword

ETSI Technical Reports (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 application of ETSs or I-ETSs, or which is immature and not yet suitable for formal adoption as an ETS or I-ETS.

This ETR describes the general principles and objectives related to the Universal Personal Telecommunication (UPT) service concept, irrespective of the UPT implementation phase. It also outlines the main technical objectives, as well as the technical constraints derived from market considerations.

This ETR constitutes Part 1 of a multi-part ETR, with the following titles:

- ETR 055-1: "Universal Personal Telecommunication (UPT); The service concept Part 1: Principles and objectives".
- ETR 055-2: "Universal Personal Telecommunication (UPT); The service concept Part 2: General service description".
- ETR 055-3: "Universal Personal Telecommunication (UPT); The service concept Part 3: Service aspects of charging, billing and accounting".
- ETR 055-4: "Universal Personal Telecommunication (UPT); The service concept Part 4: Service requirements on security mechanisms".
- ETR 055-5: "Universal Personal Telecommunication (UPT); The service concept Part 5: UPT terminals and UPT access devices".
- ETR 055-6: "Universal Personal Telecommunication (UPT); The service concept Part 6: UPT subscription and service profile".
- ETR 055-7: "Universal Personal Telecommunication (UPT); The service concept Part 7: User procedures and user states".
- ETR 055-8: "Universal Personal Telecommunication (UPT); The service concept Part 8: Man-machine interface aspects".
- ETR 055-9: "Universal Personal Telecommunication (UPT); The service concept Part 9: Service requirements on numbering, addressing and identification".
- ETR 055-10: "Universal Personal Telecommunication (UPT); The service concept Part 10: Supplementary services".

An additional part (Part 11) which details the requirements on the protection of third parties, is due for publication in 1993.

Blank page

1 Scope

This ETSI Technical Report (ETR) describes the general principles and objectives related to the Universal Personal Telecommunication (UPT) service concept, irrespective of the UPT implementation phase. It also outlines the main technical objectives, as well as the technical constraints derived from market considerations.

2 Technical objectives of UPT

UPT is a service based on a certain intelligence in the networks provided by database capabilities, and provides the UPT user with a personal mobility (i.e. mobility related to service access for the UPT user, whether making or receiving calls) provided through a personal UPT number. UPT presents, as far as possible, a common set of access procedures to the UPT user, independent of the terminal, network or basic telecommunications services used, and keeps these procedures, as far as possible, transparent to the supporting networks. UPT also provides the UPT user with extensive control of his own personal services provided via UPT.

In summary, the UPT service provides user-to-user telecommunications with:

- network and terminal independent user identification based on a UPT number;
- personal mobility, enabling the UPT user to move between terminals and networks to make or receive calls based on the UPT service profile;
- universal access procedures for UPT facilities across multiple networks;
- personal charging and billing (charged to the UPT number);
- personal user control and flexibility in the selection of the UPT user's telecommunications services in a personalised UPT service profile;
- security and privacy, including authentication of the UPT user.

3 Technical constraints on UPT from market considerations

It is expected that UPT will be the default service concept for all users of telecommunications services in the future. UPT will be useful for:

- domestic users e.g.:
 - a user who wishes to visit a friend, but still be able to use the friend's telephone for incoming and outgoing calls, which will be charged to the UPT user's account;
 - a user who wants incoming calls for individual family members identified before answer;
- business users e.g.:
 - people who travel and wish to use any terminal, with charges going to their UPT comments;
 - people with a large number of different terminals, facsimile, cellular telephone, etc., but wish to have a single number to all potential callers, etc.;
- all users that wish to be reachable within control, without having to carry a cellular phone on them at any time, or having to pay for such a service.

UPT will necessarily imply new markets of various forms. Terminal manufacturers will have new terminals or terminal adapters to sell, infrastructure manufacturers will have UPT network elements to sell, and service providers will have another service to sell. In addition, UPT may also impact on the size and dimensioning of traffic for network operators. Finally, a market will also emerge on various forms of UPT access devices.

This Clause discusses likely constraints on the UPT service from the market viewpoint. These may concern issues like cost of the service, cost of subscriber equipment, size and weight of subscriber equipment, and flexibility, convenience of the service, etc. It is not the intention to cover marketing issues or issues that are part of strategic business policies, but simply to identify limitations in the system or service design given by market requirements.

In subclauses 3.1 to 3.3, requirements are listed for the UPT service provision, UPT terminals and UPT access devices. Requirements on infrastructure are implicit.

3.1 Constraints on the UPT service provision

The UPT service will be provided by UPT service providers. The following constraints on the UPT service provision must be considered:

- the cost of the UPT service using a given network service should not be significantly higher than the cost of using the same service without UPT;
- the cost of using the UPT service in fixed networks should be lower than that for using current cellular networks;
- the UPT service should provide a high service flexibility and extensive user control of services.

3.2 Constraints on UPT terminals

The UPT terminals or terminal adaptors will be provided by terminal distributors. For the use of UPT terminals, it must be considered that a great variety of terminals currently exist in networks. The following constraints in terms of UPT terminals must therefore be considered:

- the use of existing terminals should be possible, with minor or no modifications, or additional costs;
- the added cost to a given terminal by the UPT terminal functionality should be low compared to the total cost of the UPT terminal;
- UPT terminal adaptors must have a low cost compared to the cost of the total UPT terminals.

3.3 Constraints on UPT access devices

The UPT access devices will be provided by the UPT service providers. The following constraints on UPT access devices must be considered:

- the cost of a UPT access device should be negligible compared to the total cost of a UPT terminal;
- the size and weight of UPT access devices should be so that it can be easily carried, e.g. like a credit card.

History

Document history	
December 1992	First Edition
February 1996	Converted into Adobe Acrobat Portable Document Format (PDF)