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**Universal Personal Telecommunication (UPT);
The service concept
Part 6: UPT subscription and service profile**

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Foreword

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This ETR describes the Universal Personal Telecommunication (UPT) subscription and service profile.

This ETR constitutes Part 6 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.

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1 Scope

This ETSI Technical Report (ETR) describes the Universal Personal Telecommunication (UPT) subscription and the service profile, its structure, the information contained, the operations allowed on it and the possible restrictions for the parties involved in the access.

2 Definitions and abbreviations

2.1 Definitions

For the purposes of this ETR, the following definitions apply.

UPT subscription: in order to have available the UPT service, the UPT subscriber has to subscribe to it with the service provider; the UPT subscription is independent from any other bearer or supplementary service subscription.

Furthermore, in order to make any modification to the service profiles associated to the subscription, the UPT subscriber has to subscribe with the service provider for the possibility of access to his own data; the kind of access restrictions for the UPT users is decided at the subscription time between the service provider and the UPT subscriber.

UPT service profile: the UPT service profile is a record containing all the information related to the UPT user and the personal rules for handling the UPT user's mobility, in order to provide the UPT user with the UPT service.

In fact, the key object of the UPT is to increase the user mobility across any networks; focusing on this purpose, the service profile becomes an efficient way to support the user mobility. It contains a lot of information related to the user's location and to the dynamic management of the calls; it is therefore important to allow both a user-friendly access and operations on the service profile.

The possibility to access to the service profile has great implications on the security aspects, because the access procedure should be protected from not-allowed accesses or user's mistakes.

The following assumptions are required:

- the possibility of access to the service profile information has to be subscribed with the service provider;
- each UPT user can have access only to the UPT user's own data, and can modify only the data allowed.

Furthermore, each UPT service provider can decide which parameters the UPT users/subscribers are allowed to modify, so the categorisation provided in this recommendation can be changed by the service provider, whom should have the flexibility to decide the exact way to include a given parameter into the service profile.

2.2 Abbreviations

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

ARA	Access Registration Address
ISDN	Integrated Services Digital Network
PLMN	Public Land Mobile Network
PSTN	Public Switched Telephone Network
PUI	Personal User Identity
UPT	Universal Personal Telecommunication

3 Access to the service profile

The information contained in the service profile may need to be modified according to the user's needs and requests.

In order to modify the service profile or to make any other operation on it, it is necessary to have an access procedure which can be different for the various parties invoking it.

3.1 Involved parties

The possibility to access to the service profile is available for the following categories of UPT users:

- the service provider has guaranteed access to all of the information, without any restrictions;
- the UPT subscriber has to agree with the service provider at subscription time, which kinds of accesses are permitted for the UPT subscriber and for the eventual associated UPT users. For any modification to the access modality agreed at subscription time, the subscriber has to contact the service provider. The UPT subscriber can access only the information allowed by the service provider; furthermore, some information can only be displayed and not modified by the UPT subscriber, (e.g. the UPT number). However, the UPT subscriber can ask the service provider to modify some parameters via the administration procedure;
- the UPT user can access the service profile if this possibility has been given to him by the subscriber at subscription time; however, the UPT user may have some restrictions in the access, determined by the UPT subscriber (e.g. the UPT user may not be able to modify the restrictions on permitted callers).

Each information item may have one of three degrees of access, corresponding to each level of access that is defined for the UPT service profile:

- 1) no access;
- 2) interrogation access (read only);
- 3) modification access (read and write).

3.2 Access procedure

The access procedure to the subscriber/user data has to be user-friendly and at the same time has to guarantee the security of communication.

The UPT service profile is accessed using the service profile management procedures described in Part 7 of this ETR.

3.3 Operations on the service profile

The following operations can be performed by the subscriber/user on his service data:

- service profile modification: this operation is made using the profile modification procedure and allows the subscriber/user to change the variable information;
- service profile display: this operation is made using the profile interrogation procedure and allows the subscriber/user to obtain information on the current status of the service profile.

Furthermore, the system has to validate the service profile after any modification made by the subscriber/user; the validation can be either semantic or syntactic.

4 Structure of the service profile

4.1 Fixed information

This subclause describes the fixed information from the user's point of view: these can be divided into:

- not changeable information, managed only by the service provider; and
- information changeable by the subscriber.

Due to the user's restrictions, both of these information types are not allowed to be modified by the UPT user; the information classification can be defined by the service provider.

4.1.1 Information fixed at subscription time

The following information items are fixed at subscription time and can only be modified by the service provider; they could, however, be displayed to the UPT users and subscriber, if agreed at the subscription time. If changes are required by the UPT subscriber, administrative procedures must be used with the UPT service provided for agreement upon a new UPT subscription:

- UPT number;
- Personal User Identity (PUI);
- default home location of the UPT user;
- services provided by the service provider (access independent services);
- bearer services subscribed to;
- teleservices subscribed to;
- supplementary services subscribed to;
- maximum number of failed authentication attempts, before disabling the UPT service profile access;
- types of authentication procedures subscribed to;
- security options subscribed to;
- whether or not remote registration is limited to the list of terminal accesses subscribed to;
- not allowed destination prefixes for incoming calls.

4.1.2 Information changeable by the subscriber

This information can be modified only by the subscriber; it may, however, be displayed to the UPT users if agreed by the subscriber; all of this information may be on a per basic telecommunications service basis:

- charging options allowed;
- profile access parameters (read/write privilege) for the UPT user;
- any particular charging arrangements;
- maximum allowed credit for user (threshold of credit);
- restrictions on roaming, if any;
- maximum number of terminal accesses for group registration for incoming calls;
- maximum number of terminal accesses for group registration for outgoing calls;
- maximum number of terminal accesses for remote registration;
- allowed procedures for the UPT user.

4.2 Variable information

The information described in this subclause is defined as "variable" from the user's point of view; it can be changed using the service profile modification procedure or the personal mobility procedures only.

The variable information are divided into service related and mobility related information, and may be on a per basic telecommunications service basis.

4.2.1 Service related information

The following parameters are changeable by the user or the subscriber, using the service profile modification procedure:

- request of authentication by the UPT user for incoming calls;
- type of authentication procedures activated;
- specific confidentiality requirements, if any (e.g. restrictions on disclosure of current terminal accesses);
- restrictions on permitted callers, if available;
- customised announcements;
- type of charging options activated;
- type of security options activated;
- activation status for each supplementary service (Public Switched Telephone Network (PSTN), Integrated Services Digital Network (ISDN), Public Land Mobile Network (PLMN), UPT specific supplementary services, etc.);
- preferred language for UPT specific announcements.

4.2.2 Mobility related information

4.2.2.1 Information modified by the UPT service profile management procedures only

The following information can be modified by the UPT service profile management procedures only:

- temporary home location;
- default terminal accesses for incoming calls;
- default terminal accesses for outgoing calls;

- default terminal accesses for linked registration;
- list of terminal accesses for remote registration¹);
- default duration (or number of calls) for registration, for incoming calls;
- default duration (or number of calls) for registration, for outgoing calls;
- default duration (or number of calls) for linked registration;
- variable routing parameters:
 - routing by call originating area;
 - routing by calling line identity (if applicable);
 - time dependent routing (by day of week, by day of year, by time of day, etc.);
 - routing by "on busy" condition;
 - routing by "no answer" condition;
- whether or not a simplified authentication procedure shall be used for outgoing UPT calls during the registration for outgoing calls;
- whether or not any other UPT user shall be allowed to deregister the UPT user for outgoing calls from a terminal access by override.

4.2.2.2 Information modified by the UPT personal mobility procedures only

The following information can be modified by the UPT personal mobility procedures only:

- current terminal accesses for incoming calls;
- current terminal accesses for outgoing calls;
- current terminal accesses for linked registrations.

¹) This contains the translation between short numbers defined by the UPT user and Access Registration Addresses (ARAs).

History

Document history	
December 1992	First Edition
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