



SLOVENSKI STANDARD SIST ETS 300 817 E1:2003

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NUgYVbc`ca fYy`Y`n`]bhY[f]fUb]a]`glcf]hj Ua]`fD-GBŁ!`A cV]`bcghVfYnj fj] bY[U
hYfa]bUUf7 HAŁ!`8 cXUtbUca fYybUZ b_W]Uf5 B: Ł`dfYXUU!` : i b_W]g_Y`na cÿbcgh
]b`]bZcfa UW]g_]`dfYfc_]`

Private Integrated Services Network (PISN); Cordless Terminal Mobility (CTM);
Handover Additional Network Feature (ANF); Functional capabilities and information
flows

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Foreword

This European Telecommunication Standard (ETS) has been produced by the Business Telecommunications (BTC) Technical Committee of the European Telecommunications Standards Institute (ETSI).

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Date of adoption of this ETS:	23 January 1998
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1 Scope

This European Telecommunications Standard (ETS) describes the Stage 2 of the Cordless Terminal Handover Additional Network Feature (ANF-CTH) for a Private Integrated Services Network (PISN).

ANF-CTH is an additional network feature that enables a Cordless Terminal Mobility (CTM) user to maintain a call while moving between overlapping location areas belonging to the same visitor area.

This ANF is applicable to all circuit mode basic services as defined in ETS 300 171 [3].

NOTE 1: The HandOver (HO) procedures described in this ETS are only applicable on handover between location areas controlled by the same Private Integrated services Network eXchange (PINX).

Additional network feature specifications are produced in three stages according to the method specified in ENV 41005 [2]. This ETS contains the Stage 2 specifications of ANF-CTH. It identifies the Functional Entities (FEs) involved in the service and the information flows between them.

NOTE 2: The information flow across the air-interface is outside the scope of this ETS.

The purpose of the Stage 2 specification is to guide and constrain the work on signalling protocols at Stage 3, while fulfilling the requirements of Stage 1 of ETS 300 816 [6]. Stages 1 and 3 are defined in separate standards.

This ETS contains two Stage 2 specifications reflecting different ways of selecting the new location area: selection of the new location area by the CTM user and selection of the new location area by the network.

Conformance to this ETS is met by conforming to a Stage 3 standard which fulfils the requirements of this ETS that are relevant to the equipment for which the Stage 3 standard applies. Therefore no method of testing is provided for this ETS. (standards.iteh.ai)

2 Normative references

This ETS incorporates by dated or undated reference provisions from other publications. These normative 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 only when incorporated in it by amendment or revision. For undated references the latest edition of the publication referred to applies.

- [1] CCITT Recommendation I.210 (1988): "Principles of telecommunication services supported by an ISDN and the means to describe them".
- [2] ENV 41005 (1989): "Method for the specification of basic and supplementary services of private telecommunication networks".
- [3] ETS 300 171 (1992): "Private Telecommunication Network (PTN) - Specification, functional model and information flows - Control aspects of circuit mode basic services".
- [4] ETS 300 415 (1996): "Private Integrated Services Network (PISN); Terms and definitions".
- [5] CCITT Recommendation Z.100 (1988): "Functional Specification and Description Language (SDL)".
- [6] ETS 300 816 (1996): "Private Integrated Services Network (PISN); Cordless Terminal Mobility (CTM); Handover Additional Network Feature; Service Description".

3 Definitions and abbreviations

3.1 Definitions

For the purposes of this ETS, the following terms, defined in other documents, apply:

address: See ETS 300 415 [4].

call (basic call): See ETS 300 171 [3].

Cordless Terminal Mobility (CTM): See ETS 300 415 [4].

Fixed Part (FP): See ETS 300 415 [4].

Private Telecommunication Network (PTN): See ETS 300 415 [4].

Private Integrated services Network eXchange (PINX): See ETS 300 415 [4].

PISN number: See ETS 300 415 [4].

supplementary service: See CCITT Recommendation I.210 [1].

Visitor Data Base: See ETS 300 415 [4].

visitor area: See ETS 300 415 [4].

NOTE: For the purpose of this ETS the visitor area is confined to the coverage area of a single PINX.

This ETS refers to the following FEs defined for basic call control ETS 300 171 [3]:

Call Control (CC): Generic functional entity of Call Control.

Call Control Agent (CCA): Generic functional entity of Call Control Agent.

This ETS refers to the following inter-FE relationships defined for basic call control ETS 300 171 [3]:

r1: The access relationship between an Originating Call Control Agent functional entity and an Originating Call Control functional entity.

r3: The access relationship between a Destination Call Control Agent functional entity and a Destination Call Control functional entity.

For the purposes of this ETS, the following definitions apply:

CTM user: A PISN user whose calls are processed by the additional network feature ANF-CTH.

established call: A call for which communication between the end users is possible.

visitor PINX: The PINX which has direct access to the Visitor Data Base (VDB) entry associated with a particular CTM user.

location area: The coverage area in which a cordless terminal may receive and make calls as a result of a single location registration.

PISN user: A user whose terminal is directly attached to a PISN and therefore can directly use the bearer services and teleservices of the PISN.

user: An entity which uses bearer services or teleservices of a PISN.

3.2 Abbreviations

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

CC	Call Control functional entity
CCA	Call Control Agent functional entity
ANF	Additional Network Feature
ANF-CTH	Cordless Terminal mobility Handover-Additional Network Feature
CTM	Cordless Terminal Mobility
FE	Functional Entity
FEA	Functional Entity Action
FP	Fixed Part
HO	HandOver
PISN	Private Integrated Services Network
PINX	Private Integrated services Network eXchange
SDL	Specification and Description Language
VDB	Visitor Data Base

4 ANF-CTH Stage 2 Description - new location area selected by the Cordless Terminal Mobility (CTM) user

This clause defines the Stage 2 of the CTM Handover Additional Network Feature (ANF-CTH) where the new location area is selected by the CTM user.

4.1 Description

ANF-CTH enables a CTM user involved in a call to continue with the call while moving between overlapping location areas within the same visitor area.

NOTE: During handover, there may be a brief interruption to the established connection. This ANF should only be used in conjunction with basic services where such a temporary interruption is permissible.

4.2 Derivation of the functional model

4.2.1 Functional model description

The functional model shall comprise the following FEs:

FE1: CTM user's service agent.

FE2: CTM handover service execution entity.

FE3: Security parameter storage entity.

The following functional relationships shall exist between these FEs:

ra between FE1 and FE2.

rc between FE2 and FE3.

Figure 1 shows the FEs and relationships for the handover of a call involving a CTM user.

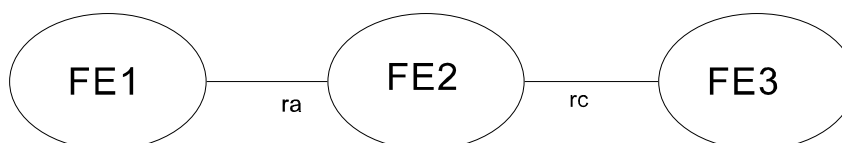


Figure 1: Functional model for the handover of a call involving a CTM user

4.2.2 Description of FEs

4.2.2.1 CTM user's service agent, FE1

This FE sends a request to FE2 to re-route the CTM user's call from its current location area to the new location area.

4.2.2.2 CTM handover service execution entity, FE2

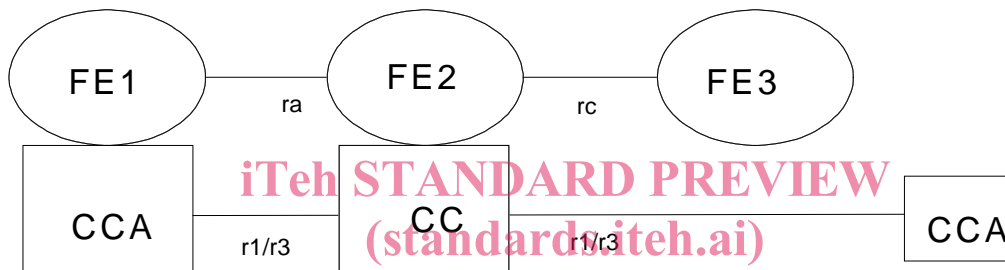
On request from FE1, this FE re-routes the user's call from its current location area to the new location area. It is also responsible for retrieving security parameters from FE3.

4.2.2.3 Security Parameter Storage entity, FE3

This FE provides on request from FE2, information on the security parameters currently in use by the CTM user.

4.2.3 Relationship with a basic service

An example of the relationship between the functional model and a basic service is shown in figure 2. This example is used as the basis for the information flow sequence diagrams in subclause 4.3.



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Figure 2: Functional entity model relationship
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4.3 Information flows

4.3.1 Information flow sequences

A Stage 3 standard shall be capable of providing the information flows shown in figures 3 to 5. It can specify further information flows, e.g. to deal with additional exceptional conditions.

ANF-CTH information flows are shown as solid arrows and basic call information flows are represented by broken arrows. An ellipse embracing two information flows indicates that these flows occur together. Within a column representing an ANF-CTH functional entity, the numbers refer to FEAs listed in subclause 4.5.