SLOVENSKI STANDARD

PSIST ETS 300 370:1999

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Digitalne izboljġane brezvrviļ ne telekomunikacije (DECT) - Globalni sistem mobilnih komunikacij (GSM) - Profil vzajemnega delovanja (IWP) pri DECT/GSM - Dostop in preslikava (opis postopka/protokola govorne storitve s pasovno ġirino 3,1 kHz)

Digital Enhanced Cordless Telecommunications (DECT); Global System for Mobile communications (GSM); DECT/GSM Interworking Profile (IWP); Access and mapping (protocol/procedure description for 3,1 kHz speech service)

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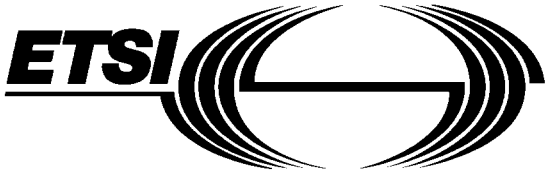

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Contents

Foreword

This second edition European Telecommunication Standard (ETS) has been produced by the Digital Enhanced Cordless Telecommunications (DECT) Project of the European Telecommunications Standards Institute (ETSI).

Transposition dates	
Date of adoption of this ETS:	23 January 1998
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Introduction

This ETS is a part of a set of standards for the Digital Enhanced Cordless Telecommunications / Global System for Mobile communications (DECT/GSM) Interworking Profile (IWP) concept that includes:

- general description of service requirements, functional capabilities and information flows, ETS 300 466 [12];
- **access and mapping (protocol/procedure description for 3,1 kHz speech service), (this ETS);**
- GSM Phase 2 supplementary services implementation, ETS 300 703 [21];
- GSM Mobile Switching Centre (MSC) – DECT Fixed Part (FP), Fixed Interconnection, ETS 300 499 [13];
- implementation of bearer services, ETS 300 756 [22];
- implementation of short message services, point to point and cell broadcast, ETS 300 764 [23];
- implementation of facsimile group 3, (ETS 300 792 [24]).

This ETS is based on DECT Common Interface (CI) specification ETS 300 175, parts 1 to 8 [1] to [8] to enable DECT terminals to interwork in the public and private environment with DECT systems which are connected to a GSM core infrastructure.

In addition, this ETS is based on the DECT Generic Access Profile (GAP), EN 300 444 [10] to enable the same DECT/GSM terminal to interwork with a DECT FP complying to the GAP requirements, irrespective of whether this FP provides residential, business or public access services. General attachment requirements and speech attachment requirements are based on TBR 6 [26] and TBR 10 [27].

This ETS utilizes, in addition to the GAP only related features and procedures, the following:

- GSM authentication;
- derivation of the DECT ciphering key from the respective GSM cipher key;
- the GSM International Mobile Subscriber Identity (IMSI) and Temporary Mobile Subscriber Identity (TMSI);
- the GSM Location Area Identity (LAI);
- subscription management by use of Subscriber Identity Module (SIM); and
- adding/deleting a Public Land Mobile Network (PLMN) in the SIM forbidden PLMN list.

This ETS defines a general purpose, but strict, mobility profile in terms of features, procedures, data structures, information elements and fields within the information elements at the DECT air interface in order to achieve full inter–operability between equipment, i.e. DECT systems and terminals, which fulfil the requirements of this ETS. This ETS also fulfils the minimum requirements of the GAP enabling backwards compatibility with the respective equipment.

Information on DECT access to the GSM PLMN may be found in ETR 159 [33]. Further details on the DECT system may be found in ETR 015 [29], ETR 043 [30], and ETR 056 [31], and in ETS 300 176 [9].

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1 Scope

This European Telecommunication Standard (ETS) specifies the Digital Enhanced Cordless Telecommunications (DECT) access protocols and Fixed Part (FP) and Portable Part (PP) interworking/mappings necessary to ensure that the Global System for Mobile communications (GSM) basic voice telephony service can be provided over DECT. To enable DECT terminals to interwork with DECT systems which are connected to the GSM infrastructure, from the DECT side this ETS is based on EN 300 444 [10] and on the DECT Common Interface specification ETS 300 175 parts 1 to 8 [1] to [8] (for the cases not covered by Generic Access Profile (GAP)), from GSM side this ETS assumes interworking with GSM Public Land Mobile Network (PLMN) phase 2.

An air–interface profile is specified for a particular set of GSM services so that inter–operability of DECT equipment for these services can be achieved. Interworking functions/mappings are specified for Mobile Switching Centre (MSC) attachment for the DECT FP as the FP is using the A–interface towards the GSM MSC in the respect that the FP emulates a GSM Base Station Controller (BSC) with regards to the GSM messages which are relevant to this ETS. Interworking functions/mappings for the PP are specified for MSC environment.

The provision of the GSM Subscriber Identity Module (SIM) and DECT Authentication Module (DAM) with the GSM Application (GA) within the DECT portable are also considered.

This ETS covers a subset of ETS 300 557 [18] (GSM 04.08) and ETS 300 590 [20] (GSM 08.08) procedures as far as mapping is concerned and as far as this is required for support of 3,1 kHz speech service.

GSM functions of ETS 300 590 [20] (GSM 08.08) which, in a DECT/GSM context, are relevant at the A-interface only, are out of the scope of this ETS, as well as interfaces to non GSM networks.

Specific interworking procedures/mappings for the support of supplementary services, data services, short message services and other GSM services are out of the scope of this ETS. Basic support for service initiation/invocation is however supported by this ETS.

A PP conforming to this ETS should be capable of distinguishing a FP conforming to this ETS from a FP conforming to the GAP and to access and react upon it accordingly.