



# SLOVENSKI STANDARD SIST EN 301 239:2000

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Digital Enhanced Cordless Telecommunications (DECT); Data Services Profile (DSP);  
Isochronous data bearer services for closed user groups (service type D, mobility class  
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# EN 301 239 V1.1.3 (1998-06)

*European Standard (Telecommunications series)*

**Digital Enhanced Cordless Telecommunications (DECT);  
Data Services Profile (DSP);  
Isochronous data bearer services for closed user groups  
(service type D, mobility class 1)**

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## Foreword

This European Standard (Telecommunications series) has been produced by ETSI Project Digital Enhanced Cordless Telecommunications (DECT).

<b>National transposition dates</b>	
Date of adoption of this EN:	5 June 1998
Date of latest announcement of this EN (doa):	30 September 1998
Date of latest publication of new National Standard or endorsement of this EN (dop/e):	31 March 1999
Date of withdrawal of any conflicting National Standard (dow):	31 March 1999

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## 1 Scope

The present document specifies a profile for Digital Enhanced Cordless Telecommunications (DECT) systems conforming to EN 300 175, parts 1 to 7 [1] - [7]. It is part of a family of profiles aimed at the general connection of terminals supporting non-voice services to a fixed infra-structure, private and public.

The type D service, mobility class 1, as described in the ETR 185 [9], supports Isochronous Data Bearer Services (IDBSs) for Closed User Groups (CUGs) and is suitable for transparent transfer of isochronous data streams. It is intended for use in non-public applications. Video services and secure telephony services (end-to-end encrypted) over external networks can be considered as applications of IDBS.

Phase 1 of the present document defines an unprotected service offering an unrestricted digital 32 kbit/s data bearer service and an unprotected single bearer, multi-rate, rate adaptation service to interwork to synchronous ITU-T Recommendations V.series services.

Further phases of this profile may additionally provide multiple rate, multi-bearer support and error correction capability for services and applications requiring higher rates and high quality isochronous data transmission.

The present document specifies the requirements on the Physical (PHL) layer, Medium Access Control (MAC) layer, Data Link Control (DLC) layer and Network (NWK) layer of DECT. The standard also specifies Management Entity (ME) requirements and generic Interworking Conventions (IC).

## 2 Normative references

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References may be made to:

- a) specific versions of publications (identified by date of publication, edition number, version number, etc.), in which case, subsequent revisions to the referenced document do not apply; or
- b) all versions up to and including the identified version (identified by "up to and including" before the version identity); or
- c) all versions subsequent to and including the identified version (identified by "onwards" following the version identity); or
- d) publications without mention of a specific version, in which case the latest version applies.

A non-specific reference to an ETS shall also be taken to refer to later versions published as an EN with the same number.

- [1] EN 300 175-1: "Digital Enhanced Cordless Telecommunications (DECT); Common Interface (CI); Part 1: Overview".
- [2] EN 300 175-2: "Digital Enhanced Cordless Telecommunications (DECT); Common Interface (CI); Part 2: Physical layer (PHL)".
- [3] EN 300 175-3: "Digital Enhanced Cordless Telecommunications (DECT); Common Interface (CI); Part 3: Medium Access Control (MAC) layer".
- [4] EN 300 175-4: "Digital Enhanced Cordless Telecommunications (DECT); Common Interface (CI); Part 4: Data Link Control (DLC) layer".
- [5] EN 300 175-5: "Digital Enhanced Cordless Telecommunications (DECT); Common Interface (CI); Part 5: Network (NWK) layer".
- [6] EN 300 175-6: "Digital Enhanced Cordless Telecommunications (DECT); Common Interface (CI); Part 6: Identities and addressing".
- [7] EN 300 175-7: "Digital Enhanced Cordless Telecommunications (DECT); Common Interface (CI); Part 7: Security features".



- [8] EN 300 444: "Digital Enhanced Cordless Telecommunications (DECT); Generic Access Profile (GAP)".
- [9] ETR 185: "Digital Enhanced Cordless Telecommunications (DECT); Data Services Profile (DSP); Profile overview".
- [10] EN 301 238: "Digital Enhanced Cordless Telecommunications (DECT); Data Services Profile (DSP); Isochronous data bearer services with roaming mobility (service type D, mobility class 2)".
- [11] CCITT Recommendation V.24 (1988): "List of definitions for interchange circuits between data terminal equipment (DTE) and data circuit-terminating equipment (DCE)".
- [12] ITU-T Recommendation V.34: "A modem operating at data signalling rates of up to 33 600 bit/s for use on the general switched telephone network and on leased point-to-point 2-wire telephone-type circuits".
- [13] ITU-T Recommendation R.140: "Definitions of essential technical terms in the field of telegraph transmission".

## 3 Definitions and abbreviations

### 3.1 Definitions

For the purposes of the present document, the following definitions apply:

- a) the definitions in EN 300 444 [8]; and
- b) the following terms:

**bearer service:** A type of telecommunications service that provides the capability for the transmission of signals between user/network interfaces. For DECT systems, the Air (Radio) interface provides the bearer services between the DECT Fixed radio Termination (FT) and the DECT Portable radio Termination (PT).

**isochronous:** Pertaining to a signal or a time-varying phenomenon characterized by significant instants separated by time intervals having a duration theoretically equal to the duration of a unit interval or to an integral multiple of this duration (ITU-T Recommendation R.140 [13]).

**mobility class 1:** Closed user groups, for which terminals are pre-registered off-air with one or more specific Fixed Parts (FPs), and establishment of service and user parameters is therefore implicit, according to a profile-defined list.

**mobility class 2:** Private and public roaming applications for which terminals may move between FPs within a given domain and for which association of service parameters is explicit at the time of service request.

**service:** A set of functions offered to a user by an organization.

**synchronous transmission:** Transmission using isochronous signals in which the sending and receiving instruments are operating continuously in a constant time difference between corresponding significant instants (ITU-T Recommendation R.140 [13]).

**synchronous:** The essential characteristics of time-scales or signals such that their corresponding significant instants occur at precisely the same average rate. (not in ITU-T Recommendation R.140 [13])

### 3.2 Abbreviations

For the purposes of the present document, the following abbreviations apply:

AI	Air Interface
ARI	Access Rights Identity
C	higher layer control Channel
CC	Call Control

C-plane	Control plane
Cs	higher layer signalling Channel (slow)
CUG	Closed User Group
DCE	Data Circuit-terminating Equipment
DECT	Digital Enhanced Cordless Telecommunications
DIC	DECT Independent Clocking
DLC	Data Link Control
DSP	Data Services Profile
DTE	Data Terminal Equipment
FP	Fixed Part
FT	Fixed radio Termination
GAP	Generic Access Profile
GSM	Global System for Mobile communication
I	higher layer Information channel
IC	Interworking Conventions
IDBS	Isochronous Data Bearer Service
IPUI	International Portable User Identity
ISDN	Integrated Services Digital Network
IWF	Interworking Functions
IWP	Interworking Profile
IWU	Interworking Unit
LAP-B	Link Access Procedure (Balanced)
LAP-C	Link Access Procedure (Control)
Lb	a DLC layer C-plane protocol entity
Lc	a DLC layer C-plane protocol entity
MAC	Medium Access Control
ME	Management Entity
NWK	NetWork
PHL	PHysical
PICS	Protocol Implementation Conformance Statement
PP	Portable Part
PT	Portable radio Termination
TAF	Terminal Adaptation Function
U-plane	User plane

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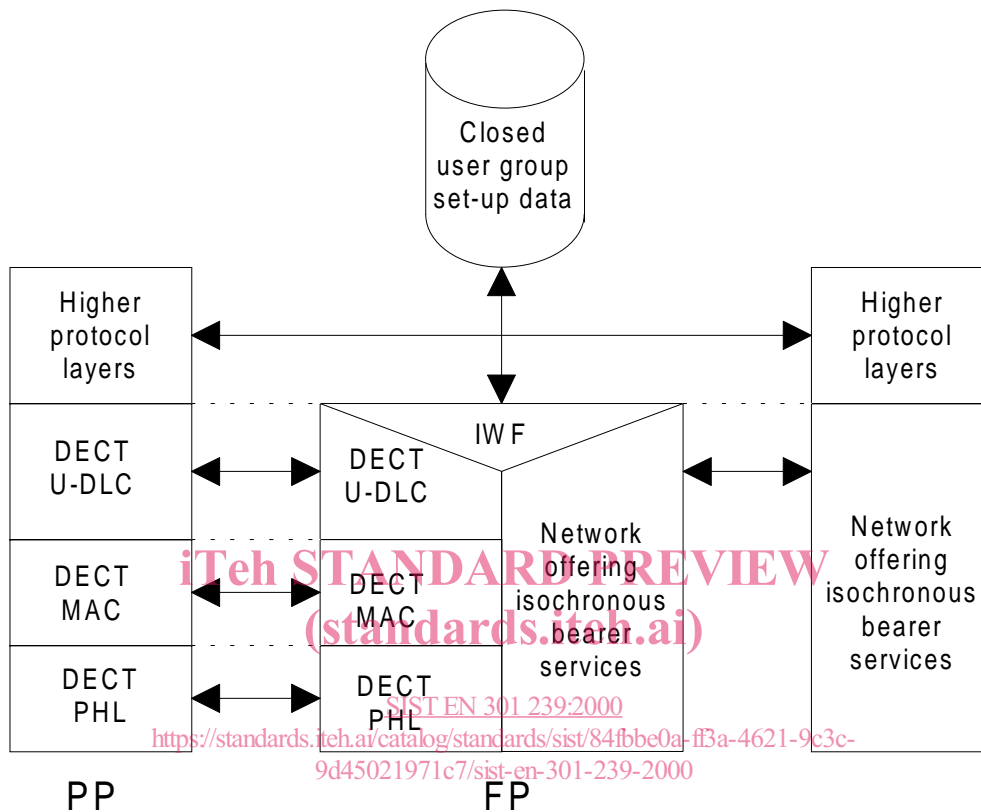
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## 4 Description of services

### 4.1 Reference configuration

The reference configuration for this profile shall be as shown in figure 1.



**Figure 1: Profile reference configuration showing interworking to a network via the DECT U-plane (only)**

## 4.2 Service objectives

### 4.2.1 General

The general service objectives for data service profiles with mobility class 1 are described in subclause 6.2.2 of ETR 185 [9].

The specific U-plane service objectives of this profile are listed in subclauses 4.2.2 and 4.2.3. There are no requirements or service objectives in relation to the C-plane.