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Digitalne izboljšane brezvrvične telekomunikacije (DECT) – Skupni vmesnik (CI) – 4. del: Plast krmiljenja podatkovnih povezav (DCL)

Digital Enhanced Cordless Telecommunications (DECT); Common Interface (CI); Part 4: Data Link Control (DLC) layer

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650 Route des Lucioles
F-06921 Sophia Antipolis Cedex - FRANCE

Tel.: +33 4 92 94 42 00 Fax: +33 4 93 65 47 16

Siret N° 348 623 562 00017 - NAF 742 C
Association à but non lucratif enregistrée à la
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Foreword

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

The present document is part 4 of a multi-part EN covering the Common Interface (CI) for the Digital Enhanced Cordless Telecommunications (DECT), as identified below:

Part 1: "Overview";

Part 2: "Physical Layer (PHL)";

Part 3: "Medium Access Control (MAC) layer";

Part 4: "Data Link Control (DLC) layer";

Part 5: "Network (NWK) layer";

Part 6: "Identities and addressing";

Part 7: "Security features";

Part 8: "Speech coding and transmission".

Further details of the DECT system may be found in TR 101 178 [14] and ETR 043 [15].

National transposition dates	
Date of adoption of this EN:	16 February 2001
Date of latest announcement of this EN (doa):	31 May 2001
Date of latest publication of new National Standard or endorsement of this EN (dop/e):	30 November 2001
Date of withdrawal of any conflicting National Standard (dow):	30 November 2001

1 Scope

The present document gives an introduction and overview of the complete Digital Enhanced Cordless Telecommunications (DECT) Common Interface (CI).

This part of the DECT CI specifies the Data Link Control (DLC) layer. The DLC layer is Part 4 of the DECT CI standard and layer 2b of the DECT protocol stack.

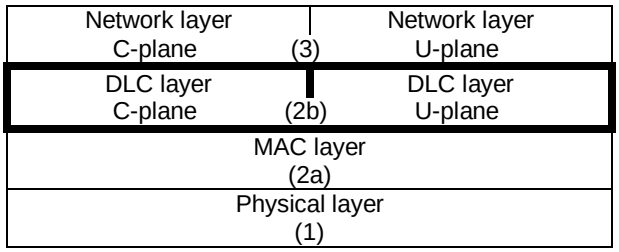

Figure 1.1

Two planes of operation are specified for this DLC (sub)layer. These planes are called the Control plane (C-plane) and the User plane (U-plane).

The C-plane is mostly concerned with the DECT signalling aspects. It provides a reliable point-to-point service that uses a link access protocol to offer error protected transmission of Network (NWK) layer messages. The C-plane also provides a separate point-to-multipoint (broadcast) service (Lb).

The U-plane is only concerned with end-to-end user information. This plane contains most of the application dependent procedures of DECT. Several alternative services (both circuit-mode and packet-mode) are defined as a family of independent entities. Each service provides one or more point-to-point U-plane data links, where the detailed characteristics of those links are determined by the particular needs of each service. The defined services cover a wide range of performance, from "unprotected with low delay" for speech applications to "highly protected with variable delay", for local area network applications.

The present document uses the layered model principles and terminology as described in ITU-T Recommendation X.200 [11] and ITU-T Recommendation X.210 [12].

2 References

The following documents contain provisions which, through reference in this text, constitute provisions of the present document.

- References are either specific (identified by date of publication, edition number, version number, etc.) or non-specific.
- For a specific reference, subsequent revisions do not apply.
- For a non-specific reference, the latest version applies.

[1] ETSI EN 300 175-1: "Digital Enhanced Cordless Telecommunications (DECT); Common Interface (CI); Part 1: Overview".

[2] ETSI EN 300 175-2: "Digital Enhanced Cordless Telecommunications (DECT); Common Interface (CI); Part 2: Physical Layer (PHL)".

[3] ETSI EN 300 175-3: "Digital Enhanced Cordless Telecommunications (DECT); Common Interface (CI); Part 3: Medium Access Control (MAC) layer".

[4] ETSI EN 300 175-5: "Digital Enhanced Cordless Telecommunications (DECT); Common Interface (CI); Part 5: Network (NWK) layer".

[5] ETSI EN 300 175-8: "Digital Enhanced Cordless Telecommunications (DECT); Common Interface (CI); Part 8: Speech coding and transmission".

[6] GSM Technical Specification 04.06 (V3.9.0): "European digital cellular telecommunications system (Phase 1); Mobile Station - Base Station System (MS-BSS) interface; Data link layer specification (GSM 04.06)".

[7] ITU-T Recommendation Q.920 (1993): "Digital Subscriber Signalling System No. 1 (DSS1) - ISDN user-network interface data link layer - General aspects".

[8] ITU-T Recommendation Q.921 (1993): "ISDN user-network interface - Data link layer specification.

[9] ITU-T Recommendation V.42 (1996): "Error-correcting procedures for DCEs using asynchronous-to-synchronous conversion".

[10] ITU-T Recommendation V.110 (1996): "Support by an ISDN of data terminal equipments with V-series type interfaces".

[11] ITU-T Recommendation X.200 (1994): "Information technology - Open Systems Interconnection - Basic reference model: The basic model".

[12] ITU-T Recommendation X.210 (1993): "Information technology - Open Systems Interconnection - Basic Reference Model: Conventions for the definition of OSI services".

[13] ISO/IEC 8073 (1997): "Information technology - Open Systems Interconnection - Protocol for providing the connection-mode transport service".

[14] ETSI TR 101 178: "Digital Enhanced Cordless Telecommunications (DECT); A High Level Guide to the DECT Standardization".

[15] ETSI ETR 043: "Digital Enhanced Cordless Telecommunications (DECT); Common Interface (CI); Services and facilities requirements specification".

3 Definitions and abbreviations

3.1 Definitions

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

bearer handover: see EN 300 175-1 [1].

C-plane: see EN 300 175-1 [1].

cluster: see EN 300 175-1 [1].

connection handover: see EN 300 175-1 [1].

Connectionless mode (C/L): see EN 300 175-1 [1].

Connection Oriented mode (C/O): see EN 300 175-1 [1].

Cordless Radio Fixed Part (CRFP): see EN 300 175-1 [1].

DLC broadcast: see EN 300 175-1 [1].

DLC data link (DLC link): see EN 300 175-1 [1].

DLC frame: see EN 300 175-1 [1].

double duplex bearer: see EN 300 175-1 [1].

Fixed radio Termination (FT): see EN 300 175-1 [1].