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Digitalne izboljġane brezvrviļ ne telekomunikacije (DECT) - Mobilnost brezvrviļ nega terminala (CTM) - Bodoļ i paket 1 (FP1) - Profil vodovno komutiranih podatkov CTM, 32 kbit/s in 64 kbit/s - Neomejena digitalna informacija (UDI)

Digital Enhanced Cordless Telecommunications (DECT); Cordless Terminal Mobility (CTM); Feature Package 1 (FP1); CTM circuit-switched data profile, 32 kbit/s and 64 kbit/s Unrestricted Digital Information (UDI)

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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 based on EN 300 175-1 to 8 [1] to [8] and ETS 300 824 [10]. General attachment requirements are based on TBR 6 [19] and, where applicable, voice attachment requirements are based on TBR 10 [20].

The present document has been developed in accordance to the rules of documenting a profile specification as described in ISO/IEC 9646-6 [11].

National transposition dates	
Date of adoption of this EN:	5 November 1999
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1 Scope

The present document specifies that set of technical requirements for Digital Enhanced Cordless Telecommunications (DECT) Fixed Part (FP) and DECT Portable Part (PP) necessary for the support of the Cordless Terminal Mobility (CTM) Feature Package 1 (CTM-FP1).

The objective of the present document is to ensure the Air Interface (AI) interoperability of DECT CTM-FP1 PPs and DECT CTM-FP1 FPs if applied.

The CTM service allows users of cordless terminals to be mobile within and between networks. Where radio coverage is provided and the cordless terminal has appropriate access rights the user will be able to make calls from, and to receive calls at, any location within the fixed public and/or private networks, and may move without interruption of a call in progress.

CTM-FP1 defines 32 Kbit/s Circuit Switched Data services (CSD) for CTM users.

The present document is intended as an extension of the DECT CTM Access Profile (ETS 300 824 [10]) mobility features mandatory base covering the requirements for CTM-FP1.

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

[9] EN 300 444: "Digital Enhanced Cordless Telecommunications (DECT); Generic Access Profile (GAP)".

[10] ETS 300 824: "Digital Enhanced Cordless Telecommunications (DECT); Cordless Terminal Mobility (CTM); CTM Access Profile (CAP)".

[11] ISO/IEC 9646-6: "Information technology - Open Systems Interconnection - Conformance testing methodology and framework - Part 6: Protocol profile test specification".

[12] ITU-T Recommendation Q.922: "ISDN data link layer specification for frame mode bearer services".

[13] ITU-T Recommendation Q.931: "Digital Subscriber Signalling System No. 1 (DSS 1) - ISDN user-network interface layer 3 specification for basic call control".

[14] ITU-T Recommendation Q.933: "Integrated services digital network (ISDN) digital subscriber Signalling System No. 1 (DSS 1) - signalling specifications for frame mode switched and permanent virtual connection control and status monitoring".

[15] ITU-T Recommendation V.24: "List of definitions for interchange circuits between data terminal equipment (DTE) and data circuit-terminating equipment (DCE)".

[16] ITU-T Recommendation V.42bis: "Data compression procedures for data circuit terminating equipment (DCE) using error correction procedures".

[17] ITU-T Recommendation V.110: "Support by an ISDN of data terminal equipments with V-Series type interfaces".

[18] ITU-T Recommendation V.120: "Support by an ISDN of data terminal equipment with V-Series type interfaces with provision for statistical multiplexing".

[19] TBR 6: "Digital Enhanced Cordless Telecommunications (DECT); General terminal attachment requirements".

[20] TBR 10: "Digital Enhanced Cordless Telecommunications (DECT); General terminal attachment requirements; Telephony applications".

3 Definitions and abbreviations

3.1 Definitions

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

authentication: process whereby a DECT subscriber is positively verified to be a legitimate user of a particular FP.

NOTE 1: Authentication is generally performed at call set-up, but may also be done at any other time (e.g. during a call).

bearer service: type of telecommunication service that provides a defined capability for the transmission of signals between user-network interfaces.

NOTE 2: The DECT user-network interface corresponds to the top of the Network (NWK) layer (layer 3).

C-plane: control plane of the DECT protocol stacks, which contains all of the internal DECT protocol control, but may also include some external user information.

NOTE 3: The C-plane stack always contains protocol entities up to and including the NWK layer.

call: all of the NWK layer processes involved in one NWK layer peer-to-peer association.

NOTE 4: Call may sometimes be used to refer to processes of all layers, since lower layer processes are implicitly required.

DECT network: network that uses the DECT AI to interconnect a local network to one or more portable applications. The logical boundaries of the DECT network are defined to be at the top of the DECT NWK layer.

NOTE 5: A DECT network is a logical grouping that contains one or more FTs plus their associated PT. The boundaries of the DECT network are not physical boundaries.

Fixed Part (DECT Fixed Part) (FP): physical grouping that contains all of the elements in the DECT network between the local network and the DECT AI.

NOTE 6: A DECT FP contains the logical elements of at least one FT, plus additional implementation specific elements.

Fixed radio Termination (FT): logical group of functions that contains all of the DECT processes and procedures on the fixed side of the DECT AI.

NOTE 7: A FT only includes elements that are defined in the DECT Common Interface (CI) standard. This includes radio transmission elements together with a selection of layer 2 and layer 3 elements.

global network: telecommunication network capable of offering a long distance telecommunication service.

NOTE 8: The term does not include legal or regulatory aspects, nor does it indicate if the network is a public or a private network.

handover: the process of switching a call in progress from one physical channel to another physical channel.

NOTE 9: There are two physical forms of handover, intra-cell handover and inter-cell handover.

incoming call: call received at a PP.

inter-operability: capability of FPs and PPs, that enable a PP to obtain access to teleservices in more than one Location Area (LA) and/or from more than one operator (more than one service provider).

inter-operator roaming: roaming between FP coverage areas of different operators (different service providers).

Interworking Unit (IWU): unit that is used to interconnect sub-networks.

NOTE 10: The IWU will contain the interworking functions necessary to support the required sub–network interworking.

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.

Local Network (LNW): telecommunication network capable of offering local telecommunication services.

NOTE 11: The term does not include legal or regulatory aspects, nor does it indicate if the network is a public network or a private network.

MAC connection (connection): association between one source MAC Multiple Bearer Control (MBC) entity and one destination MAC MBC entity. This provides a set of related MAC services (a set of logical channels), and it can involve one or more underlying MAC bearers.

outgoing call: a call originating from a PP.

Portable Application (PA): logical grouping that contains all the elements that lie beyond the DECT network boundary on the portable side.

NOTE 12: The functions contained in the PA may be physically distributed, but any such distribution is invisible to the DECT network.

Portable Part (DECT Portable Part) (PP): physical grouping that contains all elements between the user and the DECT AI. PP is a generic term that may describe one or several physical pieces.

NOTE 13: A DECT PP is logically divided into one PT plus one or more PAs.

Portable radio Termination (PT): logical group of functions that contains all of the DECT processes and procedures on the portable side of the DECT AI.

NOTE 14: A PT only includes elements that are defined in the DECT CI standard. This includes radio transmission elements (layer 1) together with a selection of layer 2 and layer 3 elements.

Radio Fixed Part (RFP): one physical sub-group of a FP that contains all the radio end points (one or more) that are connected to a single system of antennas.

synchronous: essential characteristics of time-scales or signals such that their corresponding significant instants occur at precisely the same average rate.

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.

3.2 Abbreviations

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

AAL	ATM Adaptation Layer
AI	Air Interface
ATM	Asynchronous Transfer Mode
CAP	CTM Access Profile
CC	Call Control
CI	Common Interface
CSD	Circuit Switched Data
CTM	Cordless Terminal Mobility
CTM-FP1	Cordless Terminal Mobility Feature Package 1
DCE	Data Communication Equipment
DECT	Digital Enhanced Cordless Telecommunications
DLC	Data Link Control
DTE	Data Terminal Equipment
FP	Fixed Part
FT	Fixed radio Termination
GAP	Generic Access Profile
GSM	Global System for Mobile communication
ISDN	Integrated Services Digital Network
IWF	Interworking Functions
IWU	Interworking Unit
IWF	Interworking Function
LCE	Link Control Entity
LNW	Local Network
MAC	Medium Access Control
MBC	Multiple Bearer Control
MM	Mobility Management
NWK	Network
PA	Portable Application
PHL	Physical Layer
PHY	PHYsical
PP	Portable Part
PT	Portable radio Termination
RFP	Radio Fixed Part
SAP	Service Access Point
TAF	Terminal Adoption Functions

4 Description of services

4.1 Reference configuration

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

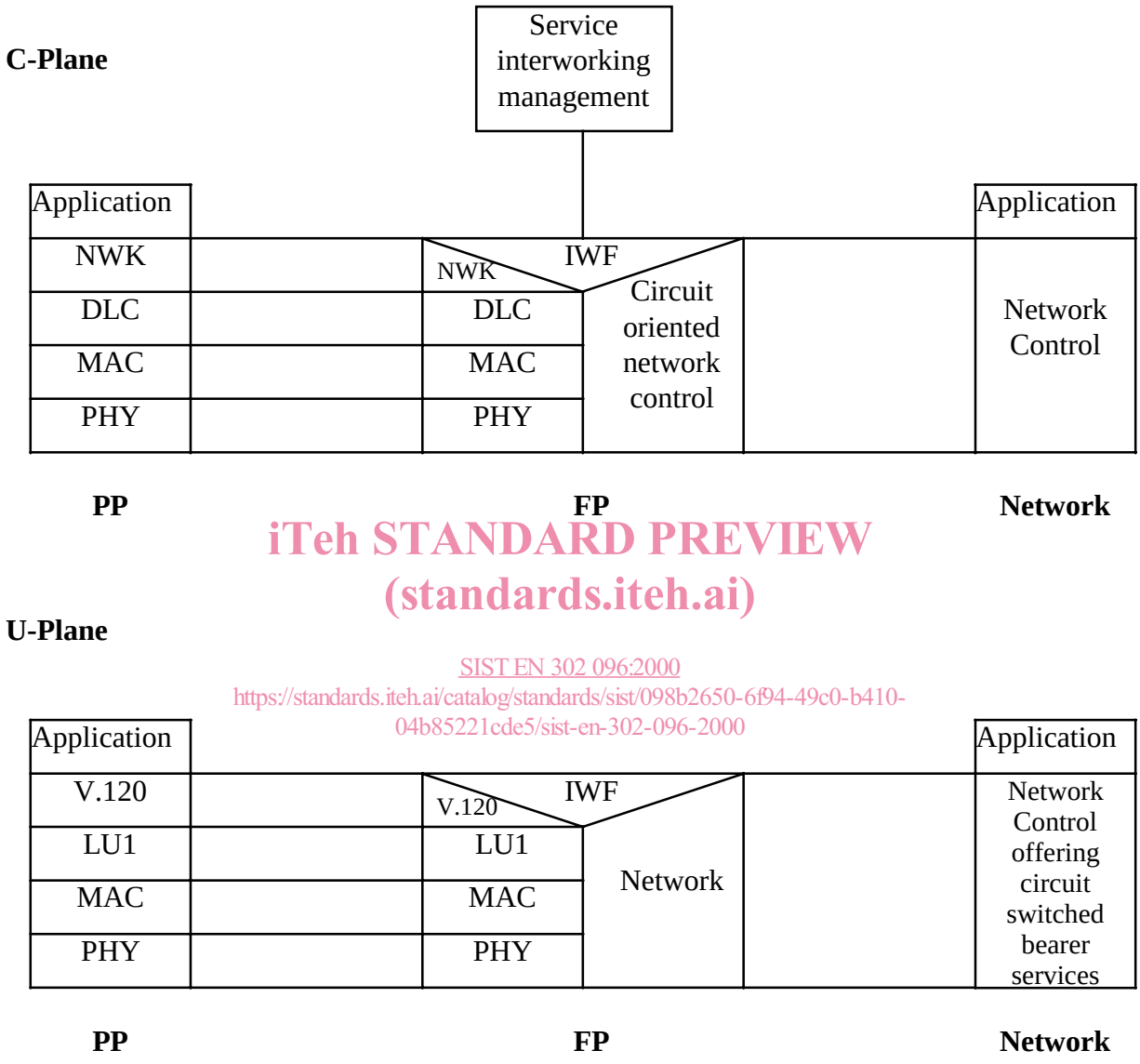

Figure 1: Profile reference configuration showing interworking to connection-oriented networks via the C-plane and U-plane