SLOVENSKI STANDARD
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Digitalne izboljġane brezvrviļ ne telekomunikacije (DECT) - Priključļ itvene zahteve za terminalsko opremo za digitalne izboljġane brezvrviļ ne telekomunikacije (DECT) - Dodatne zahteve za uporabo aplikacij DECT z javnim dostopom (PAP) za terminalsko opremo

Digital Enhanced Cordless Telecommunications (DECT); Attachment requirements for terminal equipment for DECT Public Access Profile (PAP) applications

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ETSI

European Telecommunications Standards Institute

ETSI Secretariat

Postal address: F-06921 Sophia Antipolis CEDEX - FRANCE
Office address: 650 Route des Lucioles - Sophia Antipolis - Valbonne - FRANCE
X.400: c=fr, a=atlas, p=etsi, s=secretariat - **Internet:** secretariat@etsi.fr

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

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Foreword

This Technical Basis for Regulation (TBR) has been produced by the Radio Equipment and Systems (RES) Technical Committee of the European Telecommunications Standards Institute (ETSI).

Details of the Digital European Cordless Telecommunications (DECT) Common Interface may be found in ETS 300 175 Parts 1 - 9 [1] to [9].

Further details of the DECT system may be found in the ETSI Technical Reports, ETR 015, ETR 043 and ETR 056.

This TBR contains the technical characteristics particular to public access services using the DECT Public Access Profile (PAP) provided by terminal equipment which is capable of connection to a public telecommunications network and which uses DECT cordless communications.

General attachment requirements and speech attachment requirements are covered by TBR 6 [11] and TBR 10 [12] respectively.

This TBR refers to ETS 300 323 Parts 1 - 7 [15] to [21], the PAP specification.

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1 Scope

This TBR specifies the technical characteristics particular to public access services using the DECT Public Access Profile (PAP) provided by terminal equipment which is capable of connection to a public telecommunications network and which uses DECT cordless communications. The cordless transmissions for such terminal equipment operate within the frequency band 1 880 - 1 900 MHz.

Where applicable, this TBR is in addition to the attachment requirements for the appropriate public network (see NOTE 1), and to the TBRs for DECT general attachment requirements and for telephony applications. This TBR applies to DECT equipment declared to conform to the Public Access Profile (PAP).

This TBR covers the essential requirements for air interface interworking. DECT comprises two equipment elements, referred to as a Fixed Part (FP) and a Portable Part (PP). Where a feature is indicated as optional it need not be provided, but where such a feature is provided, the FP and/or PP shall conform to the requirements and tests of this TBR. This TBR is structured to allow type approval of the FP and PP as separate items.

For each requirement in this TBR, a test is given, including measurement methods. The terminal equipment may be stimulated to perform the tests by additional equipment if necessary.

NOTE 1: TBR for basic ISDN, TBR for primary rate ISDN, or national regulations (implementing ETS 300 001) for PSTN. Interconnection of a DECT terminal to a GSM network is still under study; in due course, the scope statement may need amending to reflect this point.

NOTE 2: This TBR is based on the provisions of ETS 300 175-9 [9].

2 Normative references

This TBR 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 to this TBR only when incorporated in it by amendment or revision. For undated references the latest edition of the publication referred to applies.

[1] ETS 300 175-1: "Radio Equipment and Systems (RES); Digital European Cordless Telecommunications (DECT) Common Interface Part 1: Overview".

[2] ETS 300 175-2: "Radio Equipment and Systems (RES); Digital European Cordless Telecommunications (DECT) Common Interface Part 2: Physical layer".

[3] ETS 300 175-3: "Radio Equipment and Systems (RES); Digital European Cordless Telecommunications (DECT) Common Interface Part 3: Medium access control layer".

[4] ETS 300 175-4: "Radio Equipment and Systems (RES); Digital European Cordless Telecommunications (DECT) Common Interface Part 4: Data link control layer".

[5] ETS 300 175-5: "Radio Equipment and Systems (RES); Digital European Cordless Telecommunications (DECT) Common Interface Part 5: Network layer".

[6] ETS 300 175-6: "Radio Equipment and Systems (RES); Digital European Cordless Telecommunications (DECT) Common Interface Part 6: Identities and addressing".

[7] ETS 300 175-7: "Radio Equipment and Systems (RES); Digital European Cordless Telecommunications (DECT) Common Interface Part 7: Security features".

[8] ETS 300 175-8: "Radio Equipment and Systems (RES); Digital European Cordless Telecommunications (DECT) Common Interface Part 8: Speech coding and transmission".

[9] ETS 300 175-9: "Radio Equipment and Systems (RES); Digital European Cordless Telecommunications (DECT) Common Interface Part 9: Public access profile".

[10] 91/263/EEC: "Council Directive of 29 April 1991 on the approximation of the laws of the Member states concerning telecommunications terminal equipment, including the mutual recognition of their conformity. (Terminal Directive)".

[11] TBR 6: "General Attachment Requirements for Terminal Equipment for Digital European Telecommunications (DECT)".

[12] TBR 10: "Attachment Requirements for Terminal Equipment for Digital European Telecommunications (DECT): Telephony Applications".

[13] I-ETS 300 176: "Radio Equipment and Systems (RES); Digital European Cordless Telecommunications Approval Test Specification".

[14] Reserved

[15] Final draft prETS 300 323-1: "Radio Equipment and Systems (RES); Digital European Cordless Telecommunications (DECT), Public Access Profile Test Specification Part 1: Overview".

[16] Final draft prETS 300 323-2: "Radio Equipment and Systems (RES); Digital European Cordless Telecommunications (DECT), Public Access Profile Test Specification Part 2: Portable Radio Termination Abstract Test Suite".

[17] Final draft prETS 300 323-3: "Radio Equipment and Systems (RES); Digital European Cordless Telecommunications (DECT), Public Access Profile Test Specification Part 3: Portable Radio Termination Protocol Implementation Conformance Statement (PICS) proforma".

[18] Final draft prETS 300 323-4: "Radio Equipment and Systems (RES); Digital European Cordless Telecommunications (DECT), Public Access Profile Test Specification Part 4: Portable Radio Termination Protocol Implementation eXtra Information for Testing (PIXIT) proforma".

[19] Final draft prETS 300 323-5: "Radio Equipment and Systems (RES); Digital European Cordless Telecommunications (DECT), Public Access Profile Test Specification Part 5: Fixed Radio Termination Abstract Test Suite".

[20] Final draft prETS 300 323-6: "Radio Equipment and Systems (RES); Digital European Cordless Telecommunications (DECT), Public Access Profile Test Specification Part 6: Fixed Radio Termination Protocol Implementation Conformance Statement (PICS) proforma".

[21] Final draft prETS 300 323-7: "Radio Equipment and Systems (RES); Digital European Cordless Telecommunications (DECT), Public Access Profile Test Specification Part 7: Fixed Radio Termination Protocol Implementation eXtra Information for Testing (PIXIT) proforma".

3 Definitions and abbreviations

3.1 DECT definitions

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

Attach: the process whereby a portable part within the coverage area of a fixed part to which it has access rights, notifies this fixed part that it is operative. The reverse process is detach, which reports the portable part as inoperative.

NOTE 1: An operative portable part is assumed to be ready to receive calls.

Authentication: the process whereby a DECT subscriber is positively verified to be a legitimate user of a particular fixed part.

NOTE 2: Authentication is generally performed at call setup, but may also be done at any other time (e.g. during a call).

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

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

C-plane: the 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 4: The C-plane stack always contains protocol entities up to and including the network layer.

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

NOTE 5: Call may sometimes be used to refer to processes of all layers, since lower layer processes are implicitly required.

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

NOTE 6: A DECT fixed part contains the logical elements of at least one fixed radio termination, plus additional implementation specific elements.

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

NOTE 7: A fixed radio termination only includes elements that are defined in ETS 300 175 Parts 1 - 9 [1] to [9]. This includes radio transmission elements together with a selection of layer 2 and layer 3 elements.

Geographically unique identity: this term relates to fixed part identities, PARIs and RFPIs. It indicates that two systems with the same PARI, or respectively two RFPs with the same RFPI, can not be reached or listened to at the same geographical position.

NOTE 8: PARI stands for Primary Access Rights Identifier; RFPI stands for Radio Fixed Part Identifier.

Global NetWork (GNW): a telecommunication network capable of offering a long distance telecommunication service.

NOTE 9: The term does not include legal or regulatory aspects, nor does it indicate if the network is a public or a private network.

Globally unique identity: the identity is unique within DECT (without geographical or other restrictions).

Handover: the process of switching a call in progress from one physical channel to another physical channel. These processes can be internal (see internal handover) or external (see external handover).

NOTE 10: There are two physical forms of handover, intra-cell handover and inter-cell handover. Intra-cell handover is always internal. Inter-cell handover can be internal or external.

Incoming call: a call received at a portable part.

Inter-cell handover: the switching of a call in progress from one cell to another cell.

Internal handover: handover processes that are completely internal to one fixed radio termination. Internal handover reconnects the call at the lower layers, while maintaining the call at the NWK layer.

NOTE 11: The lower layer reconnection can either be at the DLC layer (connection handover) or at the MAC layer (bearer handover).

Inter-operability: the capability of fixed parts and portable parts, that enable a portable part to obtain access to teleservices in more than one location area and/or from more than one operator (more than one service provider).

Inter-operator roaming: roaming between fixed part coverage areas of different operators (different service providers).

InterWorking Unit (IWU): a unit that is used to interconnect subnetworks.

NOTE 12: The IWU will contain the interworking functions necessary to support the required subnetwork interworking.

Intra-cell handover: the switching of a call in progress from one physical channel of one cell to another physical channel of the same cell.

Intra-operator roaming: roaming between different fixed part coverage areas of the same operator (same service provider).

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

NOTE 13: The term does not include legal or regulatory aspects, nor does it indicate if the network is a public network or a private network.

Locally unique identity: the identity is unique within one FP or location area, depending on application.

Location area: the domain in which a portable part may receive (and/or make) calls as a result of a single location registration.

Location registration: the process whereby the position of a DECT portable termination is determined to the level of one location area, and this position is updated in one or more databases.

NOTE 14: These databases are not included within the DECT fixed radio termination.

MAC Connection (connection): an association between one source MAC Multi-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.

NetWorK (NWK): all the means of providing telecommunication services between a number of locations where the services are accessed via equipment attached to the network.

Outgoing call: a call originating from a portable part.

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

NOTE 15: The functions contained in the portable application may be physically distributed, but any such distribution is invisible to the DECT network.

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

NOTE 16: A DECT portable part is logically divided into one portable termination plus one or more portable applications.

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

NOTE 17: A portable radio termination only includes elements that are defined in ETS 300 175 Parts 1 - 9 [1] to [9]. This includes radio transmission elements (layer 1) together with a selection of layer 2 and layer 3 elements.

Public Access Profile (PAP): a defined part of the DECT Common Interface (DECT CI) that ensures interoperability between fixed parts and portable parts for public access services.

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

Registration: an ambiguous term, that should always be qualified. See either location registration or subscription registration.

Roaming: the movement of a portable part from one fixed part coverage area to another fixed part coverage area, where the capabilities of the fixed parts enable the portable part to make or receive calls in both areas.

NOTE 18: Roaming requires the relevant fixed parts and portable part to be interoperable.

Subscription registration: the infrequent process whereby a subscriber obtains access rights to one or more fixed parts.

NOTE 19: Subscription registration is usually required before a user can make or receive calls.

3.2 Abbreviations

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

ATS	Abstract Test Suite
CI	Common air Interface
DECT	Digital European Cordless Telecommunications
FP	Fixed Part
FT	Fixed radio Termination
GNW	Global NetWork
ISO	International Organisation for Standardisation
IUT	Implementation Under Test
IWU	Inter Working Unit
LNW	Local NetWork
OSI	Open Systems Interconnection
PA	Portable Application
PAP	Public Access Profile
PERL	PICS Essential Requirements List
PICS	Protocol Implementation Conformance Statement
PIXIT	Protocol Implementation eXtra Information for Testing
PP	Portable Part
PT	Portable radio Termination