SLOVENSKI STANDARD
SIST EN 300 765-1 V1.3.1:2003

01-december-2003

Digitalne izboljġane brezvrviļ ne telekomunikacije (DECT) ï Profil dostopa (RAP) radia v krajevni zanki (RAP) ï 1. del: Osnovne telefonske storitve

Digital Enhanced Cordless Telecommunications (DECT); Radio in the Local Loop (RLL) Access Profile (RAP); Part 1: Basic telephony services

iTeh STANDARD PREVIEW
(standards.iteh.ai)

Ta slovenski standard je istoveten z: EN 300 765-1 Version 1.3.1

SIST EN 300 765-1 V1.3.1:2003
https://standards.iteh.ai/catalog/standards/sist/121c675b-2ae7-4102-a9f8-1f8c77482089/sist-en-300-765-1-v1-3-1-2003

ICS:

33.070.30	Digitalne izboljġane brezvrviļ ne telekomunikacije (DECT)	Digital Enhanced Cordless Telecommunications (DECT)

SIST EN 300 765-1 V1.3.1:2003 **en**

2003-01.Slovenski inštitut za standardizacijo. Razmnoževanje celote ali delov tega standarda ni dovoljeno.

SIST EN 300 765-1 V1.3.1:2003

iTeh STANDARD PREVIEW
(standards.iteh.ai)

SIST EN 300 765-1 V1.3.1:2003
https://standards.iteh.ai/catalog/standards/sist/121c675b-2ae7-4102-a9f8-1f8c77482089/sist-en-300-765-1-v1-3-1-2003

SIST EN 300 765-1 V1.3.1:2003

ETSI EN 300 765-1 V1.3.1 (2001-04)

European Standard (Telecommunications series)

Digital Enhanced Cordless Telecommunications (DECT); Radio in the Local Loop (RLL) Access Profile (RAP); Part 1: Basic telephony services

iTeh STANDARD PREVIEW
(standards.iteh.ai)
SIST EN 300 765-1 V1.3.1:2003
https://standards.iteh.ai/catalog/standards/sist/121c675b-2ae7-4102-a9f8-1f8c77482089/sist-en-300-765-1-v1-3-1-2003

SIST EN 300 765-1 V1.3.1:2003

Reference
REN/DECT-A0173-1

Keywords
DECT, FWA, RLL, WLL

ETSI

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
Sous-Préfecture de Grasse (06) N° 7803/88

iTeh STANDARD PREVIEW
(standards.iteh.ai)

SIST EN 300 765-1 V1.3.1:2003
https://standards.iteh.ai/catalog/standards/sist/121c675b-2ae7-4102-a9f8-1f8c77482089/sist-en-300-765-1-v1-3-1-2003

Important notice

Individual copies of the present document can be downloaded from:
http://www.etsi.org

The present document may be made available in more than one electronic version or in print. In any case of existing or perceived difference in contents between such versions, the reference version is the Portable Document Format (PDF). In case of dispute, the reference shall be the printing on ETSI printers of the PDF version kept on a specific network drive within ETSI Secretariat.

Users of the present document should be aware that the document may be subject to revision or change of status. Information on the current status of this and other ETSI documents is available at http://www.etsi.org/tb/status/

If you find errors in the present document, send your comment to:
editor@etsi.fr

Copyright Notification

No part may be reproduced except as authorized by written permission.
The copyright and the foregoing restriction extend to reproduction in all media.

© European Telecommunications Standards Institute 2001.
All rights reserved.

SIST EN 300 765-1 V1.3.1:2003

Contents

Intellectual Property Rights 6

Foreword 6

1 Scope 7

2 References 7

3 Definitions, symbols and abbreviations 8
3.1 Definitions 8
3.2 Symbols 10
3.3 Abbreviations 10

4 Introduction 11
4.1 Reference model 11
4.2 Services & facilities 12

5 Feature definitions 12
5.1 Network (NWK) features (only differences from GAP) 12
5.2 Application features (only differences from GAP) 13

6 Service definitions 13
6.1 Data Link Control (DLC) service definitions 13
6.1.1 Reference to GAP 13
6.1.2 LU7 service 13
6.2 Medium Access Control (MAC) service definitions 14
6.2.1 Reference to GAP 14
6.2.2 MAC service definitions (additional to GAP) 14

7 Interoperability requirements 14
7.1 General 14
7.2 NWK features 15
7.3 DLC services 16
7.4 MAC services 16
7.5 Physical Layer (PHL) services 17
7.6 Application features 17
7.7 NWK feature to procedure mapping 17
7.8 DLC service to procedure mapping 21
7.9 MAC service to procedure mapping 22
7.10 Application feature to procedure mapping 23
7.11 General requirements 23

8 Procedure description 23

9 NWK layer procedures 23
9.1 Reference to GAP 23
9.1.1 Release procedure for "On-hook (conditional release)" 23
9.1.2 CLIP, inband 25
9.1.3 On-hook/off-hook explicit acknowledgement 26
9.2 Maintenance calls 27
9.2.1 Incoming maintenance call 27
9.2.2 Outgoing maintenance call 27
9.2.3 Outgoing call during maintenance call 27
9.2.4 Incoming call during maintenance call 27
9.3 Sending OA&M information 27
9.3.1 Physical resources fault 28
9.3.2 Remote test 28
9.3.3 Alarms 28
9.3.4 On-air modification of user parameters 29
9.3.4.1 Modification of existing users parameters 29
9.3.4.2 Additional subscriptions to the same fixed part 30

iTeh STANDARD PREVIEW
(standards.iteh.ai)
SIST EN 300 765-1 V1.3.1:2003
https://standards.iteh.ai/catalog/standards/sist/121c675b-2ae7-4102-a9f8-1f8c77482089/sist-en-300-765-1-v1-3-1-2003

SIST EN 300 765-1 V1.3.1:2003

9.3.4.3 Derivation of AC for additional subscriptions 30
9.3.5 Start quality measurement 31
9.3.6 Stop quality measurement 31
9.3.7 Remote configuration 31
9.3.8 Claim Actions 32
9.3.8.1 Claim Actions FT side Initiated 32
9.3.8.2 Claim Actions CTA Initiated 33
9.3.9 Remote resynchronization 34
9.3.10 Advanced file transfer 34
9.4 RLL-CC 35
9.4.1 Metering pulses 35
9.4.2 Switch from voice to data service FT initiated 36
9.4.3 Switch from voice to data service CTA initiated 36
9.4.4 Coin collection 36
9.4.5 Ground start 37
9.4.6 Line polarity reversal 37
9.4.7 Switch from 32 kbit/s to 64 kbit/s bearer service (FT initiated) 37
9.4.8 Switching from 32 kbit/s to 64 kbit/s bearer service CTA initiated 39
9.4.9 Line parked 41
9.4.10 Switching from 64 kbit/s to 32 kbit/s bearer service FT initiated 41
9.4.11 Switching from 64 kbit/s to 32 kbit/s bearer service CTA initiated 43
9.5 Analogue leased line establishment 44

10 DLC layer procedures 45
10.1 General 45
10.2 Reference to GAP 45
10.3 LU7 64 kbit/s data bearer service 45

11 MAC layer procedures 45
11.1 Reference to GAP 45
11.2 Advance timing 45
11.3 LU7 64 kbit/s data bearer service 46
11.4 Downlink broadcast, Extended Fixed Part Capabilities 46
11.5 Blind slot information 46
11.6 Improved channel selection rules 47

12 Physical layer requirements 47
12.1 General 47
12.2 Reference to GAP 47
12.3 LU7 64 kbit/s data bearer service 47

13 Requirements regarding the speech transmission 47
13.1 General 47
13.2 Echo control requirements for CTAs intended for 2-wire connections 47
13.3 Disabling the echo control functions 48
13.3.1 General 48
13.3.2 Modem services 48

14 Requirements regarding fax and data transmission 48
14.1 General 48
14.2 Requirements 48
14.2.1 Implementation of the LU7 PCM services. 48

15 Management procedures 49

16 Interworking with WRS applications 49
16.1 General 49
16.2 Requirements 49
16.3 WRS maintenance calls 49
16.3.1 Incoming WRS maintenance call 49
16.3.2 Outgoing WRS maintenance call 49
16.3.3 Maintenance during WRS MM operation 49

17 Application procedures 50
17.1 General 50

iTeh STANDARD PREVIEW
(standards.iteh.ai)
SIST EN 300 765-1 V1.3.1:2003
https://standards.iteh.ai/catalog/standards/sist/121c675b-2ae7-4102-a9f8-1f8c77482089/sist-en-300-765-1-v1-3-1-2003

SIST EN 300 765-1 V1.3.1:2003

17.2 Reference to GAP 50
17.3 Manual entry of the PARK and AC to CTA's 50
17.3.1 Entering the PARK 50
17.3.2 Entering the AC 51

Annex A (informative): PP locking procedure for on air subscription 52

Annex B (informative): Tones, progress indicator and U-plane connection 53

Annex C (informative): Void 54

Annex D (normative): Codings for "OA&M" and "RAP-CC" messages 55

D.1 General Structure for RAP <<IWU-to-IWU>> Information Element 55

D.2 RAP IWU-TO-IWU Contents Proprietary 56
D.2.1 RAP-OA&M Service type coding 56

D.3 RAP IWU-TO-IWU Contents Standardized 57
D.3.1 RAP-CC Service type coding 57
D.3.2 RAP-OA&M Service type coding 58

Annex E (informative): Description of remote tests and quality measurement 60

Annex F (informative): LU8 service 61

F.1 Physical layer service 61

F.2 MAC layer service 61

F.3 DLC layer service 61

Annex G (normative): Synchronization Requirements for Fixed Parts 62

Annex H (normative): Management of the overlapping between decadic dialling and register recall recognition times 63

Annex I (informative): Installation 64

I.1 Above roof-top DECT WLL systems and GSM 1 800 macro cell systems 64

History 65

iTeh STANDARD PREVIEW
(standards.iteh.ai)
https://standards.iteh.ai/catalog/standards/sist/1f8c77482089/sist-en-300-765-1-v1-3-1-2003

SIST EN 300 765-1 V1.3.1:2003

Intellectual Property Rights

IPRs essential or potentially essential to the present document may have been declared to ETSI. The information pertaining to these essential IPRs, if any, is publicly available for **ETSI members and non-members**, and can be found in ETSI SR 000 314: *"Intellectual Property Rights (IPRs); Essential, or potentially Essential, IPRs notified to ETSI in respect of ETSI standards"*, which is available from the ETSI Secretariat. Latest updates are available on the ETSI Web server (http://www.etsi.org/ipr).

Pursuant to the ETSI IPR Policy, no investigation, including IPR searches, has been carried out by ETSI. No guarantee can be given as to the existence of other IPRs not referenced in ETSI SR 000 314 (or the updates on the ETSI Web server) which are, or may be, or may become, essential to the present document.

Foreword

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

The present document is part 1 of a multi-part deliverable covering the Radio in the Local Loop (RLL) Access Profile (RAP), as identified below:

Part 1: "Basic telephony services";

Part 2: "Advanced telephony services".

iTeh STANDARD PREVIEW

Every EN prepared by ETSI is a voluntary standard. The present document may contain text concerning conformance testing of the equipment to which it relates. This text should be considered as guidance only and does not make the present document mandatory.

(standards.iteh.ai)

The present document is based on EN 300 175, parts 1 to 8 [1] to [8] and EN 300 444 [10]. The present document has been developed in accordance to the rules of documenting a profile specification as described in ISO/IEC 9646-6 [12].

SIST EN 300 765-1 V1.3.1:2003
https://standards.iteh.ai/catalog/standards/sist/121c6756-2ae7-4102-a9f8-1f8c77482089/sist-en-300-765-1-v1-3-1-2003

National transposition dates	
Date of adoption of this EN:	6 April 2001
Date of latest announcement of this EN (doa):	31 July 2001
Date of latest publication of new National Standard or endorsement of this EN (dop/e):	31 January 2002
Date of withdrawal of any conflicting National Standard (dow):	31 January 2002

SIST EN 300 765-1 V1.3.1:2003

1 Scope

The present document specifies that set of technical requirements for Digital Enhanced Cordless Telecommunications (DECT) Fixed Part (FP) and DECT Cordless Terminal Adapter (CTA) necessary for the support of the Radio in the Local Loop (RLL) Access Profile (RAP).

The objective of the present document is to ensure the air interface interoperability of DECT RAP CTAs and DECT RAP FPs and Wireless Relay Stations (WRS) if applied.

In addition, the present document defines the features, services, procedures etc. for the CTA and the FT, which are provision mandatory either in the CTA or in the FT, as well as some elements that are provision optional but still process mandatory.

Another objective is to use as much as possible from the existing GAP profile, but to exclude the not applicable GAP-features. Therefore most of the RAP features refer to GAP features EN 300 444 [10] and the necessary additional features (for example Operation, Administration, and Maintenance (OA&M)) are listed and explained in the present document.

The present document contains the so-called "Plain Old Telephone Service (POTS)" services including leased lines and 64 kbit/s bearer service.

2 References

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

iTeh STANDARD PREVIEW
(standards.iteh.ai)

- References are either specific (identified by date of publication and/or edition number or version number) or non-specific.

SIST EN 300 765-1 V1.3.1:2003
https://standards.iteh.ai/catalog/standards/sist/121c675b-2ae7-4102-a9f8-1f8c77482089/sist-en-300-765-1-v1-3-1-2003

- 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 300 175-4: "Digital Enhanced Cordless Telecommunications (DECT); Common Interface (CI); Part 4: Data Link Control (DLC) Layer".

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

[6] ETSI EN 300 175-6: "Digital Enhanced Cordless Telecommunications (DECT); Common Interface (CI); Part 6: Identities and Addressing".

[7] ETSI EN 300 175-7: "Digital Enhanced Cordless Telecommunications (DECT); Common Interface (CI); Part 7: Security Features".

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

[9] ETSI EN 300 176 (all parts): "Digital Enhanced Cordless Telecommunications (DECT); Approval Test Specification".

SIST EN 300 765-1 V1.3.1:2003

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

[11] ETSI EN 300 700: "Digital Enhanced Cordless Telecommunications (DECT); Wireless Relay Station (WRS)".

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

[13] ISO/IEC 9646-7: "Information technology - Open Systems Interconnection - Conformance testing methodology and framework - Part 7: Implementation Conformance Statements".

[14] ETSI ETR 246: "Digital Enhanced Cordless Telecommunications (DECT); Application of DECT Wireless Relay Stations (WRS)".

[15] ETSI ETR 308: "Digital Enhanced Cordless Telecommunications (DECT); Services, facilities and configurations for DECT in the local loop".

[16] ITU-T Recommendation V.25: "Automatic answering equipment and general procedures for automatic calling equipment on the general switched telephone network including procedures for disabling of echo control devices for both manually and automatically established calls".

[17] ITU-T Recommendation G.164: "Echo suppressors".

[18] ITU-T Recommendation G.165: "Echo cancellers".

[19] CEPT Recommendation T/R 22-02: "Frequency band to be designated for the European digital cordless telecommunication system (DECT)".

iTeh STANDARD PREVIEW
(standards.iteh.ai)

3 Definitions, symbols and abbreviations

SIST EN 300 765-1 V1.3.1:2003
https://standards.iteh.ai/catalog/standards/sist/121c675b-2ae7-4102-a9f8-1f8c77482089/sist-en-300-765-1-v1-3-1-2003

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 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 3: 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 4: Call may sometimes be used to refer to processes of all layers, since lower layer processes are implicitly required.

Cordless Terminal Adapter (CTA): physical grouping that contains a DECT portable termination and a line interface

DECT network: network that uses the DECT air interface 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 network layer

NOTE 5: A DECT network is a logical grouping that contains one or more fixed radio terminations plus their associated portable radio termination. The boundaries of the DECT network are not physical boundaries.

SIST EN 300 765-1 V1.3.1:2003

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 air interface

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 air interface

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

NOTE 8: A FT can also be the FT side of a WRS.

handover: 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 CTA

inter-cell handover: switching of a call in progress from one cell to another cell

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

NOTE 10: The lower layer reconnection can either be at the DLC layer (connection handover) or at the MAC layer (bearer handover).

interoperability: capability of FPs and CTAs, that enable a CTA to obtain access to teleservices in more than one location area and/or from more than one operator (more than one service provider)

iTeh STANDARD PREVIEW
(standards.iteh.ai)

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

SIST EN 300 765-1 V1.3.1:2003
https://standards.iteh.ai/catalog/standards/sist/121c675b-2ae7-4102-a9f8-

Local Exchange: local switch connecting the end-user to the public network

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.

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

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

NOTE 12: These databases are not included within a DECT FT.

MAC Connection (CONNECTION): 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

outgoing call: 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 13: 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 air interface. PP is a generic term that may describe one or several physical pieces

NOTE 14: A DECT PP is logically divided into one PT plus one or more PAs.

SIST EN 300 765-1 V1.3.1:2003

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

NOTE 15: 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.

NOTE 16: A PT can also be the PT side of a WRS or the PT side of a CTA.

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

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

subscription registration: the infrequent process whereby a subscriber obtains access rights to one or more FPs

NOTE 17: Subscription registration is usually required before a user can make or receive calls.

Wireless Relay Station (WRS): physical grouping that combines elements of both PTs and FTs to relay information on a physical channel from one DECT termination to a physical channel to another DECT termination

NOTE 18: The DECT termination can be a PT or an FT or another WRS.

3.2 Symbols

For the purposes of the present document, the following symbols apply if not explicitly otherwise stated:

M	for mandatory to support (provision mandatory, process mandatory)
O	for optional to support (provision optional, process mandatory)
I	for out-of-scope (provision optional, process optional) not subject for testing
C	for conditional to support (process mandatory)
N/A	for not-applicable (in the given context the specification makes it impossible to use this capability

iTeh STANDARD PREVIEW
(standards.iteh.ai)
SIST EN 300 765-1 V1.3.1:2003
https://standards.iteh.ai/catalog/standards/sist/e1240e73-38e2-4e67-9b2e-4b45-9be7/482e8e7/sist-en-300-765-1-v1-3-1-2003

Provision mandatory, process mandatory means that the indicated feature, service or procedure shall be implemented as described in the present document, and may be subject to testing.

Provision optional, process mandatory means that the indicated feature, service or procedure may be implemented, and if implemented, the feature, service or procedure shall be implemented as described in the present document, and may be subject to testing.

NOTE: The used notation is based on the notation proposed in ISO/IEC 9646-7 [13].

3.3 Abbreviations

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

AC	Authentication Code
ARI	Access Rights Identity
CC	Call Control
CI	Common Interface
CLIP	Calling Line ID Presentation
CPE	Customer Premises Equipment
CTA	Cordless Terminal Adapter
DCK	Derived Cipher Key
DECT	Digital Enhanced Cordless Telecommunications
DLC	Data Link Control, Layer 2b of the DECT protocol stack
DTMF	Dual Tone Multi-Frequency
FP	Fixed Part, (see definitions)
FT	Fixed radio Termination
GPS	Global Position System
GSM	Global System for Mobile communications
IE	Information Element
IEC	International Electrotechnical Commission

SIST EN 300 765-1 V1.3.1:2003

I_N	higher layer information channel (unprotected)
I_p	higher layer information channel (protected)
IPUI	International Portable User Identity
ISDN	Integrated Services Digital Network
ISO	International Organization for Standardization
LLME	Lower Layer Management Entity
LNW	Local Network
MAC	Medium Access Control, Layer 2a of the DECT protocol stack
MM	Mobility Management, a NWK layer functional grouping
NWK	Network, Layer 3 of the DECT protocol stack
OA&M	Operation, Administration, and Maintenance
P	Public (environment)
PARK	Portable Access Rights Key
PHL	PHysical Layer
PLI	Park Length Indicator
POT	Plain Old Telephone
POTS	Plain Old Telephone Service
PP	Portable Part
PT	Portable radio Termination. See definition
RFP	Radio Fixed Part (see definitions)
RFPI	Radio Fixed Part Identity
RS	Reed Solomon code
SARI	Secondary Access Rights Identity
TE	Terminal Equipment
TI	Transaction Identifier
UAK	User Authentication Key
WRS	Wireless Relay Station

iTeh STANDARD PREVIEW
(standards.iteh.ai)

4 Introduction

SIST EN 300 765-1 V1.3.1:2003
https://standards.iteh.ai/catalog/standards/sist/121c675b-2ae7-4102-a9f8-1f8c72482089/sist-en-300-765-1-v1-3-1-2003

4.1 Reference model

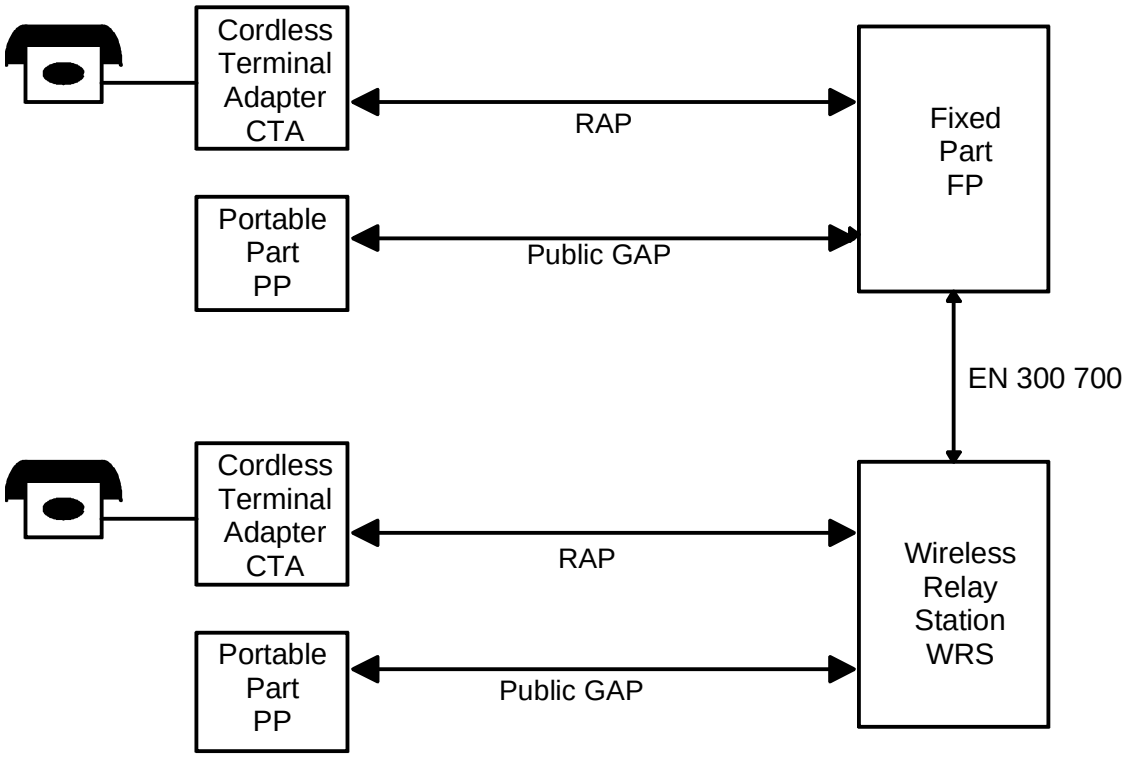

Figure 1: Reference model

SIST EN 300 765-1 V1.3.1:2003

4.2 Services & facilities

The present document provides a minimum service level, i.e. the so-called "POTS" services, and optional extensions including 64 kbit/s bearer service and leased lines. A Fixed Part that supports RAP may additionally support GAP and can in this way support both CTAs and GAP PPs as well as the respective RAP and GAP WRSs, and also CTAs with embedded GAP WRS functionality (see EN 300 700 [11]).

Another part of the RAP is expected to describe ISDN services, non-voiceband data services and support of digital leased lines.

5 Feature definitions

For the purposes of the present document the feature definitions in the following clauses apply.

The number given in square brackets after the name of a feature is the item number used in the tables of the present document.

5.1 Network (NWK) features (only differences from GAP)

On-Hook (CONDITIONAL Release) [N.100]: ability of the CTA to indicate the action of going on-hook (e.g. to terminate a call) to the DECT FP. On reception of the "on hook" indication, the DECT FP may terminate the call, and release the radio resource.

Calling Line Identity Presentation, inband (CLIP, inband) [N.101]: ability to provide the calling party number to the POTS CTA by transmitting DTMF or modem tones to the CTA within the speech channel before off hook during incoming call

iTeh STANDARD PREVIEW
(standards.iteh.ai)

incoming maintenance transaction [N.102]: ability of the CTA to receive, and the FP to send OA&M messages

SIST EN 300 765-1 V1.3.1:2003
https://standards.iteh.ai/catalog/standards/sist/121c675b-2ae7-4102-a9f8-1f8c77482089/sist-en-300-765-1-v1-3-1-2003

outgoing maintenance transaction [N.103]: ability of the CTA to send, and the FP to receive OA&M messages

maintenance during call [N.104]: ability of the CTA and FT to exchange OA&M messages during an active call

metering pulses [N.105]: ability of the CTA to generate metering pulses on reception of a corresponding RAP-CC message

Analogue Leased Line [N.106]: ability to provide an analogue leased line

physical resources fault [N.107]: ability of the CTA to corresponding OA&M messages to indicate the location of faults in the Physical resources to the network management

Remote Test [N.108]: ability of the FP to request the CTA to run specific tests

alarms [N.109]: ability of the CTA to indicate to the FP that a significant system event occurs or is about to occur which may seriously affect the systems ability to function

on-air modification of user parameters [N.110]: ability of the CTA to accept FP initiated changes of subscription data

switch from voice to data service FT initiated [N.111]: ability of the FT of detecting the 2,1 kHz tone in the Audio-Channel and of switching an existing speech call in a data call sending a RAP-CC message to the CTA and the ability of the CTA to process this message

switch from voice to data service CTA initiated [N.112]: ability of the CTA of detecting the 2,1 kHz tone in the Audio-Channel and of switching an existing speech call in a data call sending a RAP-CC message to the FT and the ability of the FT to process this message

coin collection [N.113]: ability to transmit the result of coin collection via RAP-CC message

ground start [N.114]: ability to transmit the ground start signal via a RAP-CC message

SIST EN 300 765-1 V1.3.1:2003

remote configuration [N.115]: ability to configure the parameters of the CTA via OA&M messages

64 kbit/s bearer service using DLC LU7 service [N.116]: ability to offer the DLC LU7 service suitable for a 64 kbit/s bearer service and transparent ISDN services using double slots at the physical layer

line parked [N.117]: ability of the FP to indicate to the CTA that the Local Exchange has parked the line

line polarity reversal [N.118]: ability to transmit the line polarity reversal signal via a RAP-CC message.

incoming WRS maintenance transaction [N.119]: ability of the WRS to receive OA&M messages from the FP

outgoing WRS maintenance transaction [N.120]: ability of the WRS to send OA&M messages to the FP

advanced file transfer [N.121]: ability to transfer file to the CTA

maintenance during WRS MM operation [N.122]: ability of the WRS to exchange OA&M messages with the FP during an ongoing MM operation

5.2 Application features (only differences from GAP)

manual entry of the PARK and AC to a CTA [A.100]: ability of the CTA to accept a manual entry of the PARK for ensuring attachment to the right FP in a physical area covered by many providers and a manual entry of the AC via the keypad of a connected CPE

6 Service definitions

iTeh STANDARD PREVIEW

For the purposes of the present document the following service definitions apply.

(standards.iteh.ai)

6.1 Data Link Control (DLC) service definitions

SIST EN 300 765-1 V1.3.1:2003
https://standards.iteh.ai/catalog/standards/sist/121c675b-2ae7-4102-a9f8-a8e77482089/sist-en-300-765-1-v1-3-1-2003

6.1.1 Reference to GAP

See EN 300 444 [10], clause 5.1.

6.1.2 LU7 service

The LU7 service is used to protect the transmission signal by an RS (255,249) code which may be used to correct up to 3 errors within a double slot connection. The generator polynom to encode and decode the information has 6th degree. The same type as proposed in EN 300 175-4 [4], clause 11.9 shall be used:

$$g(X) = \prod_{i=0}^{5} (X + \alpha^i)$$

where α is a root of the binary primitive polynomial

$$p(X) = X^8 + X^4 + X^3 + X^2 + 1$$

a data byte

$$(d_7, d_6, d_5, d_4, d_3, d_2, d_1, d_0)$$

is identified with the element

$$d_7\alpha^7 + d_6\alpha^6 +, d_5\alpha^5 +, d_4\alpha^4 +, d_3\alpha^3 +, d_2\alpha^2 +, d_1\alpha^1 +, d_0\alpha^0$$

in GF(256), the finite field with 256 elements.