



SLOVENSKI STANDARD

SIST EN 300 175-5 V2.2.1:2009

01-januar-2009

**Digitalne izboljšane brezvrvične telekomunikacije (DECT) - Skupni vmesnik (CI) - 5.
del: Omrežna plast (NWK)**

Digital Enhanced Cordless Telecommunications (DECT) - Common Interface (CI) - Part
5: Network (NWK) layer

iTeh STANDARD PREVIEW
(standards.iteh.ai)

Ta slovenski standard je istoveten z: **EN 300 175-5 Version 2.2.1**

SIST EN 300 175-5 V2.2.1:2009
<https://standards.iteh.ai/catalog/standards/sist/7c94a1d4-7ca5-47a9-9909-6b4ccdb22ae3/sist-en-300-175-5-v2-2-1-2009>

ICS:

33.070.30	Digitalne izboljšane brezvrvične telekomunikacije (DECT)	Digital Enhanced Cordless Telecommunications (DECT)
-----------	--	---

35.100.30	Omrežni sloj	Network layer
-----------	--------------	---------------

SIST EN 300 175-5 V2.2.1:2009	en
--------------------------------------	-----------

iTeh STANDARD PREVIEW
(standards.iteh.ai)

SIST EN 300 175-5 V2.2.1:2009

<https://standards.iteh.ai/catalog/standards/sist/7c94a1d4-7ca5-47a9-9909-6b4ccdb22ae3/sist-en-300-175-5-v2-2-1-2009>

ETSI EN 300 175-5 V2.2.1 (2008-11)

European Standard (Telecommunications series)

Digital Enhanced Cordless Telecommunications (DECT); Common Interface (CI); Part 5: Network (NWK) layer

iTeh STANDARD PREVIEW
(standards.iteh.ai)

[SIST EN 300 175-5 V2.2.1:2009](https://standards.iteh.ai/catalog/standards/sist/7c94a1d4-7ca5-47a9-9909-6b4ccdb22ae3/sist-en-300-175-5-v2-2-1-2009)

<https://standards.iteh.ai/catalog/standards/sist/7c94a1d4-7ca5-47a9-9909-6b4ccdb22ae3/sist-en-300-175-5-v2-2-1-2009>



Reference

REN/DECT-000248-5

Keywords

DECT, IMT-2000, mobility, radio, TDD, TDMA

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 300 175-5 V2.2.1:2009

<https://standards.iteh.ai/catalog/standards/sist/7c94a1d4-7ca5-47a9-9909-6b4ccdb22a0c/ETSI-EN-300-175-5-v2-2-1-2009>

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://portal.etsi.org/tb/status/status.asp>

If you find errors in the present document, please send your comment to one of the following services:

http://portal.etsi.org/chaicor/ETSI_support.asp

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 2008.
All rights reserved.

DECTTM, **PLUGTESTS**TM, **UMTS**TM, **TIPHON**TM, the TIPHON logo and the ETSI logo are Trade Marks of ETSI registered for the benefit of its Members.

3GPPTM is a Trade Mark of ETSI registered for the benefit of its Members and of the 3GPP Organizational Partners.

Contents

Intellectual Property Rights	15
Foreword.....	15
1 Scope	16
2 References	16
2.1 Normative references	17
2.2 Informative references.....	21
3 Definitions, symbols and abbreviations	21
3.1 Definitions.....	21
3.2 Symbols and abbreviations.....	22
4 Overview of the NWK layer	25
5 Overview of procedures	27
5.1 General	27
5.2 Overview of Call Control (CC).....	27
5.2.1 General.....	27
5.2.2 Call establishment.....	27
5.2.2.1 Call setup	27
5.2.2.2 Service negotiation.....	28
5.2.3 Call connect	28
5.2.4 Call information.....	28
5.2.5 Service change.....	29
5.2.6 Call release.....	29
5.3 Overview of Supplementary Services (SS)	29
5.3.1 General.....	29
5.3.2 Keypad protocol.....	30
5.3.3 Feature key management protocol.....	30
5.3.4 Functional protocol.....	30
5.4 Overview of Connection Oriented Message Service (COMS).....	30
5.4.1 General.....	30
5.4.2 COMS establishment	31
5.4.3 Service negotiation	31
5.4.4 COMS connect.....	31
5.4.5 COMS data transfer	31
5.4.6 COMS suspend and resume	31
5.4.7 COMS release	32
5.5 Overview of ConnectionLess Message Service (CLMS)	32
5.5.1 Fixed length message service.....	32
5.5.2 Variable length message service.....	32
5.6 Overview of Mobility Management (MM)	32
5.6.1 General.....	32
5.6.2 Identity procedures	33
5.6.3 Authentication procedures	33
5.6.4 Location procedures.....	34
5.6.5 Access rights procedures	34
5.6.6 Key allocation procedure	34
5.6.7 Parameter retrieval procedure	34
5.6.8 Cipherring related procedure.....	35
5.6.9 External protocol information procedure.....	35
5.7 Overview of Link Control Entity (LCE)	35
5.7.1 General.....	35
5.7.2 Data Link Endpoint Identifier (DLEI)	35
5.7.3 Data link establishment.....	36
5.7.4 Data link re-establishment	36
5.7.5 Data link release	36

5.7.6	Data link suspend and resume.....	36
5.7.7	Queuing of messages	37
5.7.8	Request paging.....	37
6	Message functional definitions.....	37
6.1	Overview of message structures	37
6.1.1	Messages.....	37
6.1.2	Information elements	38
6.2	Message summaries.....	38
6.2.1	Summary of CC messages	38
6.2.2	Summary of CISS messages	39
6.2.3	Summary of COMS messages	39
6.2.4	Summary of CLMS messages.....	39
6.2.5	Summary of MM messages	40
6.2.6	Summary of LCE messages	40
6.3	S-FORMAT message functional contents.....	41
6.3.1	S-FORMAT message overview.....	41
6.3.2	CC-messages.....	41
6.3.2.1	{CC-SETUP}.....	41
6.3.2.2	{CC-INFO}.....	43
6.3.2.3	{CC-SETUP-ACK}	44
6.3.2.4	{CC-CALL-PROC}	45
6.3.2.5	{CC-ALERTING}	46
6.3.2.6	{CC-CONNECT}	47
6.3.2.7	{CC-CONNECT-ACK}.....	48
6.3.2.8	{CC-RELEASE}.....	48
6.3.2.9	{CC-RELEASE-COM}.....	49
6.3.2.10	{CC-SERVICE-CHANGE}.....	50
6.3.2.11	{CC-SERVICE-ACCEPT}.....	51
6.3.2.12	{CC-SERVICE-REJECT}.....	51
6.3.2.13	{CC-NOTIFY}.....	52
6.3.2.14	{IWU-INFO}	52
6.3.3	SS-messages (call related and call independent).....	53
6.3.3.1	{FACILITY}.....	53
6.3.3.2	{HOLD}.....	53
6.3.3.3	{HOLD-ACK}	54
6.3.3.4	{HOLD-REJECT}	54
6.3.3.5	{RETRIEVE}	54
6.3.3.6	{RETRIEVE-ACK}	55
6.3.3.7	{RETRIEVE-REJECT}	55
6.3.3.8	{CISS-REGISTER}	56
6.3.3.9	{CISS-RELEASE-COM}	56
6.3.4	COMS-messages.....	57
6.3.4.1	{COMS-SETUP}	57
6.3.4.2	{COMS-INFO}	57
6.3.4.3	{COMS-ACK}.....	58
6.3.4.4	{COMS-CONNECT}	58
6.3.4.5	{COMS-RELEASE}.....	59
6.3.4.6	{COMS-RELEASE-COM}	59
6.3.4.7	{COMS-NOTIFY}.....	60
6.3.5	CLMS-message.....	60
6.3.5.1	{CLMS-VARIABLE}	60
6.3.6	MM-messages.....	61
6.3.6.1	{ACCESS-RIGHTS-ACCEPT}	61
6.3.6.2	{ACCESS-RIGHTS-REJECT}.....	61
6.3.6.3	{ACCESS-RIGHTS-REQUEST}	62
6.3.6.4	{ACCESS-RIGHTS-TERMINATE-ACCEPT}	62
6.3.6.5	{ACCESS-RIGHTS-TERMINATE-REJECT}	63
6.3.6.6	{ACCESS-RIGHTS-TERMINATE-REQUEST}.....	63
6.3.6.7	{AUTHENTICATION-REJECT}	64
6.3.6.8	{AUTHENTICATION-REPLY}.....	64
6.3.6.9	{AUTHENTICATION-REQUEST}	65

6.3.6.10	{CIPHER-REJECT}	65
6.3.6.11	{CIPHER-REQUEST}	66
6.3.6.12	{CIPHER-SUGGEST}	66
6.3.6.13	{DETACH}	66
6.3.6.14	{IDENTITY-REPLY}	67
6.3.6.15	{IDENTITY-REQUEST}	68
6.3.6.16	{KEY-ALLOCATE}	68
6.3.6.17	{LOCATE-ACCEPT}	69
6.3.6.18	{LOCATE-REJECT}	69
6.3.6.19	{LOCATE-REQUEST}	70
6.3.6.20	{MM-INFO-ACCEPT}	71
6.3.6.21	{MM-INFO-REJECT}	71
6.3.6.22	{MM-INFO-REQUEST}	72
6.3.6.23	{MM-INFO-SUGGEST}	73
6.3.6.24	{TEMPORARY-IDENTITY-ASSIGN}	73
6.3.6.25	{TEMPORARY-IDENTITY-ASSIGN-ACK}	74
6.3.6.26	{TEMPORARY-IDENTITY-ASSIGN-REJ}	74
6.3.6.27	{MM-IWU}	75
6.3.6.28	{MM-NOTIFY}	75
6.3.7	LCE-messages	76
6.3.7.1	{LCE-PAGE-RESPONSE}	76
6.3.7.2	{LCE-PAGE-REJECT}	76
6.4	B-FORMAT message functional contents	77
6.4.1	B-FORMAT message overview	77
6.4.2	{LCE-REQUEST-PAGE}	77
6.4.3	{CLMS-FIXED}	78
7	S-FORMAT message structures	78
7.1	Overview	78
7.2	Protocol Discrimination (PD) element	79
7.3	Transaction Identifier (TI) element	79
7.4	Message type element	80
7.4.1	Messages for CC	81
7.4.2	Messages for SS	81
7.4.3	Messages for COMS	81
7.4.4	Messages for CLMS	82
7.4.5	Messages for MM	82
7.4.6	Messages for LCE	82
7.5	Other information elements	83
7.5.1	Coding rules	83
7.5.2	Extensions of codesets	85
7.5.3	Locking shift procedure	85
7.5.4	Non-locking shift procedure	86
7.5.5	Display and keypad elements	86
7.5.6	Repeated elements	86
7.6	Fixed length information elements	87
7.6.1	Summary	87
7.6.2	Sending complete, delimiter request and use TPUI	87
7.6.3	Repeat indicator	88
7.6.4	Basic service	88
7.6.5	Single display	89
7.6.6	Single keypad	89
7.6.7	Release reason	89
7.6.8	Signal	90
7.6.9	Timer restart	91
7.6.10	Test hook control	92
7.7	Variable length information elements	92
7.7.1	Summary	92
7.7.2	Allocation type	94
7.7.3	Alphanumeric	94
7.7.4	Auth type	95
7.7.5	Call attributes	97

7.7.6	Call identity	99
7.7.7	Called party number.....	99
7.7.8	Called party subaddress	100
7.7.9	Calling party number	101
7.7.10	Cipher info	102
7.7.11	Connection attributes	103
7.7.12	Connection identity	106
7.7.13	Duration	107
7.7.14	End-to-end compatibility	108
7.7.15	Facility	111
7.7.16	Feature activate	112
7.7.17	Feature indicate.....	114
7.7.18	Fixed identity	116
7.7.19	Identity type	117
7.7.20	Info type.....	118
7.7.21	InterWorking Unit (IWU) attributes	119
7.7.22	IWU packet.....	123
7.7.23	IWU to IWU	124
7.7.24	Key.....	126
7.7.25	Location area	127
7.7.26	Multi-display.....	128
7.7.27	Multi-keypad.....	128
7.7.28	NetWorK (NWK) assigned identity.....	128
7.7.29	Network parameter	129
7.7.30	Portable identity	131
7.7.31	Progress indicator	135
7.7.32	RAND	135
7.7.33	Rate parameters	136
7.7.34	Reject reason.....	137
7.7.35	RES	138
7.7.36	RS	139
7.7.37	Segmented info	139
7.7.38	Service change info	140
7.7.39	Service class.....	141
7.7.40	Setup capability	142
7.7.41	Terminal capability	143
7.7.42	Transit delay	148
7.7.43	Window size	149
7.7.44	ZAP field	149
7.7.45	Escape to proprietary	150
7.7.46	Model identifier	150
7.7.47	MMS Generic Header.....	151
7.7.48	MMS Object Header.....	151
7.7.49	MMS Extended header	152
7.7.50	Time-Date	152
7.7.51	Ext h/o indicator	154
7.7.52	Authentication Reject Parameter	154
7.7.53	Calling party Name	155
7.7.54	Codec List.....	155
7.7.55	Events notification	157
7.7.56	Call information.....	158
8	B-FORMAT message structures	160
8.1	General	160
8.2	LCE request paging messages	160
8.2.1	Short format message.....	160
8.2.2	Full format message.....	162
8.2.3	Long format message.....	163
8.2.4	Message elements	163
8.2.4.1	LCE paging header.....	163
8.2.4.2	Info fields (Full format)	165
8.2.4.3	Default setup behaviour	166

iTech STANDARD PREVIEW
(standards.itech.ai)

SIST EN 300 175-5 V2.2.1:2009
http://standards.itech.ai/catalog/standards/sist/7c94a1d4-7ca5-47a9-9909-6b4ccdb22ae3/sist-en-300-175-5-v2-2-1-2009

8.2.4.4	Address elements in collective or group ringing.....	167
8.3	CLMS-FIXED messages	167
8.3.1	General message structure	167
8.3.2	Message elements	168
8.3.3	Standard message structures	170
8.3.3.1	General	170
8.3.3.2	Messages using 4-bit characters	170
8.3.3.3	Messages using 8-bit characters	170
9	Call Control (CC) procedures.....	170
9.1	General	170
9.2	Call Control (CC) states	173
9.2.1	States at PT	173
9.2.1.1	State T-00: "NULL"	173
9.2.1.2	State T-19: "RELEASE PENDING"	173
9.2.1.3	State T-10: "ACTIVE"	173
9.2.1.4	State T-01: "CALL INITIATED"	173
9.2.1.5	State T-02: "OVERLAP SENDING"	173
9.2.1.6	State T-03: "CALL PROCEEDING"	173
9.2.1.7	State T-04: "CALL DELIVERED"	173
9.2.1.8	State T-06: "CALL PRESENT"	173
9.2.1.9	State T-07: "CALL RECEIVED"	173
9.2.1.10	State T-08: "CONNECT PENDING"	173
9.2.2	States at FT	174
9.2.2.1	State F-00: "NULL"	174
9.2.2.2	State F-19: "RELEASE PENDING"	174
9.2.2.3	State F-10: "ACTIVE"	174
9.2.2.4	State F-01: "CALL INITIATED"	174
9.2.2.5	State F-02: "OVERLAP SENDING"	174
9.2.2.6	State F-03: "CALL PROCEEDING"	174
9.2.2.7	State F-04: "CALL DELIVERED"	174
9.2.2.8	State F-06: "CALL PRESENT"	174
9.2.2.9	State F-07: "CALL RECEIVED"	174
9.2.3	Optional states (PT and FT)	175
9.2.3.1	States T-22 and F-22: "OVERLAP RECEIVING"	175
9.2.3.2	States T-23 and F-23: "INCOMING CALL PROCEEDING"	175
9.3	Call establishment procedures.....	175
9.3.1	PT initiated call establishment (outgoing call).....	175
9.3.1.1	Call request	175
9.3.1.2	Call accept or reject.....	176
9.3.1.3	Selection of lower layer resources	176
9.3.1.4	Connection of U-plane	177
9.3.1.5	Overlap sending	177
9.3.1.6	Call proceeding	178
9.3.1.7	Call confirmation	178
9.3.1.8	Call connection	179
9.3.1.9	Expiry of timer <CC.04>	179
9.3.2	FT initiated call establishment (incoming call).....	179
9.3.2.1	Call request	179
9.3.2.2	Call accept or reject.....	180
9.3.2.3	Selection of lower layer resources	180
9.3.2.4	Connection of U-plane	181
9.3.2.5	Overlap receiving	181
9.3.2.6	Call proceeding	181
9.3.2.7	Call confirmation	181
9.3.2.8	Call connection	181
9.3.2.9	Sending of <<TERMINAL-CAPABILITY>>	182
9.3.2.10	Expiry of timer <CC.04>	182
9.4	Call information procedures	182
9.5	Call release procedures.....	182
9.5.1	Normal call release	182
9.5.2	Abnormal call release	183

9.5.3	Release collisions.....	184
9.6	Service change procedures	184
9.6.1	General.....	184
9.6.2	Bandwidth changes (including reversals)	185
9.6.3	Service rerouting.....	185
9.6.4	Service suspension and resumption	185
9.6.5	Modulation scheme change.....	186
9.7	Packet mode procedures	186
9.7.1	General.....	186
9.7.2	PT initiated access	186
9.7.3	FT initiated access	187
9.7.4	Packet mode suspend and resume.....	187
9.7.4.1	General.....	187
9.7.4.2	C-plane suspend and resume	187
9.7.4.3	U-plane suspend and resume.....	187
9.8	Emergency call procedure	188
9.9	Segmentation of information in CC procedures	189
10	Supplementary Services procedures.....	190
10.1	General	190
10.2	Keypad protocol	190
10.3	Feature key management protocol.....	191
10.4	Functional protocol.....	191
10.4.1	Separate messages approach	191
10.4.1.1	Hold procedures	192
10.4.1.2	Retrieve procedures.....	192
10.4.1.3	Auxiliary states for hold and retrieve.....	192
10.4.2	Common information element approach	192
10.4.2.1	Call related procedures.....	193
10.4.2.2	Call independent procedures.....	193
10.4.2.3	Connectionless Supplementary Service (CLSS) procedure	193
10.5	Co-existence of multiple protocols.....	194
10.6	Application protocols.....	194
10.6.1	DECT standard functional supplementary services.....	194
10.6.2	DECT specific supplementary services	195
10.6.2.1	Queue management	195
10.6.2.2	Indication of subscriber number.....	196
10.6.2.3	Control of echo control functions.....	196
10.6.2.4	Cost information	196
11	Connection Oriented Message Service (COMS).....	197
11.1	General	197
11.2	COMS states.....	197
11.2.1	States at PT	197
11.2.1.1	State TS-0: "NULL"	197
11.2.1.2	State TS-1: "CONNECT PENDING"	197
11.2.1.3	State TS-2: "RELEASE PENDING"	197
11.2.1.4	State TS-3: "ACTIVE"	197
11.2.2	States at FT	198
11.2.2.1	State FS-0: "NULL"	198
11.2.2.2	State FS-1: "CONNECT PENDING"	198
11.2.2.3	State FS-2: "RELEASE PENDING"	198
11.2.2.4	State FS-3: "ACTIVE"	198
11.3	COMS establishment procedures	198
11.3.1	PT initiated COMS establishment	198
11.3.1.1	COMS request.....	198
11.3.1.2	COMS connection.....	199
11.3.2	FT initiated COMS establishment	199
11.3.2.1	COMS request.....	199
11.3.2.2	COMS connection.....	199
11.4	COMS data transfer procedures	199
11.4.1	Procedure at the sending side.....	199

11.4.2	Procedure at the receiving side	200
11.5	COMS suspend and resume procedures	201
11.6	COMS release procedures	201
11.6.1	Normal COMS release	201
11.6.2	Release collisions	201
12	ConnectionLess Message Service (CLMS)	202
12.1	General	202
12.2	CLMS states	202
12.3	CLMS message transmission procedures	202
12.3.1	Fixed length messages	202
12.3.1.1	Procedure in the Fixed radio Termination (FT)	202
12.3.1.2	Procedure in the Portable radio Termination (PT)	203
12.3.2	Variable length messages	203
12.3.2.1	Procedure at the sending side	203
12.3.2.2	Procedure at the receiving side	203
12.3.2.3	Restrictions for portable side initiated messages	204
13	Mobility Management (MM) procedures	204
13.1	General	204
13.2	Identity procedures	205
13.2.1	Procedure for identification of PT	205
13.2.2	Procedure for temporary identity assignment	206
13.3	Authentication procedures	207
13.3.1	Authentication of a PT	207
13.3.2	Authentication of the user	209
13.3.3	Authentication of a FT	209
13.4	Location procedures	210
13.4.1	Location registration	210
13.4.2	Detach	212
13.4.3	Location update	212
13.5	Access rights procedure	213
13.5.1	Obtaining the access rights	213
13.5.2	Termination of access rights	214
13.5.3	Modification of access rights	216
13.6	Key allocation procedure	216
13.7	Parameter retrieval procedure	217
13.8	Ciphering related procedure	219
13.9	External protocol information procedure	221
13.9.1	Procedure for external protocol information initiated by the FT	221
13.9.2	Procedure for external protocol information initiated by the PT	221
13.9.3	Segmentation of information in MM procedures	222
14	Link Control Entity (LCE) procedures	223
14.1	General	223
14.2	Connection oriented link control procedures	224
14.2.1	Link establishment	224
14.2.2	Direct PT initiated link establishment	224
14.2.3	Indirect (paged) FT initiated link establishment	225
14.2.4	Direct FT initiated link establishment	226
14.2.5	Link maintenance	227
14.2.6	Link suspend and resume	227
14.2.6.1	Link suspend	227
14.2.6.2	Link resume	228
14.2.7	Link release	228
14.2.7.1	NLR notification without "partial release" as release reason	228
14.2.7.2	NLR notification with "partial release" as release reason	229
14.3	Connectionless link control procedures	229
14.3.1	Message routing	229
14.3.2	Broadcast announce procedure	229
14.3.3	LCE paging codes for connectionless service	230
14.4	Procedure for collective and group ringing	230
14.5	LCE paging procedures for DPRS	231

14.5.1	DPRS initial setup paging.....	231
14.5.1.1	Assumptions for Short paging format or for Full format with IPUI.....	231
14.5.1.2	Coding for Full paging format with TPUI.....	231
14.5.2	DPRS Resume paging.....	232
14.5.2.1	Assumptions for Short paging format or for Full format with IPUI.....	232
14.5.2.2	Coding for Full paging format with TPUI.....	232
14.5.2.3	LCE Resume Procedure description.....	232
14.5.3	Special cases.....	233
14.5.3.1	Rule for DPRS Class 1 devices.....	233
14.5.3.2	Rule for backcompatibility with former A/B 1 devices.....	233
15	Management procedures.....	233
15.1	Lower Layer Management Entity (LLME).....	233
15.2	Service mapping and negotiation.....	234
15.2.1	General.....	234
15.2.2	Prioritized list negotiation.....	234
15.2.3	Exchanged attribute negotiation.....	234
15.2.4	Operating parameter negotiation.....	235
15.2.5	Peer attribute negotiation.....	235
15.3	Service modification procedures.....	236
15.4	Resource management.....	236
15.5	Management of MM procedures.....	236
15.6	Call ciphering management.....	237
15.7	External Handover.....	238
15.7.1	Handover candidate procedures.....	238
15.7.1.1	General.....	238
15.7.1.2	Handover candidate indication.....	238
15.7.1.3	Handover candidate retrieval.....	239
15.7.1.4	Target FP selection.....	239
15.7.2	Handover reference procedure.....	240
15.7.2.1	General.....	240
15.7.2.2	Handover reference indication.....	240
15.7.2.3	Handover reference retrieval.....	240
15.7.3	External handover suggested by FP.....	240
15.7.4	NWK layer set up procedure.....	241
15.7.4.1	Handover request.....	241
15.7.4.2	Handover confirm.....	241
15.7.4.3	Handover accept.....	241
15.7.4.4	Handover reject.....	241
15.7.4.5	Release of old connection.....	241
15.7.4.6	Handover Fall Back.....	242
15.7.5	U-plane handling.....	242
15.7.6	Ciphering procedure.....	243
15.7.7	Interaction with location registration.....	243
15.8	Test management procedures.....	243
15.8.1	Test call back procedure.....	244
15.8.2	Test hook control procedures.....	244
15.8.3	Upper tester procedure.....	244
15.9	Application assistance procedures.....	245
15.9.1	DECT Identity Resolution (Retrieval) Procedure.....	245
15.9.1.1	FT (or HyP) initiated Connectionless Identity Resolution procedure.....	245
15.9.1.2	PT initiated Connectionless Identity Resolution procedure.....	246
15.9.1.3	Connection oriented Identity Resolution procedure.....	246
15.9.2	Application Address Resolution (Retrieval) Procedure.....	246
15.9.3	Application Parameter Allocation Procedure.....	246
15.9.3.1	FT initiated application parameter allocation procedure.....	246
15.9.3.2	PT initiated application parameter allocation procedure.....	247
15.9.4	Application parameter information procedure.....	247
15.9.4.1	FT initiated connection oriented Application parameter information procedure.....	247
15.9.4.2	PT initiated connection oriented Application parameter information procedure.....	247
15.9.4.3	FT initiated connectionless Application parameter information procedure.....	248
15.9.4.4	PT initiated connectionless Application parameter information procedure.....	248

15.9.5	Application Parameter Indication procedure	248
16	Primitives	249
16.1	Primitive types.....	249
16.2	Primitives to lower layer (DLC layer).....	249
16.3	Primitives to IWU	249
16.3.1	Parameter definitions	249
16.3.2	MNCC primitives	250
16.3.2.1	MNCC_SETUP primitive	251
16.3.2.2	MNCC_SETUP_ACK primitive.....	251
16.3.2.3	MNCC_REJECT primitive	252
16.3.2.4	MNCC_CALL_PROC primitive.....	252
16.3.2.5	MNCC_ALERT primitive	253
16.3.2.6	MNCC_CONNECT primitive.....	253
16.3.2.7	MNCC_RELEASE primitive	254
16.3.2.8	MNCC_FACILITY primitive	254
16.3.2.9	MNCC_INFO primitive	255
16.3.2.10	MNCC_MODIFY primitive.....	255
16.3.2.11	MNCC_HOLD primitive	255
16.3.2.12	MNCC_RETRIEVE primitive	256
16.3.2.13	MNCC_IWU_INFO primitive	256
16.3.3	MNSS primitives	256
16.3.3.1	MNSS_SETUP primitive	256
16.3.3.2	MNSS_FACILITY primitive	257
16.3.3.3	MNSS_RELEASE primitive.....	257
16.3.4	MNCO primitives	257
16.3.4.1	MNCO_SETUP primitive	258
16.3.4.2	MNCO_CONNECT primitive.....	258
16.3.4.3	MNCO_INFO primitive.....	258
16.3.4.4	MNCO_ACK primitive.....	258
16.3.4.5	MNCO_RELEASE primitive.....	259
16.3.4.6	MNCO_REJECT primitive.....	259
16.3.5	MNCL primitives.....	259
16.3.5.1	MNCL_UNITDATA primitive.....	259
16.3.6	MM primitives	260
16.3.6.1	MM_IDENTITY primitive	260
16.3.6.2	MM_IDENTITY_ASSIGN primitive	260
16.3.6.3	MM_AUTHENTICATE primitive	261
16.3.6.4	MM_LOCATE primitive	261
16.3.6.5	MM_DETACH primitive.....	261
16.3.6.6	MM_ACCESS_RIGHTS primitive.....	262
16.3.6.7	MM_ACCESS_RIGHTS_TERMINATE primitive.....	262
16.3.6.8	MM_KEY_ALLOCATE primitive.....	262
16.3.6.9	MM_INFO primitive.....	263
16.3.6.10	MM_CIPHER primitive.....	263
16.3.6.11	MM_IWU primitive	263
17	Handling of error and exception conditions	264
17.1	Protocol discrimination error.....	264
17.2	Message too short.....	264
17.3	Transaction identifier error.....	264
17.3.1	Illegal and unsupported transaction identifier value	264
17.3.2	Transaction identifier procedural errors and exception conditions	264
17.3.2.1	Unknown active CC call	264
17.3.2.2	Unknown active CISS call	265
17.3.2.3	Unknown active COMS call	265
17.3.2.4	Unknown active CLMS call.....	265
17.3.2.5	Unknown active MM transaction.....	265
17.3.2.6	Unknown active LCE transaction	265
17.3.3	Call Resource Contention	265
17.4	Message type or message sequence errors	266
17.4.1	CC message error.....	266

17.4.2	CISS message error.....	266
17.4.3	COMS or CLMS message error.....	266
17.4.4	MM message error.....	266
17.4.5	LCE message error.....	266
17.5	General information element errors.....	266
17.5.1	Information element out of sequence.....	266
17.5.2	Duplicated information elements.....	267
17.6	Mandatory information element errors.....	267
17.6.1	Mandatory information element missing in CC messages.....	267
17.6.2	Mandatory information element content error in CC messages.....	267
17.6.3	Mandatory information element error in COMS or CLMS messages.....	267
17.6.4	Mandatory information element error in MM messages.....	268
17.6.5	Mandatory information element error in LCE messages.....	268
17.7	Non-mandatory information element errors.....	268
17.7.1	Unrecognized information element.....	268
17.7.2	Non-mandatory information element content error.....	268
17.8	Data link reset.....	269
17.9	Data link failure.....	269
Annex A (normative): System parameters.....		270
A.1	CC timers.....	270
A.2	SS timers.....	271
A.3	COMS timers.....	271
A.4	CLMS timer.....	272
A.5	MM timers.....	272
A.6	LCE timers.....	274
A.7	NWK layer constants.....	275
A.8	Restart.....	275
Annex B (normative): CC state transition tables.....		276
B.1	CC state transitions at PT side.....	276
B.1.1	CC state table at PT side.....	276
B.1.2	CC transition procedures at PT side.....	277
B.2	CC state transitions at FT side.....	279
B.2.1	CC state table at FT side.....	279
B.2.2	CC transition procedures at FT side.....	279
Annex C (informative): DLC states as viewed by the LCE.....		282
Annex D (normative): DECT standard character sets.....		283
D.1	General.....	283
D.2	DECT standard 8-bit characters.....	283
D.2.1	General.....	283
D.2.2	Control codes.....	284
D.2.3	Standard IA5 codes.....	285
D.2.4	extended codes and escape to alternative character sets.....	285
D.3	DECT standard 4-bit characters.....	285
Annex E (normative): Default coding of information elements.....		286
E.1	Default coding of <<IWU-ATTRIBUTES>> and <CALL-ATTRIBUTES>> information elements for basic speech.....	286
E.2	Default coding of <<IWU-ATTRIBUTES>>, <<CALL-ATTRIBUTES>> and <<CONNECTION-ATTRIBUTES>> information elements for wideband speech.....	286

E.2.1	Default setup attributes for basic service wideband speech	287
Annex F (normative): Broadcast attributes coding		288
F.1	Higher layer capabilities.....	288
F.2	Extended higher layer capabilities	289
F.3	Extended higher layer capabilities (part 2).....	289
Annex G (normative): Use of <<IWU-PACKET>> and <<IWU-TO-IWU>> information elements		291
G.1	General	291
G.2	Sending of <<IWU-PACKET>> elements.....	291
G.2.1	CC and MM use of <<IWU-PACKET>>	291
G.2.2	COMS and CLMS use of <<IWU-PACKET>>.....	291
G.2.3	Rejection of <<IWU-PACKET>> elements	291
G.3	Use of <<IWU-TO-IWU>> elements	292
G.3.1	Sending of <<IWU-TO-IWU>> elements.....	292
G.3.2	Rejection of <<IWU-TO-IWU>> elements	292
Annex H (normative): Transaction identifier flags (TIF) assignment in MM procedures.....		293
H.1	General	293
H.2	Nested procedures	293
H.3	Stand alone procedures.....	294
H.3.1	Location update procedure	294
H.3.2	Location registration procedure with temporary identity assignment	294
H.3.3	PT initiated cipher switching.....	295
H.3.4	Key allocation	295
H.4	External protocol information procedure.....	296
Annex I (normative): Distributed communications		297
I.1	Introduction	297
I.2	General requirements	297
I.2.1	DCDL-net.....	297
I.2.2	Subscription.....	297
I.2.3	Communication	298
I.3	Procedure description	299
I.3.1	HyP Identities	299
I.3.2	Membership Access Rights Allocation	299
I.3.3	Re-initialization of membership access rights	300
I.3.4	Members Data Transfer	300
I.3.5	Presence/Absence Indication.....	302
I.3.6	Bandwidth management	302
I.3.7	Direct Link Establishment.....	303
I.3.8	Indirect Link Establishment	304
I.3.9	MASTER management	305
I.3.9.1	MASTER assign	305
I.3.9.2	MASTER Change.....	305
I.3.9.3	DCDL-net System bearer management	305
I.3.10	Common Subscription Database management	306
I.3.10.1	IdN.....	306
I.3.10.2	RFPI, PARK and PLI.....	306
I.3.10.3	IPUI	307
I.3.10.4	TPUI and LAL.....	307
I.3.10.5	Keys.....	307
I.3.11	Handover issues.....	307