

SLOVENSKI STANDARD
SIST EN 300 175-5 V2.1.1:2008
01-marec-2008

**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: [SIST EN 300 175-5 V2.1.1:2008](https://standards.iteh.ai/catalog/standards/sist/2504/1d1-2/d8-4c29-aab8)
<https://standards.iteh.ai/catalog/standards/sist/2504/1d1-2/d8-4c29-aab8>
317058dc261d/sist-en-300-175-5-v2-1-1-2008

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 V2.1.1:2008 en

**iTeh STANDARD PREVIEW
(standards.iteh.ai)**

SIST EN 300 175-5 V2.1.1:2008

<https://standards.iteh.ai/catalog/standards/sist/25047fd1-27d8-4c29-aab8-317058dc261d/sist-en-300-175-5-v2-1-1-2008>

ETSI EN 300 175-5 V2.1.1 (2007-08)

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 V2.1.1:2008

<https://standards.iteh.ai/catalog/standards/sist/25047fd1-27d8-4c29-aab8-317058dc261d/sist-en-300-175-5-v2-1-1-2008>



Reference

REN/DECT-000241-5

KeywordsDECT, 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° 7303/88

iTeh STANDARD PREVIEW (standards.iteh.ai)

[SIST EN 300 175-5 V2.1.1:2008](#)
<https://standards.iteh.ai/catalog/standards/sist/25047fd1-27d8-4c29-aab8-317058dc261f>
[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/chaircor/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 2007.
 All rights reserved.

DECT™, PLUGTESTS™ and UMTS™ are Trade Marks of ETSI registered for the benefit of its Members.
TIPHON™ and the **TIPHON logo** are Trade Marks currently being registered by ETSI for the benefit of its Members.
3GPP™ 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	17
3 Definitions and abbreviations.....	21
3.1 Definitions	21
3.2 Abbreviations	23
4 Overview of the NWK layer	26
5 Overview of procedures	28
5.1 General	28
5.2 Overview of Call Control (CC)	28
5.2.1 General.....	28
5.2.2 Call establishment.....	28
5.2.2.1 Call setup	28
5.2.2.2 Service negotiation.....	29
5.2.3 Call connect	29
5.2.4 Call information.....	29
5.2.5 Service change	30
5.2.6 Call release.....	30
5.3 Overview of Supplementary Services (SS)	30
5.3.1 General.....	30
5.3.2 Keypad protocol.....	31
5.3.3 Feature key management protocol	31
5.3.4 Functional protocol	31
5.4 Overview of Connection Oriented Message Service (COMS) https://standards.iteh.ai/catalog/standards/sist-en-300-175-5-v2-1-1-2008-317058dc261d	31
5.4.1 General.....	31
5.4.2 COMS establishment	32
5.4.3 Service negotiation	32
5.4.4 COMS connect.....	32
5.4.5 COMS data transfer	32
5.4.6 COMS suspend and resume	32
5.4.7 COMS release	33
5.5 Overview of ConnectionLess Message Service (CLMS)	33
5.5.1 Fixed length message service.....	33
5.5.2 Variable length message service	33
5.6 Overview of Mobility Management (MM)	33
5.6.1 General.....	33
5.6.2 Identity procedures	34
5.6.3 Authentication procedures	34
5.6.4 Location procedures.....	35
5.6.5 Access rights procedures	35
5.6.6 Key allocation procedure	35
5.6.7 Parameter retrieval procedure	35
5.6.8 Ciphering related procedure	36
5.6.9 External protocol information procedure	36
5.7 Overview of Link Control Entity (LCE)	36
5.7.1 General.....	36
5.7.2 Data Link Endpoint Identifier (DLEI)	36
5.7.3 Data link establishment.....	37
5.7.4 Data link re-establishment	37
5.7.5 Data link release	37
5.7.6 Data link suspend and resume.....	37
5.7.7 Queuing of messages	38

5.7.8	Request paging.....	38
6	Message functional definitions.....	38
6.1	Overview of message structures	38
6.1.1	Messages.....	38
6.1.2	Information elements	39
6.2	Message summaries.....	39
6.2.1	Summary of CC messages	39
6.2.2	Summary of CISS messages	40
6.2.3	Summary of COMS messages	40
6.2.4	Summary of CLMS messages.....	40
6.2.5	Summary of MM messages	41
6.2.6	Summary of LCE messages	41
6.3	S-FORMAT message functional contents	42
6.3.1	S-FORMAT message overview	42
6.3.2	CC-messages.....	42
6.3.2.1	{CC-SETUP}	42
6.3.2.2	{CC-INFO}	44
6.3.2.3	{CC-SETUP-ACK}	45
6.3.2.4	{CC-CALL-PROC}	46
6.3.2.5	{CC-ALERTING}	47
6.3.2.6	{CC-CONNECT}	48
6.3.2.7	{CC-CONNECT-ACK}	49
6.3.2.8	{CC-RELEASE}	49
6.3.2.9	{CC-RELEASE-COM}	50
6.3.2.10	{CC-SERVICE-CHANGE}	51
6.3.2.11	{CC-SERVICE-ACCEPT}	52
6.3.2.12	{CC-SERVICE-REJECT}	52
6.3.2.13	{CC-NOTIFY}	53
6.3.2.14	{IWU-INFO}	53
6.3.3	SS-messages (call related and call independent)	54
6.3.3.1	{FACILITY}	54
6.3.3.2	{HOLD}	54
6.3.3.3	{HOLD-ACK}	55
6.3.3.4	{HOLD-REJECT}	55
6.3.3.5	{RETRIEVE}	55
6.3.3.6	{RETRIEVE-ACK}	56
6.3.3.7	{RETRIEVE-REJECT}	56
6.3.3.8	{CISS-REGISTER}	57
6.3.3.9	{CISS-RELEASE-COM}	57
6.3.4	COMS-messages.....	58
6.3.4.1	{COMS-SETUP}	58
6.3.4.2	{COMS-INFO}	58
6.3.4.3	{COMS-ACK}	59
6.3.4.4	{COMS-CONNECT}	59
6.3.4.5	{COMS-RELEASE}	60
6.3.4.6	{COMS-RELEASE-COM}	60
6.3.4.7	{COMS-NOTIFY}	61
6.3.5	CLMS-message.....	61
6.3.5.1	{CLMS-VARIABLE}	61
6.3.6	MM-messages.....	62
6.3.6.1	{ACCESS-RIGHTS-ACCEPT}	62
6.3.6.2	{ACCESS-RIGHTS-REJECT}	62
6.3.6.3	{ACCESS-RIGHTS-REQUEST}	63
6.3.6.4	{ACCESS-RIGHTS-TERMINATE-ACCEPT}	63
6.3.6.5	{ACCESS-RIGHTS-TERMINATE-REJECT}	64
6.3.6.6	{ACCESS-RIGHTS-TERMINATE-REQUEST}	64
6.3.6.7	{AUTHENTICATION-REJECT}	65
6.3.6.8	{AUTHENTICATION-REPLY}	65
6.3.6.9	{AUTHENTICATION-REQUEST}	66
6.3.6.10	{CIPHER-REJECT}	66
6.3.6.11	{CIPHER-REQUEST}	67

6.3.6.12	{CIPHER-SUGGEST}	67
6.3.6.13	{DETACH}	68
6.3.6.14	{IDENTITY-REPLY}	68
6.3.6.15	{IDENTITY-REQUEST}	69
6.3.6.16	{KEY-ALLOCATE}	69
6.3.6.17	{LOCATE-ACCEPT}	70
6.3.6.18	{LOCATE-REJECT}	70
6.3.6.19	{LOCATE-REQUEST}	71
6.3.6.20	{MM-INFO-ACCEPT}	72
6.3.6.21	{MM-INFO-REJECT}	72
6.3.6.22	{MM-INFO-REQUEST}	73
6.3.6.23	{MM-INFO-SUGGEST}	74
6.3.6.24	{TEMPORARY-IDENTITY-ASSIGN}	74
6.3.6.25	{TEMPORARY-IDENTITY-ASSIGN-ACK}	75
6.3.6.26	{TEMPORARY-IDENTITY-ASSIGN-REJ}	75
6.3.6.27	{MM-IWU}	76
6.3.6.28	{MM-NOTIFY}	76
6.3.7	LCE-messages	77
6.3.7.1	{LCE-PAGE-RESPONSE}	77
6.3.7.2	{LCE-PAGE-REJECT}	77
6.4	B-FORMAT message functional contents	78
6.4.1	B-FORMAT message overview	78
6.4.2	{LCE-REQUEST-PAGE}	78
6.4.3	{CLMS-FIXED}	79
7	S-FORMAT message structures	79
7.1	Overview	79
7.2	Protocol Discrimination (PD) element	80
7.3	Transaction Identifier (TI) element	80
7.4	Message type element	81
7.4.1	Messages for CC	82
7.4.2	Messages for SS	82
7.4.3	Messages for COMS	82
7.4.4	Messages for CLMS	83
7.4.5	Messages for MM	83
7.4.6	Messages for LCE	83
7.5	Other information elements	84
7.5.1	Coding rules	84
7.5.2	Extensions of codesets	86
7.5.3	Locking shift procedure	86
7.5.4	Non-locking shift procedure	87
7.5.5	Display and keypad elements	87
7.5.6	Repeated elements	87
7.6	Fixed length information elements	88
7.6.1	Summary	88
7.6.2	Sending complete, delimiter request and use TPUI	88
7.6.3	Repeat indicator	89
7.6.4	Basic service	89
7.6.5	Single display	90
7.6.6	Single keypad	90
7.6.7	Release reason	90
7.6.8	Signal	91
7.6.9	Timer restart	92
7.6.10	Test hook control	93
7.7	Variable length information elements	93
7.7.1	Summary	93
7.7.2	Allocation type	95
7.7.3	Alphanumeric	95
7.7.4	Auth type	96
7.7.5	Call attributes	98
7.7.6	Call identity	100
7.7.7	Called party number	100

7.7.8	Called party subaddress	101
7.7.9	Calling party number	102
7.7.10	Cipher info	103
7.7.11	Connection attributes	104
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	111
7.7.17	Feature indicate	113
7.7.18	Fixed identity	116
7.7.19	Identity type	116
7.7.20	Info type	117
7.7.21	InterWorking Unit (IWU) attributes	118
7.7.22	IWU packet	123
7.7.23	IWU to IWU	124
7.7.24	Key	126
7.7.25	Location area	126
7.7.26	Multi-display	127
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	130
7.7.31	Progress indicator	134
7.7.32	RAND	135
7.7.33	Rate parameters	135
7.7.34	Reject reason	136
7.7.35	RES	137
7.7.36	RS	138
7.7.37	Segmented info	138
7.7.38	Service change info	139
7.7.39	Service class	140
7.7.40	Setup capability	141
7.7.41	Terminal capability	142
7.7.42	Transit delay	146
7.7.43	Window size	147
7.7.44	ZAP field	147
7.7.45	Escape to proprietary	148
7.7.46	Model identifier	148
7.7.47	MMS Generic Header	149
7.7.48	MMS Object Header	149
7.7.49	MMS Extended header	150
7.7.50	Time-Date	150
7.7.51	Ext h/o indicator	152
7.7.52	Authentication Reject Parameter	152
7.7.53	Calling party Name	153
7.7.54	Codec List	153
8	B-FORMAT message structures	155
8.1	General	155
8.2	LCE request paging messages	155
8.2.1	Short format message	156
8.2.2	Long format message	158
8.3	CLMS-FIXED messages	161
8.3.1	General message structure	161
8.3.2	Message elements	161
8.3.3	Standard message structures	163
8.3.3.1	General	163
8.3.3.2	Messages using 4-bit characters	163
8.3.3.3	Messages using 8-bit characters	163
9	Call Control (CC) procedures	164

9.1	General	164
9.2	Call Control (CC) states	167
9.2.1	States at PT	167
9.2.1.1	State T-00: "NULL"	167
9.2.1.2	State T-19: "RELEASE PENDING"	167
9.2.1.3	State T-10: "ACTIVE"	167
9.2.1.4	State T-01: "CALL INITIATED"	167
9.2.1.5	State T-02: "OVERLAP SENDING"	167
9.2.1.6	State T-03: "CALL PROCEEDING"	167
9.2.1.7	State T-04: "CALL DELIVERED"	167
9.2.1.8	State T-06: "CALL PRESENT"	167
9.2.1.9	State T-07: "CALL RECEIVED"	167
9.2.1.10	State T-08: "CONNECT PENDING"	167
9.2.2	States at FT	168
9.2.2.1	State F-00: "NULL"	168
9.2.2.2	State F-19: "RELEASE PENDING"	168
9.2.2.3	State F-10: "ACTIVE"	168
9.2.2.4	State F-01: "CALL-INITIATED"	168
9.2.2.5	State F-02: "OVERLAP SENDING"	168
9.2.2.6	State F-03: "CALL PROCEEDING"	168
9.2.2.7	State F-04: "CALL DELIVERED"	168
9.2.2.8	State F-06: "CALL PRESENT"	168
9.2.2.9	State F-07: "CALL RECEIVED"	168
9.2.3	Optional states (PT and FT)	169
9.2.3.1	States T-22 and F-22: "OVERLAP RECEIVING"	169
9.2.3.2	States T-23 and F-23: "INCOMING CALL PROCEEDING"	169
9.3	Call establishment procedures	169
9.3.1	PT initiated call establishment (outgoing call)	169
9.3.1.1	Call request	169
9.3.1.2	Call accept or reject	170
9.3.1.3	Selection of lower layer resources	170
9.3.1.4	Connection of U-plane	171
9.3.1.5	Overlap sending	171
9.3.1.6	Call proceeding	172
9.3.1.7	Call confirmation	172
9.3.1.8	Call connection	173
9.3.1.9	Expiry of timer <CC.04>	173
9.3.2	FT initiated call establishment (incoming call)	173
9.3.2.1	Call request	173
9.3.2.2	Call accept or reject	174
9.3.2.3	Selection of lower layer resources	174
9.3.2.4	Connection of U-plane	175
9.3.2.5	Overlap receiving	175
9.3.2.6	Call proceeding	175
9.3.2.7	Call confirmation	175
9.3.2.8	Call connection	175
9.3.2.9	Sending of <<TERMINAL-CAPABILITY>>	176
9.3.2.10	Expiry of timer <CC.04>	176
9.4	Call information procedures	176
9.5	Call release procedures	176
9.5.1	Normal call release	176
9.5.2	Abnormal call release	177
9.5.3	Release collisions	178
9.6	Service change procedures	178
9.6.1	General	178
9.6.2	Bandwidth changes (including reversals)	179
9.6.3	Service rerouting	179
9.6.4	Service suspension and resumption	179
9.6.5	Modulation scheme change	180
9.7	Packet mode procedures	180
9.7.1	General	180
9.7.2	PT initiated access	180

9.7.3	FT initiated access	181
9.7.4	Packet mode suspend and resume.....	181
9.7.4.1	General	181
9.7.4.2	C-plane suspend and resume	181
9.7.4.3	U-plane suspend and resume.....	181
9.8	Emergency call procedure	182
9.9	Segmentation of information in CC procedures	183
10	Supplementary Services procedures.....	184
10.1	General	184
10.2	Keypad protocol.....	184
10.3	Feature key management protocol.....	185
10.4	Functional protocol.....	185
10.4.1	Separate messages approach.....	185
10.4.1.1	Hold procedures	186
10.4.1.2	Retrieve procedures	186
10.4.1.3	Auxiliary states for hold and retrieve	186
10.4.2	Common information element approach.....	186
10.4.2.1	Call related procedures.....	187
10.4.2.2	Call independent procedures	187
10.4.2.3	Connectionless Supplementary Service (CLSS) procedure	187
10.5	Co-existence of multiple protocols.....	188
10.6	Application protocols	188
10.6.1	DECT standard functional supplementary services	188
10.6.2	DECT specific supplementary services	189
10.6.2.1	Queue management	189
10.6.2.2	Indication of subscriber number	190
10.6.2.3	Control of echo control functions.....	190
10.6.2.4	Cost information	190
11	Connection Oriented Message Service (COMS).....	191
11.1	General	191
11.2	COMS states.....	191
11.2.1	States at PT https://standards.iteh.ai/catalog/standards/sist/25047fd1-27d8-4c29-aab8-317058dc261d/sist-en-300-175-5-v2-1-1-2008	191
11.2.1.1	State TS-0: "NULL"	191
11.2.1.2	State TS-1: "CONNECT PENDING"	191
11.2.1.3	State TS-2: "RELEASE PENDING"	191
11.2.1.4	State TS-3: "ACTIVE"	191
11.2.2	States at FT	191
11.2.2.1	State FS-0: "NULL"	191
11.2.2.2	State FS-1: "CONNECT PENDING"	191
11.2.2.3	State FS-2: "RELEASE PENDING"	191
11.2.2.4	State FS-3: "ACTIVE"	192
11.3	COMS establishment procedures	192
11.3.1	PT initiated COMS establishment	192
11.3.1.1	COMS request.....	192
11.3.1.2	COMS connection.....	192
11.3.2	FT initiated COMS establishment	193
11.3.2.1	COMS request.....	193
11.3.2.2	COMS connection.....	193
11.4	COMS data transfer procedures	193
11.4.1	Procedure at the sending side.....	193
11.4.2	Procedure at the receiving side	194
11.5	COMS suspend and resume procedures	195
11.6	COMS release procedures	195
11.6.1	Normal COMS release.....	195
11.6.2	Release collisions.....	195
12	ConnectionLess Message Service (CLMS).....	196
12.1	General	196
12.2	CLMS states	196
12.3	CLMS message transmission procedures	196
12.3.1	Fixed length messages	196

12.3.1.1	Procedure in the Fixed radio Termination (FT)	196
12.3.1.2	Procedure in the Portable radio Termination (PT)	197
12.3.2	Variable length messages.....	197
12.3.2.1	Procedure at the sending side	197
12.3.2.2	Procedure at the receiving side.....	197
12.3.2.3	Restrictions for portable side initiated messages.....	198
13	Mobility Management (MM) procedures	198
13.1	General	198
13.2	Identity procedures	199
13.2.1	Procedure for identification of PT	199
13.2.2	Procedure for temporary identity assignment	200
13.3	Authentication procedures.....	201
13.3.1	Authentication of a PT.....	201
13.3.2	Authentication of the user.....	203
13.3.3	Authentication of a FT.....	203
13.4	Location procedures	204
13.4.1	Location registration	204
13.4.2	Detach	206
13.4.3	Location update	206
13.5	Access rights procedure.....	207
13.5.1	Obtaining the access rights	207
13.5.2	Termination of access rights	208
13.5.3	Modification of access rights	209
13.6	Key allocation procedure.....	210
13.7	Parameter retrieval procedure.....	211
13.8	Ciphering related procedure	212
13.9	External protocol information procedure	215
13.9.1	Procedure for external protocol information initiated by the FT	215
13.9.2	Procedure for external protocol information initiated by the PT	215
13.9.3	Segmentation of information in MM procedures.....	215
14	Link Control Entity (LCE) procedures.....	217
14.1	General	217
14.2	Connection oriented link control procedures.....	217
14.2.1	Link establishment.....	217
14.2.2	Direct PT initiated link establishment.....	218
14.2.3	Indirect (paged) FT initiated link establishment	218
14.2.4	Direct FT initiated link establishment.....	220
14.2.5	Link maintenance.....	220
14.2.6	Link suspend and resume.....	221
14.2.6.1	Link suspend	221
14.2.6.2	Link resume.....	221
14.2.7	Link release.....	222
14.2.7.1	NLR notification without "partial release" as release reason	222
14.2.7.2	NLR notification with "partial release" as release reason	222
14.3	Connectionless link control procedures.....	223
14.3.1	Message routing.....	223
14.3.2	Broadcast announce procedure	223
14.4	Procedure for collective and group ringing	223
14.5	Resume paging	225
15	Management procedures.....	225
15.1	Lower Layer Management Entity (LLME)	225
15.2	Service mapping and negotiation	226
15.2.1	General.....	226
15.2.2	Prioritized list negotiation.....	226
15.2.3	Exchanged attribute negotiation	226
15.2.4	Operating parameter negotiation.....	227
15.2.5	Peer attribute negotiation	227
15.3	Service modification procedures	228
15.4	Resource management.....	228
15.5	Management of MM procedures	228

15.6	Call ciphering management	229
15.7	External Handover.....	230
15.7.1	Handover candidate procedures	230
15.7.1.1	General.....	230
15.7.1.2	Handover candidate indication	230
15.7.1.3	Handover candidate retrieval	231
15.7.1.4	Target FP selection.....	231
15.7.2	Handover reference procedure.....	232
15.7.2.1	General.....	232
15.7.2.2	Handover reference indication	232
15.7.2.3	Handover reference retrieval.....	232
15.7.3	External handover suggested by FP	232
15.7.4	NWK layer set up procedure.....	233
15.7.4.1	Handover request	233
15.7.4.2	Handover confirm	233
15.7.4.3	Handover accept.....	233
15.7.4.4	Handover reject	233
15.7.4.5	Release of old connection	233
15.7.4.6	Handover Fall Back.....	234
15.7.5	U-plane handling	234
15.7.6	Ciphering procedure	235
15.7.7	Interaction with location registration	235
15.8	Test management procedures	235
15.8.1	Test call back procedure	236
15.8.2	Test hook control procedures.....	236
15.8.3	Upper tester procedure.....	236
15.9	Application assistance procedures	237
15.9.1	DECT Identity Resolution (Retrieval) Procedure	237
15.9.1.1	FT (or HyP) initiated Connectionless Identity Resolution procedure	237
15.9.1.2	PT initiated Connectionless Identity Resolution procedure	237
15.9.1.3	Connection oriented Identity Resolution procedure	238
15.9.2	Application Address Resolution (Retrieval) Procedure	238
15.9.3	Application Parameter Allocation Procedure	238
15.9.3.1	FT initiated application parameter allocation procedure	238
15.9.3.2	PT initiated application parameter allocation procedure	239
15.9.4	Application parameter information procedure	239
15.9.4.1	FT initiated connection oriented Application parameter information procedure	239
15.9.4.2	PT initiated connection oriented Application parameter information procedure	239
15.9.4.3	FT initiated connectionless Application parameter information procedure	240
15.9.4.4	PT initiated connectionless Application parameter information procedure	240
15.9.5	Application Parameter Indication procedure	240
16	Primitives	241
16.1	Primitive types.....	241
16.2	Primitives to lower layer (DLC layer).....	241
16.3	Primitives to IWU	241
16.3.1	Parameter definitions	241
16.3.2	MNCC primitives	242
16.3.2.1	MNCC_SETUP primitive	243
16.3.2.2	MNCC_SETUP_ACK primitive	243
16.3.2.3	MNCC_REJECT primitive	244
16.3.2.4	MNCC_CALL_PROC primitive	244
16.3.2.5	MNCC_ALERT primitive	245
16.3.2.6	MNCC_CONNECT primitive	245
16.3.2.7	MNCC_RELEASE primitive	246
16.3.2.8	MNCC_FACILITY primitive	246
16.3.2.9	MNCC_INFO primitive	247
16.3.2.10	MNCC MODIFY primitive	247
16.3.2.11	MNCC_HOLD primitive	247
16.3.2.12	MNCC_RETRIEVE primitive	248
16.3.2.13	MNCC_IWU_INFO primitive	248
16.3.3	MNSS primitives	248

16.3.3.1	MNSS_SETUP primitive	248
16.3.3.2	MNSS_FACILITY primitive	249
16.3.3.3	MNSS_RELEASE primitive	249
16.3.4	MNCO primitives	249
16.3.4.1	MNCO_SETUP primitive	250
16.3.4.2	MNCO_CONNECT primitive	250
16.3.4.3	MNCO_INFO primitive	250
16.3.4.4	MNCO_ACK primitive	250
16.3.4.5	MNCO_RELEASE primitive	251
16.3.4.6	MNCO_REJECT primitive	251
16.3.5	MNCL primitives	251
16.3.5.1	MNCL_UNITDATA primitive	251
16.3.6	MM primitives	252
16.3.6.1	MM_IDENTITY primitive	252
16.3.6.2	MM_IDENTITY_ASSIGN primitive	252
16.3.6.3	MM_AUTHENTICATE primitive	253
16.3.6.4	MM_LOCATE primitive	253
16.3.6.5	MM_DETACH primitive	253
16.3.6.6	MM_ACCESS_RIGHTS primitive	254
16.3.6.7	MM_ACCESS_RIGHTS_TERMINATE primitive	254
16.3.6.8	MM_KEY_ALLOCATE primitive	254
16.3.6.9	MM_INFO primitive	255
16.3.6.10	MM_CIPHER primitive	255
16.3.6.11	MM_IWU primitive	255
17	Handling of error and exception conditions	256
17.1	Protocol discrimination error	256
17.2	Message too short	256
17.3	Transaction identifier error	256
17.3.1	Illegal and unsupported transaction identifier value	256
17.3.2	Transaction identifier procedural errors and exception conditions	256
17.3.2.1	Unknown active CC call	256
17.3.2.2	Unknown active CISS call	257
17.3.2.3	Unknown active COMS call	257
17.3.2.4	Unknown active CLMS call	257
17.3.2.5	Unknown active MM transaction	257
17.3.2.6	Unknown active LCE transaction	257
17.3.3	Call Resource Contention	257
17.4	Message type or message sequence errors	258
17.4.1	CC message error	258
17.4.2	CISS message error	258
17.4.3	COMS or CLMS message error	258
17.4.4	MM message error	258
17.4.5	LCE message error	258
17.5	General information element errors	258
17.5.1	Information element out of sequence	258
17.5.2	Duplicated information elements	259
17.6	Mandatory information element errors	259
17.6.1	Mandatory information element missing in CC messages	259
17.6.2	Mandatory information element content error in CC messages	259
17.6.3	Mandatory information element error in COMS or CLMS messages	259
17.6.4	Mandatory information element error in MM messages	260
17.6.5	Mandatory information element error in LCE messages	260
17.7	Non-mandatory information element errors	260
17.7.1	Unrecognized information element	260
17.7.2	Non-mandatory information element content error	260
17.8	Data link reset	261
17.9	Data link failure	261
Annex A (normative):	System parameters.....	262
A.1	CC timers	262

A.2	SS timers	263
A.3	COMS timers.....	263
A.4	CLMS timer.....	264
A.5	MM timers.....	264
A.6	LCE timers	266
A.7	NWK layer constants.....	267
A.8	Restart.....	267
Annex B (normative):	CC state transition tables.....	268
B.1	CC state transitions at PT side.....	268
B.1.1	CC state table at PT side.....	268
B.1.2	CC transition procedures at PT side	269
B.2	CC state transitions at FT side.....	271
B.2.1	CC state table at FT side.....	271
B.2.2	CC transition procedures at FT side	271
Annex C (informative):	DLC states as viewed by the LCE	274
Annex D (normative):	DECT standard character sets	275
D.1	General	275
D.2	DECT standard 8-bit characters.....	275
D.2.1	General	275
D.2.2	Control codes.....	276
D.2.3	Standard IA5 codes	276
D.2.4	extended codes and escape to alternative character sets.....	277
D.3	DECT standard 4-bit characters.....	277
Annex E (normative):	Default coding of information elements.....	278
E.1	Default coding of <<IWU-ATTRIBUTES>> and <CALL-ATTRIBUTES>> information elements for basic speech.....	278
E.2	Default coding of <<IWU-ATTRIBUTES>>, <<CALL-ATTRIBUTES>> and <<CONNECTION-ATTRIBUTES>> information elements for wideband speech.....	278
E.2.1	Default setup attributes for basic service wideband speech	279
Annex F (normative):	Broadcast attributes coding	280
F.1	Higher layer capabilities.....	280
F.2	Extended higher layer capabilities	281
F.3	Extended higher layer capabilities (part 2).....	281
Annex G (normative):	Use of <<IWU-PACKET>> and <<IWU-TO-IWU>> information elements	283
G.1	General	283
G.2	Sending of <<IWU-PACKET>> elements.....	283
G.2.1	CC and MM use of <<IWU-PACKET>>	283
G.2.2	COMS and CLMS use of <<IWU-PACKET>>.....	283
G.2.3	Rejection of <<IWU-PACKET>> elements	283
G.3	Use of <<IWU-TO-IWU>> elements	284
G.3.1	Sending of <<IWU-TO-IWU>> elements.....	284
G.3.2	Rejection of <<IWU-TO-IWU>> elements	284

Annex H (normative):	Transaction identifier flags (TIF) assignment in MM procedures.....	285
H.1	General	285
H.2	Nested procedures	285
H.3	Stand alone procedures.....	286
H.3.1	Location update procedure	286
H.3.2	Location registration procedure with temporary identity assignment	286
H.3.3	PT initiated cipher switching.....	287
H.3.4	Key allocation	287
H.4	External protocol information procedure	288
Annex I (normative):	Distributed communications.....	289
I.1	Introduction	289
I.2	General requirements	289
I.2.1	DCDL-net.....	289
I.2.2	Subscription.....	289
I.2.3	Communication	290
I.3	Procedure description	291
I.3.1	HyP Identities	291
I.3.2	Membership Access Rights Allocation	291
I.3.3	Re-initialization of membership access rights	292
I.3.4	Members Data Transfer.....	292
I.3.5	Presence/Absence Indication.....	294
I.3.6	Bandwidth management.....	294
I.3.7	Direct Link Establishment.....	295
I.3.8	Indirect Link Establishment	296
I.3.9	MASTER management	297
I.3.9.1	MASTER assign	297
I.3.9.2	MASTER Change	297
I.3.9.3	DCDL-net System bearer management	297
I.3.10	Common Subscription Database management.....	298
I.3.10.1	IdN	298
I.3.10.2	RFPI, PARK and PLI.....	298
I.3.10.3	IPUI	299
I.3.10.4	TPUI and LAL.....	299
I.3.10.5	Keys	299
I.3.11	Handover issues.....	299
I.4	Elements of Messages/Information Elements	299
I.4.1	CLMS-FIXED	300
I.4.2	IWU-TO-IWU	300
I.4.3	Info-type	301
I.4.4	CLMS-VARIABLE.....	301
I.5	Examples	301
I.5.1	General	301
I.5.2	Example 1	302
I.5.3	Example 2	302
I.5.4	Example 3	303
I.5.5	Example 4	304
I.6	Usage of PPs or FPs in DCDL-net	305
I.6.1	General	305
I.6.2	Requirements to FPs.....	305
I.6.2.1	General.....	305
I.6.2.2	Members Data Transfer	306
I.6.2.3	Direct Link Establishment	306
I.6.3	Requirements to PPs.....	307
I.6.3.1	General.....	307