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**Radio Equipment and Systems (RES);
Digital Enhanced Cordless Telecommunications (DECT);
Common Interface (CI) Test Case Library (TCL);
Part 7: Abstract Test Suite (ATS) for Network (NWK) layer -
Portable radio Termination (PT)**

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Contents

Foreword	5
1 Scope	7
2 Normative references	7
3 Definitions, symbols and abbreviations	9
3.1 DECT definitions	9
3.2 DECT abbreviations	9
3.3 ISO 9646 definitions	10
3.4 ISO 9646 abbreviations	10
4 Abstract Test Method (ATM)	11
4.1 ATM	11
4.2 DLC primitives	12
4.2.1 S-SAP primitives	12
4.2.2 B-SAP primitives	15
4.3 TC execution sequence	15
5 Untestable Test Purposes (TPs)	15
5.1 Control protocol	15
6 ATS conventions	16
6.1 Naming conventions	16
6.1.1 Declarations part	16
6.1.1.1 Test suite type, ASP and PDU type definitions	16
6.1.1.2 Test Suite Operations (TSO) definitions	17
6.1.1.3 Test suite selection expressions	17
6.1.1.4 Test suite parameter declarations	17
6.1.1.5 Test Case Selection (TCS) expression definitions	17
6.1.1.6 Test Suite Constant (TSC) declarations	17
6.1.1.7 Test Suite Variable (TSV) declarations	17
6.1.1.8 Test Case Variable (TCV) declarations	17
6.1.1.9 Point of Control and Observation (PCO) declarations	18
6.1.1.10 Timer declarations	18
6.1.1.11 ASP type definitions	18
6.1.1.12 PDU type definitions	18
6.1.1.13 Alias definitions	19
6.1.2 Constraints part	19
6.1.3 Dynamic part	20
6.1.3.1 Test Case (TC) identifier	20
6.1.3.2 Test Step (TS) identifier	21
6.1.3.3 Default identifier	21
6.1.3.4 General aspects	21
6.1.3.5 ATS abbreviations	21
6.2 Implementation conventions	22
6.2.1 Declaration part	22
6.2.2 Constraint part	22
6.2.3 Dynamic part	23
6.2.4 Documentation	23
Annex A (normative): Abstract Test Suite (ATS) for NWK testing	24
A.1 The machine processable ATS (TTCN.MP)	24
A.2 The graphical ATS (TTCN.GR)	24

Annex B (normative):	Partial PIXIT proforma	401
B.1	Identification summary.....	401
B.2	ATS summary.....	401
B.3	Test laboratory.....	401
B.4	Client identification.....	401
B.5	SUT.....	401
B.6	Protocol layer information	402
B.6.1	Protocol identification	402
B.6.2	IUT information.....	402
Annex C (normative):	Protocol Conformance Test Report (PCTR) Proforma for DECT NWK	406
C.1	Identification summary.....	406
C.1.1	Protocol conformance test report.....	406
C.1.2	IUT identification.....	406
C.1.3	Testing environment.....	406
C.1.4	Limits and reservation	406
C.1.5	Comments.....	407
C.2	IUT Conformance status.....	407
C.3	Static conformance summary	407
C.4	Dynamic conformance summary	407
C.5	Static conformance review report	407
C.6	Test campaign report.....	408
C.7	Observations.....	410
Annex D (informative):	Bibliography	411
History		412

Foreword

This European Telecommunication Standard (ETS) has been produced by the Radio Equipment and Systems (RES) Technical Committee of the European Telecommunications Standards Institute (ETSI).

The DECT Test Specification multipart ETS comprises nine parts, as follows:

- Part 1: "Part 1: Test Suite Structure (TSS) and Test Purposes (TP) for Medium Access Control (MAC) layer".
- Part 2: "Part 2: Abstract Test Suite (ATS) for Medium Access Control (MAC) layer - Portable radio Termination (PT)".
- Part 3: "Part 3: Abstract Test Suite (ATS) for Medium Access Control (MAC) layer - Fixed radio Termination (FT)".
- Part 4: "Part 4: Test Suite Structure (TSS) and Test Purposes (TP) - Data Link Control (DLC) layer".
- Part 5: "Part 5: Abstract Test Suite (ATS) - Data Link Control (DLC) layer".
- Part 6: "Part 6: Test Suite Structure (TSS) and Test Purposes (TP) - Network (NWK) layer - Portable radio Termination (PT)".
- Part 7: "Part 7: Abstract Test Suite (ATS) for Network (NWK) layer - Portable radio Termination (PT)".**
- Part 8: "Part 8: Test Suite Structure (TSS) and Test Purposes (TP) - Network (NWK) layer - Fixed radio Termination (FT)".
- Part 9: "Part 9: Abstract Test Suite (ATS) for Network (NWK) layer - Fixed radio Termination (FT)".

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Date of withdrawal of any conflicting National Standard (dow):	31 May 1997

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1 Scope

This European Telecommunication Standard (ETS) contains the Abstract Test Suite (ATS) to test the Network (NWK) layer, Portable radio Termination (PT).

The objective of this test specification is to provide a basis for approval tests for DECT equipment giving a high probability of air interface inter-operability between different manufacturer's DECT equipment. Part 7 of this test specification contains the Abstract Test Suite for testing of the NWK layer at the PT.

The ISO standard for the methodology of conformance testing (ISO/IEC 9646) as well as the ETSI rules for conformance testing (protocol and profile conformance testing specifications, standardization methodology ETS 300 406) are used as basis for the test methodology.

Test specifications for the Physical Layer (PHL) are provided in other DECT standards.

Annex B provides the Partial PIXIT Proforma.

2 Normative references

This ETS incorporates by dated and 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 ETS 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 (1992): "Radio Equipment and Systems (RES); Digital European Cordless Telecommunications (DECT); Common interface; Part 1: Overview".
- [2] ETS 300 175-2 (1992): "Radio Equipment and Systems (RES); Digital European Cordless Telecommunications (DECT); Common interface; Part 2: Physical layer".
- [3] ETS 300 175-3 (1992): "Radio Equipment and Systems (RES); Digital European Cordless Telecommunications (DECT); Common interface; Part 3: Medium access control layer".
- [4] ETS 300 175-4 (1992): "Radio Equipment and Systems (RES); Digital European Cordless Telecommunications (DECT); Common interface; Part 4: Data link control layer".
- [5] ETS 300 175-5 (1992): "Radio Equipment and Systems (RES); Digital European Cordless Telecommunications (DECT); Common interface; Part 5: Network layer".
- [6] ETS 300 175-6 (1992): "Radio Equipment and Systems (RES); Digital European Cordless Telecommunications (DECT); Common interface; Part 6: Identities and addressing".
- [7] ETS 300 175-7 (1992): "Radio Equipment and Systems (RES); Digital European Cordless Telecommunications (DECT); Common interface; Part 7: Security features".
- [8] ETS 300 175-8 (1992): "Radio Equipment and Systems (RES); Digital European Cordless Telecommunications (DECT); Common interface; Part 8: Speech coding and transmission".
- [9] ETS 300 175-9 (1992): "Radio Equipment and Systems (RES); Digital European Cordless Telecommunications (DECT); Common interface; Part 9: Public access profile".
- [10] ETS 300 444: "Radio Equipment and Systems (RES); Digital European Cordless Telecommunications (DECT); Generic Access Profile (GAP)".

- [11] ETS 300 370: "Radio Equipment and Systems (RES); Digital European Cordless Telecommunications/Global System for Mobile communications (DECT/GSM) inter-working profile; Access and mapping (Protocol/procedure description for 3,1 kHz speech service)".
- [12] ETS 300 434: "Radio Equipment and Systems (RES); Digital European Cordless Telecommunications (DECT) and Integrated Services Digital Network (ISDN) inter-working for end system configuration".
- [13] ETS 300 331: "Radio Equipment and Systems (RES); Digital European Cordless Telecommunications (DECT); DECT Authentication Module (DAM)".
- [14] CCITT Recommendation G.726 (1991): "40, 32, 24, 16 kbit/s adaptive differential pulse code modulation (ADPCM)".
- [15..20] Reserved values.
- [21] ISO/IEC 9646-1 (1991): "Information technology - Open Systems Interconnection - Conformance testing methodology and framework - Part 1: General concepts". (See also CCITT Recommendation X.290 (1991)).
- [22] ISO/IEC 9646-2 (1991): "Information technology - Open Systems Interconnection - Conformance testing methodology and framework - Part 2: Abstract test suite specification". (See also CCITT Recommendation X.291 (1991)).
- [23] ISO/IEC 9646-3 (1991): "Information technology - Open Systems Interconnection - Conformance testing methodology and framework - Part 3: The tree and tabular combined notation". (See also CCITT Recommendation X.292 (1992)).
- [24] ISO/IEC 9646-4 (1991): "Information technology - Open Systems Interconnection - Conformance testing methodology and framework - Part 4: Test realisation". (See also CCITT Recommendation X.292 (1992)).
- [25] ISO/IEC 9646-5 (1991): "Information technology - Open Systems Interconnection - Conformance testing methodology and framework - Part 5: Requirements on test laboratories and clients for the conformance assessment process". (See also CCITT Recommendation X.292 (1992)).
- [26] ISO/IEC 9646-6 (1991): "Information technology - Open Systems Interconnection - Conformance testing methodology and framework - Part 6: Protocol profile test specification".
- [27] ISO/IEC 9646-7 (1991): "Information technology - Open Systems Interconnection - Conformance testing methodology and framework - Part 7: Implementation conformance statement".
- [28] ISO 7498: "Information Processing Systems - Open Systems Interconnection - Basic Reference model".
- [29] ETS 300 406 (1995): "Methods for Testing and Specification (MTS); Protocol and profile conformance testing specifications; Standardization methodology".
- [30] 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)".
- [31..40] Reserved values.
- [41] I-ETS 300 176: "Radio Equipment and Systems (RES); Digital European Cordless Telecommunications (DECT); Approval test specification".

- [42] TBR 6: "Radio Equipment and Systems (RES); Digital European Cordless Telecommunications (DECT); General terminal attachment requirements".
- [43] TBR 10: "Radio Equipment and Systems (RES); Digital European Cordless Telecommunications (DECT); General terminal attachment requirements: Telephony applications".
- [44] TBR 11 (1992): "Radio Equipment and Systems (RES); Attachment requirements for terminal equipment for Digital European Cordless Telecommunications (DECT) Public Access Profile (PAP) applications".
- [45] ETS 300 323 (1994): "Radio Equipment and Systems (RES); Digital European Cordless Telecommunications (DECT); Public Access Profile (PAP) test specification".
- [46] ETS 300 476: "Radio Equipment and Systems (RES); Digital Enhanced Cordless Telecommunications (DECT); Common Interface (CI); Protocol Implementation Conformance Statement (PICS) proforma".
- [47] ETS 300 497: "Radio Equipment and Systems (RES); Digital Enhanced Cordless Telecommunications (DECT); Common Interface (CI) Test Case Library (TCL)".
- [48] ETS 300 474: "Radio Equipment and Systems (RES); Digital Enhanced Cordless Telecommunications (DECT); Generic Access Profile (GAP); Profile requirement list and profile specific Implementation Conformance Statement (ICS) proforma".
- [49] ETS 300 494: "Radio Equipment and Systems (RES); Digital Enhanced Cordless Telecommunications (DECT); Generic Access Profile (GAP); Profile Test Specification (PTS)".
- [50] TBR 22: "Radio Equipment and Systems (RES); Attachment requirements for terminal equipment for Digital Enhanced Cordless Telecommunications (DECT) Generic Access Profile (GAP) applications".

3 Definitions, symbols and abbreviations

3.1 DECT definitions

For the purposes of this ETS, the definitions given in ISO/IEC 9646-1 [21], ISO/IEC 9646-2 [22], ETS 300 175-1 [1], ETS 300 175-5 [5], ETS 300 175-6 [6] and ETS 300 175-7 [7] apply.

3.2 DECT abbreviations

For the purposes of this ETS, the NWK layer abbreviations defined in ETS 300 175-5 [5] and the following abbreviations apply:

AC	Authentication Code
AR	Access Rights
AU	Authentication
CA	Capability
CC	Call Control
CCSM	Call Control State Machine
CI	Call Information
CH	Ciphering
CR	Call Release
CTS	Conformance Testing Services
DECT	Digital Enhanced Cordless Telecommunication
DLC	Data Link Control layer
ETSI	European Telecommunications Standards Institute
FT	Fixed radio termination

GAP	Generic Access Profile
IC	Incoming Call
ID	Identification
IPII	International Portable User Identity
IPEI	International Portable Equipment Identity
KA	Key Allocation
LC	Link Control entity
LE	Connection oriented Link Establishment
LL	ConnectionLess Link control
LO	Location
LR	Connection oriented Link Release
LS	Connection oriented Link Suspend and resume
MAC	Medium Access Control layer
ME	Management Entity
ML	ConnectionLess Message Services
MM	Mobility Management
MO	Connection Oriented Message Services
NWK	Network layer
OC	Outgoing Call
PAP	Public Access Profile
PARK	Portable Access Rights Key
PM	Packet Mode
PR	Parameter Retrieval
PT	Portable radio termination
RPN	Radio Fixed Part Number
RS	Call Related Supplementary Services
SC	Service Change
UAK	User Authentication KeY

3.3 ISO 9646 definitions

For the purposes of this ETS, the following ISO 9646 definitions apply:

Implementation Under Test (IUT)
System Under Test (SUT)
Abstract Test Suite (ATS)
Point of Control and Observation (PCO)
Protocol Implementation Conformance Statement (PICS)
Protocol Implementation eXtra Information for Testing (PIXIT)
Lower Tester (LT)
Upper Tester (UT)

3.4 ISO 9646 abbreviations

For the purposes of this ETS, the following ISO 9646 abbreviations apply:

ATS	Abstract Test Suite
ASP	Abstract Service Primitive
BI	Invalid Behaviour
BO	InOpportune Behaviour
BV	Valid Behaviour
CA	Capability tests
ETS	European Telecommunication Standard
ISO	International Organisation for Standardisation
IUT	Implementation Under Test
IWU	InterWorking Unit
LT	Lower Tester
PDU	Protocol Data Unit
PHL	Physical Layer
PICS	Protocol Implementation Conformance Statements
PIXIT	Protocol Implementation eXtra Information for Testing
SUT	System Under Test
TP	Test Purpose

TSO	Test Suite Operation
TSP	Test Suite Parameter
TSS	Test Suite Structure
TTCN	Tree and Tabular Combined Notation
UT	Upper Tester

4 Abstract Test Method (ATM)

This clause describes the ATM, the Point of Control and Observation (PCO) used to test the NWK layer of the PT.

4.1 ATM

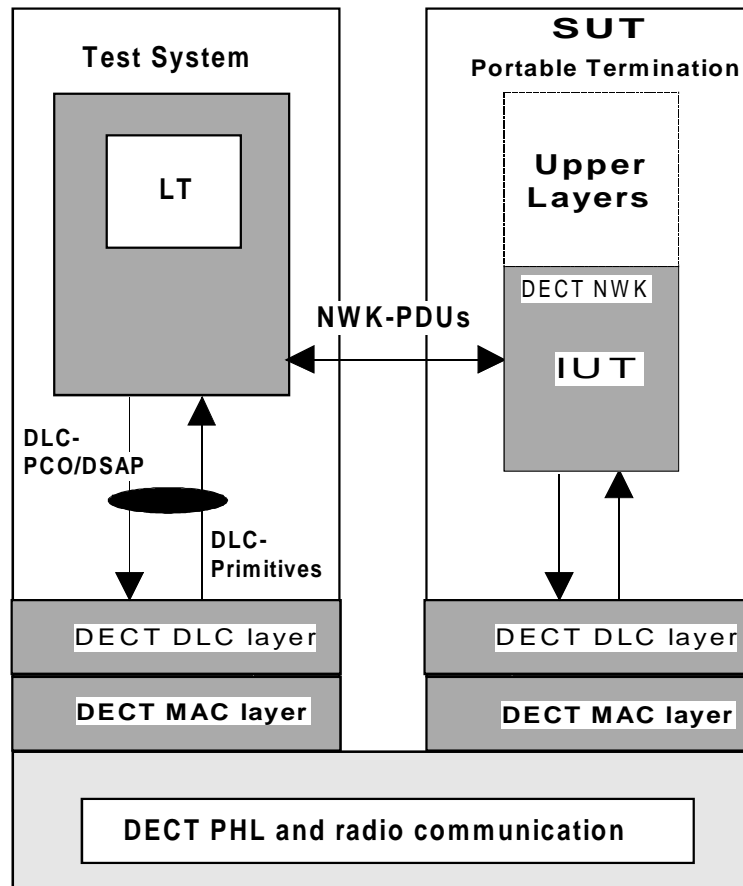


Figure 1: Remote Single Layer Test Method Embedded variant

- LT1:** a lower tester (LT1) is located in a remote DECT test system. It controls and observes the behaviour of the IUT.
- DSAP:** a unique DLC SAP is defined at the DECT interface and used to exchange service data of the NWK protocol.
- PCO:** the PCO for Network Layer testing is located on the DSAP. All test events at the PCO are specified in terms of DLC ASPs and NWK PDUs.
- Upper layers/tester:** no explicit Upper Tester (UT) exists in the test system. However, the SUT needs to carry out some UL functions to achieve some effects of test co-ordination procedures. Designing ATS, the capability of the IWU, such as PSTN, ISDN or GSM IWUs might be taken into account. An example of such controls could be to provoke restarting of the IUT through the Q interface.

4.2 DLC primitives

In this subclause the DSAP primitives are defined according to ETS 300 175-4 [4], subclause 8.3.2 (S-SAP primitives) and ETS 300 175-4 [4], subclause 8.3.3 (B-SAP primitives).

4.2.1 S-SAP primitives

Table 1: DL_DATA_IND primitive

ASP Declaration		
ASP NAME DL_DATA_IND	PCO TYPE S-SAP	COMMENTS ETS 300 175-4 [5], subclause 8.3.2.3
Service control information		
Parameter name	Type	Comments
data_link_endpoint_identifier	DATA_LINK_ENDPOINT_IDENTIFIER (INTEGER)	ETS 300 175-4 [5], subclause 7.3.6
message_unit	PDU	ETS 300 175-4 [5], subclause 8.3.1

Table 2: DL_DATA_REQ primitive

ASP Declaration		
ASP NAME DL_DATA_REQ	PCO TYPE S-SAP	COMMENTS ETS 300 175-4 [5], subclause 8.3.2.3
Service control information		
Parameter name	Type	Comments
data_link_endpoint_identifier	DATA_LINK_ENDPOINT_IDENTIFIER (INTEGER)	ETS 300 175-4 [5], subclause 7.3.6
message_unit	PDU	ETS 300 175-4 [5], subclause 8.3.1

Table 3: DL_ENCRYPT_CNF primitive

ASP Declaration		
ASP NAME DL_ENCRYPT_CNF	PCO TYPE S-SAP	COMMENTS ETS 300 175-4 [5], subclause 8.3.2.8
Service control information		
Parameter name	Type	Comments
data_link_endpoint_identifier	DATA_LINK_ENDPOINT_IDENTIFIER (INTEGER)	ETS 300 175-4 [5], subclause 7.3.6
encryption_status	CIPHER_STATUS (INTEGER(0,1))	ETS 300 175-4 [5], subclause 8.3.1

Table 4: DL_ENCRYPT_IND primitive

ASP Declaration		
ASP NAME DL_ENCRYPT_IND	PCO TYPE S-SAP	COMMENTS ETS 300 175-4 [5], subclause 8.3.2.8
Service control information		
Parameter name	Type	Comments
data_link_endpoint_identifier	DATA_LINK_ENDPOINT_IDENTIFIER (INTEGER)	ETS 300 175-4 [5], subclause 7.3.6
connection_identities	CONNECTION_IDENTITIES (OCTETSTRING)	ETS 300 175-4 [5], subclause 8.3.1
encryption_status	CIPHER_STATUS (INTEGER(0,1))	ETS 300 175-4 [5], subclause 8.3.1

Table 5: DL_ENCRYPT_REQ primitive

ASP Declaration		
ASP NAME	PCO TYPE	COMMENTS
DL_ENCRYPT_REQ	S-SAP	ETS 300 175-4 [5], subclause 8.3.2.8
Service control information		
Parameter name	Type	Comments
data_link_endpoint_identifier	DATA_LINK_ENDPOINT_IDENTIFIER (INTEGER)	ETS 300 175-4 [5], subclause 7.3.6
connection_identities	CONNECTION_IDENTITIES (OCTETSTRING)	ETS 300 175-4 [5], subclause 8.3.1
encryption_status	CIPHER_STATUS (INTEGER(0,1))	ETS 300 175-4 [5], subclause 8.3.1

Table 6: DL_ENC_KEY_REQ primitive

ASP Declaration		
ASP NAME	PCO TYPE	COMMENTS
DL_ENC_KEY_REQ	S-SAP	ETS 300 175-4 [5], subclause 8.3.2.7
Service control information		
Parameter name	Type	Comments
data_link_endpoint_identifier	DATA_LINK_ENDPOINT_IDENTIFIER (INTEGER)	ETS 300 175-4 [5], 7.3.6
connection_identities	CONNECTION_IDENTITIES (OCTETSTRING)	ETS 300 175-4 [5], 8.3.1
encryption_key	ENCRYPTION_KEY (BITSTRING[64])	ETS 300 175-4 [5], 8.3.1

Table 7: DL_ESTABLISH_CNF primitive

ASP Declaration		
ASP NAME	PCO TYPE	COMMENTS
DL_ESTABLISH_CNF	S-SAP	ETS 300 175-4 [5], subclause 8.3.2.1
Service control information		
Parameter name	Type	Comments
data_link_endpoint_identifier	DATA_LINK_ENDPOINT_IDENTIFIER (INTEGER)	ETS 300 175-4 [5], subclause 7.3.6

Table 8: DL_ESTABLISH_IND primitive

ASP Declaration		
ASP NAME	PCO TYPE	COMMENTS
DL_ESTABLISH_IND	S-SAP	ETS 300 175-4 [5], subclause 8.3.2.1
Service control information		
Parameter name	Type	Comments
data_link_endpoint_identifier	DATA_LINK_ENDPOINT_IDENTIFIER (INTEGER)	ETS 300 175-4 [5], subclause 7.3.6
establish_mode	ESTABLISH_MODE (INTEGER(0,1,2))	ETS 300 175-4 [5], subclause 8.3.1
radio_fixed_part_number	RADIO_FIXED_PART_NUMBER (INTEGER)	ETS 300 175-4 [5], subclause 8.3.1
message_unit	PDU	ETS 300 175-4 [5], subclause 8.3.1

Table 9: DL_ESTABLISH_REQ primitive

ASP Declaration		
ASP NAME	PCO TYPE	COMMENTS
DL_ESTABLISH_REQ	S-SAP	ETS 300 175-4 [5], subclause 8.3.2.1
Service control information		
Parameter name	Type	Comments
data_link_endpoint_identifier	DATA_LINK_ENDPOINT_IDENTIFIER (INTEGER)	ETS 300 175-4 [5], subclause 7.3.6
establish_mode	ESTABLISH_MODE (INTEGER(0,1,2))	ETS 300 175-4 [5], subclause 8.3.1
radio_fixed_part_number	RADIO_FIXED_PART_NUMBER (INTEGER)	ETS 300 175-4 [5], subclause 8.3.1
message_unit	PDU	ETS 300 175-4 [5], subclause 8.3.1

Table 10: DL_ESTABLISH_RES primitive

ASP Declaration		
ASP NAME	PCO TYPE	COMMENTS
DL_ESTABLISH_RES	S-SAP	ETS 300 175-4 [5], subclause 8.3.2.1
Service control information		
Parameter name	Type	Comments
data_link_endpoint_identifier	DATA_LINK_ENDPOINT_IDENTIFIER (INTEGER)	ETS 300 175-4 [5], subclause 7.3.6

Table 11: DL_RELEASE_CNF primitive

ASP Declaration		
ASP NAME	PCO TYPE	COMMENTS
DL_RELEASE_CNF	S-SAP	ETS 300 175-4 [5], subclause 8.3.2.2
Service control information		
Parameter name	Type	Comments
data_link_endpoint_identifier	DATA_LINK_ENDPOINT_IDENTIFIER (INTEGER)	ETS 300 175-4 [5], subclause 7.3.6
release_mode	RELEASE_MODE (INTEGER(0,1))	ETS 300 175-4 [5], subclause 8.3.1

Table 12: DL_RELEASE_IND primitive

ASP Declaration		
ASP NAME	PCO TYPE	COMMENTS
DL_RELEASE_IND	S-SAP	ETS 300 175-4 [5], subclause 8.3.2.2
Service control information		
Parameter name	Type	Comments
data_link_endpoint_identifier	DATA_LINK_ENDPOINT_IDENTIFIER (INTEGER)	ETS 300 175-4 [5], subclause 7.3.6
release_mode	RELEASE_MODE (INTEGER(0,1))	ETS 300 175-4 [5], subclause 8.3.1

Table 13: DL_RELEASE_REQ primitive

ASP Declaration		
ASP NAME DL_RELEASE_REQ	PCO TYPE S-SAP	COMMENTS ETS 300 175-4 [5], subclause 8.3.2.2
Service control information		
Parameter name	Type	Comments
data_link_endpoint_identifier	DATA_LINK_ENDPOINT_IDENTIFIER (INTEGER)	ETS 300 175-4 [5], subclause 7.3.6
release_mode	RELEASE_MODE (INTEGER(0,1))	ETS 300 175-4 [5], subclause 8.3.1

4.2.2 B-SAP primitives

Table 14: DL_BROADCAST_IND primitive

ASP Declaration		
ASP NAME DL_BROADCAST_IND	PCO TYPE B-SAP	COMMENTS ETS 300 175-4 [5], subclause 8.3.3.1
Service control information		
Parameter name	Type	Comments
cluster_address_list	CLUSTER_ADDRESS_LIST (OCTETSTRING)	ETS 300 175-4 [5], subclause 8.3.1
message_unit	PDU	ETS 300 175-4 [5], subclause 8.3.1
extended_message_flag	BIT_1 (BITSTRING[1])	ETS 300 175-4 [5], subclause 8.3.1
error_flag	BIT_1 (BITSTRING[1])	ETS 300 175-4 [5], subclause 8.3.1

Table 15: DL_BROADCAST_REQ primitive

ASP Declaration		
ASP NAME DL_BROADCAST_REQ	PCO TYPE B-SAP	COMMENTS ETS 300 175-4 [5], subclause 8.3.3.1
Service control information		
Parameter name	Type	Comments
cluster_address_list	CLUSTER_ADDRESS_LIST (OCTETSTRING)	ETS 300 175-4 [5], subclause 8.3.1
message_unit	PDU	ETS 300 175-4 [5], subclause 8.3.1
extended_message_flag	BIT_1 (BITSTRING[1])	ETS 300 175-4 [5], subclause 8.3.1

4.3 TC execution sequence

The test cases can be executed in any order with no restrictions.

5 Untestable Test Purposes (TPs)

This clause gives a list of TPs which are not implemented in the ATS (annex A) due to the chosen ATM or other restrictions.

5.1 Control protocol

There are no untestable TPs in this ATS.

6 ATS conventions

The ATS conventions are intended to give a better understanding of the ATS but they describe also the conventions made for the development of the ATS. Thus for any later maintenance purposes or further development of the ATS the conventions described in this clause shall be considered.

The ATS conventions contain two clauses, the naming conventions and the implementation conventions. The naming conventions describe the structure of the naming of all ATS elements. The implementation conventions describe the functional structure of the ATS.

To define the ATS the guidelines of the documents ETS 300 406 [29] and ETR 141 were considered.

6.1 Naming conventions

6.1.1 Declarations part

This subclause describes the naming conventions chosen for the elements of the ATS declarations part. The following general rules apply:

- identifiers shall be written in lowercase;
- type declarations shall be written in uppercase;
- constraints shall be written with the first letter in uppercase, and the rest in lowercase.

Information elements are coded in the order from top to bottom and from right to left, in order to make the encoding and decoding easier.

6.1.1.1 Test suite type, ASP and PDU type definitions

The test suite type-definitions, the ASP type definitions and the PDU type definitions shall be written in uppercase. Identifier names of structured type definitions and of the ASP and PDU type definitions, shall be written in lowercase.

Types related to a certain higher layer entity shall commence with a protocol identifier to define which entity they belong to.

EXAMPLE 1: Call Control: cc e.g. CC_SETUP

Id names of Structured Types which are used for invalid tests commence with "bi":

EXAMPLE 2: Bi_cc_setup_tx01

The following ASP primitives are not defined in this ETS.

- DL_UNIT_DATA;
- DL_SUSPEND;
- DL_RESUME;
- DL_EXPEDITED.

The following primitives are defined, but not used in this test suite:

- DL_BROADCAST_IND;
- DL_ESTABLISH_CFM;
- DL_ESTABLISH_RES.

6.1.1.2 Test Suite Operations (TSO) definitions

The TSO identifiers are composed of a string in uppercase letters starting by the string "TSO_" (e.g. TSO_INTEGER_TO_O_1).

6.1.1.3 Test suite selection expressions

All selection expression names for test groups are to be preceded with the prefix "SENG_".

All selection expression names for test cases are to be preceded with the prefix "SENC_".

6.1.1.4 Test suite parameter declarations

The TSP identifiers are composed of a string in uppercase letters starting by the string "TSP_" (e.g. TSP_WINDOW_SIZE).

If the TSP references a PICS item, the letter "C" is added to the standard prefix (e.g. TSPC_PICS_ITEM_S23).

If the TSP references a PIXIT item, the letter "X" is added to the standard prefix (e.g. TSPX_PIXIT_ITEM_2).

Exception: If the TSP represents a system parameter or value, only the name defined in the specifications is used (e.g. V_S = send sequence variable).

Complete names as defined in the specifications are used.

6.1.1.5 Test Case Selection (TCS) expression definitions

The naming conventions for the TCS expression definitions use almost the same rules as the TSP, except for the prefix that is "TCS_". Also they are logical combinations of the TSP definitions.

6.1.1.6 Test Suite Constant (TSC) declarations

The TSC identifiers are composed of a string in uppercase letters starting by the string "TSC_" (e.g. TSC_RETRY).

Exception: If the TSC represents a system parameter or value, only the name defined in the specifications is used (e.g. N250).

Complete names as defined in the specifications are used.

6.1.1.7 Test Suite Variable (TSV) declarations

The TSV identifiers are composed of a string in uppercase letters starting by the string "TSV_".

Complete names as defined in the specifications are used.

6.1.1.8 Test Case Variable (TCV) declarations

The TCV identifiers are composed of a string in uppercase letters starting by the string "TCV_".

EXAMPLE: TCV_CRVALUE.

Complete names as defined in the specifications are used.

6.1.1.9 Point of Control and Observation (PCO) declarations

The PCO identifiers are composed of two or four capital letters, beginning with "L", as there are only LTs.

EXAMPLE: LMAC represents a PCO on MAC interface as LT in the test equipment;
LDLC represents a PCO on DLC interface as LT in the test equipment.

6.1.1.10 Timer declarations

Two types of timers can be identified:

- 1) standardised:
 - those defined in the standard, e.g. T302. They use exactly the same name as in the standard, beginning with a capital "T";
 - as there is a tolerance margin accepted for these timers, three values are needed:
 - the maximum value allowed, which will use the suffix "_max";
 - the minimum value allowed, which will use the suffix "_min";
 - the value actually implemented, with no suffix.

EXAMPLE 1: T302_max, T302_min, and T302.

- 2) not standardised:

- those not defined in the standard, i.e. for execution use, e. g. a timer waiting for a response. These timers begin with the prefix "T_", followed by a string in capital letters.

EXAMPLE 2: T_RESP represents a timer for controlling the response time of the IUT.

6.1.1.11 ASP type definitions

The identifier of an ASP uses exactly the same name as the name defined in the specifications. It is written in uppercase, finishing by an underscore character ("_"), and three capital letters indicating whether it is a request, an indication, a response or a confirmation primitive.

EXAMPLE: DL-RELEASE_REQ for an ASP containing a layer 3 release request passed to layer 2;
MAC-CO_DATA_REQ for an ASP containing a layer 2b PDU passed to layer 2a.

6.1.1.12 PDU type definitions

The identifier of a PDU is given in a string in uppercase letters, representing the layer message.

EXAMPLE 1: rr for the Receive Ready layer 2 message;
disconnect for the DISCONNECT layer 3 message.

Where the message is a composite word, an underscore character ("_") appears in the string.

EXAMPLE 2: release_complete is the RELEASE COMPLETE layer 3 message.

Id names of PDUs commence with a protocol identifier to define which protocol they belong to. The following identifiers are used:

- Call Control: cc e.g. CC-SETUP

Id names of PDUs which are used for invalid tests commence with "bi":

EXAMPLE 3: BI-CC-SETUP

6.1.1.13 Alias definitions

These are used to make the sending and receiving of PDUs within ASPs more understandable when writing the dynamic part of the test suite. This is done by giving the ASP an alias. The alias name indicates the PDU carried by the ASP and whether it is sent or received by the tester.

The identifier of an alias consists of a string in capital letters indicating the message, followed by two lowercase letters "r" or "s" indicating if the message should be sent or received by the tester.

6.1.2 Constraints part

This subclause describes the naming conventions chosen for the elements of the ATS constraints part.

Constraint identifiers commence with uppercase. The remaining part of the identifier name is written in lowercase.

Identifier names of elements concerning the same subject have equivalent names in the Declaration and the Constraint part:

Declaration Part:	cc_setup;
Constraint Part:	Cc_setup.

The name of the modified constraint describes the particularity of the modified constraint:

EXAMPLE: Cc_setup_mand_only (modified Cc_setup with only the mandatory Information Elements).

If formal parameter lists are used, the variable names are written in lowercase. The variable name is the same as the name of the element it is representing.

Structured type constraints declarations are divided into:

- receive constraints:

the receive constraints are noted down as "name_rx*". The receive constraints are subdivided into:

- receive base constraints:

they are noted down as "name_rx_base";

- receive special constraints:

they are noted down as "name_rx_<extension>", where <extension> is a descriptive name (e.g. "Signal_rx_alerting_on");

- transmit constraints:

the transmit constraints are noted down as "name_tx_<extension>", where <extension> is a descriptive name. (e.g. "Signal_tx_alerting_off");

If a certain structured type constraint is valid for both receiving and transmitting, because it contains no wildcards, and the receiving constraint should exactly match, the constraint will be noted down as:

- "<structured_type_name>_extention" Example: "Portable_id_ipui".

PDU Constraints Declarations are divided into:

- receive constraints:
 - the receive constraints are noted down as "name_rx*". The receive constraints are subdivided into:
 - receive base constraints:
 - they are noted down as "name_rx_base". They constrain all allowed values, and for the optional fields, the "IF_PRESENT" keyword is added;
 - receive special constraints:
 - they are noted down as "name_rx0n", where n is a sequence number;
- transmit constraints:
 - the transmit constraints are noted down as "name_tx", where n is a sequence number. They can be subdivided into:
 - transmit base constraints:
 - they are noted down as "name_tx_base". They constrain all mandatory fields to all allowed values in the standard, and they constrain all optional fields to "OMIT";
 - transmit special constraints:
 - they are noted down as "name_tx0n" where n is a sequence number. They shall not contain any wildcards.

Derived constraints shall not be more than 1 level deep. They shall only be derived directly from the base constraint.

The test suite is not ready yet to handle PDU"s with empty information elements. For every receive constraint, also a information element constraint with an empty parameter list should be added.

6.1.3 Dynamic part

This subclause describes the naming conventions chosen for the elements of the ATS dynamic part.

6.1.3.1 Test Case (TC) identifier

The identifier of the TCs is built in the same way as for the TPs described in ETS 300 324-3 [3], subclause 5.1.1, with the exception that "TP" is replaced by "TC":

TP identifier: TPCCBI-04;
TC identifier: TCCCBI-04.

6.1.3.2 Test Step (TS) identifier

The TS identifier is built with two strings of capital letters joined by underscore character. The first string indicates the main function of the TS, e.g. PR for preamble, PO for postamble, CS for check state and STP for general step. The second string indicates the meaning of the step.

In some TCs, test steps as well as local trees can be used. To allow an easy distinguishing of them the following naming applies:

- LTS_[local_tree_name] local tree;
- STP_[test_step_name] test step.

TSs are grouped together according to their functionality: CC, MM, LC or ME.

6.1.3.3 Default identifier

The default identifiers begin with the prefix "DF_", followed by a string in capital letters.

6.1.3.4 General aspects

Final verdicts will only be assigned in defaults and in postambles.

All verdict assignments are labelled. To allow an exact identification in which table the verdict was assigned, the following name convention is applied:

B	test Body
CS	Check State test steps
D	Default
E	Error handling test steps
PO	POstamble
PR	PReamble
S	test Step

Also combinations of labels are possible:

EXAMPLE: DPR --> label which is used in a default for preambles.

6.1.3.5 ATS abbreviations

These abbreviations are used to shorten identifier names:

ack	acknowledgement
auth	authentication
algo	algorithm
cc	call control
cfm	confirm
est	establish
ext	extension
id	identification
ind	indication
info	information
max	maximum
min	minimum
prop	proprietary
req	request
res	response

The following keywords will NOT be abbreviated in identifier names:

address(es);
attribute(s);
identity;
number(s);
character(s).

6.2 Implementation conventions

6.2.1 Declaration part

The comment line of single element TTCN tables (e.g. test suite constants) is used to give a reference where the format and content of the element is described in the relevant protocol specifications. Any particularity of the element format or content is described in the comment line.

The comment line in the header of multi element TTCN tables (e.g. ASPs) is used to reference to the protocol specification. The detailed comments are used to describe any particularity of the table.

In the ASP and PDU declarations, the comments column is used to identify if an element is mandatory or optional:

m:	mandatory
o:	optional

In the ASP and PDU declarations the comments column is further used to give information about the element value, in particular if the element contains a fixed spare value.

In tables where structure types are used the information element and the relevant structured type have always the same name, that allows to have the same structure as in the protocol standards is used to document the relation between information elements in a table and their specific description in an other clause of the protocol standard.

The following conventions apply to identifier names in the Structured Type definitions part:

- bits of bit sequences having a fixed value, meant to fill up the octet, are called fn, where n stands for the octet number;
- extension flags, will be called extn, where n stands for the octet number.

6.2.2 Constraint part

The ASPs and PDUs are defined in a way that all relevant element are parametrized. That improves the transparency of the constraints in the dynamic part, as all values which are relevant for the test are always present.

Generally no modified constraints are used, this allows an easier reuse and adaptation of constraints if they are reused in other DECT profile test specifications.

The comment line of a constraint contains always the reference to the used specifications.

The detailed comments sector is used to describe any particularity of the table.

6.2.3 Dynamic part

Some TCs need a particular initialisation of the IUT environment conditions to run the actual test, e.g. for testing re-provisioning procedures. Such message sequence can be quite complicated and long. In cases where a Local Test Step (LTS) facilitates the TC structure, the preamble and the condition setting are described in a LTS called "LTS_pre_step". All LTS_pre_steps are described in the detailed comment part of the TTCN table.

Some TCs need after the actual test a particular re-initialization of the IUT, e.g. after re-provisioning. Such message sequence can be quite complicated and long. In cases where a Local Test Step (LTS) facilitates the TC structure, the postamble and the re-initialization are described in a LTS called "LTS_post_step". All LTS_post_steps are described in the detailed comment part of the TTCN table.

All events which are defined as a conformance requirements by the TP, cause a preliminary verdict PASS if the requirement is met.

All invalid events are handled in the default tree. FAIL verdicts are only assigned in the default tree.

The preamble, the test body and the postamble have different defaults, what allows a specific verdict handling, e.g. only INCONC verdicts are assigned in the preamble.

Test steps do not contain a default. That allows to apply them with no restrictions regarding the error handling.

All verdict assignments are labelled. According to ISO 9646-3 [23], annex E.2, labels should be written to the conformance log. This allows to identify where the test failed. To allow an exact identification in which table the verdict was assigned, the naming convention as described in subclause 6.1.3.3 is applied.

The labels of the same type are numbered sequentially if they are in the same TC, test step or default.

TPs which are listed in the untestable TP list in clause 5, or which reference to an other TP, e.g. BV TPs which were already defined as CA TPs, are not considered in the ATS, thus these TC identifiers are missing in the ATS and the numbering of the TCs is not always continues.

6.2.4 Documentation

The comment line of the TC or test step header contains a reference to the relevant protocol specification.

The comment column of the dynamic behaviour part is used to number the test events which are relevant for the particular test or test operation.

Based on the numbering in the comment column all for the TC relevant events are described in the Detailed Comments part of each TTCN table.

Test procedures which cover a conformance requirement and lead to a preliminary or final verdict assignment are described as follows in the Detailed Comments part:

Expected event:	a specific receive event is expected;
Expected behaviour:	no event or a timer expiry is expected;
Expected status:	the IUT is expected to be in a particular status.

Annex A (normative): Abstract Test Suite (ATS) for NWK testing

The ATS is written in TTCN according to ISO/IEC 9646-3 [23].

As the ATS was developed on a separate TTCN tool the TTCN tables are not completely referenced in the contents table. The ATS itself contains a subclause Test Suite Overview which provides additional information and references about the ATS.

NOTE: According to ISO/IEC 9646-3 [23], in case of a conflict in interpretation of the operational semantics of TTCN.GR and TTCN.MP, the operational semantics of the TTCN.GR representation takes precedence.

A.1 The machine processable ATS (TTCN.MP)

The electronic form of the machine processable file (TTCN MP format) corresponding to this ATS is contained in an ASCII text file (DE104977.MP¹) associated with this ETS.

A.2 The graphical ATS (TTCN.GR)

The graphical ATS is provided in this annex on the following pages.

1) This file is located in a compressed archive file named 4977_e1.LZH. Other file formats are available on request.

I

Test Suite Overview

Test Suite Structure

Suite Name : NWK_PT
Standards Ref : ETS 300 175-5
PICS Ref : ETS 300 476-1
PIXIT Ref : ETS 300 497-7 Annex B
Test Method(s) : Remote Single Layer Embedded
Comments : This ATS is part of the DECT Common Interface Test Case Library (TCL) ETS 300 497.
This ATS is the TTCN part of ETS 300 497 Part 7, TCL NWK layer Portable radio Termination (PT)

ETSI files reference: 497P7V04.MP, 497P7V04.PS (Excluding this Generic comments part, the files of this version are identical as the ITA V04 version files CINPT13.MP and CINPT13.PS)

Test Group Reference	Selection Ref	Test Group Objective	Page Nr
PT/	SENG_pt_testing	To check the behaviour of the NWK layer of the PT(IUT).	241
PT/CC/	SENG_cc_support	To check the IUT CC-state machine behaviour.	241
PT/CC/BV/	SENG_cc_support	To tests the CC entity of the IUT in response to syntactically and contextual correct behaviour of the test system.	241
PT/CC/BV/OC/	SENG_outgoing_call	To check the IUT's behaviours to setup an outgoing call.	241
PT/CC/BV/IC/	SENG_incoming_call	To check the IUT's behaviours to setup an incoming call.	246
PT/CC/BV/CI/	SENG_cc_support	To check the IUT's behaviour in information transfer procedures.	250
PT/CC/BV/CR/	SENG_cc_support	To check the IUT's behaviours to release an outgoing/incoming call.	262
PT/CC/BV/RS/	SENG_crss_support	To check the IUT's behaviour during call related supplementary service procedures.	268
PT/CC/BO/	SENG_cc_support	To check the behaviour of the CC entity of the IUT in response to the messages that are syntactically correct but not allowed to occur in some states of the CC procedures.	269
PT/CC/BI/	SENG_cc_support	To check the behaviour of the CC entity of the IUT in response to invalid messages.	271
PT/CC/TI/	SENG_cc_support	To verify that the IUT CC timers are with correct values and the IUT is reacting properly to the expiry of a timer.	275
PT/MM/	SENG_mm_support	To check the behaviour of the Mobility Management entity of the IUT.	279
PT/MM/BV/	SENG_mm_support	To tests the MM entity of the IUT in response to syntactically and contextual correct behaviour of the test system.	279
PT/MM/BV/ID/	SENG_identity_procs	To check the IUT's behaviour concerning identity procedures.	279
PT/MM/BV/AU/	SENG_auth_procs	To check the IUT's behaviour concerning the authentication procedures.	283
PT/MM/BV/LO/	SENG_location_procs	To check the IUT's behaviour concerning the location procedures.	294

Continued on next page

Continued from previous page

Test Suite Structure			
Test Group Reference	Selection Ref	Test Group Objective	Page Nr
PT/MM/BV/AR/	SENG_access_rights_procs	To check the IUT's behaviour concerning the access rights procedures.	303
PT/MM/BV/KA/	SENG_key_allocat_proc	To check the IUT's behaviour concerning the key allocation procedure.	309
PT/MM/BV/CH/	SENG_cipherring_procs	To check the IUT's behaviour concerning the ciphering related procedures.	312
PT/MM/BO/	SENG_mm_support	To check the IUT behaviour in response to the messages that are syntactically correct but not allowed to occur in some phase of the MM procedures.	317
PT/MM/BI/	SENG_mm_support	To check the IUT in response to invalid MM messages.	318
PT/MM/TI/	SENG_mm_support	To verify that the IUT MM timers are with correct values and the IUT is reacting properly to the expiry of a timer.	322
PT/ME/	SENG_llme_support	To check the behaviour of the LLME of the IUT.	327
PT/ME/BV/	SENG_llme_support	To tests the LLME of the IUT in response to syntactically and contextual correct behaviour of the test system.	327
PT/ME/BO/	SENG_llme_support	To check the IUT behaviour in response to the messages that are syntactically correct but not allowed to occur in some phase of the LLME managed procedures.	342
PT/LC/	SENG_lce_support	To check the behaviour of the LCE of the IUT.	343
PT/LC/BV/	SENG_lce_support	To tests the LCE of the IUT in response to syntactically and contextual correct behaviour of the test system.	343
PT/LC/BV/LE/	SENG_lce_co	To check the IUT's behaviour concerning the connection oriented link establishment procedures.	343
PT/LC/BV/LR/	SENG_lce_co	To check the IUT's behaviour concerning the connection oriented link release procedures.	344
PT/LC/BI/	SENG_lce_support	To check the IUT in response to invalid LCE messages.	347
PT/LC/TI/	SENG_lce_support	To verify that the IUT LCE timers are with correct values and the IUT is reacting properly to the expiry of a timer.	350
Detailed Comments :			

Test Case Index				
Test Group Reference	Test Case Id	Selection Ref	Description	Page Nr
PT/CC/BV/OC/	TC_PT_CC_BV_OC_01	SENC_pieewise	Outgoing call; T-00, T-01, T-02, T-03, T-04, T-10; pieewise dialling in T-02	241
PT/CC/BV/OC/	TC_PT_CC_BV_OC_02	SENC_pieewise	Outgoing call; states T-00, T-01, T-10; piece wise dialling in T-10.	243
PT/CC/BV/OC/	TC_PT_CC_BV_OC_03	SENC_pieewise_multi_digit	Outgoing call; states T-00, T-01, T-02, T-10; piece wise dialling in T-02 and T-10.	244
PT/CC/BV/OC/	TC_PT_CC_BV_OC_04	SENC_normal_out_call	Outgoing call; U-plane connection upon <<Progress ind.>> in {CC-SETUP-ACK}	245
PT/CC/BV/IC/	TC_PT_CC_BV_IC_01	SENC_signal_cc_info	Incoming call; T-01, T-06, T-07, T-08, T-10; <<SIGNAL>> in T-07	246
PT/CC/BV/IC/	TC_PT_CC_BV_IC_02	SENC_signal_cc_setup	Incoming call; T-01, T-06, T-07, T-08, T-10; <<SIGNAL>> in {CC-SETUP}	247
PT/CC/BV/IC/	TC_PT_CC_BV_IC_03	SENC_progress_ind_cc_setup	Incoming call; U-plane connection upon <<Progress ind.>> in {CC-SETUP}	248
PT/CC/BV/IC/	TC_PT_CC_BV_IC_04	SENC_progress_ind_cc_info	Incoming call; U-plane connection upon <<Progress ind.>> in {CC-INFO} in T-07	249
PT/CC/BV/CI/	TC_PT_CC_BV_CI_01	SENC_normal_in_call	Alerting the user; Incoming call; <<SIGNAL>> in {CC-SETUP}	250
PT/CC/BV/CI/	TC_PT_CC_BV_CI_02	SENC_go_pulse	Go to pulse invocation in T-02; Outgoing call	251
PT/CC/BV/CI/	TC_PT_CC_BV_CI_03	SENC_go_pulse	Go to pulse invocation in T-10; Outgoing call	251
PT/CC/BV/CI/	TC_PT_CC_BV_CI_04	SENC_dialling_pause	Dialling pause indication in T-02; Outgoing call	252
PT/CC/BV/CI/	TC_PT_CC_BV_CI_05	SENC_dialling_pause	Dialling pause indication in T-10; Outgoing call	253
PT/CC/BV/CI/	TC_PT_CC_BV_CI_06	SENC_go_dtmf_dl	Go to DTMF invocation in T-02; defined tone length; Outgoing call	254
PT/CC/BV/CI/	TC_PT_CC_BV_CI_07	SENC_go_dtmf_dl	Go to DTMF invocation in T-10; defined tone length; Outgoing call	255
PT/CC/BV/CI/	TC_PT_CC_BV_CI_08	SENC_go_dtmf_il	Go to DTMF invocation in T-02; infinite tone length; Outgoing call	256
PT/CC/BV/CI/	TC_PT_CC_BV_CI_09	SENC_go_dtmf_il	Go to DTMF invocation in T-10; infinite tone length; Outgoing call	257

Continued on next page

Continued from previous page

Test Case Index				
Test Group Reference	Test Case Id	Selection Ref	Description	Page Nr
PT/CC/BV/CI/	TC_PT_CC_BV_CI_10	SENC_basic_digits	Outgoing normal call; T-02; {CC-INFO}, sending <<Multi keypad>>, "0-9, star, hash mark"	258
PT/CC/BV/CI/	TC_PT_CC_BV_CI_11	SENC_internal_call	Internal call	259
PT/CC/BV/CI/	TC_PT_CC_BV_CI_12	SENC_standard_char	T-10; {CC-INFO}, <<Multi display>> standard characters handling	260
PT/CC/BV/CI/	TC_PT_CC_BV_CI_13	SENC_control_char	T-10; {CC-INFO}, <<Multi display>> control characters handling	261
PT/CC/BV/CI/	TC_PT_CC_BV_CI_14	SENC_reg_recall	T-10; invocation of "Register recall"; {CC-INFO}, <<Multi keypad>>	262
PT/CC/BV/CR/	TC_PT_CC_BV_CR_01	SENC_normal_out_call	Outgoing normal call; T-02; FT initiated normal release	262
PT/CC/BV/CR/	TC_PT_CC_BV_CR_02	SENC_normal_out_call	Outgoing normal call; T-03; FT initiated normal release	263
PT/CC/BV/CR/	TC_PT_CC_BV_CR_03	SENC_normal_out_call	Outgoing normal call; T-04; FT initiated normal release	263
PT/CC/BV/CR/	TC_PT_CC_BV_CR_04	SENC_normal_in_call	Incoming call; T-08; FT initiated normal release	264
PT/CC/BV/CR/	TC_PT_CC_BV_CR_05	SENC_normal_out_call	T-10; FT initiated normal release	264
PT/CC/BV/CR/	TC_PT_CC_BV_CR_06	SENC_normal_out_call	T-10; IUT initiated normal release	265
PT/CC/BV/CR/	TC_PT_CC_BV_CR_07	SENC_normal_out_call	T-01; FT initiated abnormal release	265
PT/CC/BV/CR/	TC_PT_CC_BV_CR_08	SENC_normal_out_call	T-02; FT initiated abnormal release	266
PT/CC/BV/CR/	TC_PT_CC_BV_CR_09	SENC_normal_out_call	T-10; FT initiated abnormal release	266
PT/CC/BV/CR/	TC_PT_CC_BV_CR_10	SENC_partial_release	T-10; FT initiated partial release	267
PT/CC/BV/CR/	TC_PT_CC_BV_CR_11	SENC_partial_release	T-10; IUT initiated partial release	267
PT/CC/BV/RS/	TC_PT_CC_BV_RS_01	SENC_clip	T-00; Incoming call; {CC-SETUP} with <<Calling party number>>; CLIP handling	268
PT/CC/BO/	TC_PT_CC_BO_01	SENC_normal_in_call	T-08; unexpected message {CC-CALL-PROC}; ignore	269
PT/CC/BO/	TC_PT_CC_BO_02	SENC_normal_out_call	T-19; receipt of {CC-RELEASE}; release collision; clear the call	270

Continued on next page

Continued from previous page

Test Case Index				
Test Group Reference	Test Case Id	Selection Ref	Description	Page Nr
PT/CC/BI/	TC_PT_CC_BI_01	SENC_normal_in_call	T-00; {CC-SETUP} mandatory I.E. missing; answer upon with {CC-RELEASE-COM]	271
PT/CC/BI/	TC_PT_CC_BI_02	SENC_normal_in_call	T-00; {CC-SETUP} mandatory ie missing; answer upon with {CC-RELEASE-COM]	272
PT/CC/BI/	TC_PT_CC_BI_03	SENC_normal_in_call	T-00; {CC-SETUP}-like message, non {CC-SETUP} unrecognised message type; ignore	273
PT/CC/BI/	TC_PT_CC_BI_04	SENC_normal_in_call	T-00; too short message to contain the complete <<Message type>>; ignore	274
PT/CC/TI/	TC_PT_CC_TI_01	SENC_normal_out_call	T-19; timer P-<CC.02> expiry (" 5% margin); IUT sends {CC-RELEASE-COM}	275
PT/CC/TI/	TC_PT_CC_TI_02	SENC_normal_out_call	Outgoing call; T-01; timer P-<CC.03> expiry (" 5% margin); IUT sends {CC-RELEASE-COM}	276
PT/CC/TI/	TC_PT_CC_TI_03	SENC_normal_out_call	T-01; restarts P-<CC.03> upon {CC-NOTIFY}	277
PT/CC/TI/	TC_PT_CC_TI_04	SENC_normal_in_call	Outgoing call; T-08; timer P-<CC.05> expiry (" 5% margin); IUT sends {CC-RELEASE}	278
PT/MM/BV/ID/	TC_PT_MM_BV_ID_01	SENC_identification	Identity request; IPUI type requested; IPUI returned	279
PT/MM/BV/ID/	TC_PT_MM_BV_ID_02	SENC_identification	Identity request; unavailable id. type requested; no identity in the reply	279
PT/MM/BV/ID/	TC_PT_MM_BV_ID_03	SENC_identification_rep_ind	Identity request; IPUI type requested; two IPUIs stored; two IPUIs returned	280
PT/MM/BV/ID/	TC_PT_MM_BV_ID_04	SENC_identification_rep_ind	Identity request; IPUI type portable id. and PARK fixed id. requested; IPUI and PARK returned	281
PT/MM/BV/ID/	TC_PT_MM_BV_ID_08	SENC_identification	Identity request; PARK type requested; PARK returned	282
PT/MM/BV/AU/	TC_PT_MM_BV_AU_01	SENC_pt_auth	Authentication of PT; IUT(PT) has no stored ZAP value and service class info	283
PT/MM/BV/AU/	TC_PT_MM_BV_AU_02	SENC_pt_auth	Authentication of PT; unacceptable algorithm requested; reject	284

Continued on next page

Continued from previous page

Test Case Index				
Test Group Reference	Test Case Id	Selection Ref	Description	Page Nr
PT/MM/BV/AU/	TC_PT_MM_BV_AU_03	SENC_zap	Authentication of PT; IUT(PT) has stored ZAP value; IUT includes ZAP value in the reply	285
PT/MM/BV/AU/	TC_PT_MM_BV_AU_04	SENC_zap	Authentication of PT; ZAP increment handling	286
PT/MM/BV/AU/	TC_PT_MM_BV_AU_05	SENC_zap_ft_auth	Authentication of PT; ZAP increment handling; unsuccessful authentication of FT; ZAP is not incremented.	287
PT/MM/BV/AU/	TC_PT_MM_BV_AU_06	SENC_zap_ft_auth	Authentication of PT; storage of DCK handling	289
PT/MM/BV/AU/	TC_PT_MM_BV_AU_07	SENC_user_auth	Authentication of user	291
PT/MM/BV/AU/	TC_PT_MM_BV_AU_08	SENC_ft_auth	Authentication of FT; IUT initiated	292
PT/MM/BV/AU/	TC_PT_MM_BV_AU_09	SENC_service_class	Authentication of PT; IUT(PT) has stored service class info; IUT includes service class info in the reply	293
PT/MM/BV/LO/	TC_PT_MM_BV_LO_01	SENC_location_reg	Location registration after obtain access rights;a44 and a38=1 at locking; no TPUI assignment	294
PT/MM/BV/LO/	TC_PT_MM_BV_LO_02	SENC_location_reg	Location registration after obtain access rights;a44 and a38=1 at locking; TPUI assignment	295
PT/MM/BV/LO/	TC_PT_MM_BV_LO_03	SENC_location_reg	Location registration after obtain access rights;a44=1 and a38=0 at locking; IUT does not perform location registration.	296
PT/MM/BV/LO/	TC_PT_MM_BV_LO_04	SENC_location_reg	Location registration; no CC activities; location area changes; a38=1 at locking and at the beginning of the procedure; no TPUI assignment	297
PT/MM/BV/LO/	TC_PT_MM_BV_LO_05	SENC_location_reg	No CC activities; power off; power on; Location registration request	298
PT/MM/BV/LO/	TC_PT_MM_BV_LO_06	SENC_location_reg	Location registration; unacceptable TPUI assignment; reject	299
PT/MM/BV/LO/	TC_PT_MM_BV_LO_07	SENC_loc_reg_identif	Location registration; entering new location area; IUT deletes old TPUI – no TPUI in the identification procedure sent back	300

Continued on next page

Continued from previous page

Test Case Index				
Test Group Reference	Test Case Id	Selection Ref	Description	Page Nr
PT/MM/BV/LO/	TC_PT_MM_BV_LO_08	SENC_location_update	Location update suggested by FT; Location registration initiated by IUT; a38=1 at locking and at the beginning of the procedure.	301
PT/MM/BV/LO/	TC_PT_MM_BV_LO_09	SENC_location_update	Location update suggested by FT; Location registration initiated by IUT; a38=1 at locking, a38=0 at the beginning of the procedure	302
PT/MM/BV/AR/	TC_PT_MM_BV_AR_01	SENC_access_rights	Obtain access rights; a44=1; both sides use AC	303
PT/MM/BV/AR/	TC_PT_MM_BV_AR_03	SENC_access_rights	Obtain access rights; a44=0; IUT does not initiate obtain access rights procedure.	304
PT/MM/BV/AR/	TC_PT_MM_BV_AR_05	SENC_ft_terminate_ar	Terminate access rights; FT initiated; IUT(PT) may authenticate FT	305
PT/MM/BV/AR/	TC_PT_MM_BV_AR_06	SENC_ft_term_ar_ft_auth	Terminate access rights; FT initiated; IUT(PT) authenticates FT; authentication fails; termination rejected	306
PT/MM/BV/AR/	TC_PT_MM_BV_AR_09	SENC_zap	Obtain access rights; FT assigns ZAP field; IUT stores it	307
PT/MM/BV/AR/	TC_PT_MM_BV_AR_10	SENC_service_class	Obtain access rights; FT assigns service class; IUT stores it	308
PT/MM/BV/KA/	TC_PT_MM_BV_KA_01	SENC_key_allocate	Key allocation	309
PT/MM/BV/KA/	TC_PT_MM_BV_KA_02	SENC_key_allocate	Key allocation; <<Auth type>> unacceptable; reject	310
PT/MM/BV/KA/	TC_PT_MM_BV_KA_03	SENC_key_allocate	Key allocation; implicit authentication of FT fails; key is not allocated	311
PT/MM/BV/CH/	TC_PT_MM_BV_CH_01	SENC_pt_cipher_on	Cipher switching; IUT(PT) initiated; "cipher-off" to "cipher-on"	312
PT/MM/BV/CH/	TC_PT_MM_BV_CH_02	SENC_pt_cipher_off	Cipher switching; IUT(PT) initiated; "cipher-on" to "cipher-off"	313
PT/MM/BV/CH/	TC_PT_MM_BV_CH_03	SENC_ft_cipher_on	Cipher switching; FT initiated; "cipher-off" to "cipher-on"	314
PT/MM/BV/CH/	TC_PT_MM_BV_CH_04	SENC_ft_cipher_off	Cipher switching; FT initiated; "cipher-on" to "cipher-off"	315
PT/MM/BV/CH/	TC_PT_MM_BV_CH_05	SENC_ft_cipher_on	Cipher switching; FT initiated; "cipher-off" to "cipher-on"; unacceptable algorithm or key; reject	316

Continued on next page

Continued from previous page

Test Case Index				
Test Group Reference	Test Case Id	Selection Ref	Description	Page Nr
PT/MM/BO/	TC_PT_MM_BO_01	SENC_access_rights_loc	Location registration request; receipt of {ACCESS-RIGHTS-ACCEPT}; unexpected, ignore	317
PT/MM/BI/	TC_PT_MM_BI_01	SENC_mm_general	Unrecognised message type; ignore	318
PT/MM/BI/	TC_PT_MM_BI_02	SENC_ft_cipher_on	{CIPHER-REQUEST}, with invalid <<Cipher info>>; reject	319
PT/MM/BI/	TC_PT_MM_BI_03	SENC_pt_auth	Authentication of PT; {AUTH-REQUEST} missing <<RAND>>; reject	320
PT/MM/BI/	TC_PT_MM_BI_04	SENC_access_rights	Obtain access rights; {ACCESS-RIGHTS-ACCEPT}, wrong <<Portable id>>; ignore	321
PT/MM/TI/	TC_PT_MM_TI_01	SENC_key_alloc_ident	Key allocation; timer P-<MM_auth.1> expiry (5% margin)	322
PT/MM/TI/	TC_PT_MM_TI_02	SENC_ft_auth_ident	Authentication of FT; just before timer P-<MM_auth.1> expiry (" -10% margin)	323
PT/MM/TI/	TC_PT_MM_TI_03	SENC_location_reg	Location registration; just before timer P-<MM_locate.1> expiry (-10% margin)	324
PT/MM/TI/	TC_PT_MM_TI_04	SENC_access_rights	Obtain access rights; just before timer P-<MM_access.1> expiry (-10% margin)	325
PT/MM/TI/	TC_PT_MM_TI_05	SENC_pt_cipher_on	Cipher switching; IUT(PT) initiated; timer P-<MM_cipher.2> expiry (10% margin)	326
PT/ME/BV/	TC_PT_ME_BV_01	SENC_out_call_pt_auth	Outgoing call; T-01; Authentication of IUT(PT) performed before answering the setup request	327
PT/ME/BV/	TC_PT_ME_BV_02	SENC_loc_upd_pt_cipher	Cipher switching IUT(PT) initiated; Locate update; location registration initiation after "cipher off".	328
PT/ME/BV/	TC_PT_ME_BV_03	SENC_obtain_ar_user_auth	Obtain access rights; Interrupted by Authentication of user.	330
PT/ME/BV/	TC_PT_ME_BV_04	SENC_obtain_ar_pt_auth	Obtain access rights; Interrupted by Authentication of IUT(PT)	331
PT/ME/BV/	TC_PT_ME_BV_05	SENC_out_call_pt_auth	Outgoing call and authentication of IUT(PT) in parallel	332

Continued on next page

Continued from previous page

Test Case Index				
Test Group Reference	Test Case Id	Selection Ref	Description	Page Nr
PT/ME/BV/	TC_PT_ME_BV_06	SENC_out_call_ft_cipher	Outgoing call and cipher switching FT initiated in parallel	333
PT/ME/BV/	TC_PT_ME_BV_07	SENC_out_call_ft_cipher	Outgoing call; T-01; Cipher switching FT initiated performed before answering the setup request	334
PT/ME/BV/	TC_PT_ME_BV_08	SENC_out_call_user_auth	Outgoing call; T-01; Authentication of user performed before answering the setup request; receipt of {CC-NOTIFY} restart timer.	335
PT/ME/BV/	TC_PT_ME_BV_09	SENC_store_dsc_ft_cipher	Cipher on; Store DCK; new DCK not used in the current ciphering.	336
PT/ME/BV/	TC_PT_ME_BV_10	SENC_out_call_loc_reg	T-10; a38=1; location area changes; location registration request during the call or in T-00	337
PT/ME/BV/	TC_PT_ME_BV_11	SENC_out_call_ft_term_ar	Outgoing call; T-01; Terminate access rights FT initiated performed before answering the setup request.	339
PT/ME/BV/	TC_PT_ME_BV_12	SENC_normal_out_call	T-10; link fails; IUT clears the call	340
PT/ME/BV/	TC_PT_ME_BV_13	SENC_obtain_ar_key_all oc	Obtain access rights interrupted by key allocation.	341
PT/ME/BO/	TC_PT_ME_BO_01	SENC_ft_auth_pt_auth	Authentication of FT interrupted by {AUTH-REQUEST} from FT; ignore	342
PT/LC/BV/LE/	TC_PT_LC_BV_LE_01	SENC_link_co_pt_cc	Direct link establishment; IUT initiated	343
PT/LC/BV/LE/	TC_PT_LC_BV_LE_02	SENC_link_co_ft_indir	Indirect FT initiated link establishment	343
PT/LC/BV/LR/	TC_PT_LC_BV_LR_01	SENC_link_rel_maintain_mm	Link exists; MM entity ceases to use the link; no other entity uses the link; IUT maintains the link <LCE.02> time.	344
PT/LC/BV/LR/	TC_PT_LC_BV_LR_02	SENC_link_co_pt_cc	Link exists; CC entity ceases to use the link; no other entity uses the link; normal release	345
PT/LC/BV/LR/	TC_PT_LC_BV_LR_03	SENC_link_rel_maintain_cc	Link exists; CC entity ceases to use the link; partial release agreed; no other entity uses the link; IUT maintains the link <LCE.02> time.	346

Continued on next page

Continued from previous page

Test Case Index				
Test Group Reference	Test Case Id	Selection Ref	Description	Page Nr
PT/LC/BI/	TC_PT_LC_BI_01	SENC_pd_ti	Protocol discriminator value error – unsupported service; IUT ignores	347
PT/LC/BI/	TC_PT_LC_BI_03	SENC_identification	{IDENTITY-REQUEST} with illegal transaction id.; ignore	348
PT/LC/BI/	TC_PT_LC_BI_04	SENC_access_rights	Obtain access rights; {ACCESS-RIGHTS-ACCEPT} with transaction id. flag '0'; ignore	349
PT/LC/TI/	TC_PT_LC_TI_02	SENC_link_rel_maintain_mm	MM ceases to use the link; no other entity uses the link; timer <LCE.02> expiry (" 5% margin)	350
Detailed Comments :				

Test Step Index			
Test Step Group Reference	Test Step Id	Description	Page Nr
Preambles/	PR_goto_t00		351
Preambles/	PR_goto_t01		351
Preambles/	PR_goto_t02		352
Preambles/	PR_goto_t03		352
Preambles/	PR_goto_t04		353
Preambles/	PR_goto_t06		353
Preambles/	PR_goto_t07		354
Preambles/	PR_goto_t08		354
Preambles/	PR_goto_t10		355
Preambles/	PR_goto_t19		355
Preambles/	PR_select_state		356
Preambles/	PR_stable_state		357
Preambles/	PR_t00_no_acrght		358
Preambles/	PR_t00_no_key		359
Preambles/	PR_t00_service		360
Preambles/	PR_t00_zap		361
Preambles/	PR_t00_zap_service		362
Teststeps/CC/	STP_cc_release_abnormal		362
Teststeps/CC/	STP_cc_release_normal		363
Teststeps/CC/	STP_cc_release_partial		364
Teststeps/CC/	STP_check_calling_party_number_i nd		365
Teststeps/CC/	STP_check_ctrl_char		365
Teststeps/CC/	STP_check_stand_char		366
Teststeps/CC/	STP_check_u_plane		366
Teststeps/CC/	STP_check_user_alerting		366
Teststeps/CC/	STP_invoke_call_answering		367
Teststeps/CC/	STP_invoke_dialled_digit		367
Teststeps/CC/	STP_invoke_dialling_pause		367
Teststeps/CC/	STP_invoke_dtmf_defined		368
Teststeps/CC/	STP_invoke_dtmf_defined_or_digi t		368
Teststeps/CC/	STP_invoke_dtmf_infinite		368
Teststeps/CC/	STP_invoke_internal_call		369
Teststeps/CC/	STP_invoke_normal_release		369
Teststeps/CC/	STP_invoke_outgoing_call		369
Teststeps/CC/	STP_invoke_partial_release		370
Teststeps/CC/	STP_invoke_pulse_dialling		370
Teststeps/CC/	STP_invoke_register_recall		371
Teststeps/CC/	STP_receive_digit_info		371
Teststeps/MM/	STP_change_location_area		371
Teststeps/MM/	STP_check_accessrights		372
Teststeps/MM/	STP_check_id_in_pt		373
Teststeps/MM/	STP_handle_acrghts_no_loc_reg		374
Teststeps/MM/	STP_handle_acrghts_loc_reg		375
Teststeps/MM/	STP_handle_ft_auth_resp		376
Teststeps/MM/	STP_handle_locate_request		376
Teststeps/MM/	STP_init_broadcast_bits		377

Continued on next page

Continued from previous page

Test Step Index			
Test Step Group Reference	Test Step Id	Description	Page Nr
Teststeps/MM/	STP_invoke_ft_authentication		377
Teststeps/MM/	STP_invoke_obtain_accessrights		378
Teststeps/MM/	STP_invoke_pt_init_cipherring_on		378
Teststeps/MM/	STP_invoke_pt_init_cipherring_off		379
Teststeps/MM/	STP_invoke_upi_entering		379
Teststeps/MM/	STP_lose_and_regain_lock		380
Teststeps/MM/	STP_perform_key_allocation		380
Teststeps/MM/	STP_perform_ft_init_cipherring_off		381
Teststeps/MM/	STP_perform_ft_init_cipherring_on		382
Teststeps/MM/	STP_perform_pt_authentication		383
Teststeps/MM/	STP_perform_terminate_acrghs		384
Teststeps/MM/	STP_perform_user_authentication		385
Teststeps/MM/	STP_set_bit_a38		385
Teststeps/MM/	STP_set_bit_a44		386
Teststeps/MM/	STP_switch_iut_power_off_on		386
Teststeps/LC/	STP_check_link_present		386
Teststeps/LC/	STP_handle_direct_link_est		387
Teststeps/LC/	STP_indirect_link_establishment		387
Teststeps/LC/	STP_indirect_link_no_fail		388
Teststeps/LC/	STP_initialise_tf		388
Teststeps/LC/	STP_perform_paging		389
Teststeps/LC/	STP_release_link		389
Postambles/	PO_normal_release		390
Postambles/	PO_release_link		390
Postambles/	PO_terminate		391
Detailed Comments :			

Default Index			
Default Group Reference	Default Id	Description	Page Nr
	DF_handle_any_timeout		392
	DF_handle_cc_events		393
	DF_handle_cc_timeout		394
	DF_handle_mm_events		395
	DF_handle_mm_invokation		397
	DF_handle_mm_timeout		398
	DF_handle_sending_of_cc_notify		399
	DF_handle_unexpected_events		400
Detailed Comments :			

II

Declarations Part

Simple Type Definitions		
Type Name	Type Definition	Comments
BIT_1	BITSTRING[1]	GENERAL SIMPLE TYPE DEFINITIONS:
BIT_2	BITSTRING[2]	
BIT_3	BITSTRING[3]	
BIT_4	BITSTRING[4]	
BIT_5	BITSTRING[5]	
BIT_6	BITSTRING[6]	
BIT_7	BITSTRING[7]	
BIT_8	BITSTRING[8]	
BIT_16	BITSTRING[16]	
BIT_32	BITSTRING[32]	
BIT_40	BITSTRING[40]	
BIT_64	BITSTRING[64]	
BIT_128	BITSTRING[128]	
DECTCHAR_4	HEXSTRING('0'H,'1'H,'2'H,'3'H,'4'H,'5'H,'6'H,'7'H,'8'H,'9'H,'B'H)	
DECTCHAR_8	OCTETSTRING[1]	This refers to the standard 8 bit DECT character set. Some DECT characters have a special meaning. Refer to ETS 300 175-5 [5], subclause D.2
DECT_1	OCTETSTRING[1]	Hexstrings shall only be used when the length of the string is odd.
DECT_2	OCTETSTRING[2]	
DECT_3	OCTETSTRING[3]	
DECT_1_253	OCTETSTRING[1 .. 253]	
DECT_1_254	OCTETSTRING[1 .. 254]	
DECT_1_255	OCTETSTRING[1 .. 255]	
INT_8	INTEGER(0 .. 255)	
INT_16	INTEGER(0 .. 65535)	
HEX_1	HEXSTRING[1]	
HEX_3	HEXSTRING[3]	
HEX_5	HEXSTRING[5]	
HEX_7	HEXSTRING[7]	
OCT_1	OCTETSTRING[1]	
OCT_2	OCTETSTRING[2]	
OCT_4	OCTETSTRING[4]	
OCT_7	OCTETSTRING[7]	
OCT_8	OCTETSTRING[8]	
OCT_1_13	OCTETSTRING[1 .. 13]	
OCT_1_16	OCTETSTRING[1 .. 16]	
OCT_1_20	OCTETSTRING[1 .. 20]	
OCT_1_254	OCTETSTRING[1 .. 254]	
OCT_1_255	OCTETSTRING[1 .. 255]	
CCSTATE_TYPE	INTEGER(0, 1, 2, 3, 4, 6, 7, 10, 19)	SPECIFIC SIMPLE TYPE DEFINITIONS: Used in PR_select_state
CIPHER_STATUS	INTEGER(0, 1)	Used in DL_ENCRYPT primitive
CLUSTER_ADDRESS_LIST	OCTETSTRING	Used in DL_BROADCAST primitive

Continued on next page

Continued from previous page

Simple Type Definitions		
Type Name	Type Definition	Comments
CONNECTION_IDENTITIES	OCTETSTRING	Used in DL_ENCRYPT primitive
DATA_LINK_ENDPOINT_IDENTIFIER	INTEGER	Nr of bits to be specified by test system manufacturer.
ENCRYPTION_KEY	BITSTRING[64]	Used in DL_ENC_KEY primitive
ESTABLISH_MODE	INTEGER(0, 1, 2)	Used in DL_ESTABLISH primitive
FIXED_ID_VALUE_TYPE	BITSTRING[32..40]	The FIXED_ID_VALUE_TYPE is a type for the value of the PARK. The length of the PARK value shall be 4 or 5 octets
MESSAGE_TYPE	OCT_1	ETS 300 175-5 [5], subclause 7.4
MESSAGE_TYPE_SHORT	BITSTRING[4]	Used in TC_PT_CC_BI_04, where a too short, message type ie is sent.
MMPROC_TYPE	INTEGER(0 .. 10)	Used in PR_select_state
LCE_HEADER	BIT_3	ETS 300 175-5 [5], subclause 8.2
PORT_ID_VALUE_TYPE	BITSTRING[8 .. 104]	The PORT_ID_VALUE_TYPE is a type for the value of the portable_id. It is NOT the portable_id type. The value of the portable_id can lie between 1 and 13 octets
RADIO_FIXED_PART_NUMBER	INTEGER	Used in DL_ESTABLISH primitive
RELEASE_MODE	INTEGER(0, 1)	Used in DL_RELEASE primitive
TRANS_FLAG	INTEGER(0, 1)	Used n transaction flag definition
Detailed Comments :		

Structured Type Definition		
Type Name : ALLOCATION_TYPE		
Comments : ETS 300 175-5 [5], subclause 7.7.2		
Element Name	Type Definition	Comments
iei	OCT_1	
length	OCT_1	
auth_algo_id	OCT_1	
ac_number	BIT_4	
uak_number	BIT_4	
Detailed Comments :		

Structured Type Definition		
Type Name : ALPHANUMERIC		
Comments : ETS 300 175-5 [5], subclause 7.7.3		
Element Name	Type Definition	Comments
iei	OCT_1	
length	OCT_1	
character_set	BIT_3	
odd_even	BIT_1	
character_type	BIT_3	
f3	BIT_1	'0'
list_of_characters	DECT_1_254	
Detailed Comments :		

Structured Type Definition		
Type Name : AUTH_TYPE		
Comments : ETS 300 175-5 [5], subclause 7.7.4		
Element Name	Type Definition	Comments
iei	OCT_1	
length	OCT_1	
auth_algo_id	OCT_1	
prop_algo_id	OCT_1	
auth_key_number	BIT_4	
auth_key_type	BIT_4	
cipher_key_number	BIT_4	
upc	BIT_1	
txc	BIT_1	
f5	BIT_1	'0'
inc	BIT_1	
Detailed Comments :		

Structured Type Definition		
Type Name : AUTH_TYPE_LIST		
Comments :		
Element Name	Type Definition	Comments
repeat_indicator	REPEAT_INDICATOR	
auth_type1	AUTH_TYPE	
auth_type2	AUTH_TYPE	
auth_type3	AUTH_TYPE	
Detailed Comments :		

Structured Type Definition		
Type Name : BASIC_SERVICE		
Comments : ETS 300 175-5 [5], subclause 7.6.4		
Element Name	Type Definition	Comments
iei	OCT_1	
basic_service	BIT_4	
call_class	BIT_4	
Detailed Comments :		

Structured Type Definition		
Type Name : CALL_ATTRIBUTES		
Comments : ETS 300 175-5 [5], subclause 7.7.5		
Element Name	Type Definition	Comments
iei	OCT_1	
length	OCT_1	
network_layer_attributes	BIT_5	
coding_standard	BIT_2	
f3	BIT_1	'1'B
c_plane_routing	BIT_4	
c_plane_class	BIT_3	
f4	BIT_1	'1'B
lu_id	BIT_5	
u_plane_symmetry	BIT_2	
ext5	BIT_1	
lu_id_f_p	BIT_5	
f5a	BIT_3	'100'
u_plane_frame_type	BIT_4	
u_plane_class	BIT_3	
ext6	BIT_1	
u_plane_frame_type_f_p	BIT_4	
u_plane_class_f_p	BIT_3	
f6a	BIT_1	'1'
Detailed Comments :		

Structured Type Definition		
Type Name : CALL_ID		
Comments : ETS 300 175-5 [5], subclause 7.7.6		
Element Name	Type Definition	Comments
iei	OCT_1	
length	OCT_1	
pd	BIT_4	
tv	BIT_3	
tf	BIT_1	
extended_transaction_value	OCT_1	
Detailed Comments :		

Structured Type Definition		
Type Name : CALLED_PARTY_NUMBER		
Comments : ETS 300 175 [5], subclause 7.7.7		
Element Name	Type Definition	Comments
iei	OCT_1	
length	OCT_1	
numbering_plan_id	BIT_4	
number_type	BIT_3	
f3	BIT_1	'1'
called_party_address	DECT_1_254	
Detailed Comments :		

Structured Type Definition		
Type Name : CALLED_PARTY_SUBADDRESS		
Comments : ETS 300 175 [5], subclause 7.7.8		
Element Name	Type Definition	Comments
iei	OCT_1	
length	OCT_1	
spare	BIT_3	'000'
o_e	BIT_1	
subaddress_type	BIT_3	
f3	BIT_1	'1'
subaddress_info	OCT_1_254	
Detailed Comments :		

Structured Type Definition		
Type Name : CALLING_PARTY_NUMBER		
Comments : ETS 300 175-5 [5], subclause 7.7.9		
Element Name	Type Definition	Comments
iei	OCT_1	
length	OCT_1	
numbering_plan_id	BIT_4	
number_type	BIT_3	
ext3	BIT_1	
screening_indicator	BIT_2	
spare	BIT_3	'000'
presentation_indicator	BIT_2	
f3a	BIT_1	'1'
calling_party_address	DECT_1_254	
Detailed Comments :		

Structured Type Definition		
Type Name : CIPHER_INFO		
Comments : ETS 300 175-5 [5], subclause 7.7.10		
Element Name	Type Definition	Comments
iei	OCT_1	
length	OCT_1	
cipher_algo_id	BIT_7	
y_n	BIT_1	
prop_algo_id	OCT_1	
cipher_key_number	BIT_4	
cipher_key_type	BIT_4	
Detailed Comments :		

Structured Type Definition		
Type Name : CONNECTION_ATTRIBUTES		
Comments : ETS 300 175-5 [5], subclause 7.7.11		
Element Name	Type Definition	Comments
iei	OCT_1	
length	OCT_1	
connection_id	BIT_4	
symmetry	BIT_3	
f3	BIT_1	'1'B
target_bearers_p_f	BIT_5	
f4	BIT_2	'00'
ext4	BIT_1	
min_bearers_p_f	BIT_5	
f4a	BIT_2	'01'
ext4a	BIT_1	
target_bearers_f_p	BIT_5	
f4b	BIT_2	'10'
ext4b	BIT_1	
min_bearers_f_p	BIT_5	
f4c	BIT_3	'111'
mac_service	BIT_4	
slot_size	BIT_3	
ext5	BIT_1	
mac_service_f_p	BIT_4	
f5a	BIT_4	'1000'
mac_packet_lifetime	BIT_4	
cf_channel_attributes	BIT_3	
ext6	BIT_1	
mac_packet_lifetime_f_p	BIT_4	
cf_channel_attributes_f_p	BIT_3	
f6a	BIT_1	'1'
Detailed Comments :		

Structured Type Definition		
Type Name : CONNECTION_ATTRIBUTES_LIST		
Comments :		
Element Name	Type Definition	Comments
repeat_indicator	REPEAT_INDICATOR	
connection_attributes1	CONNECTION_ATTRIBUTES	
connection_attributes2	CONNECTION_ATTRIBUTES	
connection_attributes3	CONNECTION_ATTRIBUTES	
Detailed Comments :		

Structured Type Definition		
Type Name : CONNECTION_ID		
Comments : ETS 300 175-5 [5], subclause 7.7.12		
Element Name	Type Definition	Comments
iei	OCT_1	
length	OCT_1	
u_and_c_id	OCT_1_255	max number of connections
Detailed Comments :		

Structured Type Definition		
Type Name : DELIMITER_REQUEST		
Comments : ETS 300 175-5 [5], subclause 7.6.2		
Element Name	Type Definition	Comments
delimiter_request	OCT_1	'10100010'
Detailed Comments :		

Structured Type Definition		
Type Name : DURATION		
Comments : ETS 300 175-5 [5], subclause 7.7.13		
Element Name	Type Definition	Comments
iei	OCT_1	
length	OCT_1	
time_limits	BIT_4	
lock_limits	BIT_3	
ext3	BIT_1	
time_duration	OCT_1	
Detailed Comments :		

Structured Type Definition		
Type Name : END_TO_END_COMPATIBILITY		
Comments : ETS 300 175-5 [5], subclause 7.7.14		
Element Name	Type Definition	Comments
iei	OCT_1	
length	OCT_1	
user_rate	BIT_5	
negotiation	BIT_1	
s_a	BIT_1	
ext3	BIT_1	
v110_x30_service	BIT_7	
ext3a	BIT_1	
parity	BIT_3	
data_bits	BIT_2	
stop_bits	BIT_2	
ext3b	BIT_1	
modem_type	BIT_6	
duplex	BIT_1	
f3c	BIT_1	'1'
Detailed Comments :		

Structured Type Definition		
Type Name : ESCAPE_FOR_EXTENSION		
Comments : ETS 300 175-5 [5], subclause 7.7.1		
Element Name	Type Definition	Comments
iei	OCT_1	
length	OCT_1	
info_element_id	BIT_7	
f3	BIT_1	'1'
content_info_element	OCT_1_254	
Detailed Comments :		

Structured Type Definition		
Type Name : ESCAPE_TO_PROPRIETARY		
Comments : ETS 300 175-5 [5], subclause 7.7.1 (second edition: 7.7.45)		
Element Name	Type Definition	Comments
iei	OCT_1	
length	OCT_1	
discriminator_type	BIT_7	
f3	BIT_1	'1'
discriminator	OCT_2	
contents	OCT_1_254	
Detailed Comments :		

Structured Type Definition		
Type Name : FACILITY		
Comments : ETS 300 175-5 [5], subclause 7.7.15		
Element Name	Type Definition	Comments
iei	OCT_1	
length	OCT_1	
service_discriminator	BIT_5	
f3	BIT_3	'100'
component	OCT_1_254	
Detailed Comments :		

Structured Type Definition		
Type Name : FEATURE_ACTIVATE		
Comments : ETS 300 175-5 [5], subclause 7.7.16		
Element Name	Type Definition	Comments
iei	OCT_1	
length	OCT_1	
feature	BIT_7	
ext3	BIT_1	
parameter	BIT_7	
f3a	BIT_1	'1'
Detailed Comments :		

Structured Type Definition		
Type Name : FEATURE_INDICATE		
Comments : ETS 300 175-5 [5], subclause 7.7.17		
Element Name	Type Definition	Comments
iei	OCT_1	
length	OCT_1	
feature	BIT_7	
ext3	BIT_1	
parameter	BIT_7	
f3a	BIT_1	'1'
status_indicator	OCT_1	
component	DECT_1_253	
Detailed Comments :		

Structured Type Definition		
Type Name : FIXED_ID		
Comments : ETS 300 175-5 [5], subclause 7.7.18		
Element Name	Type Definition	Comments
iei	OCT_1	
length	OCT_1	
type	BIT_7	
f3	BIT_1	'1'
length_of_id_value	BIT_7	
f4	BIT_1	'1'
id_value	FIXED_ID_VALUE_TYPE	1)
Detailed Comments : 1) The FIXED_ID_VALUE_TYPE refers to the type of the id_value The id_value can consist of: - ARI (ARC + ARD) - ARI (ARC + ARD) + RPN - PARK		

Structured Type Definition		
Type Name : IDENTITY_TYPE		
Comments : ETSI 300 175-5 [5], subclause 7.7.19		
Element Name	Type Definition	Comments
iei	OCT_1	
length	OCT_1	
id_group	BIT_4	
space	BIT_3	'000'
f3	BIT_1	'1'
type	BIT_7	
f4	BIT_1	'1'
Detailed Comments :		

Structured Type Definition		
Type Name : INFO_TYPE		
Comments : ETS 300 175-5 [5], subclause 7.7.20		
Element Name	Type Definition	Comments
iei	OCT_1	
length	OCT_1	
info_parameter	OCT_1_13	
Detailed Comments :		

Structured Type Definition		
Type Name : IWU_ATTRIBUTES		
Comments : ETS 300 175-5 [5], subclause 7.7.21		
Element Name	Type Definition	Comments
iei	OCT_1	
length	OCT_1	
info_transfer_capability	BIT_5	
coding_standard	BIT_2	
f3	BIT_1	'1'B
external_connection_type	BIT_4	
negotiation_indicator	BIT_3	
f4	BIT_1	'1'B
info_transfer_rate	BIT_5	
trans_mode	BIT_2	
ext5	BIT_1	
rate_multiplier	BIT_5	
unit_rate	BIT_2	
ext5a	BIT_1	
establishment	BIT_2	
configuration	BIT_2	
structure	BIT_3	
ext5b	BIT_1	
info_transfer_rate_d_o	BIT_5	
symmetry	BIT_2	
ext5c	BIT_1	
rate_multiplier_d_o	BIT_5	
unit_rate_d_o	BIT_2	
f5d	BIT_1	'1'
user_protocol_id	BIT_5	
f6	BIT_2	'00'
ext6	BIT_1	
l3_protocol_id	BIT_5	
f7	BIT_2	'11'
ext7	BIT_1	
l2_protocol_id	BIT_5	
f8	BIT_2	'10'
ext8	BIT_1	
Detailed Comments :		

Structured Type Definition		
Type Name : IWU_PACKET		
Comments : ETS 300 175-5 [5], subclause 7.7.22		
Element Name	Type Definition	Comments
iei	OCT_1	
length	OCT_1	
l2_protocol_id	BIT_5	
f3	BIT_1	'0'
s_r	BIT_1	
ext3	BIT_1	
l3_protocol_id	BIT_5	
f3a	BIT_3	'111'
info	OCT_1_254	
Detailed Comments :		

Structured Type Definition		
Type Name : IWU_TO_IWU		
Comments : ETS 300 175-5 [5] (second edition), subclause 7.7.23		
Element Name	Type Definition	Comments
iei	OCT_1	
length	OCT_1	
protocol_discriminator	BIT_6	
s_r	BIT_1	
f3	BIT_1	'1'
contents	OCT_1_254	
Detailed Comments :		

Structured Type Definition		
Type Name : KEY		
Comments : ETS 300 175-5 [5], subclause 7.7.24		
Element Name	Type Definition	Comments
iei	OCT_1	
length	OCT_1	
key_type	OCT_1	
key_data	OCT_1_254	
Detailed Comments :		

Structured Type Definition		
Type Name : LOCATION_AREA		
Comments : ETS 300 175-5 [5], subclause 7.7.25		
Element Name	Type Definition	Comments
iei	OCT_1	'1111' if GSM loc. info is not included
length	OCT_1	
location_area_level	BIT_6	
li_type	BIT_2	
spare	BIT_4	
eli_type	BIT_4	
extended_location_information	OCT_7	
Detailed Comments :		

Structured Type Definition		
Type Name : MULTI_DISPLAY		
Comments : ETS 300 175-5 [5], subclause 7.7.26		
Element Name	Type Definition	Comments
iei	OCT_1	
length	OCT_1	
display_info	DECT_1_255	
Detailed Comments :		

Structured Type Definition		
Type Name : MULTI_KEYPAD		
Comments : ETS 300 175-5 [5], subclause 7.7.27		
Element Name	Type Definition	Comments
iei	OCT_1	
length	OCT_1	
keypad_info	DECT_1_255	
Detailed Comments :		

Structured Type Definition		
Type Name : NETWORK_ASSIGNED_ID		
Comments : ETS 300 175-5 [5], subclause 7.7.28		
Element Name	Type Definition	Comments
iei	OCT_1	
length	OCT_1	
type	BIT_7	
f3	BIT_1	'1'
id_length	BIT_7	
f4	BIT_1	'1'
value	OCT_1_16	4 octet GSM TMSI has to be supported
Detailed Comments :		

Structured Type Definition		
Type Name : NETWORK_HEADER		
Comments : ETS 300 175-5 [5], subclause 7.1, 7.2, 7.3		
Element Name	Type Definition	Comments
protocol_discriminator	BIT_4	
transaction_value	BIT_3	
transaction_flag	BIT_1	
ext_transaction_flag	OCT_1	
Detailed Comments :		

Structured Type Definition		
Type Name : NETWORK_PARAMETER		
Comments : ETS 300 175-5 [5], subclause 7.7.29		
Element Name	Type Definition	Comments
iei	OCT_1	
length	OCT_1	
discriminator	BIT_8	
data_field	OCT_1_254	for GSM handover ref.- 1 octet
Detailed Comments :		

Structured Type Definition		
Type Name : PORTABLE_ID		
Comments : ETS 300 175-5 [5], subclause 7.7.30		
Element Name	Type Definition	Comments
iei	OCT_1	
length	OCT_1	
type	BIT_7	
f3	BIT_1	'1'
length_of_id_value	BIT_7	
f4	BIT_1	'1'
id_value	PORT_ID_VALUE_TYPE	1)
Detailed Comments : 1) The PORT_ID_VALUE_TYPE refers to the type of the id_value The id_value can consist of: - IPUI (S, O, T, P, Q, U, R), - IPEI, - TPUI		

Structured Type Definition		
Type Name : PROGRESS_INDICATOR		
Comments : ETS 300 175-5 [5], subclause 7.7.31		
Element Name	Type Definition	Comments
iei	OCT_1	
length	OCT_1	
location	BIT_4	
coding_standard	BIT_3	
f3	BIT_1	'1'
progress_description	BIT_7	
f4	BIT_1	'1'
Detailed Comments :		

Structured Type Definition		
Type Name : RAND		
Comments : ETS 300 175-5 [5], subclause 7.7.31		
Element Name	Type Definition	Comments
iei	OCT_1	
length	OCT_1	
field	BIT_64	for DSAA : BITSTRING [64]
Detailed Comments :		

Structured Type Definition		
Type Name : RATE_PARAMETERS		
Comments : ETS 300 175-5 [5], subclause 7.7.33		
Element Name	Type Definition	Comments
iei	OCT_1	
length	OCT_1	
class_of_service	BIT_4	
interleaving	BIT_1	
symmetry	BIT_2	
f3	BIT_1	'1'
channel1_arrangement_ptof	BIT_4	
channel1_rate_ptof	BIT_3	
ext4	BIT_1	
channel1_arrangement_ftop	BIT_4	
channel1_rate_ftop	BIT_3	
f4a	BIT_1	'1'
channel2_arrangement_ptof	BIT_4	
channel2_rate_ptof	BIT_3	
ext5	BIT_1	
channel2_arrangement_ftop	BIT_4	
channel2_rate_ftop	BIT_3	
f5a	BIT_1	'1'
channel3_arrangement_ptof	BIT_4	
channel3_rate_ptof	BIT_3	
ext6	BIT_1	
channel3_arrangement_ftop	BIT_4	
channel3_rate_ftop	BIT_3	
f6a	BIT_1	'1'
Detailed Comments :		

Structured Type Definition		
Type Name : REJECT_REASON		
Comments : ETS 300 175-5 [5], subclause 7.7.34		
Element Name	Type Definition	Comments
iei	OCT_1	
length	OCT_1	
reason	OCT_1	
Detailed Comments :		

Structured Type Definition		
Type Name : RELEASE_REASON		
Comments : ETS 300 175-5 [5], subclause 7.6.7		
Element Name	Type Definition	Comments
iei	OCT_1	
reason	OCT_1	
Detailed Comments :		

Structured Type Definition		
Type Name : REPEAT_INDICATOR		
Comments : ETS 300 175-5 [5], subclause 7.6.3		
Element Name	Type Definition	Comments
repeat_indicator	HEX_1	
f1	BIT_4	'1101'
Detailed Comments :		

Structured Type Definition		
Type Name : RES		
Comments : ETS 300 175-5 [5], subclause 7.7.35		
Element Name	Type Definition	Comments
iei	OCT_1	
length	OCT_1	
field	BIT_32	for DSAA: BITSTRING [32]
Detailed Comments :		

Structured Type Definition		
Type Name : RS		
Comments : ETS 300 175-5 [5], subclause 7.7.36		
Element Name	Type Definition	Comments
iei	OCT_1	
length	OCT_1	
field	BIT_64	for DSAA : BITSTRING [64]
Detailed Comments :		

Structured Type Definition		
Type Name : SEGMENTED_INFO		
Comments : ETS 300 175-5 [5], subclause 7.7.37		
Element Name	Type Definition	Comments
iei	OCT_1	
length	OCT_1	
number_of_segments_remaining	BIT_7	
f_bit	BIT_1	
segmented_element_type	BIT_7	
f4	BIT_1	'0'
Detailed Comments :		

Structured Type Definition		
Type Name : SENDING_COMPLETE		
Comments : ETS 300 175-5 [5], subclause 7.6.2		
Element Name	Type Definition	Comments
sending_complete	OCT_1	'10100001'
Detailed Comments :		

Structured Type Definition		
Type Name : SERVICE_CHANGE_INFO		
Comments : ETS 300 175-5 [5], subclause 7.7.38		
Element Name	Type Definition	Comments
iei	OCT_1	
length	OCT_1	
change_mode	BIT_4	
master_coding	BIT_1	
coding_standard	BIT_2	
ext3	BIT_1	
extended_change_mode	BIT_7	
f3a	BIT_1	'1'
b_attributes	BIT_3	
reset_coding	BIT_1	
a_attributes	BIT_3	
f4	BIT_1	'1'
Detailed Comments :		

Structured Type Definition		
Type Name : SERVICE_CLASS		
Comments : ETS 300 175-5 [5], subclause 7.7.39		
Element Name	Type Definition	Comments
iei	OCT_1	
length	OCT_1	
service_class_field	BIT_8	
Detailed Comments :		

Structured Type Definition		
Type Name : SETUP_CAPABILITY		
Comments : ETS 300 175-5 [5], subclause 7.7.40		
Element Name	Type Definition	Comments
iei	OCT_1	
length	OCT_1	
page	BIT_2	
setup	BIT_2	
f3	BIT_3	'000'
ext3	BIT_1	
profile_indicator	BIT_3	
f3a	BIT_5	'10000'
Detailed Comments :		

Structured Type Definition		
Type Name : SHORT_FORMAT_ADDRESS		
Comments : ETS 300 175-5 [5], subclause 8.2.1		
Element Name	Type Definition	Comments
w	BIT_1	
f1	HEX_1	xxxx
tpui_address	BIT_16	
Detailed Comments :		

Structured Type Definition		
Type Name : SIGNAL		
Comments : ETS 300 175-5 [5], subclause 7.6.8		
Element Name	Type Definition	Comments
iei	OCT_1	
signal_value	OCT_1	
Detailed Comments :		

Structured Type Definition		
Type Name : SINGLE_DISPLAY		
Comments : ETS 300 175-5 [5], subclause 7.6.5		
Element Name	Type Definition	Comments
iei display_info	OCT_1 DECT_1	
Detailed Comments :		

Structured Type Definition		
Type Name : SINGLE_KEYPAD		
Comments : ETS 300 175-5 [5], subclause 7.6.6		
Element Name	Type Definition	Comments
iei keypad_info	OCT_1 DECT_1	
Detailed Comments :		

Structured Type Definition		
Type Name : TERMINAL_CAPABILITY		
Comments : ETS 300 175-5 [5], (second edition), subclause 7.7.41		
Element Name	Type Definition	Comments
iei	OCT_1	
length	OCT_1	
display_capability	BIT_4	
tone_capability	BIT_3	
ext3	BIT_1	
a_vol	BIT_2	
n_rej	BIT_2	
echo_param	BIT_3	
ext3b	BIT_1	
slot_type_capability	BIT_7	
ext3c	BIT_1	
number_of_stored_display_chars_ms	BIT_7	
ext3d	BIT_1	
number_of_stored_display_chars_ls	BIT_7	
ext3e	BIT_1	
number_of_lines_in_display	BIT_7	
ext3f	BIT_1	
number_of_characters_per_line	BIT_7	
ext3g	BIT_1	
scrolling_behaviour_field	BIT_7	
ext3h	BIT_1	
profile_indicator_1	BIT_7	
ext4	BIT_1	
profile_indicator_2	BIT_7	
ext4a	BIT_1	
control_codes	BIT_3	
spare	BIT_4	
ext5	BIT_1	
esc_to_8_bit_cs	BIT_7	
ext5a	BIT_1	
more	OCTETSTRING	
Detailed Comments :		

Structured Type Definition		
Type Name : TEST_HOOK_CONTROL		
Comments : ETS 300 175-5 [5], subclause 7.6.10		
Element Name	Type Definition	Comments
iei	OCT_1	
hook_value	OCT_1	
Detailed Comments :		

Structured Type Definition		
Type Name : TIMER_RESTART		
Comments : ETS 300 175-5 [5], subclause 7.6.9		
Element Name	Type Definition	Comments
iei	OCT_1	
restart_value	OCT_1	
Detailed Comments :		

Structured Type Definition		
Type Name : TRANSIT_DELAY		
Comments : ETS 300 175-5 [5], subclause 7.7.42		
Element Name	Type Definition	Comments
iei	OCT_1	
length	OCT_1	
forward_delay	BIT_6	
f3	BIT_2	'10'
backward_delay	BIT_6	
f4	BIT_2	'10'
Detailed Comments :		

Structured Type Definition		
Type Name : WINDOW_SIZE		
Comments : ETS 300 175-5 [5], subclause 7.7.43		
Element Name	Type Definition	Comments
iei	OCT_1	
length	OCT_1	
forward_value	BIT_7	
f3	BIT_1	'1'
backward_value	BIT_7	
f4	BIT_1	'1'
Detailed Comments :		

Structured Type Definition		
Type Name : ZAP_FIELD		
Comments : ETS 300 175-5 [5], subclause 7.7.44		
Element Name	Type Definition	Comments
iei	OCT_1	
length	OCT_1	
contents	BIT_4	
f3	BIT_4	'0000'
Detailed Comments :		

Test Suite Operation Definition	
Operation Name	: TSO_cinpt_algosb1_a1(rand,rs : BIT_64; uak_ac : BIT_128)
Result Type	: BITSTRING
Comments	: Authentication key selection algorithm B1 followed by authentication algorithms A1 for PP Authentication processes.
Description	
k,ks:INTEGER128BIT (k:=algoB1(uak_ac)) (ks:=algoA11(rs,k)) algoA12(ks,rand)	
Detailed Comments	: algoB1() as per ETS 300 175-7.[7] algoA11() and algoA12() as per DECT Standard Authentication Algorithm – DSSA. See Annex H of ETS 300 175-7

Test Suite Operation Definition	
Operation Name	: TSO_cinpt_algosb2_a1(rand, rs : BIT_64; uak : BIT_128; upi : BIT_32)
Result Type	: BITSTRING
Comments	: authentication key selection algorithm B2 followed by authentication algorithms A1 for PP user authentication processes.
Description	
k,ks:INTEGER128BIT (k:=algoB2(uak,upi)) (ks:=algoA11(rs,k)) algoA12(ks,rand)	
Detailed Comments	: algoB2() as per ETS 300 175-7.[7] algoA11() and algoA12() as per DECT Standard Authentication Algorithm – DSSA. See Annex H of ETS 300 175-7

Test Suite Operation Definition	
Operation Name	: TSO_cinpt_algosb1_a2(rand, rs : BIT_64; uak_ac : BIT_128)
Result Type	: BITSTRING
Comments	: Authentication key selection algorithm B1 followed by authentication algorithms A2 for FP Authentication processes.
Description	
k,ks':INTEGER128BIT (k:=algoB1(uak_ac)) (ks':=algoA21(rs,k)) algoA22(ks',rand)	
Detailed Comments	: algoB1() as per ETS 300 175-7 [7]. algoA21() and algoA22() as per DECT Standard Authentication Algorithm – DSSA. See Annex H of ETS 300 175-7

Test Suite Operation Definition	
Operation Name	: TSO_cinpt_algosb1_a21(rs : BIT_64; ac : BITSTRING)
Result Type	: BITSTRING
Comments	: Authentication key selection algorithm B1 followed by authentication algorithm A21 of FP Authentication processes. Used to generate ks' which is the allocated key– UAK.
Description	
k :INTEGER128BIT (k:=algoB1(ac)) algoA21(rs,k)	
Detailed Comments	: algoB1() as per ETS 300 175-7 [7] algoA21() as per DECT Standard Authentication Algorithm – DSSA. See Annex H of ETS 300 175-7

Test Suite Operation Definition	
Operation Name	: TSO_cinpt_algos_dck_b1_a1(rand,rs:BIT_64; uak_ac:BIT_128)
Result Type	: BIT_64
Comments	: Authentication key selection algorithm B1 followed by authentication algorithms A1. Used to calculate the derived ciphering key.
Description	
k,ks:INTEGER128BIT (k:=algoB1(uak_ac)) (ks:=algoA11(rs,k)) dck_algoA12(ks,rand)	
Detailed Comments	: algoB1() as per ETS 300 175-7.[7] algoA11() and dck_algoA12() as per DECT Standard Authentication Algorithm – DSSA. See Annex H of ETS 300 175-7

Test Suite Operation Definition	
Operation Name	: TSO_cinpt_bitstr_dec(bitstr : BITSTRING)
Result Type	: BITSTRING
Comments	: Returns a modified variable based on the valid variable in the bitstring bitstr.
Description	
L, bitstr_int:INTEGER (L := LENGTH_OF(bitstr)) (bitstr_int := BIT_TO_INT(bitstr)) (bitstr_int := bitstr_int - 1) (bitstr := INT_TO_BIT(bitstr_int, L))	
Detailed Comments :	

Test Suite Operation Definition	
Operation Name	: TSO_cinpt_bitstr_inc(bitstr : BITSTRING)
Result Type	: BITSTRING
Comments	: Returns a modified variable based on the valid variable in the bitstring bitstr.
Description	
L, bitstr_int:INTEGER (L := LENGTH_OF(bitstr)) (bitstr_int := BIT_TO_INT(bitstr)) (bitstr_int := bitstr_int + 1) (bitstr := INT_TO_BIT(bitstr_int, L))	
Detailed Comments :	

Test Suite Operation Definition	
Operation Name	: TSO_cinpt_calculate_w_from_TPUI(tpui: BIT_16)
Result Type	: BIT_1
Comments	: To calculate the value of IE 'w' for short format messages acc. to ETS 300 175-5, clause 8.2.1, depending on the TPUI address.
Description	
If the TPUI address is derived from an assigned TPUI the result is '1'B, if the TPUI address is derived from a default TPUI the result is '0'B.	
Detailed Comments :	

Test Suite Operation Definition	
Operation Name : TSO_check_calling_party_number_ind	
Result Type : BOOLEAN	
Comments : To check if the calling party number is provided to the user.	
Description	
TSO_check_calling_party_number_ind is an operator that checks whether or not the calling party number indication, also known as CLIP, is functioning correctly. Test personnell will check the display of the IUT, or the means of providing the calling party number.	
TSO_check_calling_party_number_ind = TRUE, when calling party number is indicated TSO_check_calling_party_number_ind = FALSE, when calling party number is not indicated	
Detailed Comments :	

Test Suite Operation Definition	
Operation Name : TSO_check_ctrl_char	
Result Type : BOOLEAN	
Comments : To check if the IUT understands and reacts on the LT sent control character; here, if the display is cleared.	
Description	
An artificial eye or test personnell will check if the IUT display is cleared or not. The result of the operation is a boolean value.	
TSO_check_ctrl_char = TRUE, when the display is cleared. TSO_check_ctrl_char = FALSE, when the display is not cleared.	
Detailed Comments :	

Test Suite Operation Definition	
Operation Name : TSO_cinpt_check_link_present	
Result Type : BOOLEAN	
Comments : To check if a link between the iut and the It is present.	
Description	
TSO_cinpt_check_link_present is an operation to detect if a link is still present. The result of the operation is a boolean value which indicates the condition of the link	
TSO_cinpt_check_link_present = TRUE, when a link between the It and the iut link is present. TSO_cinpt_check_link_present = FALSE, when NO link between the It and the iut link is present.	
Detailed Comments :	

Test Suite Operation Definition	
Operation Name	: TSO_check_stand_char
Result Type	: BOOLEAN
Comments	: To check if the IUT shows the LT sent standard character on the display; here, if the digits 1234 are shown on the display.
Description	
<p>An artificial eye or test personnell will check if the IUT shows the digits 1234 on the display or not. The result of the operation is a boolean value.</p> <p>TSO_check_stand_char = TRUE, when the standard characters 1234 are shown on the display. TSO_check_stand_char = FALSE, when the standard characters 1234 are not shown on the display.</p>	
Detailed Comments :	

Test Suite Operation Definition	
Operation Name	: TSO_cinpt_check_u_plane(dlei : DATA_LINK_ENDPOINT_IDENTIFIER)
Result Type	: BOOLEAN
Comments	: To check if U-plane is present.
Description	
<p>TSO_cinpt_check_u_plane is an operation to detect the state of the U-plane connection specified as parameter. The acoustical path will be checked in both directions by two tone generators. The result of the operation is a boolean value which indicates the condition of the U_plane.</p> <p>TSO_cinpt_check_u_plane = TRUE, when U_plane is connected. TSO_cinpt_check_u_plane = FALSE, when U_plane is not connected.</p>	
Detailed Comments :	

Test Suite Operation Definition	
Operation Name	: TSO_check_user_alerting
Result Type	: BOOLEAN
Comments	: To check if user alerting is present
Description	
<p>An artificial ear or test personnell will check if user alerting is present or not. The result of the operation is a boolean value.</p> <p>TSO_check_user_alerting = TRUE, when alerting is present. TSO_check_user_alerting = FALSE, when alerting is not present.</p>	
Detailed Comments :	

Test Suite Operation Definition	
Operation Name	: TSO_cinpt_convert_ac_to_bitstring(param : OCT_4)
Result Type	: BIT_32
Comments	: To convert the value of the AC, into a bitstring, exactly as specified in ETS 300 444, subclause 14.2
Description	
Convert the decimal AC value (max 8 digits) into a 32 bit bitstring, as specified in ETS 300 444, subclause 14.2.	
Detailed Comments :	

Test Suite Operation Definition	
Operation Name	: TSO_cinpt_convert_upi_to_bitstring(param : OCT_4)
Result Type	: BIT_32
Comments	: To convert the value of the UPI, into a bitstring, exactly as specified in ETS 300 444, subclause 8.25
Description	
Convert the decimal UPI value (max 8 digits) into a 32 bit bitstring, as specified in ETS 300 444, subclause 8.25.	
Detailed Comments :	

Test Suite Operation Definition	
Operation Name	: TSO_fill_cinpt_fixed_id_length(param : BIT_7)
Result Type	: OCT_1
Comments	: Compute the real length of the Fixed Identity ie.
Description	
IF param = 31 THEN return (4 + 2) /* PARK B,C,D 31 bits long */ ELSE return (5 + 2) /* PARK A 36 bits long */	
Detailed Comments :	

Test Suite Operation Definition	
Operation Name	: TSO_fill_cinpt_fixed_id_park(value : FIXED_ID_VALUE_TYPE; length : BIT_7)
Result Type	: FIXED_ID_VALUE_TYPE
Comments	: To fill the id_value field of a FIXED_ID information element according to the parametrised PARK.
Description	
IF ((length = 31) THEN /* the PARK is PARK B,C, or D 31 bits long */ return ('0'B followed by value) /* 32 bits adjust */ ELSE /* the PARK is PARK A 36 bits long */ return ('0'B followed by value followed by '000'B) /* 40 bits adjust */	
Detailed Comments :	

Test Suite Operation Definition	
Operation Name	: TSO_fill_cinpt_portable_id_ipui(value : PORT_ID_VALUE_TYPE; length : BIT_7)
Result Type	: PORT_ID_VALUE_TYPE
Comments	: To fill the id_value field of a PORTABLE_ID information element according to the parametrised IPUI.
Description	
<pre> IF ((length MOD 8) # 0) THEN extract the four first bits of value into IPUI type IF (IPUI type is O ('0001'B) or P ('0010'B)) THEN /* the IPUI is binary coded */ return (value followed by '0000'B) ELSE /* IPUI type is S, T, Q, U R – the IPUI is BCD coded */ return (value followed by '1111'B) ELSE return (value) </pre>	
Detailed Comments :	

Test Suite Operation Definition	
Operation Name	: TSO_fill_cinpt_portable_id_length(param : BIT_7)
Result Type	: OCT_1
Comments	: Compute the real length of the Portable Identity ie.
Description	
<pre> IF param MOD 8 # 0 THEN return ((param / 8) + 3) ELSE return ((param / 8) + 2) </pre>	
Detailed Comments :	

Test Suite Operation Definition	
Operation Name	: TSO_init_broadcast_bits
Result Type	: BOOLEAN
Comments	: The set the value of the broadcasted "higher layer capabilities" bits, and of the location area.
Description	
<p>A38 will be set to 1 A44 will be set to 1 The location area will be set to a default value The result of the operation will be TRUE, assuming that the operation has been completed successfully.</p>	
Detailed Comments :	

Test Suite Operation Definition	
Operation Name	: TSO_cinpt_int_to_oct_1(param : INT_8)
Result Type	: OCT_1
Comments	: This operator will convert an integer value, not higher than 255 (8 bits) into an octetstring of 1. The coding will be the natural binary value, unsigned.
Description	
<p>Convert an integer value, not higher than 255 (8 bits) into an octetstring of 1. The coding will be the natural binary value, unsigned.</p>	
Detailed Comments :	

Test Suite Operation Definition	
Operation Name	: TSO_lose_and_regain_lock
Result Type	: BOOLEAN
Comments	: The objective of this testsuite operator will be to temporarily remove the lock that the IUT has with the LT, and after a few seconds, to restore the lock again. This can for instance be done by moving the IUT out of radio range from the LT, or by switching the power off and on, or by putting a metal screen between the LT and the IUT.
Description	
The result of the operation will be TRUE, assuming that the operation has been carried out successfully.	
Detailed Comments :	

Test Suite Operation Definition	
Operation Name	: TSO_cinpt_lowest(nb:INTEGER;string:BITSTRING)
Result Type	: BITSTRING
Comments	: Extracting of the "nb" lowest bits of the string "string".
Description	
This test suite operation extracts the "nb" lowest bits of the bitstring passed in parameter. ex: TSO_cinpt_lowest(4,'0101010101011100'B) return '1100'B	
Detailed Comments :	

Test Suite Operation Definition	
Operation Name	: TSO_cinpt_set_bit_a38(param : INT_8)
Result Type	: BOOLEAN
Comments	: The set the value of the broadcasted "higher layer capabilities" bit a 38. The parameter indicates the value that the bit shall get.
Description	
The value of bit a38 will be given the value indicated in the parameter. The result of the operation will be TRUE, assuming that the operation has been completed successfully.	
Detailed Comments :	

Test Suite Operation Definition	
Operation Name	: TSO_set_bit_a44(param : INT_8)
Result Type	: BOOLEAN
Comments	: The set the value of the broadcasted "higher layer capabilities" bit a 44. The parameter indicates the value that the bit shall get.
Description	
The value of bit a44 will be given the value indicated in the parameter. The result of the operation will be TRUE, assuming that the operation has been completed successfully.	
Detailed Comments :	

Test Suite Parameter Declarations			
Parameter Name	Type	PICS/PIXIT Ref	Comments
TSPC_cc_support	BOOLEAN	PICS Item A.12/1	Is CC entity supported ?
TSPC_ciss_support	BOOLEAN	PICS Item A.12/2	Is CISS entity supported ?
TSPC_coms_support	BOOLEAN	PICS Item A.12/3	Is COMS entity supported ?
TSPC_clms_support	BOOLEAN	PICS Item A.12/4	Is CLMS entity supported ?
TSPC_mm_support	BOOLEAN	PICS Item A.12/5	Is MM entity supported ?
TSPC_lce_support	BOOLEAN	PICS Item A.12/6	Is LCE entity supported ?
TSPC_llme_support	BOOLEAN	PICS Item A.12/7	Is LLME entity supported ?
TSPC_basic_digits	BOOLEAN	PICS Item A.13/5	Is CC feature Dialed basic digits supported ?
TSPC_control_char	BOOLEAN	PICS Item A.13/9	Is CC feature Display of control characters supported ?
TSPC_emerg_call	BOOLEAN	PICS Item A.13/10	Is CC feature Emergency service access request supported ?
TSPC_go_dtmf_il	BOOLEAN	PICS Item A.13/13	Is CC feature Go to DTMF (infinite tone length) supported ?
TSPC_go_dtmf_dl	BOOLEAN	PICS Item A.13/14	Is CC feature Go to DTMF (defined tone length) supported ?
TSPC_go_pulse	BOOLEAN	PICS Item A.13/15	Is CC feature Go to Pulse supported ?
TSPC_incoming_call	BOOLEAN	PICS Item A.13/17	Is CC feature Incoming call supported ?
TSPC_internal_call	BOOLEAN	PICS Item A.13/18	Is CC feature Internal call supported ?
TSPC_outgoing_call	BOOLEAN	PICS Item A.13/21	Is CC feature Outgoing Call supported ?
TSPC_partial_release	BOOLEAN	PICS Item A.13/23	Is CC feature Partial release supported ?
TSPC_dialling_pause	BOOLEAN	PICS Item A.13/24	Is CC feature Dialling pause supported ?
TSPC_reg_recall	BOOLEAN	PICS Item A.13/25	Is CC feature Register recall supported ?
TSPC_ft_cipher_on	BOOLEAN	PICS Item A.14/4	Is MM feature Encryption activation FT initiated supported ?
TSPC_pt_cipher_on	BOOLEAN	PICS Item A.14/5	Is MM feature Encryption activation PT initiated supported ?
TSPC_ft_cipher_off	BOOLEAN	PICS Item A.14/6	Is MM feature Encryption deactivation FT initiated supported ?
TSPC_pt_cipher_off	BOOLEAN	PICS Item A.14/7	Is MM feature Encryption deactivation PT initiated supported ?
TSPC_identification	BOOLEAN	PICS Item A.14/8	Is MM feature Identification of PP supported ?
TSPC_location_registr	BOOLEAN	PICS Item A.14/10	Is MM feature Location registration supported ?
TSPC_location_deregistr	BOOLEAN	PICS Item A.14/11	Is MM feature Location deregistration supported ?

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Test Suite Parameter Declarations			
Parameter Name	Type	PICS/PIXIT Ref	Comments
TSPC_key_allocat_proc	BOOLEAN	PICS Item A.14/13	Is MM feature On air key allocation supported ?
TSPC_access_rights	BOOLEAN	PICS Item A.14/16	Is MM feature On air subscription registration supported ?
TSPC_link_rel_maintain_mm	BOOLEAN	PICS Item A.14/22	Is MM feature Partial release supported ?
TSPC_clip	BOOLEAN	PICS Item A.15/8	Is SS feature CLIP supported ?
TSPC_fkm_prot_cost_info	BOOLEAN	PICS Item A.15/17	Is SS feature Cost information supported ?
TSPC_fkm_prot_queue_mgt	BOOLEAN	PICS Item A.15/32	Is SS feature Queue management supported ?
TSPC_ice_co	BOOLEAN	PICS Item A.16/1	Is LCE feature: Connection oriented link control supported?
TSPC_ice_cl	BOOLEAN	PICS Item A.16/2	Is LCE feature: Connectionless link control supported ?
TSPC_identity_procs	BOOLEAN	PICS Item A.19/1	Is MM procedure: Identification of PP supported ?
TSPC_temp_id_assign	BOOLEAN	PICS Item A.19/2	Is MM procedure: Temporary identity assignment supported ?
TSPC_pt_auth	BOOLEAN	PICS Item A.19/3	Is MM procedure: Authentication of PT supported ?
TSPC_user_auth	BOOLEAN	PICS Item A.19/4	Is MM procedure: Authentication of user supported ?
TSPC_ft_auth	BOOLEAN	PICS Item A.19/5	Is MM procedure: Authentication of FT supported ?
TSPC_location_reg	BOOLEAN	PICS Item A.19/6	Is MM procedure: Location registration supported ?
TSPC_location_update	BOOLEAN	PICS Item A.19/8	Is MM procedure: Location update supported ?
TSPC_access_rights_procs	BOOLEAN	PICS Item A.19/9	Is MM procedure: Obtain access rights supported ?
TSPC_pt_terminate_ar	BOOLEAN	PICS Item A.19/10	Is MM procedure: PT terminate access rights supported ?
TSPC_ft_terminate_ar	BOOLEAN	PICS Item A.19/11	Is MM procedure: FT terminate access rights supported ?
TSPC_para_retr_pt	BOOLEAN	PICS Item A.19/13	Is MM procedure: PT init parameter retrieval supported ?
TSPC_zap	BOOLEAN	PICS Item A.19/17	Is MM procedure: ZAP increment supported ?
TSPC_store_dck	BOOLEAN	PICS Item A.19/18	Is MM procedure: DCK storing supported ?

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Test Suite Parameter Declarations			
Parameter Name	Type	PICS/PIXIT Ref	Comments
TSPC_service_class	BOOLEAN	PICS Item A.19/20	Is MM procedure: Service class management supported ?
TSPC_ciss_keypad_prot	BOOLEAN	PICS Item A.20/4	Is SS protocol: CISS keypad supported ?
TSPC_clms_fixed	BOOLEAN	PICS Item A.22/1	Is CLMS fixed procedure supported ?
TSPC_clms_variable	BOOLEAN	PICS Item A.22/2	Is CLMS variable procedure supported ?
TSPC_link_estab_co_pt	BOOLEAN	PICS Item A.23/1	Is LCE procedure: PT direct link establishment supported ?
TSPC_link_estab_co_ft_indi r	BOOLEAN	PICS Item A.23/2	Is LCE procedure: FT indirect link establishment supported ?
TSPC_link_release	BOOLEAN	PICS Item A.23/7	Is LCE procedure: link release supported ?
TSPC_link_rel_maintain_cc	BOOLEAN	PICS Item A.23/8	Is LCE procedure: link partial release supported ?
TSPC_mm_priority_mgt	BOOLEAN	PICS Item A.24/5	Is MGT procedure: MM priority scheme supported ?
TSPC_mm_cc_interl_mgt	BOOLEAN	PICS Item A.24/6	Is MGT procedure: MM and CC coexistence supported ?
TSPC_enblock	BOOLEAN	PICS Item A.27/30	Is the called party number ie of the CC-SETUP message supported ?
TSPC_progress_in_cc_setu p	BOOLEAN	PICS Item A.28/17	Is Progress Indicator ie supported for CC_SETUP send by the FT ?
TSPC_signal_cc_setup	BOOLEAN	PICS Item A.28/20	Is Signal ie supported for CC_SETUP send by the FT?
TSPC_progress_in_cc_info	BOOLEAN	PICS Item A.30/5	Is Progress Indicator ie supported for CC_INFO send by the FT ?
TSPC_signal_cc_info	BOOLEAN	PICS Item A.30/8	Is Signal ie supported for CC_INFO send by the FT ?
TSPC_repeat_indicator_pid	BOOLEAN	PICS Item A.73/2	Is Repeat indicator ie for portable identity in identity reply message supported ?
TSPC_repeat_indicator_fid	BOOLEAN	PICS Item A.73/6	Is Repeat indicator ie for fixed identity in identity reply message supported ?
TSPC_repeat_indicator_nid	BOOLEAN	PICS Item A.73/10	Is Repeat indicator ie for nwk assigned identity in identity reply message supported ?
TSPC_standard_char	BOOLEAN	PICS Item A.264/3-2	Are all allowed values of the information field of the Multi Display ie supported ?
TSPX_decimal_ac_value	OCT_4	PIXIT Question B.8.1	Value of AC to be used. The AC will be entered as maximal 8 decimal digits. The AC to bitstring mapping will be done with operator TSO_cinpt_convert_ac_to_bitstring.

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Test Suite Parameter Declarations			
Parameter Name	Type	PICS/PIXIT Ref	Comments
TSPX_decimal_upi_value	OCT_4	PIXIT Question B.8.10	Value of UPI to be used. The UPI will be entered as maximal 8 decimal digits. The UPI to bitstring mapping will be done with operator TSO_cinpt_convert_upi_to_bitstring.
TSPX_complete_fixed_id_ari_rpn_value	FIXED_ID_VALUE_TYPE	PIXIT Question B.8.2	Value of fixed_id to be used in case of ARI + RPN 40 bits starting with 0
TSPX_ipui_value	PORT_ID_VALUE_TYPE	PIXIT Question B.8.4	Value of portable_id to be used in case of a IPUI (after subscription).
TSPX_ipui_value_2	PORT_ID_VALUE_TYPE	PIXIT Question B.8.5	Value of portable_id to be used in case of a second IPUI (after subscription)
TSPX_location_area_level	BIT_6	PIXIT Question B.8.6	The location area level that is going to be used.
TSPX_nr_of_digits_in_cpn	INT_8	PIXIT Question B.7.5	In order to facilitate testing, a number of digits less then 10 is advised. This parameter really indicates the number of CC_INFO messages to be expected during call setup
TSPX_complete_fixed_id_park_value	FIXED_ID_VALUE_TYPE	PIXIT Question B.8.7	Value of fixed_id to be used in case of PARK. PARK A 36 bits PARK B,C,D 31 bits
TSPX_park_length_indicator	INTEGER	PIXIT Question B.8.11	Number of significant bits of the PARK value. (PLI)
TSPX_complete_fixed_id_park_value_2	FIXED_ID_VALUE_TYPE	PIXIT Question B.8.8	Value of fixed_id to be used in case of a second PARK PARK A 36 bits PARK B,C,D 31 bits
TSPX_park_length_indicator_2	INTEGER	PIXIT Question B.8.12	Number of significant bits of the PARK value 2. (PLI)
TSPX_tpui_value	PORT_ID_VALUE_TYPE	PIXIT Question B.8.9	Value of tpui to be used, when assigning a tpui to the IUT.
TSPX_ipei_value	PORT_ID_VALUE_TYPE	PIXIT Question B.8.3	Value of IPEI (IPUI-N) to be expected from the IUT (before subscription).
TSPX_mmproc_auft_ccstate	CCSTATE_TYPE	PIXIT Question B.7.1	Indicates the PT cc state, the authentication of FT testcases shall be tested in.
TSPX_mmproc_cipt_ccstate	CCSTATE_TYPE	PIXIT Question B.7.2	Indicates the PT cc state, the PT init. ciphering testcases shall be tested in.
TSPX_mmproc_auft_invoke	MMPROC_TYPE	PIXIT Question B.7.3	Indicates the way of invoking the authentication of FT procedure.
TSPX_mmproc_cipt_invoke	MMPROC_TYPE	PIXIT Question B.7.4	Indicates the way of invoking the PT initiated ciphering procedure.
Detailed Comments :			

Test Case Selection Expression Definitions		
Expression Name	Selection Expression	Comments
SENG_access_rights_procs	TSPC_mm_support AND TSPC_access_rights_procs	SELECTION EXPRESSION NAMES FOR TESTGROUPS: Are access rights procedures supported
SENG_auth_procs	TSPC_mm_support AND TSPC_pt_auth AND TSPC_user_auth AND TSPC_ft_auth	Are authentication procedures supported
SENG_cc_support	TSPC_cc_support	Is Call Control supported
SENG_cipherring_procs	TSPC_mm_support AND (TSPC_ft_cipher_on OR TSPC_ft_cipher_off)	Are ciphering related procedures supported.
SENG_ciss_support	TSPC_ciss_support	Are Call Independent Supplementary Services supported
SENG_clms_support	TSPC_clms_support	Is ConnectionLess Message Service supported
SENG_crss_support	TSPC_cc_support AND TSPC_incoming_call AND TSPC_clip	Are Call Related Supplementary Services supported
SENG_identity_procs	TSPC_mm_support AND TSPC_identity_procs	Are identity procedures supported
SENG_incoming_call	TSPC_cc_support AND TSPC_incoming_call	Is incoming call establishment, maintenance and release supported
SENG_key_allocat_proc	TSPC_mm_support AND TSPC_key_allocat_proc	TSPC_mm_support AND TSPC_key_allocat_proc
SENG_ice_co	TSPC_ice_support AND TSPC_ice_co	Are connection oriented link establishment, maintenance and release supported
SENG_ice_support	TSPC_ice_support	Is Link Control Entity supported
SENG_llme_support	TSPC_llme_support	Is Lower Layer Management Entity Supported
SENG_location_procs	TSPC_mm_support AND TSPC_location_registr AND TSPC_location_deregistr	Are location procedures supported
SENG_mm_support	TSPC_mm_support	Is Mobility Management supported
SENG_outgoing_call	TSPC_cc_support AND TSPC_outgoing_call	Is outgoing call establishment, maintenance and release supported
SENG_pt_testing	TRUE	Are we testing the PT
SELECTION EXPRESSION NAMES FOR TESTCASES:		
SENC_access_rights	TSPC_mm_support AND TSPC_access_rights	Is obtain access rights procedure supported
SENC_access_rights_loc	TSPC_mm_support AND TSPC_access_rights AND TSPC_location_reg	Are location registration and obtain access rights procedures supported
SENC_basic_digits	TSPC_cc_support AND (TSPC_outgoing_call OR TSPC_incoming_call) AND TSPC_basic_digits	Is sending/receiving basic digits supported
SENC_clip	TSPC_cc_support AND TSPC_incoming_call AND TSPC_clip	Is CLIP call related supplementary service supported
SENC_clms_fixed	TSPC_clms_support AND TSPC_clms_fixed	Is CLMS fixed message exchange supported

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Test Case Selection Expression Definitions		
Expression Name	Selection Expression	Comments
SENC_clms_variable	TSPC_clms_support AND TSPC_clms_variable	Is CLMS variable message exchange supported
SENC_control_char	TSPC_cc_support AND (TSPC_outgoing_call OR TSPC_incoming_call) AND TSPC_control_char	Is sending/receiving DECT control characters supported
SENC_dialling_pause	TSPC_cc_support AND TSPC_outgoing_call AND TSPC_dialling_pause	Is sending/receiving "Dialling pause" supported
SENC_emerg_call	TSPC_cc_support AND TSPC_outgoing_call AND TSPC_emerg_call	Is emergence outgoing call establishment, maintenance and release supported
SENC_enblock	TSPC_cc_support AND TSPC_outgoing_call AND TSPC_enblock	Is sending the called party number in enblock way (in a <<Called-party-number>> I.E.) supported
SENC_fkm_prot_cost_info_crss	TSPC_cc_support AND TSPC_outgoing_call AND TSPC_fkm_prot_cost_info	Is cost information call related supplementary service supported
SENC_fkm_prot_queue_mgt_crss	TSPC_cc_support AND TSPC_outgoing_call AND TSPC_fkm_prot_queue_mgt	Is queue management call related supplementary service supported
SENC_ft_auth	TSPC_mm_support AND TSPC_ft_auth	Is authentication of FT procedure supported
SENC_ft_auth_ident	TSPC_mm_support AND TSPC_ft_auth AND TSPC_identification	Are authentication of FT and identification of PT procedures supported
SENC_ft_auth_pt_auth	TSPC_mm_support AND TSPC_ft_auth AND TSPC_pt_auth	Is priority scheme for handling interrupting MM procedures (obtain access rights and pt authentication) supported
SENC_ft_cipher_off	TSPC_mm_support AND TSPC_ft_cipher_off	Is FT initiated cipher off procedure supported
SENC_ft_cipher_on	TSPC_mm_support AND (TSPC_pt_auth OR TSPC_user_auth) AND TSPC_store_dck AND TSPC_ft_cipher_on	Is FT initiated cipher on procedure supported
SENC_ft_term_ar_ft_auth	TSPC_mm_support AND TSPC_ft_terminate_ar AND TSPC_ft_auth	Is authentication during FT initiated terminate access rights procedure supported
SENC_ft_terminate_ar	TSPC_mm_support AND TSPC_ft_terminate_ar	Is FT initiated terminate access rights procedure supported
SENC_go_dtmf_dl	TSPC_cc_support AND TSPC_outgoing_call AND TSPC_go_dtmf_dl	Is sending/receiving "Go to DTMF – defined tone length" supported
SENC_go_dtmf_il	TSPC_cc_support AND TSPC_outgoing_call AND TSPC_go_dtmf_il	Is sending/receiving "Go to DTMF – indefinite tone length" supported
SENC_go_pulse	TSPC_cc_support AND TSPC_outgoing_call AND TSPC_go_pulse	Is sending/receiving "Go to pulse" supported
SENC_identification	TSPC_mm_support AND TSPC_identification	Is identification of PT procedure supported

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Test Case Selection Expression Definitions		
Expression Name	Selection Expression	Comments
SENC_identification_rep_ind	TSPC_mm_support AND TSPC_identification AND TSPC_repeat_indicator_pid AND TSPC_repeat_indicator_fid AND TSPC_repeat_indicator_nid	Is identification of PT procedure supported, and is the repeat indicator in IDENTITY REPLY message supported
SENC_internal_call	TSPC_cc_support AND TSPC_outgoing_call AND TSPC_internal_call	Is initiation/acceptance of internal call supported
SENC_key_alloc_ident	TSPC_mm_support AND TSPC_key_allocat_proc AND TSPC_identification	Are key allocation and identification of PT procedures supported
SENC_key_allocate	TSPC_mm_support AND TSPC_key_allocat_proc	Is key allocation procedure supported
SENC_key_prot_ciss	TSPC_ciss_keypad_prot	Is keypad protocol for call independent supplementary services supported
SENC_link_co_ft_indir	TSPC_ice_support AND TSPC_link_estab_co_ft_indir AND TSPC_link_release	Are connection oriented indirect FT initiated link establishment and link release procedures supported
SENC_link_co_pt	TSPC_ice_support AND TSPC_link_estab_co_pt AND TSPC_link_release	Are connection oriented direct PT initiated link establishment and link release procedures supported
SENC_link_co_pt_cc	TSPC_ice_support AND TSPC_cc_support AND TSPC_link_estab_co_pt AND TSPC_link_release	Are connection oriented direct PT initiated link establishment, outgoing call establishment and link release procedures supported
SENC_link_rel_maintain_cc	TSPC_ice_support AND TSPC_link_rel_maintain_cc AND TSPC_partial_release	Is maintenance of link and partial release procedures supported
SENC_link_rel_maintain_mm	TSPC_ice_support AND TSPC_link_rel_maintain_mm	Is maintenance of link supported after accomplishing of a MM transaction
SENC_loc_reg_identif	TSPC_mm_support AND TSPC_location_reg AND TSPC_identification	Are location registration and identification procedures supported
SENC_loc_upd_pt_cipher	TSPC_mm_support AND TSPC_location_update AND TSPC_pt_cipher_on	TSPC_mm_support AND TSPC_location_update AND TSPC_pt_cipher_on
SENC_location_reg	TSPC_mm_support AND TSPC_location_reg	Is location registration procedure supported
SENC_location_update	TSPC_mm_support AND TSPC_location_reg AND TSPC_location_update	Is location update procedure supported
SENC_mm_cc_interl_mgt	TSPC_mm_support AND TSPC_cc_support AND TSPC_mm_cc_interl_mgt	Is handling coexistence of MM and CC procedures supported
SENC_mm_general	TSPC_mm_support	Is any MM procedure supported
SENC_mm_priority_mgt	TSPC_mm_support AND TSPC_mm_priority_mgt	Is priority scheme for handling interrupting MM procedures supported
SENC_normal_in_call	TSPC_cc_support AND TSPC_incoming_call	Is normal incoming call establishment, maintenance and release supported
SENC_normal_out_call	TSPC_cc_support AND TSPC_outgoing_call	Is normal outgoing call establishment, maintenance and release supported

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Test Case Selection Expression Definitions		
Expression Name	Selection Expression	Comments
SENC_obtain_ar_key_alloc	TSPC_mm_support AND TSPC_access_rights AND TSPC_key_allocat_proc	Is priority scheme for handling interrupting MM procedures (obtain access rights and key allocation) supported
SENC_obtain_ar_pt_auth	TSPC_mm_support AND TSPC_access_rights AND TSPC_pt_auth	Is priority scheme for handling interrupting MM procedures (obtain access rights and pt authentication) supported
SENC_obtain_ar_user_auth	TSPC_mm_support AND TSPC_access_rights AND TSPC_user_auth	Is priority scheme for handling interrupting MM procedures (obtain access rights and user authentication) supported
SENC_out_call_ft_cipher	TSPC_mm_support AND TSPC_cc_support AND TSPC_outgoing_call AND TSPC_ft_cipher_on	Is handling coexistence of CC (outgoing call) and MM (FT initiated cipher on) procedures supported
SENC_out_call_ft_term_ar	TSPC_mm_support AND TSPC_cc_support AND TSPC_outgoing_call AND TSPC_ft_terminate_ar	Is handling coexistence of CC (outgoing call) and MM (FT terminate access rights) procedures supported
SENC_out_call_key_alloc	TSPC_mm_support AND TSPC_cc_support AND TSPC_outgoing_call AND TSPC_key_allocat_proc	Is handling coexistence of CC (outgoing call) and MM (key allocation) procedures supported
SENC_out_call_loc_reg	TSPC_mm_support AND TSPC_cc_support AND TSPC_outgoing_call AND TSPC_location_reg	Is handling coexistence of CC (outgoing call) and MM (location registration) procedures supported
SENC_out_call_pt_auth	TSPC_mm_support AND TSPC_cc_support AND TSPC_outgoing_call AND TSPC_pt_auth	Is handling coexistence of CC (outgoing call) and MM (PT authentication) procedures supported
SENC_out_call_user_auth	TSPC_mm_support AND TSPC_cc_support AND TSPC_outgoing_call AND TSPC_user_auth	Is handling coexistence of CC (outgoing call) and MM (user authentication) procedures supported
SENC_partial_release	TSPC_cc_support AND (TSPC_outgoing_call OR TSPC_incoming_call) AND TSPC_link_rel_maintain_cc AND TSPC_partial_release	Is partial release requested by the CC entity supported
SENC_pd_ti	TSPC_ice_support	Is management of protocol discriminator and transaction identifier supported
SENC_progress_ind_cc_info	TSPC_cc_support AND TSPC_incoming_call AND TSPC_progress_in_cc_info	Is progress indicator supported by the IUT in case of CC_INFO during incoming call establishment.
SENC_progress_ind_cc_setup	TSPC_cc_support AND TSPC_incoming_call AND TSPC_progress_in_cc_setup	Is progress indicator supported by the IUT in case of CC_SETUP for incoming call.
SENC_pieewise	TSPC_cc_support AND TSPC_outgoing_call AND NOT TSPC_enblock	Is sending the called party number in pieewise way (in a <<Keypad>> I.E.) supported
SENC_pieewise_multi_digit	TSPC_cc_support AND TSPC_outgoing_call AND NOT TSPC_enblock AND (TSPX_nr_of_digits_in_cpn > 1)	Is sending the called party number in pieewise way (in a <<Keypad>> I.E.) supported, and does the called party number consist of more than one digit.

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Test Case Selection Expression Definitions		
Expression Name	Selection Expression	Comments
SENC_pt_auth	TSPC_mm_support AND TSPC_pt_auth	Is authentication of PT procedure supported
SENC_pt_cipher_off	TSPC_mm_support AND TSPC_pt_cipher_off	Is PT initiated cipher off procedure supported
SENC_pt_cipher_on	TSPC_mm_support AND (TSPC_pt_auth OR TSPC_user_auth) AND TSPC_store_dck AND TSPC_pt_cipher_on	Is PT initiated cipher on procedure supported
SENC_pt_terminate_ar	TSPC_mm_support AND TSPC_pt_terminate_ar	Is PT initiated terminate access rights procedure supported
SENC_reg_recall	TSPC_cc_support AND TSPC_outgoing_call AND TSPC_reg_recall	Is sending/receiving "Register recall" supported
SENC_service_class	TSPC_mm_support AND TSPC_access_rights AND (TSPC_pt_auth OR TSPC_user_auth) AND TSPC_service_class	Is assigning and indicating service class supported
SENC_signal_cc_info	TSPC_cc_support AND TSPC_incoming_call AND TSPC_signal_cc_info	Is sending/receiving <<Signal>> in {CC-INFO} in T(F)-07 supported
SENC_signal_cc_setup	TSPC_cc_support AND TSPC_incoming_call AND TSPC_signal_cc_setup	Is sending/receiving <<Signal>> in {CC-SETUP} supported
SENC_standard_char	TSPC_cc_support AND (TSPC_outgoing_call OR TSPC_incoming_call) AND TSPC_standard_char	Is sending/receiving standard characters supported
SENC_store_dck	TSPC_mm_support AND (TSPC_pt_auth OR TSPC_user_auth) AND TSPC_store_dck	Is storing of DCK supported
SENC_store_dsc_ft_cipher	TSPC_mm_support AND (TSPC_pt_auth OR TSPC_user_auth) AND TSPC_store_dck AND TSPC_ft_cipher_on	Are FT initiated cipher on and storing of DCK procedures supported
SENC_temp_id_assign	TSPC_mm_support AND TSPC_temp_id_assign	Is temporary identity assign procedure supported
SENC_user_auth	TSPC_mm_support AND TSPC_user_auth	Is user authentication procedure supported
SENC_zap	TSPC_mm_support AND TSPC_access_rights AND (TSPC_pt_auth OR TSPC_user_auth) AND TSPC_zap	Is assigning and incrementing ZAP field supported
SENC_zap_ft_auth	TSPC_mm_support AND TSPC_access_rights AND (TSPC_pt_auth OR TSPC_user_auth) AND TSPC_zap AND TSPC_ft_auth	Is authentication of FT during incrementing ZAP field supported
Detailed Comments :		

Test Suite Constant Declarations			
Constant Name	Type	Value	Comments
TSC_iei_allocation_type	OCT_1	'0B'O	ETS 300 175-5 [5] , subclause 7.6.1 and 7.7.1 Information element identifier coding:
TSC_iei_alphanumeric	OCT_1	'76'O	
TSC_iei_auth_type	OCT_1	'0A'O	
TSC_iei_basic_service	OCT_1	'E0'O	
TSC_iei_call_attributes	OCT_1	'13'O	
TSC_iei_call_id	OCT_1	'1A'O	
TSC_iei_called_party_number	OCT_1	'70'O	
TSC_iei_called_party_subaddress	OCT_1	'71'O	
TSC_iei_calling_party_number	OCT_1	'6C'O	
TSC_iei_cipher_info	OCT_1	'19'O	
TSC_iei_connection_attributes	OCT_1	'17'O	
TSC_iei_connection_id	OCT_1	'1B'O	
TSC_iei_delimiter_request	OCT_1	'A2'O	
TSC_iei_duration	OCT_1	'72'O	
TSC_iei_end_to_end_compatibility	OCT_1	'64'O	
TSC_iei_escape_to_extension	OCT_1	'7F'O	
TSC_iei_escape_to_proprietary	OCT_1	'7B'O	
TSC_iei_facility	OCT_1	'1C'O	
TSC_iei_feature_activate	OCT_1	'38'O	
TSC_iei_feature_indicate	OCT_1	'39'O	
TSC_iei_fixed_id	OCT_1	'06'O	
TSC_iei_identity_type	OCT_1	'02'O	
TSC_iei_info_type	OCT_1	'01'O	
TSC_iei_iwu_attributes	OCT_1	'12'O	
TSC_iei_iwu_to_iwu	OCT_1	'77'O	
TSC_iei_iwu_packet	OCT_1	'7A'O	
TSC_iei_key	OCT_1	'56'O	
TSC_iei_location_area	OCT_1	'07'O	
TSC_iei_multi_display	OCT_1	'28'O	
TSC_iei_multi_keypad	OCT_1	'2C'O	
TSC_iei_network_assigned_id	OCT_1	'09'O	
TSC_iei_network_parameter	OCT_1	'41'O	
TSC_iei_portable_id	OCT_1	'05'O	
TSC_iei_progress_indicator	OCT_1	'1E'O	
TSC_iei_rand	OCT_1	'0C'O	
TSC_iei_rate_parameters	OCT_1	'65'O	
TSC_iei_reject_reason	OCT_1	'60'O	
TSC_iei_release_reason	OCT_1	'E2'O	

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Continued from previous page

Test Suite Constant Declarations			
Constant Name	Type	Value	Comments
TSC_iei_repeat_indicator_n on_prioritised	HEX_1	'1'H	
TSC_iei_repeat_indicator_pr ioritised	HEX_1	'2'H	
TSC_iei_res	OCT_1	'0D'O	
TSC_iei_rs	OCT_1	'0E'O	
TSC_iei_sending_complete	OCT_1	'A1'O	
TSC_iei_segmented_info	OCT_1	'75'O	
TSC_iei_service_change_inf o	OCT_1	'16'O	
TSC_iei_service_class	OCT_1	'54'O	
TSC_iei_setup_capability	OCT_1	'62'O	
TSC_iei_single_display	OCT_1	'E8'O	
TSC_iei_single_keypad	OCT_1	'E9'O	
TSC_iei_signal	OCT_1	'E4'O	
TSC_iei_terminal_capability	OCT_1	'63'O	
TSC_iei_test_hook_control	OCT_1	'E6'O	
TSC_iei_timer_restart	OCT_1	'E5'O	
TSC_iei_transit_delay	OCT_1	'66'O	
TSC_iei_window_size	OCT_1	'67'O	
TSC_iei_zap_field	OCT_1	'52'O	
TSC_mt_cc_alerting	MESSAGE_TYPE	'01'O	ETS 300 175-5 [5], subclause 7.4 Message type coding:
TSC_mt_cc_call_proc	MESSAGE_TYPE	'02'O	
TSC_mt_cc_setup	MESSAGE_TYPE	'05'O	
TSC_mt_cc_connect	MESSAGE_TYPE	'07'O	
TSC_mt_cc_setup_ack	MESSAGE_TYPE	'0D'O	
TSC_mt_cc_connect_ack	MESSAGE_TYPE	'0F'O	
TSC_mt_cc_service_change	MESSAGE_TYPE	'20'O	
TSC_mt_cc_service_accept	MESSAGE_TYPE	'21'O	
TSC_mt_cc_service_reject	MESSAGE_TYPE	'23'O	
TSC_mt_cc_release	MESSAGE_TYPE	'4D'O	
TSC_mt_cc_release_com	MESSAGE_TYPE	'5A'O	
TSC_mt_iwu_info	MESSAGE_TYPE	'60'O	
TSC_mt_cc_notify	MESSAGE_TYPE	'6E'O	
TSC_mt_cc_info	MESSAGE_TYPE	'7B'O	
TSC_mt_cc_short	MESSAGE_TYPE_SHORT	'0101'B	
TSC_mt_lce_page_response	MESSAGE_TYPE	'71'O	
TSC_mt_hold	MESSAGE_TYPE	'24'O	
TSC_mt_hold_ack	MESSAGE_TYPE	'28'O	
TSC_mt_hold_reject	MESSAGE_TYPE	'30'O	
TSC_mt_retrieve	MESSAGE_TYPE	'31'O	
TSC_mt_retrieve_ack	MESSAGE_TYPE	'33'O	
TSC_mt_retrieve_reject	MESSAGE_TYPE	'37'O	
TSC_mt_facility	MESSAGE_TYPE	'52'O	

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Test Suite Constant Declarations			
Constant Name	Type	Value	Comments
TSC_mt_auth_request	MESSAGE_TYPE	'40'O	
TSC_mt_auth_reply	MESSAGE_TYPE	'41'O	
TSC_mt_key_allocate	MESSAGE_TYPE	'42'O	
TSC_mt_auth_reject	MESSAGE_TYPE	'43'O	
TSC_mt_access_rights_request	MESSAGE_TYPE	'44'O	
TSC_mt_access_rights_accept	MESSAGE_TYPE	'45'O	
TSC_mt_access_rights_reject	MESSAGE_TYPE	'47'O	
TSC_mt_access_rights_term_request	MESSAGE_TYPE	'48'O	
TSC_mt_access_rights_term_accept	MESSAGE_TYPE	'49'O	
TSC_mt_access_rights_term_reject	MESSAGE_TYPE	'4B'O	
TSC_mt_cipher_request	MESSAGE_TYPE	'4C'O	
TSC_mt_cipher_suggest	MESSAGE_TYPE	'4E'O	
TSC_mt_cipher_reject	MESSAGE_TYPE	'4F'O	
TSC_mt_mm_info_request	MESSAGE_TYPE	'50'O	
TSC_mt_mm_info_accept	MESSAGE_TYPE	'51'O	
TSC_mt_mm_info_suggest	MESSAGE_TYPE	'52'O	
TSC_mt_mm_info_reject	MESSAGE_TYPE	'53'O	
TSC_mt_locate_request	MESSAGE_TYPE	'54'O	
TSC_mt_locate_accept	MESSAGE_TYPE	'55'O	
TSC_mt_detach	MESSAGE_TYPE	'56'O	
TSC_mt_locate_reject	MESSAGE_TYPE	'57'O	
TSC_mt_identity_request	MESSAGE_TYPE	'58'O	
TSC_mt_identity_reply	MESSAGE_TYPE	'59'O	
TSC_mt_temporary_id_assignment	MESSAGE_TYPE	'5C'O	
TSC_mt_temporary_id_assignment_ack	MESSAGE_TYPE	'5D'O	
TSC_mt_temporary_id_assignment_reject	MESSAGE_TYPE	'5F'O	
TSC_mt_unrec	MESSAGE_TYPE	'04'O	Protocol discriminator coding: unrecognised message type used for CC and MM
TSC_pd_ice	BIT_4	'0000'B	
TSC_pd_cc	BIT_4	'0011'B	
TSC_pd_ciss	BIT_4	'0100'B	
TSC_pd_mm	BIT_4	'0101'B	
TSC_pd_coms	BIT_4	'0111'B	
TSC_em_class_a	ESTABLISH_MODE	0	Establish mode coding:
TSC_em_class_b	ESTABLISH_MODE	1	

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Continued from previous page

Test Suite Constant Declarations			
Constant Name	Type	Value	Comments
TSC_port_id_length_ipei	OCT_1	'07'O	Portable_id ie: ----- ie length: ----- in case of IPEI type
TSC_port_id_length_ipui	OCT_1	TSO_fill_cinpt_portable_id_l ength(TSC_ipui_length)	in case of IPUI type
TSC_port_id_length_ipui2	OCT_1	TSO_fill_cinpt_portable_id_l ength(TSC_ipui2_length)	in case of IPUI 2
TSC_port_id_length_tpui	OCT_1	'05'O	in case of TPUI type
TSC_ipei_length	BIT_7	'0101000'B	id_value length: ----- in case of IPEI (always 40 bits)
TSC_ipui_length	BIT_7	INT_TO_BIT(LENGTH_OF(TSPX_ipui_value),7)	in case of IPUI
TSC_ipui2_length	BIT_7	INT_TO_BIT(LENGTH_OF(TSPX_ipui_value_2),7)	in case of IPUI 2
TSC_tpui_length	BIT_7	'0010100'B	in case of TPUI (always 20 bits)
TSC_ipei_complete_value	PORT_ID_VALUE_TYPE	INT_TO_BIT(BIT_TO_INT(TS PX_ipei_value), 40)	Identity value: ----- in case of IPEI or IPUI-N (36 bits IPEI leading by '0000'B)
TSC_ipui_complete_value	PORT_ID_VALUE_TYPE	TSO_fill_cinpt_portable_id_i pui(TSPX_ipui_value,TSC_ip ui_length)	in case of IPUI
TSC_ipui2_complete_value	PORT_ID_VALUE_TYPE	TSO_fill_cinpt_portable_id_i pui(TSPX_ipui_value_2,TSC _ipui_length)	in case of IPUI 2
TSC_tpui_complete_value	PORT_ID_VALUE_TYPE	INT_TO_BIT(BIT_TO_INT(TS PX_tpui_value), 24)	in case of TPUI (20 bits TPUI leading by '0000'B)
Detailed Comments :			

Test Suite Variable Declarations			
Variable Name	Type	Value	Comments
TSV_dck_value	BIT_64	INT_TO_BIT(0, 64)	Derived cipher key to be used by the LT.
TSV_dlei_value	DATA_LINK_ENDPOINT_IDENTIFIER	0	Value of data link endpoint identifier
TSV_uak	BIT_128	INT_TO_BIT(0, 128)	UAK value. Used for all testcases.
Detailed Comments :			

Test Case Variable Declarations			
Variable Name	Type	Value	Comments
TCV_pdu_acrgh_t_accept	ACCESS_RIGHTS_ACCEPT		PDU VARIABLES: Used to temporarily store a received ACRGH_T_ACCEPT PDU
TCV_pdu_acrgh_t_request	ACCESS_RIGHTS_REQUEST		Used to temporarily store a received ACRGH_T_REQUEST PDU
TCV_pdu_auth_reply	AUTH_REPLY		Used to temporarily store a received AUTH_REPLY PDU
TCV_pdu_auth_request	AUTH_REQUEST		Used to temporarily store a received AUTH_REQUEST PDU
TCV_pdu_cc_setup	CC_SETUP		Used to temporarily store a received CC_SETUP PDU
TCV_pdu_cc_info	CC_INFO		Used to temporarily store a received CC_INFO PDU
TCV_ie_auth_type	AUTH_TYPE		INFORMATION ELEMENT VARIABLES: Used to temporarily store the AUTH_TYPE ie
TCV_cc_state	CCSTATE_TYPE	0	OTHER VARIABLES: Used in PR_select_state
TCV_cc_tv	BIT_3	'000'B	Transaction value for CC
TCV_cc_iut_tf	BIT_1	'0'B	Transaction flag for cc messages received from IUT
TCV_cc_it_tf	BIT_1	'1'B	Transaction flag for cc messages sent to IUT
TCV_count	INT_8	0	General counter
TCV_rand	BIT_64	INT_TO_BIT(0, 64)	Value of rand
TCV_res_rx	BIT_32	INT_TO_BIT(0, 32)	Value of received res
TCV_res_tx	BIT_32	INT_TO_BIT(0, 32)	Value of transmitted res
TCV_xres	BIT_32	INT_TO_BIT(0, 32)	Value calculated res
TCV_result	BOOLEAN	FALSE	General BOOLEAN variable
Detailed Comments :			

PCO Declarations			
PCO Name	PCO Type	Role	Comments
DLB	B_SAP	LT	1)
DLS	S_SAP	LT	2)
Detailed Comments : 1) SAP for Broadcast services 2) SAP for connection oriented services			

Timer Declarations			
Timer Name	Duration	Unit	Comments
T_F_CC_01	20 * (1000 + 0)	ms	PROTOCOL TIMERS RUNNING IN THE FT (LT): Overlap sending timer CC release timer (changed to 36 seconds in version 2 of ETS 300 175-5 [5]) CC setup timer CC completion timer Access rights terminate timer FT initiated PT authentication timer FT initiated user authentication timer FT cipher-switching timer Temporary identity (TPUI) assignment timer Identification timer Key allocation timer Link release timer Link maintain timer Page repeat timer Link suspend and resume timer
T_F_CC_02	36 * (1000 + 0)	ms	
T_F_CC_03	20 * (1000 + 0)	ms	
T_F_CC_04	100 * (1000 + 0)	ms	
T_F_MM_access_2	10 * (1000 + 0)	ms	
T_F_MM_auth_1	10 * (1000 + 0)	ms	
T_F_MM_auth_2	100 * (1000 + 0)	ms	
T_F_MM_cipher_1	10 * (1000 + 0)	ms	
T_F_MM_ident_1	10 * (1000 + 0)	ms	
T_F_MM_ident_2	10 * (1000 + 0)	ms	
T_F_MM_key_1	10 * (1000 + 0)	ms	
T_F_LCE_01	5 * (1000 + 0)	ms	
T_F_LCE_02	10 * (1000 + 0)	ms	
T_F_LCE_03	3 * (1000 + 0)	ms	
T_F_LCE_04	5 * (1000 + 0)	ms	
			TIMERS USED FOR TESTING PROTOCOL TIMERS RUNNING IN THE PT (IUT):
T_P_CC_02_min	36 * (1000 - 100)	ms	For testing CC release timer. 5% smaller than T_F_CC_02.
T_P_CC_02_max	36 * (1000 + 50)	ms	For testing CC release timer. 5% bigger than T_F_CC_02.
			OTHER TIMERS RUNNING IN THE FT (LT):
T_P_CC_03_min	20 * (1000 - 100)	ms	For testing CC set-up timer. 10% smaller than T_P_CC_03.
T_P_CC_03_max	20 * (1000 + 50)	ms	For testing CC set-up timer. 5% bigger than T_P_CC_03.
T_P_CC_05_min	10 * (1000 - 100)	ms	For testing CC connect timer. 10% smaller than T_P_CC_05.
T_P_CC_05_max	10 * (1000 + 50)	ms	For testing CC connect timer. 5% bigger than T_P_CC_05.
T_P_LCE_02_min	10 * (1000 - 100)	ms	For testing link maintain timer in the PT. 10% smaller than T_F_LCE_02

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Continued from previous page

Timer Declarations			
Timer Name	Duration	Unit	Comments
T_P_LCE_02_max	10 * (1000 + 50)	ms	For testing link maintain timer in the PT. 5% bigger than T_F_LCE_02
T_P_MM_access_1_min	60 * (1000 - 100)	ms	For testing access rights timer. 10% smaller than T_P_MM_access_1
T_P_MM_access_1_max	60 * (1000 + 50)	ms	For testing access rights timer. 5% bigger than T_P_MM_access_1
T_P_MM_auth_1_min	10 * (1000 - 100)	ms	For testing FT authentication timer. 10% smaller than T_F_MM_auth_1
T_P_MM_auth_1_max	10 * (1000 + 50)	ms	For testing FT authentication timer. 5% bigger than T_F_MM_auth_1
T_P_MM_cipher_2_min	10 * (1000 - 100)	ms	For testing location timer. 10% smaller than T_P_MM_cipher_2
T_P_MM_cipher_2_max	10 * (1000 + 50)	ms	For testing location timer. 5% bigger than T_P_MM_cipher_2
T_P_MM_locate_1_min	20 * (1000 - 100)	ms	For testing location timer. 10% smaller than T_P_MM_locate_1
T_P_MM_locate_1_max	20 * (1000 + 50)	ms	For testing location timer. 5% bigger than T_P_MM_locate_1
T_EXPECT_LOCATE	8000	ms	OTHER TIMERS RUNNING IN THE FT (LT): Guards the time between a successful accessrights procedure, or a change of location area, or a location update request, and the PT initiated location registration afterward.
T_DLC_RESPONSE	4000	ms	Guards the time between a direct link establish request, and the confirm from the DLC layer, or between a link release request and the confirm from the DLC
T_USER_INVOKE	30000	ms	Guards the user invocation time of an operation requested by an implicit send statement.
T_RELEASE_DELAY	4000	ms	Before terminating the testcase with a normal release or a release_link, this timer is started, in order to catch any strange behaviour of the IUT

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Timer Declarations			
Timer Name	Duration	Unit	Comments
T_RESTART_DELAY	10000	ms	Before sending a NOTIFY message to restart timer A, this timer is started to ensure that when the timer A is not restarted, its timeout will happen before the timeout of guarding timer A_min
Detailed Comments : All protocol timers are defined 5 % higher than their standard value, in order to deal with delays caused by the testequipment.			

ASP Type Definition		
ASP Name : DL_BROADCAST_IND PCO Type : B_SAP Comments : ETS 300 175-4 [5], 8.3.3.1		
Parameter Name	Parameter Type	Comments
cluster_address_list	CLUSTER_ADDRESS_LIST	'1'B means extended frame format shall be used, see ETS 300 175-4 [4], subclause 6.2.2 '1'B means CRC error occurred in MAC-PAGE-ind primitive
message_unit	PDU	
extended_message_flag	BIT_1	
error_flag	BIT_1	
Detailed Comments : This primitive is not used in PT testing. The message unit length information element is not used in this primitive		

ASP Type Definition		
ASP Name : DL_BROADCAST_REQ PCO Type : B_SAP Comments : ETS 300 175-4 [5], 8.3.3.1		
Parameter Name	Parameter Type	Comments
cluster_address_list	CLUSTER_ADDRESS_LIST	'1'B means extended frame format shall be used, see ETS 300 175-4 [4], subclause 6.2.2
message_unit	PDU	
extended_message_flag	BIT_1	
Detailed Comments : The message unit length information element is not used in this primitive		

ASP Type Definition		
ASP Name : DL_DATA_IND PCO Type : S_SAP Comments : ETS 300 175-4 [5], subclause 8.3.2.3		
Parameter Name	Parameter Type	Comments
data_link_endpoint_identifier	DATA_LINK_ENDPOINT_IDENTIFIER	
message_unit	PDU	
Detailed Comments : The message unit length information element is not used in this primitive		

ASP Type Definition		
ASP Name : DL_DATA_REQ PCO Type : S_SAP Comments : ETS 300 175-4 [5], subclause 8.3.2.3		
Parameter Name	Parameter Type	Comments
data_link_endpoint_identifier	DATA_LINK_ENDPOINT_IDENTIFIER	
message_unit	PDU	
Detailed Comments : The message unit length information element is not used in this primitive		

ASP Type Definition		
ASP Name : DL_ENCRYPT_CFM PCO Type : S_SAP Comments : ETS 300 175-4 [5], subclause 8.3.2.8		
Parameter Name	Parameter Type	Comments
data_link_endpoint_identifier	DATA_LINK_ENDPOINT_IDENTIFIER	
encryption_status	CIPHER_STATUS	
Detailed Comments :		

ASP Type Definition		
ASP Name : DL_ENCRYPT_IND PCO Type : S_SAP Comments : ETS 300 175-4 [5], subclause 8.3.2.8		
Parameter Name	Parameter Type	Comments
data_link_endpoint_identifier	DATA_LINK_ENDPOINT_IDENTIFIER	
connection_identities	CONNECTION_IDENTITIES	
encryption_status	CIPHER_STATUS	
Detailed Comments :		

ASP Type Definition		
ASP Name : DL_ENCRYPT_REQ PCO Type : S_SAP Comments : ETS 300 175-4 [5], subclause 8.3.2.8		
Parameter Name	Parameter Type	Comments
data_link_endpoint_identifier	DATA_LINK_ENDPOINT_IDENTIFIER	
connection_identities	CONNECTION_IDENTITIES	
encryption_command	CIPHER_STATUS	
Detailed Comments :		

ASP Type Definition		
ASP Name : DL_ENC_KEY_REQ PCO Type : S_SAP Comments : ETS 300 175-4 [5], subclause 8.3.2.7		
Parameter Name	Parameter Type	Comments
data_link_endpoint_identifier	DATA_LINK_ENDPOINT_IDENTIFIER	
connection_identities	CONNECTION_IDENTITIES	
encryption_key	ENCRYPTION_KEY	
Detailed Comments :		

ASP Type Definition		
ASP Name : DL_ESTABLISH_CFM PCO Type : S_SAP Comments : ETS 300 175-4 [5], subclause 8.3.2.1		
Parameter Name	Parameter Type	Comments
data_link_endpoint_identifier	DATA_LINK_ENDPOINT_IDENTIFIER	
Detailed Comments : This primitive is not used in PT testing, because only the indirect link establishment method is used.		

ASP Type Definition		
ASP Name : DL_ESTABLISH_IND PCO Type : S_SAP Comments : ETS 300 175-4 [5], subclause 8.3.2.1		
Parameter Name	Parameter Type	Comments
data_link_endpoint_identifier	DATA_LINK_ENDPOINT_IDENTIFIER	
establish_mode	ESTABLISH_MODE	
radio_fixed_part_number	RADIO_FIXED_PART_NUMBER	
message_unit	PDU	
Detailed Comments : The message unit length information element is not used in this primitive		

ASP Type Definition		
ASP Name : DL_ESTABLISH_REQ PCO Type : S_SAP Comments : ETS 300 175-4 [4], subclause 8.3.2.1		
Parameter Name	Parameter Type	Comments
data_link_endpoint_identifier	DATA_LINK_ENDPOINT_IDENTIFIER	
establish_mode	ESTABLISH_MODE	
radio_fixed_part_number	RADIO_FIXED_PART_NUMBER	
message_unit	PDU	
Detailed Comments : For now this primitive is not used in PT testing, because only the indirect link establishment method is used. The message unit length information element is not used in this primitive		

ASP Type Definition		
ASP Name : DL_ESTABLISH_RES PCO Type : S_SAP Comments : ETS 300 175-4 [5], subclause 8.3.2.1		
Parameter Name	Parameter Type	Comments
data_link_endpoint_identifier	DATA_LINK_ENDPOINT_IDENTIFIER	
Detailed Comments :		

ASP Type Definition		
ASP Name : DL_RELEASE_CFM PCO Type : S_SAP Comments : ETS 300 175-4 [5], 8.3.2.2		
Parameter Name	Parameter Type	Comments
data_link_endpoint_identifier	DATA_LINK_ENDPOINT_IDENTIFIER	
release_mode	RELEASE_MODE	
Detailed Comments :		

ASP Type Definition		
ASP Name : DL_RELEASE_IND PCO Type : S_SAP Comments : ETS 300 175-4 [5], subclause 8.3.2.2		
Parameter Name	Parameter Type	Comments
data_link_endpoint_identifier	DATA_LINK_ENDPOINT_IDENTIFIER	
release_mode	RELEASE_MODE	
Detailed Comments :		

ASP Type Definition		
ASP Name : DL_RELEASE_REQ PCO Type : S_SAP Comments : ETS 300 175-4 [5], subclause 8.3.2.2		
Parameter Name	Parameter Type	Comments
data_link_endpoint_identifier	DATA_LINK_ENDPOINT_IDENTIFIER	
release_mode	RELEASE_MODE	
Detailed Comments :		

PDU Type Definition		
PDU Name : ACCESS_RIGHTS_ACCEPT		
PCO Type : S_SAP		
Comments : ETS 300 175-5 [5], subclause 6.3.6.1		
Field Name	Field Type	Comments
network_header	NETWORK_HEADER	
message_type	MESSAGE_TYPE	
portable_id	PORTABLE_ID	
repeat_indicator	REPEAT_INDICATOR	
fixed_id	FIXED_ID	
location_area	LOCATION_AREA	
auth_type	AUTH_TYPE	
cipher_info	CIPHER_INFO	
zap_field	ZAP_FIELD	
service_class	SERVICE_CLASS	
iwu_to_iwu	IWU_TO_IWU	
Detailed Comments :		

PDU Type Definition		
PDU Name : ACCESS_RIGHTS_REJECT		
PCO Type : S_SAP		
Comments : ETS 300 175-5 [5], subclause 6.3.6.2		
Field Name	Field Type	Comments
network_header	NETWORK_HEADER	
message_type	MESSAGE_TYPE	
reject_reason	REJECT_REASON	
duration	DURATION	
Detailed Comments :		

PDU Type Definition		
PDU Name : ACCESS_RIGHTS_REQUEST		
PCO Type : S_SAP		
Comments : ETS 300 175-5 [5], subclause 6.3.6.3		
Field Name	Field Type	Comments
network_header	NETWORK_HEADER	
message_type	MESSAGE_TYPE	
portable_id	PORTABLE_ID	
auth_type	AUTH_TYPE	
cipher_info	CIPHER_INFO	
setup_capability	SETUP_CAPABILITY	
terminal_capability	TERMINAL_CAPABILITY	
iwu_to_iwu	IWU_TO_IWU	
Detailed Comments :		

PDU Type Definition		
PDU Name : ACCESS_RIGHTS_TERM_ACCEPT PCO Type : S_SAP Comments : ETS 300 175-5 [5], subclause 6.3.6.4		
Field Name	Field Type	Comments
network_header	NETWORK_HEADER	
message_type	MESSAGE_TYPE	
Detailed Comments :		

PDU Type Definition		
PDU Name : ACCESS_RIGHTS_TERM_REJECT PCO Type : S_SAP Comments : ETS 300 175-5 [5], subclause 6.3.6.5		
Field Name	Field Type	Comments
network_header	NETWORK_HEADER	
message_type	MESSAGE_TYPE	
reject_reason	REJECT_REASON	
duration	DURATION	
Detailed Comments :		

PDU Type Definition		
PDU Name : ACCESS_RIGHTS_TERM_REQUEST PCO Type : S_SAP Comments : ETS 300 175-5 [5], subclause 6.3.6.6		
Field Name	Field Type	Comments
network_header	NETWORK_HEADER	
message_type	MESSAGE_TYPE	
portable_id	PORTABLE_ID	
repeat_indicator	REPEAT_INDICATOR	
fixed_id	FIXED_ID	
iwu_to_iwu	IWU_TO_IWU	
Detailed Comments :		

PDU Type Definition		
PDU Name : AUTH_REJECT PCO Type : S_SAP Comments : ETS 300 175-5 [5], subclause 6.3.6.7		
Field Name	Field Type	Comments
network_header	NETWORK_HEADER	
message_type	MESSAGE_TYPE	
auth_type	AUTH_TYPE_LIST	
reject_reason	REJECT_REASON	
Detailed Comments :		

PDU Type Definition		
PDU Name : AUTH_REPLY PCO Type : S_SAP Comments : ETS 300 175-5 [5], subclause 6.3.6.8		
Field Name	Field Type	Comments
network_header	NETWORK_HEADER	
message_type	MESSAGE_TYPE	
res	RES	
rs	RS	
zap_field	ZAP_FIELD	
service_class	SERVICE_CLASS	
key	KEY	
iwu_to_iwu	IWU_TO_IWU	
Detailed Comments :		

PDU Type Definition		
PDU Name : AUTH_REQUEST PCO Type : S_SAP Comments : ETS 300 175-5 [5], subclause 6.3.6.9		
Field Name	Field Type	Comments
network_header	NETWORK_HEADER	
message_type	MESSAGE_TYPE	
auth_type	AUTH_TYPE	
rand	RAND	
res	RES	
rs	RS	
cipher_info	CIPHER_INFO	
iwu_to_iwu	IWU_TO_IWU	
Detailed Comments :		

PDU Type Definition		
PDU Name : BI_CC_SHORT_MESSAGE PCO Type : S_SAP Comments : ETS 300 175-5 [5], subclause 17.2		
Field Name	Field Type	Comments
network_header	NETWORK_HEADER	
message_type_short	MESSAGE_TYPE_SHORT	
Detailed Comments :		

PDU Type Definition		
PDU Name : CC_ALERTING PCO Type : S_SAP Comments : ETS 300 175-5 [5], subclause 6.3.2.5		
Field Name	Field Type	Comments
network_header	NETWORK_HEADER	
message_type	MESSAGE_TYPE	
call_attributes	CALL_ATTRIBUTES	
connection_id	CONNECTION_ID	
facility	FACILITY	
progress_indicator	PROGRESS_INDICATOR	
multi_display	MULTI_DISPLAY	
single_display	SINGLE_DISPLAY	
signal	SIGNAL	
feature_indicate	FEATURE_INDICATE	
terminal_capability	TERMINAL_CAPABILITY	
transit_delay	TRANSIT_DELAY	
window_size	WINDOW_SIZE	
iwu_to_iwu	IWU_TO_IWU	
iwu_packet	IWU_PACKET	
Detailed Comments :		

PDU Type Definition		
PDU Name : CC_CALL_PROC PCO Type : S_SAP Comments : ETS 300 175-5 [5], subclause 6.3.2.4		
Field Name	Field Type	Comments
network_header	NETWORK_HEADER	
message_type	MESSAGE_TYPE	
call_attributes	CALL_ATTRIBUTES	
connection_id	CONNECTION_ID	
facility	FACILITY	
progress_indicator	PROGRESS_INDICATOR	
multi_display	MULTI_DISPLAY	
single_display	SINGLE_DISPLAY	
signal	SIGNAL	
feature_indicate	FEATURE_INDICATE	
transit_delay	TRANSIT_DELAY	
window_size	WINDOW_SIZE	
iwu_to_iwu	IWU_TO_IWU	
iwu_packet	IWU_PACKET	
Detailed Comments :		

PDU Type Definition		
PDU Name : CC_CONNECT PCO Type : S_SAP Comments : ETS 300 175-5 [5], subclause 6.3.2.6		
Field Name	Field Type	Comments
network_header	NETWORK_HEADER	
message_type	MESSAGE_TYPE	
call_attributes	CALL_ATTRIBUTES	
connection_id	CONNECTION_ID	
facility	FACILITY	
progress_indicator	PROGRESS_INDICATOR	
multi_display	MULTI_DISPLAY	
single_display	SINGLE_DISPLAY	
signal	SIGNAL	
feature_indicate	FEATURE_INDICATE	
terminal_capability	TERMINAL_CAPABILITY	
transit_delay	TRANSIT_DELAY	
window_size	WINDOW_SIZE	
iwu_to_iwu	IWU_TO_IWU	
iwu_packet	IWU_PACKET	
Detailed Comments :		

PDU Type Definition		
PDU Name : CC_CONNECT_ACK PCO Type : S_SAP Comments : ETS 300 175-5 [5], subclause 6.3.2.7		
Field Name	Field Type	Comments
network_header	NETWORK_HEADER	
message_type	MESSAGE_TYPE	
multi_display	MULTI_DISPLAY	
single_display	SINGLE_DISPLAY	
feature_indicate	FEATURE_INDICATE	
iwu_to_iwu	IWU_TO_IWU	
iwu_packet	IWU_PACKET	
Detailed Comments :		

PDU Type Definition		
PDU Name : CC_INFO PCO Type : S_SAP Comments : ETS 300 175-5 [5], subclause 6.3.2.2		
Field Name	Field Type	Comments
network_header	NETWORK_HEADER	
message_type	MESSAGE_TYPE	
location_area	LOCATION_AREA	
network_assigned_id	NETWORK_ASSIGNED_ID	
facility	FACILITY	
progress_indicator	PROGRESS_INDICATOR	
multi_display	MULTI_DISPLAY	
single_display	SINGLE_DISPLAY	
multi_keypad	MULTI_KEYPAD	
single_keypad	SINGLE_KEYPAD	
signal	SIGNAL	
feature_activate	FEATURE_ACTIVATE	
feature_indicate	FEATURE_INDICATE	
network_parameter	NETWORK_PARAMETER	
called_party_number	CALLED_PARTY_NUMBER	
called_party_subaddress	CALLED_PARTY_SUBADDRESS	
sending_complete	SENDING_COMPLETE	
test_hook_control	TEST_HOOK_CONTROL	
iwu_to_iwu	IWU_TO_IWU	
iwu_packet	IWU_PACKET	
Detailed Comments :		

PDU Type Definition		
PDU Name : CC_NOTIFY PCO Type : S_SAP Comments : ETS 300 175-5 [5],subclause 6.3.2.13		
Field Name	Field Type	Comments
network_header	NETWORK_HEADER	
message_type	MESSAGE_TYPE	
timer_restart	TIMER_RESTART	
Detailed Comments :		

PDU Type Definition		
PDU Name : CC_OUT_OF_SCOPE PCO Type : S_SAP Comments : For any CC PDU which is out of scope acc. to ETS 300 444		
Field Name	Field Type	Comments
network_header	NETWORK_HEADER	
message_type	MESSAGE_TYPE	
contents	OCT_1_255	
Detailed Comments :		

PDU Type Definition		
PDU Name : CC_RELEASE PCO Type : S_SAP Comments : ETS 300 175-5 [5],subclause 6.3.2.8		
Field Name	Field Type	Comments
network_header	NETWORK_HEADER	
message_type	MESSAGE_TYPE	
release_reason	RELEASE_REASON	
facility	FACILITY	
progress_indicator	PROGRESS_INDICATOR	
multi_display	MULTI_DISPLAY	
single_display	SINGLE_DISPLAY	
feature_indicate	FEATURE_INDICATE	
iwu_to_iwu	IWU_TO_IWU	
iwu_packet	IWU_PACKET	
Detailed Comments :		

PDU Type Definition		
PDU Name : CC_RELEASE_COM		
PCO Type : S_SAP		
Comments : ETS 300 175-5 [5],subclause 6.3.2.9		
Field Name	Field Type	Comments
network_header	NETWORK_HEADER	
message_type	MESSAGE_TYPE	
release_reason	RELEASE_REASON	
identity_type	IDENTITY_TYPE	
location_area	LOCATION_AREA	
iwu_attributes	IWU_ATTRIBUTES	
facility	FACILITY	
multi_display	MULTI_DISPLAY	
single_display	SINGLE_DISPLAY	
feature_indicate	FEATURE_INDICATE	
network_parameter	NETWORK_PARAMETER	
iwu_to_iwu	IWU_TO_IWU	
iwu_packet	IWU_PACKET	
Detailed Comments :		

PDU Type Definition		
PDU Name : CC_SERVICE_CHANGE		
PCO Type : S_SAP		
Comments : ETS 300 175-5 [5],subclause 6.3.2.10		
Field Name	Field Type	Comments
network_header	NETWORK_HEADER	
message_type	MESSAGE_TYPE	
portable_id	PORTABLE_ID	
service_change_info	SERVICE_CHANGE_INFO	
connection_attributes	CONNECTION_ATTRIBUTES_LIST	
connection_id	CONNECTION_ID	
Detailed Comments :		

PDU Type Definition		
PDU Name : CC_SETUP		
PCO Type : S_SAP		
Comments : ETS 300 175-5 [5], subclause 6.3.2.1		
Field Name	Field Type	Comments
network_header	NETWORK_HEADER	
message_type	MESSAGE_TYPE	
portable_id	PORTABLE_ID	
fixed_id	FIXED_ID	
basic_service	BASIC_SERVICE	
iwu_attributes	IWU_ATTRIBUTES	
repeat_indicator_1	REPEAT_INDICATOR	
call_attributes	CALL_ATTRIBUTES	
repeat_indicator_2	REPEAT_INDICATOR	
connection_attributes	CONNECTION_ATTRIBUTES	
cipher_info	CIPHER_INFO	
connection_id	CONNECTION_ID	
facility	FACILITY	
progress_indicator	PROGRESS_INDICATOR	
multi_display	MULTI_DISPLAY	
single_display	SINGLE_DISPLAY	
multi_keypad	MULTI_KEYPAD	
single_keypad	SINGLE_KEYPAD	
signal	SIGNAL	
feature_activate	FEATURE_ACTIVATE	
feature_indicate	FEATURE_INDICATE	
network_parameter	NETWORK_PARAMETER	
terminal_capability	TERMINAL_CAPABILITY	
end_to_end_compatibility	END_TO_END_COMPATIBILITY	
rate_parameters	RATE_PARAMETERS	
transit_delay	TRANSIT_DELAY	
window_size	WINDOW_SIZE	
calling_party_number	CALLING_PARTY_NUMBER	
called_party_number	CALLED_PARTY_NUMBER	
called_party_subaddress	CALLED_PARTY_SUBADDRESS	
sending_complete	SENDING_COMPLETE	
iwu_to_iwu	IWU_TO_IWU	
iwu_packet	IWU_PACKET	
Detailed Comments :		

PDU Type Definition		
PDU Name : CC_SETUP_ACK PCO Type : S_SAP Comments : ETS 300 175-5 [5], subclause 6.3.2.3		
Field Name	Field Type	Comments
network_header	NETWORK_HEADER	
message_type	MESSAGE_TYPE	
info_type	INFO_TYPE	
portable_id	PORTABLE_ID	
fixed_id	FIXED_ID	
location_area	LOCATION_AREA	
call_attributes	CALL_ATTRIBUTES	
connection_id	CONNECTION_ID	
facility	FACILITY	
progress_indicator	PROGRESS_INDICATOR	
multi_display	MULTI_DISPLAY	
single_display	SINGLE_DISPLAY	
signal	SIGNAL	
feature_indicate	FEATURE_INDICATE	
transit_delay	TRANSIT_DELAY	
window_size	WINDOW_SIZE	
delimiter_request	DELIMITER_REQUEST	
iwu_to_iwu	IWU_TO_IWU	
iwu_packet	IWU_PACKET	
Detailed Comments :		

PDU Type Definition		
PDU Name : CIPHER_REJECT PCO Type : S_SAP Comments : ETS 300 175-5 [5], subclause 6.3.6.10		
Field Name	Field Type	Comments
network_header	NETWORK_HEADER	
message_type	MESSAGE_TYPE	
repeat_indicator	REPEAT_INDICATOR	
cipher_info	CIPHER_INFO	
reject_reason	REJECT_REASON	
Detailed Comments :		

PDU Type Definition		
PDU Name : CIPHER_REQUEST PCO Type : S_SAP Comments : ETS 300 175-5 [5], subclause 6.3.6.11		
Field Name	Field Type	Comments
network_header	NETWORK_HEADER	
message_type	MESSAGE_TYPE	
cipher_info	CIPHER_INFO	
call_identity	CALL_ID	
connection_identity	CONNECTION_ID	
iwu_to_iwu	IWU_TO_IWU	
Detailed Comments :		

PDU Type Definition		
PDU Name : CIPHER_SUGGEST PCO Type : S_SAP Comments : ETS 300 175-5 [5], subclause 6.3.6.12		
Field Name	Field Type	Comments
network_header	NETWORK_HEADER	
message_type	MESSAGE_TYPE	
cipher_info	CIPHER_INFO	
call_id	CALL_ID	
connection_id	CONNECTION_ID	
iwu_to_iwu	IWU_TO_IWU	
Detailed Comments :		

PDU Type Definition		
PDU Name : CISS_ANY_PDU PCO Type : S_SAP Comments : For any CISS PDU, which is out of scope acc. to ETS 300 444		
Field Name	Field Type	Comments
network_header	NETWORK_HEADER	
contents	OCT_1_255	
Detailed Comments :		

PDU Type Definition		
PDU Name : COMS_ANY_PDU PCO Type : S_SAP Comments : For any COMS PDU, which is out of scope acc. to ETS 300 444		
Field Name	Field Type	Comments
network_header	NETWORK_HEADER	
contents	OCT_1_255	
Detailed Comments :		

PDU Type Definition		
PDU Name : DETACH PCO Type : S_SAP Comments : ETS 300 175-5 [5], subclause 6.3.6.13		
Field Name	Field Type	Comments
network_header	NETWORK_HEADER	
message_type	MESSAGE_TYPE	
portable_id	PORTABLE_ID	
network_assigned_id	NETWORK_ASSIGNED_ID	
iwu_to_iwu	IWU_TO_IWU	
Detailed Comments :		

PDU Type Definition		
PDU Name : IDENTITY_REPLY PCO Type : S_SAP Comments : ETS 300 175-5 [5], subclause 6.3.6.14		
Field Name	Field Type	Comments
network_header	NETWORK_HEADER	
message_type	MESSAGE_TYPE	
repeat_indicator_1	REPEAT_INDICATOR	
portable_id	PORTABLE_ID	
portable_id_2	PORTABLE_ID	Used in case repeat indicator_1 present
portable_id_3	PORTABLE_ID	
repeat_indicator_2	REPEAT_INDICATOR	
fixed_id	FIXED_ID	
fixed_id_2	FIXED_ID	Used in case repeat indicator_1 present
fixed_id_3	FIXED_ID	
repeat_indicator_3	REPEAT_INDICATOR	
network_assigned_id	NETWORK_ASSIGNED_ID	
iwu_to_iwu	IWU_TO_IWU	
Detailed Comments :		

PDU Type Definition		
PDU Name : IDENTITY_REQUEST PCO Type : S_SAP Comments : ETS 300 175-5 [5], subclause 6.3.6.15		
Field Name	Field Type	Comments
network_header	NETWORK_HEADER	
message_type	MESSAGE_TYPE	
repeat_indicator	REPEAT_INDICATOR	
identity_type	IDENTITY_TYPE	
iwu_to_iwu	IWU_TO_IWU	
Detailed Comments :		

PDU Type Definition		
PDU Name : LOCATE_ACCEPT PCO Type : S_SAP Comments : ETS 300 175-5 [5], subclause 6.3.6.17		
Field Name	Field Type	Comments
network_header	NETWORK_HEADER	
message_type	MESSAGE_TYPE	
portable_id	PORTABLE_ID	
location_area	LOCATION_AREA	
network_assigned_id	NETWORK_ASSIGNED_ID	
duration	DURATION	
iwu_to_iwu	IWU_TO_IWU	
Detailed Comments :		

PDU Type Definition		
PDU Name : LOCATE_REJECT PCO Type : S_SAP Comments : ETS 300 175-5 [5], subclause 6.3.6.18		
Field Name	Field Type	Comments
network_header	NETWORK_HEADER	
message_type	MESSAGE_TYPE	
reject_reason	REJECT_REASON	
duration	DURATION	
Detailed Comments :		

PDU Type Definition		
PDU Name : LOCATE_REQUEST PCO Type : S_SAP Comments : ETS 300 175-5 [5], subclause 6.3.6.19		
Field Name	Field Type	Comments
network_header	NETWORK_HEADER	
message_type	MESSAGE_TYPE	
portable_id	PORTABLE_ID	
fixed_id	FIXED_ID	
location_area	LOCATION_AREA	
network_assigned_id	NETWORK_ASSIGNED_ID	
cipher_info	CIPHER_INFO	
setup_capability	SETUP_CAPABILITY	
terminal_capability	TERMINAL_CAPABILITY	
iwu_to_iwu	IWU_TO_IWU	
Detailed Comments :		

PDU Type Definition		
PDU Name : MM_INFO_ACCEPT PCO Type : S_SAP Comments : ETS 300 175-5 [5], subclause 6.3.6.20		
Field Name	Field Type	Comments
network_header	NETWORK_HEADER	
message_type	MESSAGE_TYPE	
info_type	INFO_TYPE	
fixed_id	FIXED_ID	
location_area	LOCATION_AREA	
network_assigned_id	NETWORK_ASSIGNED_ID	
network_parameter	NETWORK_PARAMETER	
duration	DURATION	
iwu_to_iwu	IWU_TO_IWU	
Detailed Comments :		

PDU Type Definition		
PDU Name : MM_INFO_REJECT PCO Type : S_SAP Comments : ETS 300 175-5 [5], subclause 6.3.6.21		
Field Name	Field Type	Comments
network_header	NETWORK_HEADER	
message_type	MESSAGE_TYPE	
reject_reason	REJECT_REASON	
Detailed Comments :		

PDU Type Definition		
PDU Name : MM_INFO_REQUEST		
PCO Type : S_SAP		
Comments : ETS 300 175-5 [5], subclause 6.3.6.22		
Field Name	Field Type	Comments
network_header	NETWORK_HEADER	
message_type	MESSAGE_TYPE	
info_type	INFO_TYPE	
portable_id	PORTABLE_ID	
fixed_id	FIXED_ID	
location_area	LOCATION_AREA	
network_assigned_id	NETWORK_ASSIGNED_ID	
network_parameter	NETWORK_PARAMETER	
iwu_to_iwu	IWU_TO_IWU	
Detailed Comments :		

PDU Type Definition		
PDU Name : MM_INFO_SUGGEST		
PCO Type : S_SAP		
Comments : ETS 300 175-5 [5], subclause 6.3.6.23		
Field Name	Field Type	Comments
network_header	NETWORK_HEADER	
message_type	MESSAGE_TYPE	
info_type	INFO_TYPE	
fixed_id	FIXED_ID	
location_area	LOCATION_AREA	
network_assigned_id	NETWORK_ASSIGNED_ID	
network_parameter	NETWORK_PARAMETER	
iwu_to_iwu	IWU_TO_IWU	
Detailed Comments :		

PDU Type Definition		
PDU Name : MM_OUT_OF_SCOPE		
PCO Type : S_SAP		
Comments : For any MM PDU which is out of scope acc. to ETS 300 444		
Field Name	Field Type	Comments
network_header	NETWORK_HEADER	
message_type	MESSAGE_TYPE	
contents	OCT_1_255	
Detailed Comments :		

PDU Type Definition		
PDU Name : KEY_ALLOCATE PCO Type : B_SAP Comments : ETS 300 175-5 [5], subclause 6.3.6.16		
Field Name	Field Type	Comments
network_header	NETWORK_HEADER	
message_type	MESSAGE_TYPE	
allocation_type	ALLOCATION_TYPE	
rand	RAND	
rs	RS	
Detailed Comments :		

PDU Type Definition		
PDU Name : TEMPORARY_ID_ASSIGN PCO Type : S_SAP Comments : ETS 300 175-5 [5], subclause 6.3.6.24		
Field Name	Field Type	Comments
network_header	NETWORK_HEADER	
message_type	MESSAGE_TYPE	
portable_id	PORTABLE_ID	
network_assigned_id	NETWORK_ASSIGNED_ID	
duration	DURATION	
iwu_to_iwu	IWU_TO_IWU	
Detailed Comments :		

PDU Type Definition		
PDU Name : TEMPORARY_ID_ASSIGN_ACK PCO Type : S_SAP Comments : ETS 300 175-5 [5], subclause 6.3.6.25		
Field Name	Field Type	Comments
network_header	NETWORK_HEADER	
message_type	MESSAGE_TYPE	
Detailed Comments :		

PDU Type Definition		
PDU Name : TEMPORARY_ID_ASSIGN_REJECT		
PCO Type : S_SAP		
Comments : ETS 300 175-5 [5], subclause 6.3.6.26		
Field Name	Field Type	Comments
network_header	NETWORK_HEADER	
message_type	MESSAGE_TYPE	
reject_reason	REJECT_REASON	
Detailed Comments :		

PDU Type Definition		
PDU Name : LCE_PAGE_RESPONSE		
PCO Type : B_SAP		
Comments : ETS 300 175-5 [5], subclause 6.3.7.1		
Field Name	Field Type	Comments
network_header	NETWORK_HEADER	
message_type	MESSAGE_TYPE	
portable_id	PORTABLE_ID	
fixed_id	FIXED_ID	
network_assigned_id	NETWORK_ASSIGNED_ID	
cipher_info	CIPHER_INFO	
Detailed Comments :		

PDU Type Definition		
PDU Name : LCE_PAGE_REJECT		
PCO Type : B_SAP		
Comments : ETS 300 175-5 [5], subclause 6.3.7.2		
Field Name	Field Type	Comments
network_header	NETWORK_HEADER	
message_type	MESSAGE_TYPE	
portable_id	PORTABLE_ID	
fixed_id	FIXED_ID	
reject_reason	REJECT_REASON	
Detailed Comments :		

PDU Type Definition		
PDU Name : LCE_REQUEST_PAGE		
PCO Type : B_SAP		
Comments : ETS 300 175-5 [5], subclause 6.4.2		
Field Name	Field Type	Comments
lce_header	LCE_HEADER	
short_format_address	SHORT_FORMAT_ADDRESS	
Detailed Comments : Long format messages not supported in ETS 300 444		

III

Constraints Part

Structured Type Constraint Declaration		
Constraint Name : Allocation_type_tx_dsaa Structured Type : ALLOCATION_TYPE Derivation Path : Comments : A send constraint for the allocation type ie, specifying the DECT standard Authentication Algorithm to be used.		
Element Name	Element Value	Comments
iei	TSC_iei_allocation_type	
length	'02'O	
auth_algo_id	'01'O	DECT standard auth. algorithm 1
ac_number	'1000'B	related to active IPUI/PARK pair
uak_number	'1000'B	related to active IPUI/PARK pair
Detailed Comments :		

Structured Type Constraint Declaration		
Constraint Name : Allocation_type_tx_unacc Structured Type : ALLOCATION_TYPE Derivation Path : Comments : A send constraint for the allocation type ie, specifying a unacceptable auth algo value.		
Element Name	Element Value	Comments
iei	TSC_iei_allocation_type	
length	'02'O	
auth_algo_id	'02'O	unacceptable value
ac_number	'1000'B	related to active IPUI/PARK pair
uak_number	'1000'B	related to active IPUI/PARK pair
Detailed Comments :		

Structured Type Constraint Declaration		
Constraint Name : Auth_type_rx_base		
Structured Type : AUTH_TYPE		
Derivation Path :		
Comments : The basic receive constraint for the AUTH_TYPE structured type. DSAA is mandated.		
Element Name	Element Value	Comments
iei	TSC_iei_auth_type	
length	'03'O	
auth_algo_id	'01'O	DSAA
prop_algo_id	OMIT	
auth_key_number	?	
auth_key_type	('0001'B, '0011'B, '0100'B)	UAK UPI AC
cipher_key_number	?	
upc	?	
txc	?	
f5	'0'B	
inc	?	
Detailed Comments :		

Structured Type Constraint Declaration		
Constraint Name : Auth_type_rx_empty		
Structured Type : AUTH_TYPE		
Derivation Path :		
Comments : Empty IE, length is 0.		
Element Name	Element Value	Comments
iei	TSC_iei_auth_type	
length	'00'O	
auth_algo_id	OMIT	
prop_algo_id	OMIT	
auth_key_number	OMIT	
auth_key_type	OMIT	
cipher_key_number	OMIT	
upc	OMIT	
txc	OMIT	
f5	OMIT	
inc	OMIT	
Detailed Comments :		

Structured Type Constraint Declaration		
Constraint Name : Auth_type_rx_ac		
Structured Type : AUTH_TYPE		
Derivation Path : Auth_type_rx_base.		
Comments : A derived receive constraint for the AUTH_TYPE structured type. The Auth_key_type will be '0100'B (AC). <INC>, <TXC>, <UPC> and <Cipher key nr> are 'don't cares'.		
Element Name	Element Value	Comments
auth_key_number	'1000'B	related to IPUI/PARK pair
auth_key_type	'0100'B	AC
Detailed Comments :		

Structured Type Constraint Declaration		
Constraint Name : Auth_type_rx_ac_or_uak		
Structured Type : AUTH_TYPE		
Derivation Path : Auth_type_rx_base.		
Comments : A derived receive constraint for the AUTH_TYPE structured type. The Auth_key_type will be '0100'B (AC) or '0001'B UAK. <INC>, <TXC>, <UPC> and <Cipher key nr> are 'don't cares'.		
Element Name	Element Value	Comments
auth_key_number	'1000'B	related to IPUI/PARK pair
auth_key_type	('0100'B, '0001'B)	AC or UAK
Detailed Comments :		

Structured Type Constraint Declaration		
Constraint Name : Auth_type_rx_uak		
Structured Type : AUTH_TYPE		
Derivation Path : Auth_type_rx_base.		
Comments : A derived receive constraint for the AUTH_TYPE structured type. <INC>, <TXC>, <UPC> and <Cipher key nr> are 'don't cares'. Authentication on UAK mandated		
Element Name	Element Value	Comments
auth_key_number	'1000'B	related to IPUI/PARK pair
auth_key_type	'0001'B	UAK
Detailed Comments :		

Structured Type Constraint Declaration		
Constraint Name : Auth_type_tx_dck_no_zap		
Structured Type : AUTH_TYPE		
Derivation Path :		
Comments : This constraint implies DCK storage and no ZAP increment. Standard DSAA is used, and authentication is based on UAK.		
Element Name	Element Value	Comments
iei	TSC_iei_auth_type	
length	'03'O	
auth_algo_id	'01'O	DSAA
prop_algo_id	OMIT	
auth_key_number	'1000'B	related to IPUI/PARK pair
auth_key_type	'0001'B	UAK
cipher_key_number	'1000'B	
upc	'1'B	DCK stored
txc	'0'B	
f5	'0'B	
inc	'0'B	No ZAP increment
Detailed Comments :		

Structured Type Constraint Declaration		
Constraint Name : Auth_type_tx_no_dck_no_zap		
Structured Type : AUTH_TYPE		
Derivation Path :		
Comments : This constraint implies no DCK storage and no ZAP increment. Standard DSAA is used, and authentication is based on UAK.		
Element Name	Element Value	Comments
iei	TSC_iei_auth_type	
length	'03'O	
auth_algo_id	'01'O	DSAA
prop_algo_id	OMIT	
auth_key_number	'1000'B	related to IPUI/PARK pair
auth_key_type	'0001'B	UAK
cipher_key_number	'0000'B	
upc	'0'B	No DCK stored
txc	'0'B	
f5	'0'B	
inc	'0'B	No ZAP increment
Detailed Comments :		

Structured Type Constraint Declaration		
Constraint Name : Auth_type_tx_no_dck_zap_inc		
Structured Type : AUTH_TYPE		
Derivation Path :		
Comments : This constraint implies no DCK storage and ZAP incremented by one. Standard DSAA is used, and authentication is based on UAK.		
Element Name	Element Value	Comments
iei	TSC_iei_auth_type	
length	'03'O	
auth_algo_id	'01'O	DSAA
prop_algo_id	OMIT	
auth_key_number	'1000'B	related to IPUI/PARK pair
auth_key_type	'0001'B	UAK
cipher_key_number	'0000'B	
upc	'0'B	No DCK stored
txc	'0'B	
f5	'0'B	
inc	'1'B	ZAP increment
Detailed Comments :		

Structured Type Constraint Declaration		
Constraint Name : Auth_type_tx_unacc_alg		
Structured Type : AUTH_TYPE		
Derivation Path :		
Comments : This constraint implies an unacceptable algorithm(reserved value).		
Element Name	Element Value	Comments
iei	TSC_iei_auth_type	
length	'03'O	
auth_algo_id	'FF'O	reserved value
prop_algo_id	OMIT	
auth_key_number	'1000'B	related to IPUI/PARK pair
auth_key_type	'0001'B	UAK
cipher_key_number	'0000'B	
upc	'0'B	No DCK stored
txc	'0'B	
f5	'0'B	
inc	'0'B	No ZAP increment
Detailed Comments :		

Structured Type Constraint Declaration		
Constraint Name : Auth_type_tx_upi Structured Type : AUTH_TYPE Derivation Path : Comments : A send constraint for the auth_type ie, specifying no DCK storage and no ZAP increment. Standard DSAA is used, and authentication is based on UPI.		
Element Name	Element Value	Comments
iei	TSC_iei_auth_type	
length	'03'O	
auth_algo_id	'01'O	DSAA
prop_algo_id	OMIT	
auth_key_number	'1000'B	related to IPUI/PARK pair
auth_key_type	'0011'B	UPI
cipher_key_number	'0000'B	
upc	'0'B	No DCK stored
txc	'0'B	
f5	'0'B	
inc	'0'B	No ZAP increment
Detailed Comments :		

Structured Type Constraint Declaration		
Constraint Name : Auth_type_list_rx_base Structured Type : AUTH_TYPE_LIST Derivation Path : Comments : The basic receive constraint for the AUTH_TYPE_LIST structured type.		
Element Name	Element Value	Comments
repeat_indicator	Repeat_indicator_rx_prio	
auth_type1	(Auth_type_rx_base, Auth_type_rx_empty)	
auth_type2	(Auth_type_rx_base, Auth_type_rx_empty)	
auth_type3	(Auth_type_rx_base, Auth_type_rx_empty) IF_PRESENT	
Detailed Comments :		

Structured Type Constraint Declaration		
Constraint Name : Auth_type_nolist_rx_base		
Structured Type : AUTH_TYPE_LIST		
Derivation Path :		
Comments : The basic receive constraint for the AUTH_TYPE_LIST structured type.		
Element Name	Element Value	Comments
repeat_indicator	OMIT	
auth_type1	(Auth_type_rx_base, Auth_type_rx_empty)	
auth_type2	OMIT	
auth_type3	OMIT	
Detailed Comments :		

Structured Type Constraint Declaration		
Constraint Name : Basic_service_rx_base		
Structured Type : BASIC_SERVICE		
Derivation Path :		
Comments : The basic receive constraint for the BASIC_SERVICE ie. ETS 300 444, subclause 8.2, subclause 8.20. Basic speech default setup attributes are used		
Element Name	Element Value	Comments
iei	TSC_iei_basic_service	
basic_service	'0000'B	basic speech default setup attributes
call_class	('1000'B, '1001'B)	normal or internal call setup
Detailed Comments :		

Structured Type Constraint Declaration		
Constraint Name : Basic_service_normal		
Structured Type : BASIC_SERVICE		
Derivation Path : Basic_service_rx_base.		
Comments : A derived constraint for the BASIC_SERVICE ie. ETS 300 444, subclause 8.2, subclause 8.20. Basic speech default setup attributes are used Normal call setup		
Element Name	Element Value	Comments
iei	TSC_iei_basic_service	
basic_service	'0000'B	basic speech default setup attributes
call_class	'1000'B	normal call setup
Detailed Comments :		

Structured Type Constraint Declaration		
Constraint Name : Basic_service_internal		
Structured Type : BASIC_SERVICE		
Derivation Path : Basic_service_rx_base.		
Comments : A derived constraint for the BASIC_SERVICE ie. ETS 300 444, subclause 8.2, subclause 8.20. Basic speech default setup attributes are used internal call setup		
Element Name	Element Value	Comments
iei	TSC_iei_basic_service	
basic_service	'0000'B	basic speech default setup attributes
call_class	'1001'B	internal call setup
Detailed Comments :		

Structured Type Constraint Declaration		
Constraint Name : Basic_service_tx_default		
Structured Type : BASIC_SERVICE		
Derivation Path :		
Comments : ETS 300 444, subclause 8.2, subclause 8.20		
Element Name	Element Value	Comments
iei	TSC_iei_basic_service	
basic_service	'0000'B	default setup attributes
call_class	'1000'B	normal call setup
Detailed Comments :		

Structured Type Constraint Declaration		
Constraint Name : Bi_cipher_info_tx		
Structured Type : CIPHER_INFO		
Derivation Path : Cipher_info_rx_base.		
Comments : A send constraint for the cipher info ie with wrong content: specifying a invalid cipher algorithm. (ciphering enable, cipher key type DCK)		
Element Name	Element Value	Comments
iei	TSC_iei_cipher_info	
length	'02'O	
cipher_algo_id	'1000000'B	invalid cipher algorithm (standard would be 0000001)
y_n	'1'B	enable ciphering
prop_algo_id	OMIT	
cipher_key_number	'1000'B	
cipher_key_type	'1001'B	DCK
Detailed Comments :		

Structured Type Constraint Declaration		
Constraint Name : Bi_network_header_mm_ori Structured Type : NETWORK_HEADER Derivation Path : Comments : The constraint for the network header in case of mm messages sent from originating side, containing an illegal transaction value.		
Element Name	Element Value	Comments
protocol_discriminator	TSC_pd_mm	Illegal value for MM
transaction_value	'001'B	
transaction_flag	'0'B	
ext_transaction_flag	OMIT	
Detailed Comments :		

Structured Type Constraint Declaration		
Constraint Name : Bi_network_header_unsupp(tv_ : BIT_3; tf_ : BIT_1) Structured Type : NETWORK_HEADER Derivation Path : Comments : The constraint for the network header in case of cc messages sent by the LT. The protocol discriminator contains the value '1000'B, which will not be supported by the IUT.		
Element Name	Element Value	Comments
protocol_discriminator	'1000'B	Unsupported value
transaction_value	tv_	
transaction_flag	tf_	
ext_transaction_flag	OMIT	
Detailed Comments :		

Structured Type Constraint Declaration		
Constraint Name : Bi_portable_id_ipui Structured Type : PORTABLE_ID Derivation Path : Portable_id_rx_base. Comments : The constraint contains a wrong length of the portable id. The actual value of the IPUI (to be used after subscription) is given as a PIXIT parameter. The constraint can be used for rx and tx.		
Element Name	Element Value	Comments
length	TSC_port_id_length_ipui	IPUI type wrong length instead of INT_TO_BIT(TSC_ipui_length, 7)
type	'0000000'B	
length_of_id_value	'1111111'B	
id_value	TSC_ipui_complete_value	
Detailed Comments :		

Structured Type Constraint Declaration

Constraint Name : Call_attributes_rx_base
Structured Type : CALL_ATTRIBUTES
Derivation Path :
Comments :

Element Name	Element Value	Comments
iei	TSC_iei_call_attributes	
length	('04'O, '05'O, '06'O)	
network_layer_attributes	('00000'B, '00001'B)	Undefined Basic speech
coding_standard	'00'B	
f3	'1'B	
c_plane_routing	('0000'B, '0001'B, '0010'B, '1000'B)	
c_plane_class	('000'B, '010'B, '100'B, '101'B)	
f4	'1'B	
lu_id	('00001'B, '00010'B, '00011'B, '00100'B, '00101'B, '00110'B, '00111'B, '10000'B)	
u_plane_symmetry	('00'B, '10'B)	
ext5	?	
lu_id_f_p	('00001'B, '00010'B, '00011'B, '00100'B, '00101'B, '00110'B, '10000'B) IF_PRESENT	
f5a	'100'B IF_PRESENT	
u_plane_frame_type	('0001'B, '0010'B, '0011'B, '0100'B, '0101'B, '0110'B, '0111'B)	
u_plane_class	COMPLEMENT('011'B)	
ext6	?	
u_plane_frame_type_f_p	('0001'B, '0010'B, '0011'B, '0100'B, '0101'B, '0110'B) IF_PRESENT	
u_plane_class_f_p	COMPLEMENT('011'B) IF_PRESENT	
f6a	'1'B IF_PRESENT	

Detailed Comments :

Structured Type Constraint Declaration		
Constraint Name : Call_attributes_rx_empty Structured Type : CALL_ATTRIBUTES Derivation Path : Comments : Empty IE, length is 0.		
Element Name	Element Value	Comments
iei	TSC_iei_call_attributes	
length	'00'O	
network_layer_attributes	OMIT	
coding_standard	OMIT	
f3	OMIT	
c_plane_routing	OMIT	
c_plane_class	OMIT	
f4	OMIT	
lu_id	OMIT	
u_plane_symmetry	OMIT	
ext5	OMIT	
lu_id_f_p	OMIT	
f5a	OMIT	
u_plane_frame_type	OMIT	
u_plane_class	OMIT	
ext6	OMIT	
u_plane_frame_type_f_p	OMIT	
u_plane_class_f_p	OMIT	
f6a	OMIT	
Detailed Comments :		

Structured Type Constraint Declaration		
Constraint Name : Call_id_rx_base Structured Type : CALL_ID Derivation Path : Comments : The basic receive constraint for the CALL_ID ie.		
Element Name	Element Value	Comments
iei	TSC_iei_call_id	
length	('01'O, '02'O)	
pd	?	
tv	?	
tf	?	
extended_transaction_value	? IF_PRESENT	
Detailed Comments :		

Structured Type Constraint Declaration		
Constraint Name : Call_id_rx_empty		
Structured Type : CALL_ID		
Derivation Path :		
Comments : Empty IE, length is 0.		
Element Name	Element Value	Comments
iei	TSC_iei_call_id	
length	'00'O	
pd	OMIT	
tv	OMIT	
tf	OMIT	
extended_transaction_value	OMIT	
Detailed Comments :		

Structured Type Constraint Declaration		
Constraint Name : Called_party_number_rx_base		
Structured Type : CALLED_PARTY_NUMBER		
Derivation Path :		
Comments : The basic receive constraint for the CALLED_PARTY_NUMBER ie.		
Element Name	Element Value	Comments
iei	TSC_iei_called_party_number	
length	COMPLEMENT('00'O)	
numbering_plan_id	'0000'B	Unknown
number_type	'000'B	Unknown
f3	'1'B	
called_party_address	?	
Detailed Comments :		

Structured Type Constraint Declaration		
Constraint Name : Called_party_number_rx_empty		
Structured Type : CALLED_PARTY_NUMBER		
Derivation Path :		
Comments : Empty IE, length is 0.		
Element Name	Element Value	Comments
iei	TSC_iei_called_party_number	
length	'00'O	
numbering_plan_id	OMIT	
number_type	OMIT	
f3	OMIT	
called_party_address	OMIT	
Detailed Comments :		

Structured Type Constraint Declaration		
Constraint Name : Called_party_subaddress_rx_base		
Structured Type : CALLED_PARTY_SUBADDRESS		
Derivation Path :		
Comments :		
Element Name	Element Value	Comments
iei	TSC_iei_called_party_subaddress	
length	COMPLEMENT('00'O)	
spare	'000'B	
o_e	?	
subaddress_type	'0?0'B	
f3	'1'B	
subaddress_info	?	
Detailed Comments :		

Structured Type Constraint Declaration		
Constraint Name : Called_party_subaddress_rx_empty		
Structured Type : CALLED_PARTY_SUBADDRESS		
Derivation Path :		
Comments : Empty IE, length is 0.		
Element Name	Element Value	Comments
iei	TSC_iei_called_party_subaddress	
length	'00'O	
spare	OMIT	
o_e	OMIT	
subaddress_type	OMIT	
f3	OMIT	
subaddress_info	OMIT	
Detailed Comments :		

Structured Type Constraint Declaration		
Constraint Name : Calling_party_number_rx_base		
Structured Type : CALLING_PARTY_NUMBER		
Derivation Path :		
Comments :		
Element Name	Element Value	Comments
iei	TSC_iei_calling_party_number	
length	COMPLEMENT('00'O)	
numbering_plan_id	('?00?'B, '0011'B)	
number_type	COMPLEMENT('1?1'B)	
ext3	?	
screening_indicator	? IF_PRESENT	
spare	'000'B	
presentation_indicator	COMPLEMENT('11'B) IF_PRESENT	
f3a	'1'B IF_PRESENT	
calling_party_address	?	
Detailed Comments :		

Structured Type Constraint Declaration		
Constraint Name : Calling_party_number_rx_empty		
Structured Type : CALLING_PARTY_NUMBER		
Derivation Path :		
Comments : Empty IE, length is 0.		
Element Name	Element Value	Comments
iei	TSC_iei_calling_party_number	
length	'00'O	
numbering_plan_id	OMIT	
number_type	OMIT	
ext3	OMIT	
screening_indicator	OMIT	
spare	OMIT	
presentation_indicator	OMIT	
f3a	OMIT	
calling_party_address	OMIT	
Detailed Comments :		

Structured Type Constraint Declaration		
Constraint Name : Calling_party_number_tx_1234		
Structured Type : CALLING_PARTY_NUMBER		
Derivation Path :		
Comments : A send constraint for the calling party number. The actual calling party number is '1234'		
Element Name	Element Value	Comments
iei	TSC_iei_calling_party_number	
length	'05'O	
numbering_plan_id	'0001'B	ISDN
number_type	'100'B	Subscriber number
ext3	'1'B	
screening_indicator	OMIT	
spare	OMIT	
presentation_indicator	OMIT	
f3a	OMIT	
calling_party_address	TSC_string_1234	Number consists of digits 1, 2, 3, 4
Detailed Comments :		

Structured Type Constraint Declaration		
Constraint Name : Cipher_info_rx_base		
Structured Type : CIPHER_INFO		
Derivation Path :		
Comments : The basic receive constraint for the CIPHER_INFO ie.		
Element Name	Element Value	Comments
iei	TSC_iei_cipher_info	
length	('02'O, '03'O)	
cipher_algo_id	('0000001'B, '1111111'B)	DECT standard cipher algorithm OR Escape to proprietary algorithm id
y_n	?	
prop_algo_id	*	
cipher_key_number	?	
cipher_key_type	('1001'B, '1010'B)	'Derived' or 'Static'
Detailed Comments :		

Structured Type Constraint Declaration		
Constraint Name : Cipher_info_rx_empty Structured Type : CIPHER_INFO Derivation Path : Comments : Empty IE, length is 0.		
Element Name	Element Value	Comments
iei	TSC_iei_cipher_info	
length	'00'O	
cipher_algo_id	OMIT	DECT standard cipher algorithm OR Escape to proprietary algorithm id
y_n	OMIT	
prop_algo_id	OMIT	
cipher_key_number	OMIT	
cipher_key_type	OMIT	'Derived' or 'Static'
Detailed Comments :		

Structured Type Constraint Declaration		
Constraint Name : Cipher_info_dsca_disable Structured Type : CIPHER_INFO Derivation Path : Cipher_info_rx_base. Comments : A receive/send constraint for the cipher info ie, specifying DECT standard cipher algorithm, ciphering disable, cipher key type DCK.		
Element Name	Element Value	Comments
length	'02'O	
cipher_algo_id	'0000001'B	DECT standard cipher algorithm disable ciphering
y_n	'0'B	
prop_algo_id	OMIT	
cipher_key_number	'1000'B	
cipher_key_type	'1001'B	DCK
Detailed Comments :		

Structured Type Constraint Declaration		
Constraint Name : Cipher_info_dsca_enable Structured Type : CIPHER_INFO Derivation Path : Cipher_info_rx_base. Comments : A receive/send constraint for the cipher info ie, specifying DECT standard cipher algorithm, ciphering enable, cipher key type DCK.		
Element Name	Element Value	Comments
iei	TSC_iei_cipher_info	DECT standard cipher algorithm enable ciphering
length	'02'O	
cipher_algo_id	'0000001'B	
y_n	'1'B	
prop_algo_id	OMIT	
cipher_key_number	'1000'B	
cipher_key_type	'1001'B	
Detailed Comments :		

Structured Type Constraint Declaration		
Constraint Name : Cipher_info_unacceptable Structured Type : CIPHER_INFO Derivation Path : Cipher_info_rx_base. Comments : A receive/send constraint for the cipher info ie, specifying an unacceptable ciphering algorithm.		
Element Name	Element Value	Comments
iei	TSC_iei_cipher_info	Unacceptable value enable ciphering
length	'02'O	
cipher_algo_id	'0101011'B	
y_n	'1'B	
prop_algo_id	OMIT	
cipher_key_number	'1000'B	
cipher_key_type	'1001'B	
Detailed Comments :		

Structured Type Constraint Declaration		
Constraint Name : Connection_attributes_rx_base		
Structured Type : CONNECTION_ATTRIBUTES		
Derivation Path :		
Comments :		
Element Name	Element Value	Comments
iei	TSC_iei_connection_attributes	
length	?	
connection_id	('0000'B, '1???'B)	
symmetry	('1???'B, '001'B)	
f3	'1'B	
target_bearers_p_f	?	
f4	'00'B	
ext4	*	
min_bearers_p_f	*	
f4a	'01'B	
ext4a	*	
target_bearers_f_p	*	
f4b	'10'B	
ext4b	*	
min_bearers_f_p	*	
f4c	'111'B	
mac_service	*	
slot_size	*	
ext5	*	
mac_service_f_p	*	
f5a	'1000'B	
mac_packet_lifetime	*	
cf_channel_attributes	*	
ext6	*	
mac_packet_lifetime_f_p	*	
cf_channel_attributes_f_p	*	
f6a	'1'B	
Detailed Comments :		

Structured Type Constraint Declaration

Constraint Name : Connection_attributes_rx_empty
Structured Type : CONNECTION_ATTRIBUTES
Derivation Path :
Comments : Empty IE, length is 0.

Element Name	Element Value	Comments
iei	TSC_iei_connection_attributes	
length	'00'O	
connection_id	OMIT	
symmetry	OMIT	
f3	OMIT	
target_bearers_p_f	OMIT	
f4	OMIT	
ext4	OMIT	
min_bearers_p_f	OMIT	
f4a	OMIT	
ext4a	OMIT	
target_bearers_f_p	OMIT	
f4b	OMIT	
ext4b	OMIT	
min_bearers_f_p	OMIT	
f4c	OMIT	
mac_service	OMIT	
slot_size	OMIT	
ext5	OMIT	
mac_service_f_p	OMIT	
f5a	OMIT	
mac_packet_lifetime	OMIT	
cf_channel_attributes	OMIT	
ext6	OMIT	
mac_packet_lifetime_f_p	OMIT	
cf_channel_attributes_f_p	OMIT	
f6a	OMIT	

Detailed Comments :

Structured Type Constraint Declaration		
Constraint Name : Connection_attributes_list_rx_base		
Structured Type : CONNECTION_ATTRIBUTES_LIST		
Derivation Path :		
Comments :		
Element Name	Element Value	Comments
repeat_indicator	Repeat_indicator_rx_non_prio	
connection_attributes1	(Connection_attributes_rx_base, Connection_attributes_rx_empty)	
connection_attributes2	(Connection_attributes_rx_base, Connection_attributes_rx_empty)	
connection_attributes3	(Connection_attributes_rx_base, Connection_attributes_rx_empty) IF_PRESENT	
Detailed Comments :		

Structured Type Constraint Declaration		
Constraint Name : Connection_attributes_nolist_rx_base		
Structured Type : CONNECTION_ATTRIBUTES_LIST		
Derivation Path :		
Comments :		
Element Name	Element Value	Comments
repeat_indicator	OMIT	
connection_attributes1	(Connection_attributes_rx_base, Connection_attributes_rx_empty)	
connection_attributes2	OMIT	
connection_attributes3	OMIT	
Detailed Comments :		

Structured Type Constraint Declaration		
Constraint Name : Connection_id_rx_base		
Structured Type : CONNECTION_ID		
Derivation Path :		
Comments : The basic receive constraint for the CONNECTION_ID ie.		
Element Name	Element Value	Comments
iei	TSC_iei_connection_id	
length	COMPLEMENT('00'O)	
u_and_c_id	?	
Detailed Comments :		

Structured Type Constraint Declaration		
Constraint Name : Connection_id_rx_empty		
Structured Type : CONNECTION_ID		
Derivation Path :		
Comments : Empty IE, length is 0.		
Element Name	Element Value	Comments
iei	TSC_iei_connection_id	
length	'00'O	
u_and_c_id	OMIT	
Detailed Comments :		

Structured Type Constraint Declaration		
Constraint Name : Duration_rx_base		
Structured Type : DURATION		
Derivation Path :		
Comments : The basic receive constraint for duration.		
Element Name	Element Value	Comments
iei	TSC_iei_duration	
length	('01'O, '02'O)	
time_limits	('0000'B, '0010'B, '0100'B, '1111'B)	
lock_limits	('110'B, '111'B)	
ext3	?	
time_duration	? IF_PRESENT	
Detailed Comments : See subclause 7.7.13 + part 6 subclause 6.3.1		

Structured Type Constraint Declaration		
Constraint Name : Duration_rx_empty		
Structured Type : DURATION		
Derivation Path :		
Comments : Empty IE, length is 0.		
Element Name	Element Value	Comments
iei	TSC_iei_duration	
length	'00'O	
time_limits	OMIT	
lock_limits	OMIT	
ext3	OMIT	
time_duration	OMIT	
Detailed Comments : See subclause 7.7.13 + part 6 subclause 6.3.1		

Structured Type Constraint Declaration		
Constraint Name : End_to_end_compatibility_rx_base		
Structured Type : END_TO_END_COMPATIBILITY		
Derivation Path :		
Comments :		
Element Name	Element Value	Comments
iei	TSC_iei_end_to_end_compatibility	
length	?	
user_rate	?	
negotiation	?	
s_a	?	
ext3	?	
v110_x30_service	?	
ext3a	?	
parity	?	
data_bits	?	
stop_bits	?	
ext3b	?	
modem_type	?	
duplex	?	
f3c	'1'B	
Detailed Comments :		

Structured Type Constraint Declaration		
Constraint Name : End_to_end_compatibility_rx_empty		
Structured Type : END_TO_END_COMPATIBILITY		
Derivation Path :		
Comments : Empty IE, length is 0.		
Element Name	Element Value	Comments
iei	TSC_iei_end_to_end_compatibility	
length	'00'O	
user_rate	OMIT	
negotiation	OMIT	
s_a	OMIT	
ext3	OMIT	
v110_x30_service	OMIT	
ext3a	OMIT	
parity	OMIT	
data_bits	OMIT	
stop_bits	OMIT	
ext3b	OMIT	
modem_type	OMIT	
duplex	OMIT	
f3c	OMIT	
Detailed Comments :		

Structured Type Constraint Declaration		
Constraint Name : Facility_rx_base Structured Type : FACILITY Derivation Path : Comments : The basic receive constraint for the FACILITY ie.		
Element Name	Element Value	Comments
iei length service_discriminator f3 component	TSC_iei_facility COMPLEMENT('00'O) '10001'B '100'B ?	Discriminator for supplementary service applications
Detailed Comments :		

Structured Type Constraint Declaration		
Constraint Name : Facility_rx_empty Structured Type : FACILITY Derivation Path : Comments : Empty IE, length is 0.		
Element Name	Element Value	Comments
iei length service_discriminator f3 component	TSC_iei_facility '00'O OMIT OMIT OMIT	Discriminator for supplementary service applications
Detailed Comments :		

Structured Type Constraint Declaration		
Constraint Name : Feature_activate_rx_base		
Structured Type : FEATURE_ACTIVATE		
Derivation Path :		
Comments : The basic receive constraint for the FEATURE_ACTIVATE ie.		
Element Name	Element Value	Comments
iei	TSC_iei_feature_activate	
length	('01'O, '02'O)	
feature	('000001'B, '0001111'B, '010000'B, '011000'B, '1000010'B, '1000100'B, '1000111'B, '1001000'B, '1100000'B)	register recall external handover switch queue entry request indication of subscr. number feature key specific line selection specific trunk carrier selection control of echo control functions cost information
ext3	?	
parameter	*	
f3a	'1'B	
Detailed Comments :		

Structured Type Constraint Declaration		
Constraint Name : Feature_activate_rx_empty		
Structured Type : FEATURE_ACTIVATE		
Derivation Path :		
Comments : Empty IE, length is 0.		
Element Name	Element Value	Comments
iei	TSC_iei_feature_activate	
length	'00'O	
feature	OMIT	
ext3	OMIT	
parameter	OMIT	
f3a	OMIT	
Detailed Comments :		

Structured Type Constraint Declaration		
Constraint Name : Fixed_id_rx_base Structured Type : FIXED_ID Derivation Path : Comments : The basic receive constraint for the FIXED_ID ie.		
Element Name	Element Value	Comments
iei	TSC_iei_fixed_id	
length	('06'O, '07'O)	
type	?	
f3	'1'B	
length_of_id_value	?	
f4	'1'B	
id_value	?	
Detailed Comments :		

Structured Type Constraint Declaration		
Constraint Name : Fixed_id_rx_empty Structured Type : FIXED_ID Derivation Path : Comments : Empty IE, length is 0.		
Element Name	Element Value	Comments
iei	TSC_iei_fixed_id	
length	'00'O	
type	OMIT	
f3	OMIT	
length_of_id_value	OMIT	
f4	OMIT	
id_value	OMIT	
Detailed Comments :		

Structured Type Constraint Declaration		
Constraint Name : Fixed_id_ari_rpn Structured Type : FIXED_ID Derivation Path : Fixed_id_rx_base. Comments : A constraint for the fixed_id with an ARI + RPN. The actual value of the ARI+RPN is given as a PIXIT parameter. This constraint can be used for rx and tx.		
Element Name	Element Value	Comments
length type length_of_id_value id_value	TSC_fixed_id_length_ari_rpn '0000001'B TSC_ari_rpn_length TSC_arirpn_complete_value	ARI + RPN
Detailed Comments :		

Structured Type Constraint Declaration		
Constraint Name : Fixed_id_park Structured Type : FIXED_ID Derivation Path : Fixed_id_rx_base. Comments : A constraint for the fixed_id with a PARK. The actual value of the PARK is given as a PIXIT parameter. This constraint can be used for rx and tx.		
Element Name	Element Value	Comments
length type length_of_id_value id_value	TSC_fixed_id_length_park '0100000'B INT_TO_BIT((TSPX_park_length_indicator+1), 7) TSC_park_complete_value	PARK
Detailed Comments :		

Structured Type Constraint Declaration		
Constraint Name : Fixed_id_park_2 Structured Type : FIXED_ID Derivation Path : Fixed_id_rx_base. Comments : A constraint for the fixed_id with a second PARK. The actual value of the PARK is given as a PIXIT parameter. This constraint can be used for rx and tx.		
Element Name	Element Value	Comments
length	TSC_fixed_id_length_park2	PARK
type	'0100000'B	
length_of_id_value	INT_TO_BIT((TSPX_park_length_indicator_2+1), 7)	
id_value	TSC_park2_complete_value	
Detailed Comments :		

Structured Type Constraint Declaration		
Constraint Name : Identity_type_ipui Structured Type : IDENTITY_TYPE Derivation Path : Comments : A send constraint for the IDENTITY_TYPE ie, specifying the portable id with the IPUI		
Element Name	Element Value	Comments
iei	TSC_iei_identity_type	portable id
length	'02'O	
id_group	'0000'B	
space	'000'B	
f3	'1'B	IPUI
type	'0000000'B	
f4	'1'B	
Detailed Comments :		

Structured Type Constraint Declaration		
Constraint Name : Identity_type_park		
Structured Type : IDENTITY_TYPE		
Derivation Path :		
Comments : A send constraint for the IDENTITY_TYPE ie, specifying the fixed id with the PARK		
Element Name	Element Value	Comments
iei	TSC_iei_identity_type	
length	'02'O	
id_group	'0100'B	fixed id
space	'000'B	
f3	'1'B	
type	'0100000'B	PARK
f4	'1'B	
Detailed Comments :		

Structured Type Constraint Declaration		
Constraint Name : Identity_type_tpui		
Structured Type : IDENTITY_TYPE		
Derivation Path :		
Comments : A send constraint for the IDENTITY_TYPE ie, specifying the portable id with the TPUI		
Element Name	Element Value	Comments
iei	TSC_iei_identity_type	
length	'02'O	
id_group	'0000'B	portable id
space	'000'B	
f3	'1'B	
type	'0100000'B	TPUI
f4	'1'B	
Detailed Comments :		

Structured Type Constraint Declaration		
Constraint Name : Identity_type_unavailable		
Structured Type : IDENTITY_TYPE		
Derivation Path :		
Comments : A send constraint for the IDENTITY_TYPE ie, specifying the portable id with an unavailable identity type. See ETS 300 175-5[5], subclause 7.7.19		
Element Name	Element Value	Comments
iei	TSC_iei_identity_type	portable id unavailable identity type
length	'02'O	
id_group	'0000'B	
space	'000'B	
f3	'1'B	
type	'1000000'B	
f4	'1'B	
Detailed Comments :		

Structured Type Constraint Declaration		
Constraint Name : Info_type_tx_locate_suggest		
Structured Type : INFO_TYPE		
Derivation Path :		
Comments : A send constraint for the info type ie, specifying info-parameter 'locate_suggest'		
Element Name	Element Value	Comments
iei	TSC_iei_info_type	1)
length	'01'O	
info_parameter	'00'O	
Detailed Comments : 1) specifies 'locate suggest', and 'ext' as 0		

Structured Type Constraint Declaration		
Constraint Name : lwu_attributes_rx_base		
Structured Type : IWU_ATTRIBUTES		
Derivation Path :		
Comments : The basic receive constraint for the IWU_ATTRIBUTES ie.		
Element Name	Element Value	Comments
iei	TSC_iei_iwu_attributes	
length	COMPLEMENT('00'O)	
info_transfer_capability	('00000'B, '01000'B, '01001'B, '10000'B, '10001'B, '10100'B, '11000'B)	
coding_standard	'00'B	
f3	'1'B	
external_connection_type	('0000'B, '0001'B, '0010'B, '0011'B, '0100'B, '1000'B)	
negotiation_indicator	('000'B, '100'B)	
f4	'1'B	
info_transfer_rate	('00000'B, '0101?'B, '1000?'B, '10011'B , '1111?'B) IF_PRESENT	
trans_mode	COMPLEMENT('01'B)	
ext5	*	
rate_multiplier	'0????'B IF_PRESENT	
unit_rate	COMPLEMENT('00'B) IF_PRESENT	
ext5a	*	
establishment	'00'B IF_PRESENT	
configuration	'00'B IF_PRESENT	
structure	('00?'B, '100'B, '111'B) IF_PRESENT	
ext5b	*	
info_transfer_rate_d_o	('00000'B, '0101?'B, '1000?'B, '10011'B , '1111?'B) IF_PRESENT	
symmetry	COMPLEMENT('01'B) IF_PRESENT	
ext5c	*	
rate_multiplier_d_o	'0????'B IF_PRESENT	
unit_rate_d_o	COMPLEMENT('00'B) IF_PRESENT	
f5d	'1'B IF_PRESENT	
user_protocol_id	('00???'B , '0100?'B, '1000?'B, '11000'B) IF_PRESENT	

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Structured Type Constraint Declaration		
Element Name	Element Value	Comments
f6 ext6 l3_protocol_id	'00'B IF_PRESENT * ('000?0'B , '0011?B , '0100?B , '01010'B , '10010'B) IF_PRESENT	
f7 ext7 l2_protocol_id	'11'B IF_PRESENT * ('0000?B, '00?10'B, '00111'B, '01?00'B, '10001'B, '10?10'B) IF_PRESENT	
f8 ext8	'11'B IF_PRESENT *	
Detailed Comments :		

Structured Type Constraint Declaration		
Constraint Name : lwu_attributes_rx_empty Structured Type : IWU_ATTRIBUTES Derivation Path : Comments : Empty IE, length is 0.		
Element Name	Element Value	Comments
iei	TSC_iei_iwu_attributes	
length	'00'O	
info_transfer_capability	OMIT	
coding_standard	OMIT	
f3	OMIT	
external_connection_type	OMIT	
negotiation_indicator	OMIT	
f4	OMIT	
info_transfer_rate	OMIT	
trans_mode	OMIT	
ext5	OMIT	
rate_multiplier	OMIT	
unit_rate	OMIT	
ext5a	OMIT	
establishment	OMIT	
configuration	OMIT	
structure	OMIT	
ext5b	OMIT	
info_transfer_rate_d_o	OMIT	
symmetry	OMIT	
ext5c	OMIT	
rate_multiplier_d_o	OMIT	
unit_rate_d_o	OMIT	
f5d	OMIT	
user_protocol_id	OMIT	
f6	OMIT	
ext6	OMIT	
l3_protocol_id	OMIT	
f7	OMIT	
ext7	OMIT	
l2_protocol_id	OMIT	
f8	OMIT	
ext8	OMIT	
Detailed Comments :		

Structured Type Constraint Declaration		
Constraint Name : lwu_packet_rx_base Structured Type : IWU_PACKET Derivation Path : Comments : The basic receive constraint for the IWU_PACKET ie.		
Element Name	Element Value	Comments
iei	TSC_iei_iwu_packet	
length	COMPLEMENT('00'O)	
l2_protocol_id	('0000?'B, '00?10'B, '00111'B, '01?00'B, '10001'B, '10?10'B)	
f3	'0'B	
s_r	?	
ext3	?	
l3_protocol_id	('000?0'B , '0011?'B, '0100?'B, '01010'B , '10010'B) IF_PRESENT	
f3a	'111'B IF_PRESENT	
info	?	
Detailed Comments :		

Structured Type Constraint Declaration		
Constraint Name : lwu_packet_rx_empty Structured Type : IWU_PACKET Derivation Path : Comments : Empty IE, length is 0.		
Element Name	Element Value	Comments
iei	TSC_iei_iwu_packet	
length	'00'O	
l2_protocol_id	OMIT	
f3	OMIT	
s_r	OMIT	
ext3	OMIT	
l3_protocol_id	OMIT	
f3a	OMIT	
info	OMIT	
Detailed Comments :		

Structured Type Constraint Declaration		
Constraint Name : lwu_to_iwu_rx_base Structured Type : IWU_TO_IWU Derivation Path : Comments : The basic receive constraint for the IWU_TO_IWU ie. ETS 300 175-5 [5], second edition, subclause 7.7.23		
Element Name	Element Value	Comments
iei	TSC_iei_iwu_to_iwu	CCITT Q.931 (I.451), partial message
length	COMPLEMENT('00'O)	
protocol_discriminator	('00000'?B, '000010'B, '000100'B, '000101'B, '000111'B, '00100'?B, '01000'?B, '111111'B)	
s_r	?	
f3	'1'B	
contents	?	
Detailed Comments :		

Structured Type Constraint Declaration		
Constraint Name : lwu_to_iwu_rx_empty Structured Type : IWU_TO_IWU Derivation Path : Comments : Empty IE, length is 0.		
Element Name	Element Value	Comments
iei	TSC_iei_iwu_to_iwu	
length	'00'O	
protocol_discriminator	OMIT	
s_r	OMIT	
f3	OMIT	
contents	OMIT	
Detailed Comments :		

Structured Type Constraint Declaration		
Constraint Name : Key_rx_base Structured Type : KEY Derivation Path : Comments : Constraint of the Key ie, with key type being DCK		
Element Name	Element Value	Comments
iei	TSC_iei_key	
length	COMPLEMENT('00'O)	Should be non zero length
key_type	'90'O	DCK
key_data	?	
Detailed Comments :		

Structured Type Constraint Declaration		
Constraint Name : Key_rx_empty Structured Type : KEY Derivation Path : Comments : Empty IE, length is 0.		
Element Name	Element Value	Comments
iei	TSC_iei_key	
length	'00'O	
key_type	OMIT	
key_data	OMIT	
Detailed Comments :		

Structured Type Constraint Declaration		
Constraint Name : Location_area_rx_base Structured Type : LOCATION_AREA Derivation Path : Comments : The basic receive constraint for the LOCATION_AREA ie.		
Element Name	Element Value	Comments
iei	TSC_iei_location_area	
length	('01'O, '02'O, '09'O)	
location_area_level	?	
li_type	('01'B, '10'B, '11'B)	
spare	'1111'B IF_PRESENT	if GSM loc. info is not included
eli_type	('0111'B, '1111'B) IF_PRESENT	
extended_location_information	*	
Detailed Comments :		

Structured Type Constraint Declaration		
Constraint Name : Location_area_rx_empty		
Structured Type : LOCATION_AREA		
Derivation Path :		
Comments : Empty IE, length is 0.		
Element Name	Element Value	Comments
iei	TSC_iei_location_area	
length	'00'O	
location_area_level	OMIT	
li_type	OMIT	
spare	OMIT	
eli_type	OMIT	
extended_location_information	OMIT	
Detailed Comments :		

Structured Type Constraint Declaration		
Constraint Name : Location_area_lal_only		
Structured Type : LOCATION_AREA		
Derivation Path :		
Comments : A constraint for the LOCATION_AREA PDU. This constraint can be used for rx and tx.		
Element Name	Element Value	Comments
iei	TSC_iei_location_area	
length	'01'O	
location_area_level	TSPX_location_area_level	LAL to be specified in PIXIT.
li_type	'01'B	only LAL included
spare	OMIT	
eli_type	OMIT	
extended_location_information	OMIT	
Detailed Comments :		

Structured Type Constraint Declaration		
Constraint Name : Multi_keypad_rx_base		
Structured Type : MULTI_KEYPAD		
Derivation Path :		
Comments : The basic constraint for multi_keypad		
Element Name	Element Value	Comments
iei	TSC_iei_multi_keypad	
length	COMPLEMENT('00'O)	
keypad_info	?	
Detailed Comments :		

Structured Type Constraint Declaration		
Constraint Name : Multi_keypad_rx_empty		
Structured Type : MULTI_KEYPAD		
Derivation Path :		
Comments : Empty IE, length is 0.		
Element Name	Element Value	Comments
iei	TSC_iei_multi_keypad	
length	'00'O	
keypad_info	OMIT	
Detailed Comments :		

Structured Type Constraint Declaration		
Constraint Name : Multi_keypad_rx_dtmf_defined		
Structured Type : MULTI_KEYPAD		
Derivation Path : Multi_keypad_rx_base.		
Comments : The receive constraint for multi_keypad containing 'goto DTMF, defined tone length'		
Element Name	Element Value	Comments
length	'01'O	
keypad_info	'14'O	1)
Detailed Comments : 1) goto DTMF, defined tone length		

Structured Type Constraint Declaration		
Constraint Name : Multi_keypad_rx_dtmf_infinite		
Structured Type : MULTI_KEYPAD		
Derivation Path : Multi_keypad_rx_base.		
Comments : The receive constraint for multi_keypad containing 'goto DTMF, infinite tone length'		
Element Name	Element Value	Comments
length	'01'O	
keypad_info	'16'O	1)
Detailed Comments : 1) goto DTMF, infinite tone length		

Structured Type Constraint Declaration		
Constraint Name : Multi_keypad_rx_digit		
Structured Type : MULTI_KEYPAD		
Derivation Path : Multi_keypad_rx_base.		
Comments : The constraint for multi_keypad containing the basic dialled digits		
Element Name	Element Value	Comments
length	'01'O	
keypad_info	('23'O, '2A'O, '30'O, '31'O, '32'O, '33'O, '34'O, '35'O, '36'O, '37'O, '38'O, '39'O)	basic dialled digits: # * 0 1 2 3 4 5 6 7 8 9
Detailed Comments :		

Structured Type Constraint Declaration		
Constraint Name : Multi_keypad_rx_internal		
Structured Type : MULTI_KEYPAD		
Derivation Path : Multi_keypad_rx_base.		
Comments : The receive constraint for multi_keypad containing 'internal call'		
Element Name	Element Value	Comments
length	'01'O	
keypad_info	'17'O	1)
Detailed Comments : 1) contains keypad-info '17H' (internal call)		

Structured Type Constraint Declaration		
Constraint Name : Multi_keypad_rx_pause		
Structured Type : MULTI_KEYPAD		
Derivation Path : Multi_keypad_rx_base.		
Comments : The receive constraint for multi_keypad containing 'dialling pause'		
Element Name	Element Value	Comments
length	'01'O	
keypad_info	'05'O	1)
Detailed Comments : 1) contains keypad-info '05H' (dialling pause)		

Structured Type Constraint Declaration		
Constraint Name : Multi_keypad_rx_pulse		
Structured Type : MULTI_KEYPAD		
Derivation Path : Multi_keypad_rx_base.		
Comments : The receive constraint for multi_keypad containing 'goto pulse'		
Element Name	Element Value	Comments
length	'01'O	
keypad_info	'12'O	1)
Detailed Comments : 1) contains keypad_info '12H' (goto pulse)		

Structured Type Constraint Declaration		
Constraint Name : Multi_keypad_rx_register_recall		
Structured Type : MULTI_KEYPAD		
Derivation Path : Multi_keypad_rx_base.		
Comments : The receive constraint for multi_keypad containing 'register redall'		
Element Name	Element Value	Comments
length	'01'O	
keypad_info	'15'O	1)
Detailed Comments : 1) contains keypad_info '15H' (register recall)		

Structured Type Constraint Declaration		
Constraint Name : Multi_display_tx_ctrl_char		
Structured Type : MULTI_DISPLAY		
Derivation Path :		
Comments : Clear display		
Element Name	Element Value	Comments
iei	TSC_iei_multi_display	
length	'01'O	
display_info	'0C'O	Clear display
Detailed Comments :		

Structured Type Constraint Declaration		
Constraint Name : Multi_display_tx_stand_char		
Structured Type : MULTI_DISPLAY		
Derivation Path :		
Comments : standard characters to be displayed: '1234'		
Element Name	Element Value	Comments
iei	TSC_iei_multi_display	
length	'04'O	
display_info	TSC_string_1234	digits 1, 2, 3, 4
Detailed Comments :		

Structured Type Constraint Declaration		
Constraint Name : Network_assigned_id_rx_base		
Structured Type : NETWORK_ASSIGNED_ID		
Derivation Path :		
Comments : The basic receive constraint for the NETWORK_ASSIGNED_ID ie.		
Element Name	Element Value	Comments
iei	TSC_iei_network_assigned_id	
length	COMPLEMENT('00'O)	
type	('1110100'B, '1111111'B)	
f3	'1'B	
id_length	?	
f4	'1'B	
value	?	
Detailed Comments :		

Structured Type Constraint Declaration		
Constraint Name : Network_assigned_id_rx_empty		
Structured Type : NETWORK_ASSIGNED_ID		
Derivation Path :		
Comments : Empty IE, length is 0.		
Element Name	Element Value	Comments
iei	TSC_iei_network_assigned_id	
length	'00'O	
type	OMIT	
f3	OMIT	
id_length	OMIT	
f4	OMIT	
value	OMIT	
Detailed Comments :		

Structured Type Constraint Declaration		
Constraint Name : Network_header_ice_ori		
Structured Type : NETWORK_HEADER		
Derivation Path :		
Comments : The constraint for the network header in case of Ice messages from initiating party		
Element Name	Element Value	Comments
protocol_discriminator	TSC_pd_ice	
transaction_value	'000'B	
transaction_flag	'0'B	
ext_transaction_flag	OMIT	
Detailed Comments :		

Structured Type Constraint Declaration		
Constraint Name : Network_header_ice_dest		
Structured Type : NETWORK_HEADER		
Derivation Path :		
Comments : The constraint for the network header in case of Ice messages from non initiating party		
Element Name	Element Value	Comments
protocol_discriminator	TSC_pd_ice	
transaction_value	'000'B	
transaction_flag	'1'B	
ext_transaction_flag	OMIT	
Detailed Comments :		

Structured Type Constraint Declaration		
Constraint Name : Network_header_cc_iut(tv_ : BIT_3; tf_ : BIT_1)		
Structured Type : NETWORK_HEADER		
Derivation Path :		
Comments : The constraint for the network header in case of cc messages sent by the IUT		
Element Name	Element Value	Comments
protocol_discriminator	TSC_pd_cc	
transaction_value	tv_	
transaction_flag	tf_	
ext_transaction_flag	OMIT	
Detailed Comments :		

Structured Type Constraint Declaration		
Constraint Name : Network_header_cc_iut_any_tv(tf_ : BIT_1)		
Structured Type : NETWORK_HEADER		
Derivation Path :		
Comments : The constraint for the network header in case of cc messages sent by the IUT. This constraint is used to receive CC-SETUP messages. It does not put a constraint on the transaction value. This TV will be assigned after receiving the CC-SETUP message.		
Element Name	Element Value	Comments
protocol_discriminator	TSC_pd_cc	
transaction_value	*	
transaction_flag	tf_	
ext_transaction_flag	OMIT	
Detailed Comments :		

Structured Type Constraint Declaration		
Constraint Name : Network_header_cc_lt(tv_ : BIT_3; tf_ : BIT_1)		
Structured Type : NETWORK_HEADER		
Derivation Path :		
Comments : The constraint for the network header in case of cc messages sent by the LT		
Element Name	Element Value	Comments
protocol_discriminator	TSC_pd_cc	
transaction_value	tv_	
transaction_flag	tf_	
ext_transaction_flag	OMIT	
Detailed Comments :		

Structured Type Constraint Declaration		
Constraint Name : Network_header_ciss_any_tf		
Structured Type : NETWORK_HEADER		
Derivation Path :		
Comments : The constraint for the network header in case of coms messages sent by the IUT		
Element Name	Element Value	Comments
protocol_discriminator	TSC_pd_ciss	
transaction_value	?	
transaction_flag	?	
ext_transaction_flag	OMIT	
Detailed Comments :		

Structured Type Constraint Declaration		
Constraint Name : Network_header_coms_any_tf		
Structured Type : NETWORK_HEADER		
Derivation Path :		
Comments : The constraint for the network header in case of coms messages sent by the IUT		
Element Name	Element Value	Comments
protocol_discriminator	TSC_pd_coms	
transaction_value	?	
transaction_flag	?	
ext_transaction_flag	OMIT	
Detailed Comments :		

Structured Type Constraint Declaration		
Constraint Name : Network_header_mm_ori		
Structured Type : NETWORK_HEADER		
Derivation Path :		
Comments : The constraint for the network header in case of mm messages sent from originating side.		
Element Name	Element Value	Comments
protocol_discriminator	TSC_pd_mm	
transaction_value	'000'B	
transaction_flag	'0'B	
ext_transaction_flag	OMIT	
Detailed Comments :		

Structured Type Constraint Declaration		
Constraint Name : Network_header_mm_dest		
Structured Type : NETWORK_HEADER		
Derivation Path :		
Comments : The constraint for the network header in case of mm messages sent from destination side.		
Element Name	Element Value	Comments
protocol_discriminator	TSC_pd_mm	
transaction_value	'000'B	
transaction_flag	'1'B	
ext_transaction_flag	OMIT	
Detailed Comments :		

Structured Type Constraint Declaration		
Constraint Name : Network_parameter_rx_base		
Structured Type : NETWORK_PARAMETER		
Derivation Path :		
Comments :		
Element Name	Element Value	Comments
iei	TSC_iei_network_parameter	
length	COMPLEMENT('00'O)	
discriminator	('01101010'B, '01111111'B, '11101010'B)	
data_field	?	
Detailed Comments :		

Structured Type Constraint Declaration		
Constraint Name : Network_parameter_rx_empty		
Structured Type : NETWORK_PARAMETER		
Derivation Path :		
Comments : Empty IE, length is 0.		
Element Name	Element Value	Comments
iei	TSC_iei_network_parameter	
length	'00'O	
discriminator	OMIT	
data_field	OMIT	
Detailed Comments :		

Structured Type Constraint Declaration		
Constraint Name : Portable_id_rx_base		
Structured Type : PORTABLE_ID		
Derivation Path :		
Comments : The basic receive constraint of the PORTABLE_ID ie.		
Element Name	Element Value	Comments
iei	TSC_iei_portable_id	
length	('03'O, '04'O, '05'O, '06'O, '07'O, '08'O, '09'O, '0A'O, '0B'O, '0C'O, '0D'O, '0E'O, '0F'O)	
type	?	
f3	'1'B	
length_of_id_value	?	
f4	'1'B	
id_value	?	
Detailed Comments :		

Structured Type Constraint Declaration		
Constraint Name : Portable_id_rx_empty Structured Type : PORTABLE_ID Derivation Path : Comments : Empty IE, length is 0.		
Element Name	Element Value	Comments
iei	TSC_iei_portable_id	
length	'00'O	
type	OMIT	
f3	OMIT	
length_of_id_value	OMIT	
f4	OMIT	
id_value	OMIT	
Detailed Comments :		

Structured Type Constraint Declaration		
Constraint Name : Portable_id_empty Structured Type : PORTABLE_ID Derivation Path : Portable_id_rx_base. Comments : A derived constraint for the portable id ie, containing an empty id value, used when in the locate accept message, no TPUI is to be assigned.		
Element Name	Element Value	Comments
length	'00'O	
type	OMIT	
f3	OMIT	
length_of_id_value	OMIT	
f4	OMIT	
id_value	OMIT	
Detailed Comments :		

Structured Type Constraint Declaration		
Constraint Name : Portable_id_ipei Structured Type : PORTABLE_ID Derivation Path : Portable_id_rx_base. Comments : A constraint for the portable_id, specifying that the type should be IPUI-N or IPEI, with the value specified in TSPX_ipei_value. This constraint can be used for rx and tx.		
Element Name	Element Value	Comments
length type length_of_id_value id_value	TSC_port_id_length_ipei ('0000000'B, '0010000'B) TSC_ipei_length TSC_ipei_complete_value	IPUI type in case IPUI-N used IPEI type
Detailed Comments :		

Structured Type Constraint Declaration		
Constraint Name : Portable_id_ipui Structured Type : PORTABLE_ID Derivation Path : Portable_id_rx_base. Comments : The actual value of the IPUI (to be used after subscription) is given as a PIXIT parameter. This constraint can be used for rx and tx.		
Element Name	Element Value	Comments
length type length_of_id_value id_value	TSC_port_id_length_ipui '0000000'B TSC_ipui_length TSC_ipui_complete_value	IPUI type
Detailed Comments :		

Structured Type Constraint Declaration		
Constraint Name : Progress_indicator_rx_base Structured Type : PROGRESS_INDICATOR Derivation Path : Comments :		
Element Name	Element Value	Comments
iei	TSC_iei_progress_indicator	
length	'02'O	
location	('0000'B, '0001'B, '0010'B, '0100'B, '0101'B, '1010'B, '1111'B)	
coding_standard	'??0'B	
f3	'1'B	
progress_description	('0000001'B, '0000010'B, '0000011'B, '0000100'B, '0001000'B, '0001001'B)	
f4	'1'B	
Detailed Comments :		

Structured Type Constraint Declaration		
Constraint Name : Progress_indicator_rx_empty Structured Type : PROGRESS_INDICATOR Derivation Path : Comments : Empty IE, length is 0.		
Element Name	Element Value	Comments
iei	TSC_iei_progress_indicator	
length	'00'O	
location	OMIT	
coding_standard	OMIT	
f3	OMIT	
progress_description	OMIT	
f4	OMIT	
Detailed Comments :		

Structured Type Constraint Declaration		
Constraint Name : Progress_indicator_tx_patt_avail Structured Type : PROGRESS_INDICATOR Derivation Path : Comments : A send constraint for the progress_indicator i.e, saying: inband information or appropriate pattern now available.		
Element Name	Element Value	Comments
iei	TSC_iei_progress_indicator	n.a. CCITT standardised inband information or appropriate pattern now available.
length	'02'O	
location	'1111'B	
coding_standard	'000'B	
f3	'1'B	
progress_description	'0001000'B	
f4	'1'B	
Detailed Comments :		

Structured Type Constraint Declaration		
Constraint Name : Rand_rx_base Structured Type : RAND Derivation Path : Comments : The basic receive constraint for the RAND ie		
Element Name	Element Value	Comments
iei	TSC_iei_rand	
length	?	
field	?	
Detailed Comments :		

Structured Type Constraint Declaration		
Constraint Name : Rand_rx_empty Structured Type : RAND Derivation Path : Comments : Empty IE, length is 0.		
Element Name	Element Value	Comments
iei	TSC_iei_rand	
length	'00'O	
field	OMIT	
Detailed Comments :		

Structured Type Constraint Declaration		
Constraint Name : Rand_tx_64_bit		
Structured Type : RAND		
Derivation Path :		
Comments : A send constraint for the RAND structured type		
Element Name	Element Value	Comments
iei	TSC_iei_rand	
length	'08'O	64 bits
field	TSC_rand	Use a 64 bit rand, defined as a constant
Detailed Comments :		

Structured Type Constraint Declaration		
Constraint Name : Rate_parameters_rx_base		
Structured Type : RATE_PARAMETERS		
Derivation Path :		
Comments :		
Element Name	Element Value	Comments
iei	TSC_iei_rate_parameters	
length	?	
class_of_service	?	
interleaving	?	
symmetry	?	
f3	'1'B	
channel1_arrangement_ptof	?	
channel1_rate_ptof	?	
ext4	?	
channel1_arrangement_ftop	?	
channel1_rate_ftop	?	
f4a	'1'B	
channel2_arrangement_ptof	?	
channel2_rate_ptof	?	
ext5	?	
channel2_arrangement_ftop	?	
channel2_rate_ftop	?	
f5a	'1'B	
channel3_arrangement_ptof	?	
channel3_rate_ptof	?	
ext6	?	
channel3_arrangement_ftop	?	
channel3_rate_ftop	?	
f6a	'1'B	
Detailed Comments :		

Structured Type Constraint Declaration		
Constraint Name : Rate_parameters_rx_empty Structured Type : RATE_PARAMETERS Derivation Path : Comments : Empty IE, length is 0.		
Element Name	Element Value	Comments
iei	TSC_iei_rate_parameters	
length	'00'O	
class_of_service	OMIT	
interleaving	OMIT	
symmetry	OMIT	
f3	OMIT	
channel1_arrangement_ptof	OMIT	
channel1_rate_ptof	OMIT	
ext4	OMIT	
channel1_arrangement_ftop	OMIT	
channel1_rate_ftop	OMIT	
f4a	OMIT	
channel2_arrangement_ptof	OMIT	
channel2_rate_ptof	OMIT	
ext5	OMIT	
channel2_arrangement_ftop	OMIT	
channel2_rate_ftop	OMIT	
f5a	OMIT	
channel3_arrangement_ptof	OMIT	
channel3_rate_ptof	OMIT	
ext6	OMIT	
channel3_arrangement_ftop	OMIT	
channel3_rate_ftop	OMIT	
f6a	OMIT	
Detailed Comments :		

Structured Type Constraint Declaration		
Constraint Name : Reject_reason_rx_base Structured Type : REJECT_REASON Derivation Path : Comments : The basic receive constraint for the REJECT_REASON ie.		
Element Name	Element Value	Comments
iei	TSC_iei_reject_reason	
length	'01'O	
reason	?	
Detailed Comments : See subclause 7.7.34.		

Structured Type Constraint Declaration		
Constraint Name : Reject_reason_rx_empty Structured Type : REJECT_REASON Derivation Path : Comments : Empty IE, length is 0.		
Element Name	Element Value	Comments
iei length reason	TSC_iei_reject_reason '00'O OMIT	
Detailed Comments : See subclause 7.7.34.		

Structured Type Constraint Declaration		
Constraint Name : Release_reason_rx_base Structured Type : RELEASE_REASON Derivation Path : Comments : The basic receive constraint for the release reason constraint.		
Element Name	Element Value	Comments
iei reason	TSC_iei_release_reason ?	
Detailed Comments :		

Structured Type Constraint Declaration		
Constraint Name : Release_reason_partial_release Structured Type : RELEASE_REASON Derivation Path : Comments : A send constraint for the release reason constraint, containing reason '15'O (partial release)		
Element Name	Element Value	Comments
iei reason	TSC_iei_release_reason '0E'O	partial release
Detailed Comments :		

Structured Type Constraint Declaration		
Constraint Name : Repeat_indicator_rx_base		
Structured Type : REPEAT_INDICATOR		
Derivation Path :		
Comments : The basic receive constraint for the REPEAT_INDICATOR ie, non prioritised list or prioritised list		
Element Name	Element Value	Comments
repeat_indicator f1	(TSC_iei_repeat_indicator_non_prioritised, TSC_iei_repeat_indicator_prioritised) '1101'B	
Detailed Comments :		

Structured Type Constraint Declaration		
Constraint Name : Repeat_indicator_rx_prio		
Structured Type : REPEAT_INDICATOR		
Derivation Path :		
Comments : The basic receive constraint for the REPEAT_INDICATOR ie, prioritised list		
Element Name	Element Value	Comments
repeat_indicator f1	TSC_iei_repeat_indicator_prioritised '1101'B	
Detailed Comments :		

Structured Type Constraint Declaration		
Constraint Name : Repeat_indicator_rx_non_prio		
Structured Type : REPEAT_INDICATOR		
Derivation Path :		
Comments : The basic receive constraint for the REPEAT_INDICATOR ie, non prioritised list		
Element Name	Element Value	Comments
repeat_indicator f1	TSC_iei_repeat_indicator_non_prioritised '1101'B	
Detailed Comments :		

Structured Type Constraint Declaration		
Constraint Name : Repeat_indicator_tx_non_prio		
Structured Type : REPEAT_INDICATOR		
Derivation Path :		
Comments : A send constraint for the REPEAT_INDICATOR ie, non prioritised list.		
Element Name	Element Value	Comments
repeat_indicator	TSC_iei_repeat_indicator_non_prioritised	
f1	'1101'B	
Detailed Comments :		

Structured Type Constraint Declaration		
Constraint Name : Res_rx_base		
Structured Type : RES		
Derivation Path :		
Comments : The basic receive constraint for the RES ie		
Element Name	Element Value	Comments
iei	TSC_iei_res	
length	?	
field	?	
Detailed Comments :		

Structured Type Constraint Declaration		
Constraint Name : Res_rx_empty		
Structured Type : RES		
Derivation Path :		
Comments : Empty IE, length is 0.		
Element Name	Element Value	Comments
iei	TSC_iei_res	
length	'00'O	
field	OMIT	
Detailed Comments :		

Structured Type Constraint Declaration		
Constraint Name : Res_tx(res_field : BIT_32) Structured Type : RES Derivation Path : Comments : The basic send constraint for the RES ie. This actual value for the field will be passed through a param. constraint.		
Element Name	Element Value	Comments
iei length field	TSC_iei_res '04'O res_field	32 bits
Detailed Comments :		

Structured Type Constraint Declaration		
Constraint Name : Rs_tx_64_bit Structured Type : RS Derivation Path : Comments : A send constraint for the RS structured type		
Element Name	Element Value	Comments
iei length field	TSC_iei_rs '08'O TSC_rs	Use a 64 bit rs, defined as a constant
Detailed Comments :		

Structured Type Constraint Declaration		
Constraint Name : Sending_complete Structured Type : SENDING_COMPLETE Derivation Path : Comments : The constraint for the SENDING COMPLETE ie.		
Element Name	Element Value	Comments
sending_complete	'A1'O	
Detailed Comments :		

Structured Type Constraint Declaration		
Constraint Name : Service_change_info_rx_base Structured Type : SERVICE_CHANGE_INFO Derivation Path : Comments :		
Element Name	Element Value	Comments
iei	TSC_iei_service_change_info	
length	('02'O, '03'O)	
change_mode	('000?'B, '0010'B, '01?0'B, '100?'B, '1111'B)	
master_coding	?	
coding_standard	'00'B	
ext3	?	
extended_change_mode	*	
f3a	'1'B IF_PRESENT	
b_attributes	('000'B, '010'B, '011'B)	
reset_coding	?	
a_attributes	('000'B, '010'B, '011'B)	
f4	'1'B	
Detailed Comments :		

Structured Type Constraint Declaration		
Constraint Name : Service_change_info_rx_empty Structured Type : SERVICE_CHANGE_INFO Derivation Path : Comments : Empty IE, length is 0.		
Element Name	Element Value	Comments
iei	TSC_iei_service_change_info	
length	'00'O	
change_mode	OMIT	
master_coding	OMIT	
coding_standard	OMIT	
ext3	OMIT	
extended_change_mode	OMIT	
f3a	OMIT	
b_attributes	OMIT	
reset_coding	OMIT	
a_attributes	OMIT	
f4	OMIT	
Detailed Comments :		

Structured Type Constraint Declaration		
Constraint Name : Service_change_info_tx_base		
Structured Type : SERVICE_CHANGE_INFO		
Derivation Path :		
Comments :		
Element Name	Element Value	Comments
iei	TSC_iei_service_change_info	
length	'01'O	
change_mode	'0000'B	
master_coding	'0'B	
coding_standard	'00'B	
ext3	'0'B	
extended_change_mode	OMIT	
f3a	OMIT	
b_attributes	OMIT	
reset_coding	OMIT	
a_attributes	OMIT	
f4	OMIT	
Detailed Comments :		

Structured Type Constraint Declaration		
Constraint Name : Service_class_rx_base		
Structured Type : SERVICE_CLASS		
Derivation Path :		
Comments : The basic receive constraint for SERVICE_CLASS		
Element Name	Element Value	Comments
iei	TSC_iei_service_class	
length	'01'O	
service_class_field	('00000001'B, '00000010'B, '00000011'B, '00000100'B, '00000101'B, '00000110'B)	
Detailed Comments :		

Structured Type Constraint Declaration		
Constraint Name : Service_class_rx_empty		
Structured Type : SERVICE_CLASS		
Derivation Path :		
Comments : Empty IE, length is 0.		
Element Name	Element Value	Comments
iei	TSC_iei_service_class	
length	'00'O	
service_class_field	OMIT	
Detailed Comments :		

Structured Type Constraint Declaration		
Constraint Name : Service_class_international		
Structured Type : SERVICE_CLASS		
Derivation Path :		
Comments : A send constraint for the service class ie, specifying that international calls are allowed.		
Element Name	Element Value	Comments
iei	TSC_iei_service_class	
length	'01'O	
service_class_field	'00000101'B	International calls allowed.
Detailed Comments :		

Structured Type Constraint Declaration		
Constraint Name : Setup_capability_rx_base		
Structured Type : SETUP_CAPABILITY		
Derivation Path :		
Comments : The basic receive constraint for SETUP_CAPABILITY		
Element Name	Element Value	Comments
iei	TSC_iei_setup_capability	
length	('01'O, '02'O)	
page	('01'B, '10'B)	
setup	('01'B, '10'B)	
f3	'000'B	
ext3	?	
profile_indicator	'100'B IF_PRESENT	DECT/GSM IWP
f3a	'10000'B IF_PRESENT	
Detailed Comments :		

Structured Type Constraint Declaration		
Constraint Name : Setup_capability_rx_empty Structured Type : SETUP_CAPABILITY Derivation Path : Comments : Empty IE, length is 0.		
Element Name	Element Value	Comments
iei	TSC_iei_setup_capability	
length	'00'O	
page	OMIT	
setup	OMIT	
f3	OMIT	
ext3	OMIT	
profile_indicator	OMIT	
f3a	OMIT	
Detailed Comments :		

Structured Type Constraint Declaration		
Constraint Name : Short_frm_addr Structured Type : SHORT_FORMAT_ADDRESS Derivation Path : Comments : A constraint for the SHORT_FORMAT_ADDRESS ie, specifying an assigned TPUI, with the value as specified in the PIXIT.		
Element Name	Element Value	Comments
w	TSO_cinpt_calculate_w_from_TPUI(TSPX_tpui_value)	
f1	'0'H	
tpui_address	TSO_cinpt_lowest(16, TSPX_tpui_value)	
Detailed Comments :		

Structured Type Constraint Declaration		
Constraint Name : Signal_tx_alerting_on Structured Type : SIGNAL Derivation Path : Comments : Alerting on		
Element Name	Element Value	Comments
iei	TSC_iei_signal	
signal_value	'40'O	Alerting on
Detailed Comments :		

Structured Type Constraint Declaration		
Constraint Name : Single_keypad_rx_base		
Structured Type : SINGLE_KEYPAD		
Derivation Path :		
Comments :		
Element Name	Element Value	Comments
iei keypad_info	TSC_iei_single_keypad ?	
Detailed Comments :		

Structured Type Constraint Declaration

Constraint Name : Terminal_capability_rx_base

Structured Type : TERMINAL_CAPABILITY

Derivation Path :

Comments :

Element Name	Element Value	Comments
iei	TSC_iei_terminal_capability	
length	?	
display_capability	('000?'B, '001?'B, '010?'B, '1111'B)	
tone_capability	('0??'B, '100'B)	N.a., No tone, dial tone, E.182 Complete DECT tones supported
ext3	?	
a_vol	'??'B	IF_PRESENT
n_rej	'??'B	IF_PRESENT
echo_param	('00?'B, '010'B)	IF_PRESENT
ext3b	?	IF_PRESENT
slot_type_capability	'00?100?'B	IF_PRESENT
ext3c	?	IF_PRESENT
number_of_stored_display_chars_ms	?	IF_PRESENT
ext3d	?	IF_PRESENT
number_of_stored_display_chars_ls	?	IF_PRESENT
ext3e	?	IF_PRESENT
number_of_lines_in_display	?	IF_PRESENT
ext3f	?	IF_PRESENT
number_of_characters_per_line	?	IF_PRESENT
ext3g	?	IF_PRESENT
scrolling_behaviour_field	?	IF_PRESENT
ext3h	?	IF_PRESENT
profile_indicator_1	'?????1?'B	
ext4	?	IF_PRESENT
profile_indicator_2	?	IF_PRESENT
ext4a	?	IF_PRESENT
control_codes	?	IF_PRESENT
spare	'0000'B	
ext5	?	IF_PRESENT
esc_to_8_bit_cs	?	IF_PRESENT
ext5a	?	IF_PRESENT
more	?	IF_PRESENT

Detailed Comments :

Structured Type Constraint Declaration		
Constraint Name : Terminal_capability_rx_empty		
Structured Type : TERMINAL_CAPABILITY		
Derivation Path :		
Comments : Empty IE, length is 0.		
Element Name	Element Value	Comments
iei	TSC_iei_terminal_capability	
length	'00'O	
display_capability	OMIT	
tone_capability	OMIT	
ext3	OMIT	
a_vol	OMIT	
n_rej	OMIT	
echo_param	OMIT	
ext3b	OMIT	
slot_type_capability	OMIT	
ext3c	OMIT	
number_of_stored_display_chars_ms	OMIT	
ext3d	OMIT	
number_of_stored_display_chars_ls	OMIT	
ext3e	OMIT	
number_of_lines_in_display	OMIT	
ext3f	OMIT	
number_of_characters_per_line	OMIT	
ext3g	OMIT	
scrolling_behaviour_field	OMIT	
ext3h	OMIT	
profile_indicator_1	OMIT	
ext4	OMIT	
profile_indicator_2	OMIT	
ext4a	OMIT	
control_codes	OMIT	
spare	OMIT	
ext5	OMIT	
esc_to_8_bit_cs	OMIT	
ext5a	OMIT	
more	OMIT	
Detailed Comments :		

Structured Type Constraint Declaration		
Constraint Name : Timer_restart_restart_timer		
Structured Type : TIMER_RESTART		
Derivation Path :		
Comments : A send constraint for the timer restart ie, specifying: restart timer.		
Element Name	Element Value	Comments
iei restart_value	TSC_iei_timer_restart '00'O	Restart timer
Detailed Comments :		

Structured Type Constraint Declaration		
Constraint Name : Transit_delay_rx_base		
Structured Type : TRANSIT_DELAY		
Derivation Path :		
Comments :		
Element Name	Element Value	Comments
iei length forward_delay f3 backward_delay f4	TSC_iei_transit_delay '02'O ? '10'B ? '10'B	
Detailed Comments :		

Structured Type Constraint Declaration		
Constraint Name : Transit_delay_rx_empty		
Structured Type : TRANSIT_DELAY		
Derivation Path :		
Comments : Empty IE, length is 0.		
Element Name	Element Value	Comments
iei length forward_delay f3 backward_delay f4	TSC_iei_transit_delay '00'O OMIT OMIT OMIT OMIT	
Detailed Comments :		

Structured Type Constraint Declaration		
Constraint Name : Window_size_rx_base		
Structured Type : WINDOW_SIZE		
Derivation Path :		
Comments : The basic receive constraint for the WINDOW_SIZE ie.		
Element Name	Element Value	Comments
iei	TSC_iei_window_size	
length	'02'O	
forward_value	?	
f3	'1'B	
backward_value	?	
f4	'1'B	
Detailed Comments :		

Structured Type Constraint Declaration		
Constraint Name : Window_size_rx_empty		
Structured Type : WINDOW_SIZE		
Derivation Path :		
Comments : Empty IE, length is 0.		
Element Name	Element Value	Comments
iei	TSC_iei_window_size	
length	'00'O	
forward_value	OMIT	
f3	OMIT	
backward_value	OMIT	
f4	OMIT	
Detailed Comments :		

Structured Type Constraint Declaration		
Constraint Name : Zap_field_rx_base		
Structured Type : ZAP_FIELD		
Derivation Path :		
Comments : The basic receive constraint for the zap field ie.		
Element Name	Element Value	Comments
iei	TSC_iei_zap_field	
length	'01'O	
contents	?	
f3	'0000'B	
Detailed Comments :		

Structured Type Constraint Declaration		
Constraint Name : Zap_field_rx_empty Structured Type : ZAP_FIELD Derivation Path : Comments : Empty IE, length is 0.		
Element Name	Element Value	Comments
iei	TSC_iei_zap_field	
length	'00'O	
contents	OMIT	
f3	OMIT	
Detailed Comments :		

Structured Type Constraint Declaration		
Constraint Name : Zap_field_zap_one Structured Type : ZAP_FIELD Derivation Path : Comments : A send constraint for the zap field ie, specifying a zap value of zero.		
Element Name	Element Value	Comments
iei	TSC_iei_zap_field	
length	'01'O	
contents	'0001'B	zap value 1
f3	'0000'B	
Detailed Comments :		

Structured Type Constraint Declaration		
Constraint Name : Zap_field_zap_zero Structured Type : ZAP_FIELD Derivation Path : Comments : A send constraint for the zap field ie, specifying a zap value of zero.		
Element Name	Element Value	Comments
iei	TSC_iei_zap_field	
length	'01'O	
contents	'0000'B	zap value 0
f3	'0000'B	
Detailed Comments :		

ASP Constraint Declaration		
Constraint Name : DI_brc_req(nwk_pdu : PDU)		
ASP Type : DL_BROADCAST_REQ		
Derivation Path :		
Comments :		
Parameter Name	Parameter Value	Comments
cluster_address_list	OMIT	
message_unit	nwk_pdu	
extended_message_flag	'0'B	Short paging
Detailed Comments :		

ASP Constraint Declaration		
Constraint Name : DI_data_ind(dlei : DATA_LINK_ENDPOINT_IDENTIFIER; nwk_pdu : PDU)		
ASP Type : DL_DATA_IND		
Derivation Path :		
Comments :		
Parameter Name	Parameter Value	Comments
data_link_endpoint_identifier	dlei	
message_unit	nwk_pdu	
Detailed Comments :		

ASP Constraint Declaration		
Constraint Name : DI_data_req(dlei : DATA_LINK_ENDPOINT_IDENTIFIER; nwk_pdu : PDU)		
ASP Type : DL_DATA_REQ		
Derivation Path :		
Comments :		
Parameter Name	Parameter Value	Comments
data_link_endpoint_identifier	dlei	
message_unit	nwk_pdu	
Detailed Comments :		

ASP Constraint Declaration		
Constraint Name : DI_enc_cfm(dlei : DATA_LINK_ENDPOINT_IDENTIFIER; param : CIPHER_STATUS)		
ASP Type : DL_ENCRYPT_CFM		
Derivation Path :		
Comments :		
Parameter Name	Parameter Value	Comments
data_link_endpoint_identifier	dlei	
encryption_status	param	
Detailed Comments :		

ASP Constraint Declaration		
Constraint Name : DI_enc_ind(dlei : DATA_LINK_ENDPOINT_IDENTIFIER; param : CIPHER_STATUS)		
ASP Type : DL_ENCRYPT_IND		
Derivation Path :		
Comments :		
Parameter Name	Parameter Value	Comments
data_link_endpoint_identifier	dlei	
connection_identities	? IF_PRESENT	
encryption_status	param	
Detailed Comments :		

ASP Constraint Declaration		
Constraint Name : DI_enc_req(dlei : DATA_LINK_ENDPOINT_IDENTIFIER; param : CIPHER_STATUS)		
ASP Type : DL_ENCRYPT_REQ		
Derivation Path :		
Comments :		
Parameter Name	Parameter Value	Comments
data_link_endpoint_identifier	dlei	
connection_identities	OMIT	
encryption_command	param	
Detailed Comments :		

ASP Constraint Declaration		
Constraint Name : DI_enc_key_req(dlei : DATA_LINK_ENDPOINT_IDENTIFIER; param : ENCRYPTION_KEY)		
ASP Type : DL_ENC_KEY_REQ		
Derivation Path :		
Comments :		
Parameter Name	Parameter Value	Comments
data_link_endpoint_identifier	dlei	
connection_identities	OMIT	
encryption_key	param	
Detailed Comments :		

ASP Constraint Declaration		
Constraint Name : DI_est_ind_no_pdu		
ASP Type : DL_ESTABLISH_IND		
Derivation Path :		
Comments : This constraint does not contain a PDU.		
Parameter Name	Parameter Value	Comments
data_link_endpoint_identifier	?	On receipt of this primitive, the dlei value shall be stored in the variable TSV_dlei_value
establish_mode	TSC_em_class_a	
radio_fixed_part_number	?	
message_unit	OMIT	
Detailed Comments :		

ASP Constraint Declaration		
Constraint Name : DI_est_ind_pdu(nwk_pdu : PDU)		
ASP Type : DL_ESTABLISH_IND		
Derivation Path :		
Comments : This constraint contains a PDU		
Parameter Name	Parameter Value	Comments
data_link_endpoint_identifier	?	On receipt of this primitive, the dlei value shall be stored in the variable TSV_dlei_value
establish_mode	TSC_em_class_a	
radio_fixed_part_number	?	
message_unit	nwk_pdu	
Detailed Comments :		

ASP Constraint Declaration		
Constraint Name : DI_rel_cfm(dlei : DATA_LINK_ENDPOINT_IDENTIFIER)		
ASP Type : DL_RELEASE_CFM		
Derivation Path :		
Comments :		
Parameter Name	Parameter Value	Comments
data_link_endpoint_identifier	dlei	
release_mode	(TSC_rm_normal, TSC_rm_abnormal)	
Detailed Comments :		

ASP Constraint Declaration		
Constraint Name : DI_rel_ind(dlei : DATA_LINK_ENDPOINT_IDENTIFIER)		
ASP Type : DL_RELEASE_IND		
Derivation Path :		
Comments : The constraint for the DL_RELEASE_IND ASP		
Parameter Name	Parameter Value	Comments
data_link_endpoint_identifier	dlei	
release_mode	(TSC_rm_normal, TSC_rm_abnormal)	
Detailed Comments :		

ASP Constraint Declaration		
Constraint Name : DI_rel_req(dlei : DATA_LINK_ENDPOINT_IDENTIFIER; param : RELEASE_MODE)		
ASP Type : DL_RELEASE_REQ		
Derivation Path :		
Comments :		
Parameter Name	Parameter Value	Comments
data_link_endpoint_identifier	dlei	
release_mode	param	
Detailed Comments :		

PDU Constraint Declaration		
Constraint Name : Access_rights_accept_tx_base		
PDU Type : ACCESS_RIGHTS_ACCEPT		
Derivation Path :		
Comments : The basic send constraint for the access rights_accept message. Only one fixed_id will be included. No ZAP field and Service class are stored		
Field Name	Field Value	Comments
network_header	Network_header_mm_dest	M
message_type	TSC_mt_access_rights_accept	M
portable_id	OMIT	M (t.b.s. in derived constraint)
repeat_indicator	OMIT	N
fixed_id	OMIT	M (t.b.s. in derived constraint)
location_area	OMIT	O
auth_type	OMIT	O
cipher_info	OMIT	O
zap_field	OMIT	O
service_class	OMIT	O
iwu_to_iwu	OMIT	O
Detailed Comments :		

PDU Constraint Declaration		
Constraint Name : Access_rights_accept_tx01		
PDU Type : ACCESS_RIGHTS_ACCEPT		
Derivation Path : Access_rights_accept_tx_base.		
Comments : A derived send constraint for the access rights_accept message, specifying the fixed_id as type PARK. No ZAP field and Service class are stored.		
Field Name	Field Value	Comments
portable_id	Portable_id_ipui	
fixed_id	Fixed_id_park	
Detailed Comments :		

PDU Constraint Declaration		
Constraint Name : Access_rights_accept_tx02		
PDU Type : ACCESS_RIGHTS_ACCEPT		
Derivation Path : Access_rights_accept_tx_base.		
Comments : A derived send constraint for the access rights_accept message, specifying the fixed_id as type PARK. Also, the ZAP field and Service class are assigned.		
Field Name	Field Value	Comments
portable_id	Portable_id_ipui	
fixed_id	Fixed_id_park	
zap_field	Zap_field_zap_zero	1)
service_class	Service_class_international	2)
Detailed Comments : 1) zap value zero 2) service class international.		

PDU Constraint Declaration		
Constraint Name : Access_rights_accept_tx03		
PDU Type : ACCESS_RIGHTS_ACCEPT		
Derivation Path : Access_rights_accept_tx_base.		
Comments : A derived send constraint for the access_rights_accept message, specifying a second fixed_id and a second portable_id, to be used in identity request.		
Field Name	Field Value	Comments
portable_id	Portable_id_ipui_2	
fixed_id	Fixed_id_park_2	
Detailed Comments :		

PDU Constraint Declaration		
Constraint Name : Access_rights_accept_tx04		
PDU Type : ACCESS_RIGHTS_ACCEPT		
Derivation Path : Access_rights_accept_tx_base.		
Comments : A derived send constraint for the access_rights_accept message, specifying a second fixed_id to be used in identity request.		
Field Name	Field Value	Comments
portable_id	Portable_id_ipui	
fixed_id	Fixed_id_park_2	
Detailed Comments :		

PDU Constraint Declaration		
Constraint Name : Access_rights_accept_tx05		
PDU Type : ACCESS_RIGHTS_ACCEPT		
Derivation Path : Access_rights_accept_tx_base.		
Comments : A derived send constraint for the access_rights_accept message, specifying the portable_id as type ipui, the fixed_id as type PARK; also the location area is assigned.		
Field Name	Field Value	Comments
portable_id	Portable_id_ipui	
fixed_id	Fixed_id_park	
location_area	Location_area_lal_only	
Detailed Comments :		

PDU Constraint Declaration		
Constraint Name : Access_rights_accept_tx06		
PDU Type : ACCESS_RIGHTS_ACCEPT		
Derivation Path : Access_rights_accept_tx_base.		
Comments : A derived send constraint for the access_rights_accept message, specifying the portable_id as type IPUI, the fixed_id as type PARK and the ZAP field.		
Field Name	Field Value	Comments
portable_id	Portable_id_ipui	1)
fixed_id	Fixed_id_park	
zap_field	Zap_field_zap_zero	
Detailed Comments : 1) zap value zero		

PDU Constraint Declaration		
Constraint Name : Access_rights_accept_tx07		
PDU Type : ACCESS_RIGHTS_ACCEPT		
Derivation Path : Access_rights_accept_tx_base.		
Comments : A derived send constraint for the access_rights_accept message, specifying the portable_id as type IPUI, the fixed_id as type PARK and the Service class.		
Field Name	Field Value	Comments
portable_id	Portable_id_ipui	1)
fixed_id	Fixed_id_park	
service_class	Service_class_international	
Detailed Comments : 1) service class international.		

PDU Constraint Declaration		
Constraint Name : Access_rights_accept_tx08		
PDU Type : ACCESS_RIGHTS_ACCEPT		
Derivation Path : Access_rights_accept_tx_base.		
Comments : A derived send constraint for the access_rights_accept message, specifying the transaction identifier flag illegally set to 0.		
Field Name	Field Value	Comments
network_header	Network_header_mm_ori	
portable_id	Portable_id_ipui	
fixed_id	Fixed_id_park	
Detailed Comments :		

PDU Constraint Declaration		
Constraint Name : Access_rights_request_rx_base		
PDU Type : ACCESS_RIGHTS_REQUEST		
Derivation Path :		
Comments : The basic receive constraint for the access rights_request message.		
Field Name	Field Value	Comments
network_header	Network_header_mm_ori	M
message_type	TSC_mt_access_rights_request	M
portable_id	Portable_id_rx_base	M
auth_type	Auth_type_rx_base	M
cipher_info	(Cipher_info_rx_base, Cipher_info_rx_empty) IF_PRESENT	O
setup_capability	(Setup_capability_rx_base, Setup_capability_rx_empty) IF_PRESENT	O
terminal_capability	(Terminal_capability_rx_base, Terminal_capability_rx_empty) IF_PRESENT	O
iwu_to_iwu	(Iwu_to_iwu_rx_base, Iwu_to_iwu_rx_empty) IF_PRESENT	O
Detailed Comments :		

PDU Constraint Declaration		
Constraint Name : Access_rights_request_rx01		
PDU Type : ACCESS_RIGHTS_REQUEST		
Derivation Path : Access_rights_request_rx_base.		
Comments : A derived receive constraint, with auth_key_type referring to AC, and portable is referring to the IPEI or IPUI-N. The terminal capability ie shall be present.		
Field Name	Field Value	Comments
portable_id	Portable_id_ipei	IPEI or IPUI-N
auth_type	Auth_type_rx_ac	
terminal_capability	Terminal_capability_rx_base	
Detailed Comments :		

PDU Constraint Declaration		
Constraint Name : Access_rights_request_rx02		
PDU Type : ACCESS_RIGHTS_REQUEST		
Derivation Path : Access_rights_request_rx_base.		
Comments : A derived receive constraint, with auth_key_type referring to AC, and portable is referring to the IPUI, assigned in a previous obtain accessrights procedure. The terminal capability ie shall be present.		
Field Name	Field Value	Comments
portable_id	Portable_id_ipui	IPUI
auth_type	Auth_type_rx_ac	
terminal_capability	Terminal_capability_rx_base	
Detailed Comments :		

PDU Constraint Declaration		
Constraint Name : Access_rights_request_rx03		
PDU Type : ACCESS_RIGHTS_REQUEST		
Derivation Path : Access_rights_request_rx_base.		
Comments : A derived receive constraint, with auth_key_type referring to UAK, and portable is referring to the IPUI-N. The terminal capability ie shall be present.		
Field Name	Field Value	Comments
portable_id	Portable_id_ipei	IPUI-N
auth_type	Auth_type_rx_uak	Authentication based on UAK.
terminal_capability	Terminal_capability_rx_base	
Detailed Comments :		

PDU Constraint Declaration		
Constraint Name : Access_rights_request_rx04		
PDU Type : ACCESS_RIGHTS_REQUEST		
Derivation Path : Access_rights_request_rx_base.		
Comments : A derived receive constraint, with auth_key_type referring to AC, and portable is referring to the IPUI, assigned in a previous obtain accessrights procedure. The terminal capability ie shall be present.		
Field Name	Field Value	Comments
portable_id	Portable_id_ipui	IPUI
auth_type	Auth_type_rx_ac_or_uak	
terminal_capability	Terminal_capability_rx_base	
Detailed Comments :		

PDU Constraint Declaration		
Constraint Name : Access_rights_term_accept_rx_base		
PDU Type : ACCESS_RIGHTS_TERM_ACCEPT		
Derivation Path :		
Comments : The basic receive constraint for the ACCESS_RIGHTS_TERM_ACCEPT PDU.		
Field Name	Field Value	Comments
network_header	Network_header_mm_dest	M
message_type	TSC_mt_access_rights_term_accept	M
Detailed Comments :		

PDU Constraint Declaration		
Constraint Name : Access_rights_term_accept_tx_base		
PDU Type : ACCESS_RIGHTS_TERM_ACCEPT		
Derivation Path :		
Comments : The basic send constraint for the ACCESS_RIGHTS_TERM_ACCEPT PDU.		
Field Name	Field Value	Comments
network_header	Network_header_mm_dest	M
message_type	TSC_mt_access_rights_term_accept	M
Detailed Comments :		

PDU Constraint Declaration		
Constraint Name : Access_rights_term_reject_rx_base		
PDU Type : ACCESS_RIGHTS_TERM_REJECT		
Derivation Path :		
Comments : The basic receive constraint for the access rights terminate reject PDU.		
Field Name	Field Value	Comments
network_header	Network_header_mm_dest	M
message_type	TSC_mt_access_rights_term_reject	M
reject_reason	(Reject_reason_rx_base, Reject_reason_rx_empty)	O
duration	OMIT	N
Detailed Comments :		

PDU Constraint Declaration		
Constraint Name : Access_rights_term_request_rx_base		
PDU Type : ACCESS_RIGHTS_TERM_REQUEST		
Derivation Path :		
Comments : The basic receive constraint for the ACCESS_RIGHTS_TERM_REQUEST PDU. Only one fixed id will be included.		
Field Name	Field Value	Comments
network_header	Network_header_mm_ori	M
message_type	TSC_mt_access_rights_term_request	M
portable_id	Portable_id_rx_base	M
repeat_indicator	Repeat_indicator_rx_base IF_PRESENT	O
fixed_id	Fixed_id_rx_base	O
iwu_to_iwu	(Iwu_to_iwu_rx_base, Iwu_to_iwu_rx_empty) IF_PRESENT	O
Detailed Comments :		

PDU Constraint Declaration		
Constraint Name : Access_rights_term_request_tx_base		
PDU Type : ACCESS_RIGHTS_TERM_REQUEST		
Derivation Path :		
Comments : The basic send constraint for the ACCESS_RIGHTS_TERM_REQUEST PDU. Only one fixed id will be included.		
Field Name	Field Value	Comments
network_header	Network_header_mm_ori	M
message_type	TSC_mt_access_rights_term_request	M
portable_id	OMIT	M (t.b.s. in derived constraint)
repeat_indicator	OMIT	O
fixed_id	OMIT	O (t.b.s. in derived constraint)
iwu_to_iwu	OMIT	O
Detailed Comments :		

PDU Constraint Declaration		
Constraint Name : Access_rights_term_request_tx01		
PDU Type : ACCESS_RIGHTS_TERM_REQUEST		
Derivation Path : Access_rights_term_request_tx_base.		
Comments : A derived send constraint for the ACCESS_RIGHTS_TERM_REQUEST PDU, specifying the portable id and the fixed_id		
Field Name	Field Value	Comments
portable_id	Portable_id_ipui	
fixed_id	Fixed_id_park	
Detailed Comments :		

PDU Constraint Declaration		
Constraint Name : Auth_reject_rx_base		
PDU Type : AUTH_REJECT		
Derivation Path :		
Comments : The basic receive constraint for the authenticate reject PDU, for FT initiated PT authentication. Only one auth_type will be used.		
Field Name	Field Value	Comments
network_header	Network_header_mm_dest	M
message_type	TSC_mt_auth_reject	M
auth_type	(Auth_type_list_rx_base, Auth_type_nolist_rx_base)	O
reject_reason	(Reject_reason_rx_base, Reject_reason_rx_empty) IF_PRESENT	O
Detailed Comments :		

PDU Constraint Declaration		
Constraint Name : Auth_reply_rx_base		
PDU Type : AUTH_REPLY		
Derivation Path :		
Comments : The basic receive constraint for the AUTH_REPLY message		
Field Name	Field Value	Comments
network_header	Network_header_mm_dest	M
message_type	TSC_mt_auth_reply	M
res	Res_rx_base	M
rs	OMIT	N
zap_field	(Zap_field_rx_base, Zap_field_rx_empty) IF_PRESENT	O
service_class	(Service_class_rx_base, Service_class_rx_empty) IF_PRESENT	O
key	(Key_rx_base, Key_rx_empty) IF_PRESENT	O
iwu_to_iwu	(Iwu_to_iwu_rx_base, Iwu_to_iwu_rx_empty) IF_PRESENT	O
Detailed Comments :		

PDU Constraint Declaration		
Constraint Name : Auth_reply_rx01		
PDU Type : AUTH_REPLY		
Derivation Path : Auth_reply_rx_base.		
Comments : A derived receive constraint for the AUTH_REPLY message, specifying the presence of zap field and service class. These ie's should contain the same values as assigned in constraint Access_rights_accept_tx02		
Field Name	Field Value	Comments
zap_field	Zap_field_zap_zero	
service_class	Service_class_international	
Detailed Comments :		

PDU Constraint Declaration		
Constraint Name : Auth_reply_rx02		
PDU Type : AUTH_REPLY		
Derivation Path : Auth_reply_rx_base.		
Comments : A derived receive constraint for the AUTH_REPLY message, specifying the presence of zap field and service class. The zap field should have the value 1.		
Field Name	Field Value	Comments
zap_field	Zap_field_zap_one	
service_class	Service_class_international	
Detailed Comments :		

PDU Constraint Declaration		
Constraint Name : Auth_reply_rx03		
PDU Type : AUTH_REPLY		
Derivation Path : Auth_reply_rx_base.		
Comments : A derived receive constraint for the AUTH_REPLY message, specifying the absence of zap field and service class.		
Field Name	Field Value	Comments
zap_field	OMIT	
service_class	OMIT	
Detailed Comments :		

PDU Constraint Declaration		
Constraint Name : Auth_reply_rx04		
PDU Type : AUTH_REPLY		
Derivation Path : Auth_reply_rx_base.		
Comments : A derived receive constraint for the AUTH_REPLY message, specifying the presence of zap field. This ie should contain the same value as assigned in constraint Access_rights_accept_tx06.		
Field Name	Field Value	Comments
zap_field	Zap_field_zap_zero	
Detailed Comments :		

PDU Constraint Declaration		
Constraint Name : Auth_reply_rx05		
PDU Type : AUTH_REPLY		
Derivation Path : Auth_reply_rx_base.		
Comments : A derived receive constraint for the AUTH_REPLY message, specifying the presence of service class. This ie should contain the same value as assigned in constraint Access_rights_accept_tx07.		
Field Name	Field Value	Comments
service_class	Service_class_international	
Detailed Comments :		

PDU Constraint Declaration		
Constraint Name : Auth_reply_tx_base		
PDU Type : AUTH_REPLY		
Derivation Path :		
Comments : The basic send constraint for the AUTH_REPLY message.		
Field Name	Field Value	Comments
network_header	Network_header_mm_dest	M
message_type	TSC_mt_auth_reply	M
res	OMIT	M (t.b.s. in derived constraint)
rs	OMIT	O(t.b.s. in derived constraint)
zap_field	OMIT	N
service_class	OMIT	N
key	OMIT	N
iwu_to_iwu	OMIT	O
Detailed Comments :		

PDU Constraint Declaration		
Constraint Name : Auth_reply_tx01(res_field : BIT_32)		
PDU Type : AUTH_REPLY		
Derivation Path : Auth_reply_tx_base.		
Comments : A derived send constraint for the AUTH_REPLY message, specifying the RES		
Field Name	Field Value	Comments
res	Res_tx(res_field)	Filed value to be filled in in the testcase
rs	Rs_tx_64_bit	
Detailed Comments :		

PDU Constraint Declaration		
Constraint Name : Auth_reply_tx02(res_field : BIT_32)		
PDU Type : AUTH_REPLY		
Derivation Path : Auth_reply_tx_base.		
Comments : A derived send constraint for the AUTH_REPLY message, send by the LT in, during the kay allocation procedure.		
Field Name	Field Value	Comments
network_header	Network_header_mm_ori	Filed value to be filled in in the testcase
res	Res_tx(res_field)	
Detailed Comments :		

PDU Constraint Declaration		
Constraint Name : Auth_request_rx_base		
PDU Type : AUTH_REQUEST		
Derivation Path :		
Comments : The basic receive constraint for the authenticate request PDU, for PT initiated FT authentication		
Field Name	Field Value	Comments
network_header	Network_header_mm_ori	M
message_type	TSC_mt_auth_request	M
auth_type	Auth_type_rx_base	M
rand	Rand_rx_base	M
res	(Res_rx_base, Res_rx_empty) IF_PRESENT	O
rs	OMIT	N
cipher_info	(Cipher_info_rx_base, Cipher_info_rx_empty) IF_PRESENT	O
iwu_to_iwu	(Iwu_to_iwu_rx_base, Iwu_to_iwu_rx_empty) IF_PRESENT	O
Detailed Comments :		

PDU Constraint Declaration		
Constraint Name : Auth_request_rx01		
PDU Type : AUTH_REQUEST		
Derivation Path : Auth_request_rx_base.		
Comments : A derived receive constraint for the authenticate request PDU, for PT initiated FT authentication.		
Field Name	Field Value	Comments
auth_type	Auth_type_rx_uak	Authentication on UAK mandated
Detailed Comments :		

PDU Constraint Declaration		
Constraint Name : Auth_request_rx02		
PDU Type : AUTH_REQUEST		
Derivation Path : Auth_request_rx_base.		
Comments : A derived receive constraint for the authenticate request PDU, to be sent by the PT, as a response to the FT initiated Key allocation. Authentication on AC is mandated.		
Field Name	Field Value	Comments
network_header	Network_header_mm_dest	Authentication on AC mandated M for key allocation procedure.
auth_type	Auth_type_rx_ac	
res	Res_rx_base	
Detailed Comments :		

PDU Constraint Declaration		
Constraint Name : Auth_request_rx03		
PDU Type : AUTH_REQUEST		
Derivation Path : Auth_request_rx_base.		
Comments : A derived receive constraint for the authenticate request PDU, to be sent by the PT, as a start of the PT initiated FT authentication, prior to successfully performing the first key allocation procedure of a new subscription. Authentication on AC is mandated.		
Field Name	Field Value	Comments
auth_type	Auth_type_rx_ac	Authentication on AC mandated
Detailed Comments :		

PDU Constraint Declaration		
Constraint Name : Auth_request_tx_base		
PDU Type : AUTH_REQUEST		
Derivation Path :		
Comments : The basic constraint for the authenticate request PDU, for FT initiated PT authentication		
Field Name	Field Value	Comments
network_header	Network_header_mm_ori	M
message_type	TSC_mt_auth_request	M
auth_type	OMIT	M (t.b.s. in derived constraint)
rand	OMIT	M (t.b.s. in derived constraint)
res	OMIT	N
rs	OMIT	O
cipher_info	OMIT	O
iwu_to_iwu	OMIT	O
Detailed Comments :		

PDU Constraint Declaration		
Constraint Name : Auth_request_tx01		
PDU Type : AUTH_REQUEST		
Derivation Path : Auth_request_tx_base.		
Comments : A derived send constraint for the authenticate request PDU. Authentication is based on UAK. No DCK is stored, ZAP value is not increased		
Field Name	Field Value	Comments
auth_type	Auth_type_tx_no_dck_no_zap	1)
rand	Rand_tx_64_bit	
rs	Rs_tx_64_bit	
Detailed Comments : 1) auth_type specifies no dck to be stored, zap value not increased.		

PDU Constraint Declaration		
Constraint Name : Auth_request_tx02		
PDU Type : AUTH_REQUEST		
Derivation Path : Auth_request_tx_base.		
Comments : The derived send constraint for the authenticate request, containing an unacceptable algorithm.		
Field Name	Field Value	Comments
auth_type	Auth_type_tx_unacc_alg	unacceptable algorithm
rand	Rand_tx_64_bit	
rs	Rs_tx_64_bit	
Detailed Comments :		

PDU Constraint Declaration		
Constraint Name : Auth_request_tx03		
PDU Type : AUTH_REQUEST		
Derivation Path : Auth_request_tx_base.		
Comments : A derived send constraint for the authenticate request PDU in case of PT authentication. Authentication is based on UAK. No DCK is stored, ZAP value is increased		
Field Name	Field Value	Comments
auth_type	Auth_type_tx_no_dck_zap_inc	1)
rand	Rand_tx_64_bit	
rs	Rs_tx_64_bit	
Detailed Comments : 1) auth_type specifies no dck to be stored, zap value increased by one.		

PDU Constraint Declaration		
Constraint Name : Auth_request_tx04		
PDU Type : AUTH_REQUEST		
Derivation Path : Auth_request_tx_base.		
Comments : A derived send constraint for the authenticate request PDU in case of PT authentication. Authentication is based on UAK. DCK is stored.		
Field Name	Field Value	Comments
auth_type	Auth_type_tx_dck_no_zap	1)
rand	Rand_tx_64_bit	
rs	Rs_tx_64_bit	
Detailed Comments : 1) auth_type specifies dck to be stored, no zap value increment		

PDU Constraint Declaration		
Constraint Name : Auth_request_tx05 PDU Type : AUTH_REQUEST Derivation Path : Auth_request_tx_base. Comments : A derived send constraint for the authenticate request PDU in case of user authentication. Authentication is based on UPI. No DCK is stored, no zap field is increased.		
Field Name	Field Value	Comments
auth_type	Auth_type_tx_upi	1)
rand	Rand_tx_64_bit	
rs	Rs_tx_64_bit	
Detailed Comments : 1) Auth_type_tx_upi specifies no DCK storage and no ZAP increment. Standard DSAA is used, and authentication is based on UPI		

PDU Constraint Declaration		
Constraint Name : Bi_access_rights_accept_tx01 PDU Type : ACCESS_RIGHTS_ACCEPT Derivation Path : Access_rights_accept_tx_base. Comments : A derived send constraint for the access rights_accept message to test the behaviour of the IUT, when an {ACCESS-RIGHTS-ACCEPT} message is received with an invalid <<portable-id>> ie.		
Field Name	Field Value	Comments
portable_id	Bi_portable_id_ipui	1)
fixed_id	Fixed_id_park	
Detailed Comments : 1) wrong portable id is sent.		

PDU Constraint Declaration		
Constraint Name : Bi_auth_request_tx01 PDU Type : AUTH_REQUEST Derivation Path : Auth_request_tx_base. Comments : A derived send constraint for the authenticate request PDU to test the behaviour of the IUT, when an {AUTHENT-REQUEST} message is received without a <<rand>> ie. Authentication is based on UAK. No DCK is stored, ZAP value is not increased		
Field Name	Field Value	Comments
auth_type	Auth_type_tx_no_dck_no_zap	1)
rand	OMIT	2)
rs	Rs_tx_64_bit	
Detailed Comments : 1) auth_type specifies no dck to be stored, zap value not increased. 2) LT sends message without the mandatory ie <<rand>>.		

PDU Constraint Declaration		
Constraint Name : Bi_cc_setup_tx01(tv_ : BIT_3; tf_ : BIT_1) PDU Type : CC_SETUP Derivation Path : Cc_setup_tx_base. Comments : A derived send constraint used for testing the behaviour of the IUT in case of an invalid message send. This constraint for the CC_SETUP PDU, has the mandatory information element 'basic_service' missing.		
Field Name	Field Value	Comments
network_header	Network_header_cc_lt(tv_, tf_)	M
portable_id	Portable_id_ipui	
fixed_id	Fixed_id_park	
basic_service	OMIT	
Detailed Comments :		

PDU Constraint Declaration		
Constraint Name : Bi_cc_setup_tx02(tv_ : BIT_3; tf_ : BIT_1) PDU Type : CC_SETUP Derivation Path : Cc_setup_tx_base. Comments : A derived send constraint used for testing the behaviour of the IUT in case of an invalid message send. This constraint for the CC_SETUP PDU contains the mandatory information element 'portable identity' with invalid contents.		
Field Name	Field Value	Comments
network_header	Network_header_cc_lt(tv_, tf_)	M
portable_id	Bi_portable_id_ipui	wrong length of identity value
fixed_id	Fixed_id_park	
basic_service	Basic_service_tx_default	
Detailed Comments :		

PDU Constraint Declaration		
Constraint Name : Bi_cc_setup_tx03(tv_ : BIT_3; tf_ : BIT_1) PDU Type : CC_SETUP Derivation Path : Cc_setup_tx_base. Comments : A derived send constraint for the CC_SETUP PDU, for incoming call, specifying a protocol discriminator value that is not supported by the IUT.		
Field Name	Field Value	Comments
network_header	Bi_network_header_unsupp(tv_, tf_)	
portable_id	Portable_id_ipui	
fixed_id	Fixed_id_park	
basic_service	Basic_service_tx_default	
Detailed Comments :		

PDU Constraint Declaration**Constraint Name** : Bi_cc_short_tx_base(tv_ : BIT_3; tf_ : BIT_1)**PDU Type** : BI_CC_SHORT_MESSAGE**Derivation Path** :**Comments** : The basic send constraint used for testing the behaviour of the IUT, if it receives a message which is too short to contain a message type.

Field Name	Field Value	Comments
network_header	Network_header_cc_lt(tv_, tf_)	M
message_type_short	TSC_mt_cc_short	M (too short message type)
Detailed Comments :		

PDU Constraint Declaration

Constraint Name : Bi_cc_unrec_tx_base(tv_ : BIT_3; tf_ : BIT_1)
PDU Type : CC_SETUP
Derivation Path :
Comments : The basic send constraint used for testing the behaviour of the IUT of an unrecognised message is sent. This constraint for the CC_SETUP PDU contains a wrong <<message type>>.

Field Name	Field Value	Comments
network_header	Network_header_cc_lt(tv_, tf_)	M
message_type	TSC_mt_unrec	M (unrecognised message type)
portable_id	OMIT	M
fixed_id	OMIT	M
basic_service	OMIT	M
iwu_attributes	OMIT	O
repeat_indicator_1	OMIT	O
call_attributes	OMIT	O
repeat_indicator_2	OMIT	O
connection_attributes	OMIT	O
cipher_info	OMIT	O
connection_id	OMIT	O
facility	OMIT	O
progress_indicator	OMIT	O
multi_display	OMIT	O
single_display	OMIT	O
multi_keypad	OMIT	N
single_keypad	OMIT	N
signal	OMIT	O
feature_activate	OMIT	N
feature_indicate	OMIT	O
network_parameter	OMIT	N
terminal_capability	OMIT	N
end_to_end_compatibility	OMIT	O
rate_parameters	OMIT	O
transit_delay	OMIT	O
window_size	OMIT	O
calling_party_number	OMIT	O
called_party_number	OMIT	O
called_party_subaddress	OMIT	O
sending_complete	OMIT	O
iwu_to_iwu	OMIT	O
iwu_packet	OMIT	O

Detailed Comments :

PDU Constraint Declaration		
Constraint Name : Bi_cipher_request_tx01		
PDU Type : CIPHER_REQUEST		
Derivation Path : Cipher_request_tx_base.		
Comments : A derived send constraint for the CIPHER_REQUEST PDU., specifying cipher info with an invalid ciphering algorithm.		
Field Name	Field Value	Comments
cipher_info	Bi_cipher_info_tx	
Detailed Comments :		

PDU Constraint Declaration		
Constraint Name : Bi_mm_unrec_tx_base		
PDU Type : IDENTITY_REQUEST		
Derivation Path :		
Comments : The basic send constraint for testing the behaviour of the IUT, if an unrecognised message is sent.		
Field Name	Field Value	Comments
network_header	Network_header_mm_ori	M
message_type	TSC_mt_unrec	M (unrecognised message type)
repeat_indicator	OMIT	N
identity_type	OMIT	M (t.b.s. in derived constraint)
iwu_to_iwu	OMIT	O
Detailed Comments :		

PDU Constraint Declaration		
Constraint Name : Cc_alerting_rx_base(tv_ : BIT_3; tf_ : BIT_1)		
PDU Type : CC_ALERTING		
Derivation Path :		
Comments : The basic receive constraint for the cc_alerting PDU, for incoming call		
Field Name	Field Value	Comments
network_header	Network_header_cc_iut(tv_, tf_)	M
message_type	TSC_mt_cc_alerting	M
call_attributes	(Call_attributes_rx_base, Call_attributes_rx_empty) IF_PRESENT	O
connection_id	(Connection_id_rx_base, Connection_id_rx_empty) IF_PRESENT	O
facility	(Facility_rx_base, Facility_rx_empty) IF_PRESENT	O (version 2 of ETS 300 175-5 [5])
progress_indicator	OMIT	N
multi_display	OMIT	N
single_display	OMIT	N
signal	OMIT	N
feature_indicate	OMIT	N
terminal_capability	(Terminal_capability_rx_base, Terminal_capability_rx_empty) IF_PRESENT	O
transit_delay	(Transit_delay_rx_base, Transit_delay_rx_empty) IF_PRESENT	O
window_size	(Window_size_rx_base, Window_size_rx_empty) IF_PRESENT	O
iwu_to_iwu	(Iwu_to_iwu_rx_base, Iwu_to_iwu_rx_empty) IF_PRESENT	O
iwu_packet	(Iwu_packet_rx_base, Iwu_packet_rx_empty) IF_PRESENT	O
Detailed Comments :		

PDU Constraint Declaration			
Constraint Name : Cc_alerting_tx_base(tv_ : BIT_3; tf_ : BIT_1)			
PDU Type : CC_ALERTING			
Derivation Path :			
Comments : The basic send constraint for the cc_alerting PDU, for outgoing call			
Field Name	Field Value		Comments
network_header	Network_header_cc_lt(tv_, tf_)	M	
message_type	TSC_mt_cc_alerting	M	
call_attributes	OMIT	O	
connection_id	OMIT	O	
facility	OMIT	O	
progress_indicator	OMIT	O	
multi_display	OMIT	O	
single_display	OMIT	O	
signal	OMIT	O	
feature_indicate	OMIT	O	
terminal_capability	OMIT	N	
transit_delay	OMIT	O	
window_size	OMIT	O	
iwu_to_iwu	OMIT	O	
iwu_packet	OMIT	O	
Detailed Comments :			

PDU Constraint Declaration			
Constraint Name : Cc_call_proc_tx_base(tv_ : BIT_3; tf_ : BIT_1)			
PDU Type : CC_CALL_PROC			
Derivation Path :			
Comments : A send constraint for the cc_call_proceeding PDU, for outgoing call			
Field Name	Field Value		Comments
network_header	Network_header_cc_lt(tv_, tf_)	M	
message_type	TSC_mt_cc_call_proc	M	
call_attributes	OMIT	O	
connection_id	OMIT	O	
facility	OMIT	O	
progress_indicator	OMIT	O	
multi_display	OMIT	O	
single_display	OMIT	O	
signal	OMIT	O	
feature_indicate	OMIT	O	
transit_delay	OMIT	O	
window_size	OMIT	O	
iwu_to_iwu	OMIT	O	
iwu_packet	OMIT	O	
Detailed Comments :			

PDU Constraint Declaration		
Constraint Name : Cc_call_proc_tx01(tv_ : BIT_3; tf_ : BIT_1)		
PDU Type : CC_CALL_PROC		
Derivation Path : Cc_call_proc_tx_base.		
Comments : A derived send constraint for the cc_call_proceeding PDU, specifying the progress_indicator containing "in-band info. or appropriate pattern now available".		
Field Name	Field Value	Comments
network_header	Network_header_cc_lt(tv_, tf_)	M
progress_indicator	Progress_indicator_tx_patt_avail	
Detailed Comments :		

PDU Constraint Declaration		
Constraint Name : Cc_connect_rx_base(tv_ : BIT_3; tf_ : BIT_1)		
PDU Type : CC_CONNECT		
Derivation Path :		
Comments : The basic receive constraint for the cc_connect PDU, for incoming call		
Field Name	Field Value	Comments
network_header	Network_header_cc_iut(tv_, tf_)	M
message_type	TSC_mt_cc_connect	M
call_attributes	(Call_attributes_rx_base, Call_attributes_rx_empty) IF_PRESENT	O
connection_id	(Connection_id_rx_base, Connection_id_rx_empty) IF_PRESENT	O
facility	(Facility_rx_base, Facility_rx_empty) IF_PRESENT	O
progress_indicator	OMIT	N
multi_display	OMIT	N
single_display	OMIT	N
signal	OMIT	N
feature_indicate	OMIT	N
terminal_capability	(Terminal_capability_rx_base, Terminal_capability_rx_empty) IF_PRESENT	O
transit_delay	(Transit_delay_rx_base, Transit_delay_rx_empty) IF_PRESENT	O
window_size	(Window_size_rx_base, Window_size_rx_empty) IF_PRESENT	O
iwu_to_iwu	(Iwu_to_iwu_rx_base, Iwu_to_iwu_rx_empty) IF_PRESENT	O
iwu_packet	(Iwu_packet_rx_base, Iwu_packet_rx_empty) IF_PRESENT	O
Detailed Comments :		

PDU Constraint Declaration		
Constraint Name : Cc_connect_tx_base(tv_ : BIT_3; tf_ : BIT_1)		
PDU Type : CC_CONNECT		
Derivation Path :		
Comments : The basic send constraint for the cc_connect PDU, for outgoing call		
Field Name	Field Value	Comments
network_header	Network_header_cc_lt(tv_, tf_)	M
message_type	TSC_mt_cc_connect	M
call_attributes	OMIT	O
connection_id	OMIT	O
facility	OMIT	O
progress_indicator	OMIT	O
multi_display	OMIT	O
single_display	OMIT	O
signal	OMIT	O
feature_indicate	OMIT	O
terminal_capability	OMIT	N
transit_delay	OMIT	O
window_size	OMIT	O
iwu_to_iwu	OMIT	O
iwu_packet	OMIT	O
Detailed Comments :		

PDU Constraint Declaration		
Constraint Name : Cc_connect_ack_tx_base(tv_ : BIT_3; tf_ : BIT_1)		
PDU Type : CC_CONNECT_ACK		
Derivation Path :		
Comments : A send constraint for the cc_connect_ack PDU, for incoming call		
Field Name	Field Value	Comments
network_header	Network_header_cc_lt(tv_, tf_)	M
message_type	TSC_mt_cc_connect_ack	M
multi_display	OMIT	O
single_display	OMIT	O
feature_indicate	OMIT	O
iwu_to_iwu	OMIT	O
iwu_packet	OMIT	O
Detailed Comments :		

PDU Constraint Declaration

Constraint Name : Cc_info_rx_base(tv_ : BIT_3; tf_ : BIT_1)

PDU Type : CC_INFO

Derivation Path :

Comments : The basic receive constraint for the cc_info PDU, for either outgoing or incoming call.

Field Name	Field Value	Comments
network_header	Network_header_cc_iut(tv_, tf_)	M
message_type	TSC_mt_cc_info	M
location_area	(Location_area_rx_base, Location_area_rx_empty) IF_PRESENT	O
network_assigned_id	(Network_assigned_id_rx_base, Network_assigned_id_rx_empty) IF_PRESENT	O
facility	(Facility_rx_base, Facility_rx_empty) IF_PRESENT	O
progress_indicator	OMIT	N
multi_display	OMIT	N
single_display	OMIT	N
multi_keypad	(Multi_keypad_rx_base, Multi_keypad_rx_empty) IF_PRESENT	O
single_keypad	OMIT	O
signal	OMIT	N
feature_activate	(Feature_activate_rx_base, Feature_activate_rx_empty) IF_PRESENT	O
feature_indicate	OMIT	N
network_parameter	(Network_parameter_rx_base, Network_parameter_rx_empty) IF_PRESENT	O
called_party_number	(Called_party_number_rx_base, Called_party_number_rx_empty) IF_PRESENT	O
called_party_subaddress	(Called_party_subaddress_rx_base, Called_party_subaddress_rx_empty) IF_PRESENT	O
sending_complete	Sending_complete IF_PRESENT	O
test_hook_control	OMIT	N
iwu_to_iwu	(Iwu_to_iwu_rx_base, Iwu_to_iwu_rx_empty) IF_PRESENT	O
iwu_packet	(Iwu_packet_rx_base, Iwu_packet_rx_empty) IF_PRESENT	O

Detailed Comments :

PDU Constraint Declaration		
Constraint Name : Cc_info_rx01(tv_ : BIT_3; tf_ : BIT_1) PDU Type : CC_INFO Derivation Path : Cc_info_rx_base. Comments : A derived receive constraint for the cc_info PDU, based on ETS 300 444, subclause 8.10, sending keypad information in multi-display. NO CALLED_PARTY_ADDRESS IS ALLOWED IN THIS CASE		
Field Name	Field Value	Comments
network_header	Network_header_cc_iut(tv_, tf_)	M
multi_keypad	Multi_keypad_rx_digit	
called_party_number	OMIT	
called_party_subaddress	OMIT	
Detailed Comments :		

PDU Constraint Declaration		
Constraint Name : Cc_info_rx02(tv_ : BIT_3; tf_ : BIT_1) PDU Type : CC_INFO Derivation Path : Cc_info_rx_base. Comments : A derived receive constraint for the cc_info PDU, based on ETS 300 444, subclause 8.10, sending '12'H (goto pulse) keypad information in the MULTI-KEYPAD information element. NO CALLED_PARTY_ADDRESS IS ALLOWED IN THIS CASE.		
Field Name	Field Value	Comments
network_header	Network_header_cc_iut(tv_, tf_)	M
multi_keypad	Multi_keypad_rx_pulse	
called_party_number	OMIT	
called_party_subaddress	OMIT	
Detailed Comments :		

PDU Constraint Declaration		
Constraint Name : Cc_info_rx03(tv_ : BIT_3; tf_ : BIT_1) PDU Type : CC_INFO Derivation Path : Cc_info_rx_base. Comments : A derived receive constraint for the cc_info PDU, based on ETS 300 444, subclause 8.10, sending '05'H (dialling pause) keypad information in the MULTI-KEYPAD information element. NO CALLED_PARTY_ADDRESS IS ALLOWED IN THIS CASE.		
Field Name	Field Value	Comments
network_header	Network_header_cc_iut(tv_, tf_)	M
multi_keypad	Multi_keypad_rx_pause	
called_party_number	OMIT	
called_party_subaddress	OMIT	
Detailed Comments :		

PDU Constraint Declaration		
Constraint Name : Cc_info_rx04(tv_ : BIT_3; tf_ : BIT_1) PDU Type : CC_INFO Derivation Path : Cc_info_rx_base. Comments : A derived receive constraint for the cc_info PDU, based on ETS 300 444, subclause 8.10, sending '14'H (dialling pause) keypad information in the MULTI-KEYPAD information element. NO CALLED_PARTY_ADDRESS IS ALLOWED IN THIS CASE.		
Field Name	Field Value	Comments
network_header	Network_header_cc_iut(tv_, tf_)	M
multi_keypad	Multi_keypad_rx_dtmf_defined	
called_party_number	OMIT	
called_party_subaddress	OMIT	
Detailed Comments :		

PDU Constraint Declaration		
Constraint Name : Cc_info_rx05(tv_ : BIT_3; tf_ : BIT_1) PDU Type : CC_INFO Derivation Path : Cc_info_rx_base. Comments : A derived receive constraint for the cc_info PDU, based on ETS 300 444, subclause 8.10, sending '16'H (goto DTMF, infinite tone length) keypad information in the MULTI-KEYPAD information element. NO CALLED_PARTY_ADDRESS IS ALLOWED IN THIS CASE.		
Field Name	Field Value	Comments
network_header	Network_header_cc_iut(tv_, tf_)	M
multi_keypad	Multi_keypad_rx_dtmf_infinite	
called_party_number	OMIT	
called_party_subaddress	OMIT	
Detailed Comments :		

PDU Constraint Declaration		
Constraint Name : Cc_info_rx06(tv_ : BIT_3; tf_ : BIT_1) PDU Type : CC_INFO Derivation Path : Cc_info_rx_base. Comments : A derived receive constraint for the cc_info PDU, based on ETS 300 444, subclause 8.10, sending the basic dialled digits in the MULTI-KEYPAD information element. NO CALLED_PARTY_ADDRESS IS ALLOWED IN THIS CASE.		
Field Name	Field Value	Comments
network_header	Network_header_cc_iut(tv_, tf_)	M
multi_keypad	Multi_keypad_rx_digit	
called_party_number	OMIT	
called_party_subaddress	OMIT	
Detailed Comments :		

PDU Constraint Declaration		
Constraint Name : Cc_info_rx07(tv_ : BIT_3; tf_ : BIT_1) PDU Type : CC_INFO Derivation Path : Cc_info_rx_base. Comments : A derived receive constraint for the cc_info PDU, based on ETS 300 444, subclause 8.10, sending internal call request in the MULTI-KEYPAD information element. NO CALLED_PARTY_ADDRESS IS ALLOWED IN THIS CASE.		
Field Name	Field Value	Comments
network_header	Network_header_cc_iut(tv_, tf_)	M
multi_keypad	Multi_keypad_rx_internal	
called_party_number	OMIT	
called_party_subaddress	OMIT	
Detailed Comments :		

PDU Constraint Declaration		
Constraint Name : Cc_info_rx08(tv_ : BIT_3; tf_ : BIT_1) PDU Type : CC_INFO Derivation Path : Cc_info_rx_base. Comments : A derived receive constraint for the cc_info PDU, based on ETS 300 444, subclause 8.10, sending '15'H (register recall) keypad information in the MULTI-KEYPAD information element. NO CALLED_PARTY_ADDRESS IS ALLOWED IN THIS CASE.		
Field Name	Field Value	Comments
network_header	Network_header_cc_iut(tv_, tf_)	M
multi_keypad	Multi_keypad_rx_register_recall	
called_party_number	OMIT	
called_party_subaddress	OMIT	
Detailed Comments :		

PDU Constraint Declaration		
Constraint Name : Cc_info_rx09(tv_ : BIT_3; tf_ : BIT_1) PDU Type : CC_INFO Derivation Path : Cc_info_rx_base. Comments : A derived receive constraint for the cc_info PDU, based on ETS 300 444, subclause 8.10, sending keypad information in the MULTI-KEYPAD information element.		
Field Name	Field Value	Comments
network_header	Network_header_cc_iut(tv_, tf_)	M
multi_keypad	(Multi_keypad_rx_dtmf_defined, Multi_keypad_rx_digit)	
called_party_number	OMIT	
called_party_subaddress	OMIT	
Detailed Comments :		

PDU Constraint Declaration		
Constraint Name : Cc_info_tx_base(tv_ : BIT_3; tf_ : BIT_1)		
PDU Type : CC_INFO		
Derivation Path :		
Comments : The basic send constraint for the cc_info PDU, for either outgoing or incoming call		
Field Name	Field Value	Comments
network_header	Network_header_cc_lt(tv_, tf_)	M
message_type	TSC_mt_cc_info	M
location_area	OMIT	N
network_assigned_id	OMIT	N
facility	OMIT	O
progress_indicator	OMIT	O
multi_display	OMIT	O
single_display	OMIT	O
multi_keypad	OMIT	N
single_keypad	OMIT	N
signal	OMIT	O
feature_activate	OMIT	N
feature_indicate	OMIT	O
network_parameter	OMIT	N
called_party_number	OMIT	O
called_party_subaddress	OMIT	O
sending_complete	OMIT	O
test_hook_control	OMIT	O
iwu_to_iwu	OMIT	O
iwu_packet	OMIT	O
Detailed Comments :		

PDU Constraint Declaration		
Constraint Name : Cc_info_tx01(tv_ : BIT_3; tf_ : BIT_1)		
PDU Type : CC_INFO		
Derivation Path : Cc_info_tx_base.		
Comments : A derived send constraint for the cc_info PDU, for either outgoing or incoming call		
Field Name	Field Value	Comments
network_header	Network_header_cc_lt(tv_, tf_)	M
signal	Signal_tx_alerting_on	Contains 'Alerting on'
Detailed Comments :		

PDU Constraint Declaration		
Constraint Name : Cc_info_tx02(tv_ : BIT_3; tf_ : BIT_1)		
PDU Type : CC_INFO		
Derivation Path : Cc_info_tx_base.		
Comments : A derived send constraint for the cc_info PDU, for either outgoing or incoming call		
Field Name	Field Value	Comments
network_header	Network_header_cc_lt(tv_, tf_)	M
progress_indicator	Progress_indicator_tx_patt_avail	inband information or appropriate pattern now available.
signal	Signal_tx_alerting_on	Contains 'Alerting on'
Detailed Comments :		

PDU Constraint Declaration		
Constraint Name : Cc_info_tx03(tv_ : BIT_3; tf_ : BIT_1)		
PDU Type : CC_INFO		
Derivation Path : Cc_info_tx_base.		
Comments : A derived send constraint for the cc_info PDU, based on ETS 300 444, subclause 8.16.		
Field Name	Field Value	Comments
network_header	Network_header_cc_lt(tv_, tf_)	M
multi_display	Multi_display_tx_ctrl_char	1)
Detailed Comments : 1) ie contains control character 'Clear Display'		

PDU Constraint Declaration		
Constraint Name : Cc_info_tx04(tv_ : BIT_3; tf_ : BIT_1)		
PDU Type : CC_INFO		
Derivation Path : Cc_info_tx_base.		
Comments : A derived send constraint for the cc_info PDU, based on ETS 300 444, subclause 8.16.		
Field Name	Field Value	Comments
network_header	Network_header_cc_lt(tv_, tf_)	M
multi_display	Multi_display_tx_stand_char	1)
Detailed Comments : 1) ie contains standard characters 1234		

PDU Constraint Declaration		
Constraint Name : Cc_notify_tx_base(tv_ : BIT_3; tf_ : BIT_1)		
PDU Type : CC_NOTIFY		
Derivation Path :		
Comments : The basic send constraint for the cc_notify PDU.		
Field Name	Field Value	Comments
network_header	Network_header_cc_lt(tv_, tf_)	M
message_type	TSC_mt_cc_notify	M
timer_restart	OMIT	O
Detailed Comments :		

PDU Constraint Declaration		
Constraint Name : Cc_notify_tx01(tv_ : BIT_3; tf_ : BIT_1)		
PDU Type : CC_NOTIFY		
Derivation Path : Cc_notify_tx_base.		
Comments : A derived send constraint for the cc_notify PDU. See ETS 300 175[5], subclause 7.6.9		
Field Name	Field Value	Comments
network_header	Network_header_cc_lt(tv_, tf_)	M
timer_restart	Timer_restart_restart_timer	
Detailed Comments :		

PDU Constraint Declaration		
Constraint Name : Cc_out_of_scope_pdu_rx(tv_ : BIT_3; tf_ : BIT_1)		
PDU Type : CC_OUT_OF_SCOPE		
Derivation Path :		
Comments : For any CC PDU which is out of scope acc. to ETS 300 444		
Field Name	Field Value	Comments
network_header	Network_header_cc_iut(tv_, tf_)	
message_type	(TSC_mt_iwu_info, TSC_mt_cc_service_change, TSC_mt_cc_service_accept, TSC_mt_cc_service_reject, TSC_mt_facility, TSC_mt_hold, TSC_mt_hold_ack, TSC_mt_hold_reject, TSC_mt_retrieve, TSC_mt_retrieve_ack, TSC_mt_retrieve_reject)	
contents	*	
Detailed Comments :		

PDU Constraint Declaration		
Constraint Name : Cc_release_rx_base(tv_ : BIT_3; tf_ : BIT_1)		
PDU Type : CC_RELEASE		
Derivation Path :		
Comments : The basic receive constraint for the cc_release PDU, for either outgoing or incoming call		
Field Name	Field Value	Comments
network_header	Network_header_cc_iut(tv_, tf_)	M
message_type	TSC_mt_cc_release	M
release_reason	(Release_reason_rx_base) IF_PRESENT	O
facility	(Facility_rx_base, Facility_rx_empty) IF_PRESENT	O (version 2 of ETS 300 175-5 [5])
progress_indicator	(Progress_indicator_rx_base, Progress_indicator_rx_empty) IF_PRESENT	O (version 2 of ETS 300 175-5 [5])
multi_display	OMIT	N
single_display	OMIT	N
feature_indicate	OMIT	N
iwu_to_iwu	(Iwu_to_iwu_rx_base, Iwu_to_iwu_rx_empty) IF_PRESENT	O
iwu_packet	(Iwu_packet_rx_base, Iwu_packet_rx_empty) IF_PRESENT	O
Detailed Comments :		

PDU Constraint Declaration		
Constraint Name : Cc_release_rx01(tv_ : BIT_3; tf_ : BIT_1)		
PDU Type : CC_RELEASE		
Derivation Path : Cc_release_rx_base.		
Comments : A derived receive constraint for the CC_RELEASE PDU, specifying release reason 'partial release'.		
Field Name	Field Value	Comments
network_header	Network_header_cc_iut(tv_, tf_)	M
release_reason	Release_reason_partial_release	
Detailed Comments :		

PDU Constraint Declaration		
Constraint Name : Cc_release_tx_base(tv_ : BIT_3; tf_ : BIT_1)		
PDU Type : CC_RELEASE		
Derivation Path :		
Comments : The basic send constraint for the cc_release PDU, for either outgoing or incoming call		
Field Name	Field Value	Comments
network_header	Network_header_cc_lt(tv_, tf_)	M
message_type	TSC_mt_cc_release	M
release_reason	OMIT	O
facility	OMIT	O
progress_indicator	OMIT	O (version 2 of ETS 300 175-5 [5])
multi_display	OMIT	O
single_display	OMIT	O
feature_indicate	OMIT	O
iwu_to_iwu	OMIT	O
iwu_packet	OMIT	O
Detailed Comments :		

PDU Constraint Declaration		
Constraint Name : Cc_release_tx01(tv_ : BIT_3; tf_ : BIT_1)		
PDU Type : CC_RELEASE		
Derivation Path : Cc_release_tx_base.		
Comments : A derived send constraint for the cc_release PDU, containing release reason '15'H (partial release)		
Field Name	Field Value	Comments
network_header	Network_header_cc_lt(tv_, tf_)	M
release_reason	Release_reason_partial_release	
Detailed Comments :		

PDU Constraint Declaration		
Constraint Name : Cc_release_com_rx_base(tv_ : BIT_3; tf_ : BIT_1)		
PDU Type : CC_RELEASE_COM		
Derivation Path :		
Comments : The basic receive constraint for the cc_release_com PDU, for either outgoing or incoming call		
Field Name	Field Value	Comments
network_header	Network_header_cc_iut(tv_, tf_)	M
message_type	TSC_mt_cc_release_com	M
release_reason	(Release_reason_rx_base) IF_PRESENT	O
identity_type	OMIT	N
location_area	OMIT	N
iwu_attributes	(Iwu_attributes_rx_base, Iwu_attributes_rx_empty) IF_PRESENT	O
facility	(Facility_rx_base, Facility_rx_empty) IF_PRESENT	O (version 2 of ETS 300 175-5 [5])
multi_display	OMIT	N
single_display	OMIT	N
feature_indicate	OMIT	N
network_parameter	OMIT	N
iwu_to_iwu	(Iwu_to_iwu_rx_base, Iwu_to_iwu_rx_empty) IF_PRESENT	O
iwu_packet	(Iwu_packet_rx_base, Iwu_packet_rx_empty) IF_PRESENT	O
Detailed Comments :		

PDU Constraint Declaration		
Constraint Name : Cc_release_com_rx01(tv_ : BIT_3; tf_ : BIT_1)		
PDU Type : CC_RELEASE_COM		
Derivation Path : Cc_release_com_rx_base.		
Comments : A derived receive constraint for the CC_RELEASE_COM PDU, specifying release reason 'partial release'.		
Field Name	Field Value	Comments
network_header	Network_header_cc_iut(tv_, tf_)	M
release_reason	Release_reason_partial_release	
Detailed Comments :		

PDU Constraint Declaration		
Constraint Name : Cc_release_com_tx_base(tv_ : BIT_3; tf_ : BIT_1)		
PDU Type : CC_RELEASE_COM		
Derivation Path :		
Comments : The basic send constraint for the cc_release_com PDU, for either outgoing or incoming call		
Field Name	Field Value	Comments
network_header	Network_header_cc_lt(tv_, tf_)	M
message_type	TSC_mt_cc_release_com	M
release_reason	OMIT	O
identity_type	OMIT	O
location_area	OMIT	O
iwu_attributes	OMIT	O
facility	OMIT	O
multi_display	OMIT	O
single_display	OMIT	O
feature_indicate	OMIT	O
network_parameter	OMIT	O
iwu_to_iwu	OMIT	O
iwu_packet	OMIT	O
Detailed Comments :		

PDU Constraint Declaration		
Constraint Name : Cc_release_com_tx01(tv_ : BIT_3; tf_ : BIT_1)		
PDU Type : CC_RELEASE_COM		
Derivation Path : Cc_release_com_tx_base.		
Comments : A derived send constraint for the CC_RELEASE_COM PDU, specifying 'partial release'.		
Field Name	Field Value	Comments
network_header	Network_header_cc_lt(tv_, tf_)	M
release_reason	Release_reason_partial_release	
Detailed Comments :		

PDU Constraint Declaration		
Constraint Name : Cc_service_change_rx_base(tv_ : BIT_3; tf_ : BIT_1)		
PDU Type : CC_SERVICE_CHANGE		
Derivation Path :		
Comments : The basic receive constraint for the cc_service_change PDU, for either incoming call or outgoing call		
Field Name	Field Value	Comments
network_header	Network_header_cc_iut(tv_, tf_)	M
message_type	TSC_mt_cc_service_change	M
portable_id	Portable_id_rx_base	M
service_change_info	Service_change_info_rx_base	M
connection_attributes	(Connection_attributes_list_rx_base, Connection_attributes_nolist_rx_base) IF_PRESENT	O
connection_id	(Connection_id_rx_base, Connection_id_rx_empty) IF_PRESENT	O
Detailed Comments :		

PDU Constraint Declaration		
Constraint Name : Cc_service_change_tx_base(tv_ : BIT_3; tf_ : BIT_1)		
PDU Type : CC_SERVICE_CHANGE		
Derivation Path :		
Comments : The basic send constraint for the cc_service_change PDU, for either incoming call or outgoing call.		
Field Name	Field Value	Comments
network_header	Network_header_cc_lt(tv_, tf_)	M
message_type	TSC_mt_cc_service_change	M
portable_id	Portable_id_ipui	M
service_change_info	Service_change_info_tx_base	M
connection_attributes	OMIT	O
connection_id	OMIT	O
Detailed Comments :		

PDU Constraint Declaration		
Constraint Name : Cc_setup_rx_base(tf_ : BIT_1) PDU Type : CC_SETUP Derivation Path : Comments : The basic receive constraint for the cc_setup PDU, for outgoing call. Note that the Network header constraint allows any TV to occur. The TV value will be assigned in the testcase.		
Field Name	Field Value	Comments
network_header	Network_header_cc_iut_any_tv(tf_)	M
message_type	TSC_mt_cc_setup	M
portable_id	Portable_id_rx_base	M
fixed_id	Fixed_id_rx_base	M
basic_service	Basic_service_rx_base	M The Basic_service_rx_base constraint will specify 'default attributes', so lwu_attributes and call attributes and end_to_end_compatibility are not allowed.
iwu_attributes	OMIT	O (default attributes)
repeat_indicator_1	OMIT	O (default attributes)
call_attributes	OMIT	O (default attributes)
repeat_indicator_2	OMIT	O (default attributes)
connection_attributes	OMIT	O (only in advanced MAC connections)
cipher_info	(Cipher_info_rx_base, Cipher_info_rx_empty) IF_PRESENT	O
connection_id	OMIT	O (only in advanced MAC connections)
facility	(Facility_rx_base, Facility_rx_empty) IF_PRESENT	O
progress_indicator	OMIT	N
multi_display	OMIT	N
single_display	OMIT	N
multi_keypad	(Multi_keypad_rx_base, Multi_keypad_rx_empty) IF_PRESENT	O
single_keypad	Single_keypad_rx_base IF_PRESENT	O
signal	OMIT	N
feature_activate	(Feature_activate_rx_base, Feature_activate_rx_empty) IF_PRESENT	O
feature_indicate	OMIT	N
network_parameter	(Network_parameter_rx_base, Network_parameter_rx_empty) IF_PRESENT	O
terminal_capability	(Terminal_capability_rx_base, Terminal_capability_rx_empty) IF_PRESENT	O
end_to_end_compatibility	OMIT	O (default attributes)
rate_parameters	OMIT	O (data services only)
transit_delay	OMIT	O (data services only)
window_size	OMIT	O (data services only)

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PDU Constraint Declaration		
Field Name	Field Value	Comments
calling_party_number	(Calling_party_number_rx_base, Calling_party_number_rx_empty) IF_PRESENT	O
called_party_number	(Called_party_number_rx_base, Called_party_number_rx_empty) IF_PRESENT	O
called_party_subaddress	(Called_party_subaddress_rx_base, Called_party_subaddress_rx_empty) IF_PRESENT	O
sending_complete	Sending_complete IF_PRESENT	O
iwu_to_iwu	(Iwu_to_iwu_rx_base, Iwu_to_iwu_rx_empty) IF_PRESENT	O
iwu_packet	(Iwu_packet_rx_base, Iwu_packet_rx_empty) IF_PRESENT	O
Detailed Comments :		

PDU Constraint Declaration		
Constraint Name : Cc_setup_rx01(tf_ : BIT_1) PDU Type : CC_SETUP Derivation Path : Cc_setup_rx_base. Comments : A receive constraint for the cc_setup PDU, for outgoing call. No CALLED_PARTY_ADDRESS is allowed in this case.		
Field Name	Field Value	Comments
network_header	Network_header_cc_iut_any_tv(tf_)	M
portable_id	Portable_id_ipui	
fixed_id	Fixed_id_park	
basic_service	Basic_service_rx_base	The Basic_service_rx_base constraint will specify 'default attribtues', so Iwu_attributes and call attributes are not allowed.
called_party_number	OMIT	
called_party_subaddress	OMIT	
Detailed Comments :		

PDU Constraint Declaration		
Constraint Name : Cc_setup_rx02(tf_ : BIT_1) PDU Type : CC_SETUP Derivation Path : Cc_setup_rx_base. Comments : A receive constraint for the cc_setup PDU, for outgoing call. No CALLED_PARTY_ADDRESS is allowed in this case. Only Basic service call class 'normal' is allowed.		
Field Name	Field Value	Comments
network_header	Network_header_cc_iut_any_tv(tf_)	M
portable_id	Portable_id_ipui	
fixed_id	Fixed_id_park	
basic_service	Basic_service_normal	
called_party_number	OMIT	
called_party_subaddress	OMIT	
Detailed Comments :		

PDU Constraint Declaration		
Constraint Name : Cc_setup_rx03(tf_ : BIT_1) PDU Type : CC_SETUP Derivation Path : Cc_setup_rx_base. Comments : A receive constraint for the cc_setup PDU, for outgoing call. No CALLED_PARTY_ADDRESS is allowed in this case. Only Basic service call class internal is allowed.		
Field Name	Field Value	Comments
network_header	Network_header_cc_iut_any_tv(tf_)	M
portable_id	Portable_id_ipui	
fixed_id	Fixed_id_park	
basic_service	Basic_service_internal	
called_party_number	OMIT	
called_party_subaddress	OMIT	
Detailed Comments :		

PDU Constraint Declaration

Constraint Name : Cc_setup_tx_base(tv_ : BIT_3; tf_ : BIT_1)
PDU Type : CC_SETUP
Derivation Path :
Comments : The basic send constraint for the cc_setup PDU, for incoming call.

Field Name	Field Value	Comments
network_header	Network_header_cc_lt(tv_, tf_)	M
message_type	TSC_mt_cc_setup	M
portable_id	OMIT	M (t.b.s. in derived constraint)
fixed_id	OMIT	M (t.b.s. in derived constraint)
basic_service	OMIT	M (t.b.s. in derived constraint)
iwu_attributes	OMIT	O
repeat_indicator_1	OMIT	O
call_attributes	OMIT	O
repeat_indicator_2	OMIT	O
connection_attributes	OMIT	O
cipher_info	OMIT	O
connection_id	OMIT	O
facility	OMIT	O
progress_indicator	OMIT	O
multi_display	OMIT	O
single_display	OMIT	O
multi_keypad	OMIT	N
single_keypad	OMIT	N
signal	OMIT	O
feature_activate	OMIT	N
feature_indicate	OMIT	O
network_parameter	OMIT	N
terminal_capability	OMIT	N
end_to_end_compatibility	OMIT	O
rate_parameters	OMIT	O
transit_delay	OMIT	O
window_size	OMIT	O
calling_party_number	OMIT	O
called_party_number	OMIT	O
called_party_subaddress	OMIT	O
sending_complete	OMIT	O
iwu_to_iwu	OMIT	O
iwu_packet	OMIT	O

Detailed Comments :

PDU Constraint Declaration		
Constraint Name : Cc_setup_tx01(tv_ : BIT_3; tf_ : BIT_1) PDU Type : CC_SETUP Derivation Path : Cc_setup_tx_base. Comments : A derived send constraint for the cc_setup PDU, for incoming call. No signal iei present		
Field Name	Field Value	Comments
network_header portable_id fixed_id basic_service	Network_header_cc_lt(tv_, tf_) Portable_id_ipui Fixed_id_park Basic_service_tx_default	M The Basic_service_tx_default constraint specifies 'basic speech default attributes', so lwu_attributes, call attributes and end_to_end_compatibility are not allowed.
Detailed Comments :		

PDU Constraint Declaration		
Constraint Name : Cc_setup_tx02(tv_ : BIT_3; tf_ : BIT_1) PDU Type : CC_SETUP Derivation Path : Cc_setup_tx_base. Comments : A send constraint for the cc_setup PDU, for incoming call, with signal iei present		
Field Name	Field Value	Comments
network_header portable_id fixed_id basic_service signal	Network_header_cc_lt(tv_, tf_) Portable_id_ipui Fixed_id_park Basic_service_tx_default Signal_tx_alerting_on	M
Detailed Comments :		

PDU Constraint Declaration		
Constraint Name : Cc_setup_tx03(tv_ : BIT_3; tf_ : BIT_1) PDU Type : CC_SETUP Derivation Path : Cc_setup_tx_base. Comments : A send constraint for the cc_setup PDU, for incoming call, with signal iei present, and calling party number present		
Field Name	Field Value	Comments
network_header portable_id fixed_id basic_service signal calling_party_number	Network_header_cc_lt(tv_, tf_) Portable_id_ipui Fixed_id_park Basic_service_tx_default Signal_tx_alerting_on Calling_party_number_tx_1234	M
Detailed Comments :		

PDU Constraint Declaration		
Constraint Name : Cc_setup_tx04(tv_ : BIT_3; tf_ : BIT_1)		
PDU Type : CC_SETUP		
Derivation Path : Cc_setup_tx_base.		
Comments : A send constraint for the cc_setup PDU, for incoming call with an ie_progress_indicator containing "in-band info. or appropriate pattern now available".		
Field Name	Field Value	Comments
network_header	Network_header_cc_lt(tv_, tf_)	M
portable_id	Portable_id_ipui	
fixed_id	Fixed_id_park	
basic_service	Basic_service_tx_default	
progress_indicator	Progress_indicator_tx_patt_avail	
Detailed Comments :		

PDU Constraint Declaration		
Constraint Name : Cc_setup_tx05(tv_ : BIT_3; tf_ : BIT_1)		
PDU Type : CC_SETUP		
Derivation Path : Cc_setup_tx_base.		
Comments : A send constraint for the cc_setup PDU, for incoming call with the information elements <<progress_indicator>> containing "in-band info. or appropriate pattern now available" and <<signal>> containing alerting on.		
Field Name	Field Value	Comments
network_header	Network_header_cc_lt(tv_, tf_)	M
portable_id	Portable_id_ipui	
fixed_id	Fixed_id_park	
basic_service	Basic_service_tx_default	
progress_indicator	Progress_indicator_tx_patt_avail	
signal	Signal_tx_alerting_on	
Detailed Comments :		

PDU Constraint Declaration		
Constraint Name : Cc_setup_ack_tx_base(tv_ : BIT_3; tf_ : BIT_1)		
PDU Type : CC_SETUP_ACK		
Derivation Path :		
Comments : The basic send constraint for the cc_setup_ack PDU, for outgoing call. No progress indicator included		
Field Name	Field Value	Comments
network_header	Network_header_cc_lt(tv_, tf_)	M
message_type	TSC_mt_cc_setup_ack	M
info_type	OMIT	O
portable_id	OMIT	O
fixed_id	OMIT	O
location_area	OMIT	O
call_attributes	OMIT	O
connection_id	OMIT	O
facility	OMIT	O
progress_indicator	OMIT	O
multi_display	OMIT	O
single_display	OMIT	O
signal	OMIT	O
feature_indicate	OMIT	O
transit_delay	OMIT	O
window_size	OMIT	O
delimiter_request	OMIT	O
iwu_to_iwu	OMIT	O
iwu_packet	OMIT	O
Detailed Comments :		

PDU Constraint Declaration		
Constraint Name : Cc_setup_ack_tx01(tv_ : BIT_3; tf_ : BIT_1)		
PDU Type : CC_SETUP_ACK		
Derivation Path : Cc_setup_ack_tx_base.		
Comments : A derived send constraint for the cc_setup_ack PDU, for outgoing call. Progress indicator included.		
Field Name	Field Value	Comments
network_header	Network_header_cc_lt(tv_, tf_)	M
progress_indicator	Progress_indicator_tx_patt_avail	
Detailed Comments :		

PDU Constraint Declaration		
Constraint Name : Cipher_reject_rx_base		
PDU Type : CIPHER_REJECT		
Derivation Path :		
Comments : The basic receive constraint for the CIPHER_REJECT PDU. Only one cipher info ie is assumed to be present.		
Field Name	Field Value	Comments
network_header	Network_header_mm_dest	M
message_type	TSC_mt_cipher_reject	M
repeat_indicator	OMIT	O
cipher_info	(Cipher_info_rx_base, Cipher_info_rx_empty) IF_PRESENT	O
reject_reason	(Reject_reason_rx_base, Reject_reason_rx_empty) IF_PRESENT	O
Detailed Comments :		

PDU Constraint Declaration		
Constraint Name : Cipher_reject_rx01		
PDU Type : CIPHER_REJECT		
Derivation Path : Cipher_reject_rx_base.		
Comments : A derived receive constraint for the CIPHER_REJECT PDU, as an answer to the PT initiated cipher switching procedure. Only one cipher info ie is assumed to be present.		
Field Name	Field Value	Comments
network_header	Network_header_mm_ori	
Detailed Comments :		

PDU Constraint Declaration		
Constraint Name : Cipher_request_tx_base		
PDU Type : CIPHER_REQUEST		
Derivation Path :		
Comments : The basic send constraint for the CIPHER_REQUEST PDU.		
Field Name	Field Value	Comments
network_header	Network_header_mm_ori	M
message_type	TSC_mt_cipher_request	M
cipher_info	OMIT	M (t.b.s. in derived constraint)
call_identity	OMIT	O
connection_identity	OMIT	O
iwu_to_iwu	OMIT	O
Detailed Comments :		

PDU Constraint Declaration		
Constraint Name : Cipher_request_tx01		
PDU Type : CIPHER_REQUEST		
Derivation Path : Cipher_request_tx_base.		
Comments : A derived send constraint for the CIPHER_REQUEST PDU., specifying ciphering on with DECT standard ciphering algorithm.		
Field Name	Field Value	Comments
cipher_info	Cipher_info_dsca_enable	
Detailed Comments :		

PDU Constraint Declaration		
Constraint Name : Cipher_request_tx02		
PDU Type : CIPHER_REQUEST		
Derivation Path : Cipher_request_tx_base.		
Comments : A derived send constraint for the CIPHER_REQUEST PDU, as an answer to the PT initiated cipher switching procedure, specifying ciphering on with DECT standard ciphering algorithm.		
Field Name	Field Value	Comments
network_header	Network_header_mm_dest	
cipher_info	Cipher_info_dsca_enable	
Detailed Comments :		

PDU Constraint Declaration		
Constraint Name : Cipher_request_tx03		
PDU Type : CIPHER_REQUEST		
Derivation Path : Cipher_request_tx_base.		
Comments : A derived send constraint for the CIPHER_REQUEST PDU, as an answer to the PT initiated cipher switching procedure, specifying ciphering off with DECT standard ciphering algorithm.		
Field Name	Field Value	Comments
network_header	Network_header_mm_dest	
cipher_info	Cipher_info_dsca_disable	
Detailed Comments :		

PDU Constraint Declaration		
Constraint Name : Cipher_request_tx04		
PDU Type : CIPHER_REQUEST		
Derivation Path : Cipher_request_tx_base.		
Comments : A derived send constraint for the CIPHER_REQUEST PDU., specifying ciphering off with DECT standard ciphering algorithm.		
Field Name	Field Value	Comments
cipher_info	Cipher_info_dsca_disable	
Detailed Comments :		

PDU Constraint Declaration		
Constraint Name : Cipher_request_tx05		
PDU Type : CIPHER_REQUEST		
Derivation Path : Cipher_request_tx_base.		
Comments : A derived send constraint for the CIPHER_REQUEST PDU., specifying an unacceptable ciphering algorithm in the cipher info ie.		
Field Name	Field Value	Comments
cipher_info	Cipher_info_unacceptable	
Detailed Comments :		

PDU Constraint Declaration		
Constraint Name : Cipher_suggest_rx_base		
PDU Type : CIPHER_SUGGEST		
Derivation Path :		
Comments : The basic receive constraint for the CIPHER_SUGGEST PDU.		
Field Name	Field Value	Comments
network_header	Network_header_mm_ori	M
message_type	TSC_mt_cipher_suggest	M
cipher_info	Cipher_info_rx_base	M
call_id	(Call_id_rx_base, Call_id_rx_empty) IF_PRESENT	O
connection_id	(Connection_id_rx_base, Connection_id_rx_empty) IF_PRESENT	O
iwu_to_iwu	(Iwu_to_iwu_rx_base, Iwu_to_iwu_rx_empty) IF_PRESENT	O
Detailed Comments :		

PDU Constraint Declaration		
Constraint Name : Cipher_suggest_rx01		
PDU Type : CIPHER_SUGGEST		
Derivation Path : Cipher_suggest_rx_base.		
Comments : A derived receive constraint for the CIPHER_SUGGEST PDU, specifying the cipher-info ie with ciphering enable.		
Field Name	Field Value	Comments
cipher_info	Cipher_info_dsca_enable	1)
Detailed Comments : 1) Cipher_info_dsca_enable specifies: DECT standard cipher algorithm, ciphering enable, cipher key type DCK.		

PDU Constraint Declaration		
Constraint Name : Cipher_suggest_rx02		
PDU Type : CIPHER_SUGGEST		
Derivation Path : Cipher_suggest_rx_base.		
Comments : A derived receive constraint for the CIPHER_SUGGEST PDU, specifying the cipher-info ie with ciphering disable		
Field Name	Field Value	Comments
cipher_info	Cipher_info_dsca_disable	1)
Detailed Comments : 1) Cipher_info_dsca_enable specifies: DECT standard cipher algorithm, ciphering disable, cipher key type DCK.		

PDU Constraint Declaration		
Constraint Name : Ciss_any_pdu_rx		
PDU Type : CISS_ANY_PDU		
Derivation Path :		
Comments : The basic receive constraint for any CISS PDU		
Field Name	Field Value	Comments
network_header contents	Network_header_ciss_any_tf *	
Detailed Comments :		

PDU Constraint Declaration		
Constraint Name : Coms_any_pdu_rx		
PDU Type : COMS_ANY_PDU		
Derivation Path :		
Comments : The basic receive constraint for any COMS PDU		
Field Name	Field Value	Comments
network_header contents	Network_header_coms_any_tf *	
Detailed Comments :		

PDU Constraint Declaration		
Constraint Name : Identity_reply_rx_base		
PDU Type : IDENTITY_REPLY		
Derivation Path :		
Comments : The basic receive constraint for the IDENTITY_REPLY PDU		
Field Name	Field Value	Comments
network_header	Network_header_mm_dest	M
message_type	TSC_mt_identity_reply	M
repeat_indicator_1	Repeat_indicator_rx_base IF_PRESENT	O
portable_id	(Portable_id_rx_base, Portable_id_rx_empty) IF_PRESENT	O
portable_id_2	(Portable_id_rx_base, Portable_id_rx_empty) IF_PRESENT	O
portable_id_3	(Portable_id_rx_base, Portable_id_rx_empty) IF_PRESENT	O
repeat_indicator_2	Repeat_indicator_rx_base IF_PRESENT	O
fixed_id	(Fixed_id_rx_base, Fixed_id_rx_empty) IF_PRESENT	O
fixed_id_2	(Fixed_id_rx_base, Fixed_id_rx_empty) IF_PRESENT	O
fixed_id_3	(Fixed_id_rx_base, Fixed_id_rx_empty) IF_PRESENT	O
repeat_indicator_3	Repeat_indicator_rx_base IF_PRESENT	O
network_assigned_id	(Network_assigned_id_rx_base, Network_assigned_id_rx_empty) IF_PRESENT	O
iwu_to_iwu	(Iwu_to_iwu_rx_base, Iwu_to_iwu_rx_empty) IF_PRESENT	O
Detailed Comments :		

PDU Constraint Declaration		
Constraint Name : Identity_reply_rx01		
PDU Type : IDENTITY_REPLY		
Derivation Path : Identity_reply_rx_base.		
Comments : A derived receive constraint for the IDENTITY_REPLY PDU, containing the IPUI. (Only one portable_id is assumed to be present)		
Field Name	Field Value	Comments
repeat_indicator_1	OMIT	
portable_id	Portable_id_ipui	
portable_id_2	OMIT	
portable_id_3	OMIT	
Detailed Comments :		

PDU Constraint Declaration		
Constraint Name : Identity_reply_rx02 PDU Type : IDENTITY_REPLY Derivation Path : Identity_reply_rx_base. Comments : A derived receive constraint for the IDENTITY_REPLY PDU, containing the PARK. (Only one fixed_ is assumed to be present)		
Field Name	Field Value	Comments
repeat_indicator_2	OMIT	
fixed_id	Fixed_id_park	
fixed_id_2	OMIT	
fixed_id_3	OMIT	
Detailed Comments :		

PDU Constraint Declaration		
Constraint Name : Identity_reply_rx03 PDU Type : IDENTITY_REPLY Derivation Path : Identity_reply_rx_base. Comments : A derived receive constraint for the IDENTITY_REPLY_PDU without any information elements thereby indicating reject. See ETS 300 171-5 [5], subclause 6.3.6.14, Note 4		
Field Name	Field Value	Comments
portable_id	OMIT	
portable_id_2	OMIT	
portable_id_3	OMIT	
Detailed Comments :		

PDU Constraint Declaration		
Constraint Name : Identity_reply_rx04 PDU Type : IDENTITY_REPLY Derivation Path : Identity_reply_rx_base. Comments : A derived receive constraint for the IDENTITY_REPLY_PDU with all available portable id's with IPUI type. See ETS 300 171-5 [5], subclause 6.3.6.14		
Field Name	Field Value	Comments
repeat_indicator_1	Repeat_indicator_tx_non_prio	
portable_id	Portable_id_ipui	
portable_id_2	Portable_id_ipui_2	
portable_id_3	OMIT	
Detailed Comments :		

PDU Constraint Declaration		
Constraint Name : Identity_reply_rx05 PDU Type : IDENTITY_REPLY Derivation Path : Identity_reply_rx_base. Comments : A derived receive constraint for the IDENTITY_REPLY_PDU with all available fixed id's with PARK type. See ETS 300 171-5 [5], subclause 6.3.6.14		
Field Name	Field Value	Comments
repeat_indicator_2	Repeat_indicator_tx_non_prio	
fixed_id	Fixed_id_park	
fixed_id_2	Fixed_id_park_2	
fixed_id_3	OMIT	
Detailed Comments :		

PDU Constraint Declaration		
Constraint Name : Identity_reply_rx06 PDU Type : IDENTITY_REPLY Derivation Path : Identity_reply_rx_base. Comments : A derived receive constraint for the IDENTITY_REPLY PDU, containing the TPUI. (Only one portable_id is assumed to be present)		
Field Name	Field Value	Comments
repeat_indicator_1	OMIT	
portable_id	Portable_id_tpui	
portable_id_2	OMIT	
portable_id_3	OMIT	
Detailed Comments :		

PDU Constraint Declaration		
Constraint Name : Identity_reply_rx07 PDU Type : IDENTITY_REPLY Derivation Path : Identity_reply_rx_base. Comments : A derived receive constraint for the IDENTITY_REPLY PDU, specifying the absence of a TPUI.		
Field Name	Field Value	Comments
repeat_indicator_1	OMIT	
portable_id	OMIT	
portable_id_2	OMIT	
portable_id_3	OMIT	
Detailed Comments :		

PDU Constraint Declaration		
Constraint Name : Identity_reply_rx08 PDU Type : IDENTITY_REPLY Derivation Path : Identity_reply_rx_base. Comments : A derived receive constraint for the IDENTITY_REPLY PDU, containing the second PARK. (Only one fixed_ is assumed to be present)		
Field Name	Field Value	Comments
repeat_indicator_2	OMIT	
fixed_id	Fixed_id_park_2	
fixed_id_2	OMIT	
fixed_id_3	OMIT	
Detailed Comments :		

PDU Constraint Declaration		
Constraint Name : Identity_reply_rx09 PDU Type : IDENTITY_REPLY Derivation Path : Identity_reply_rx_base. Comments : A derived receive constraint for the IDENTITY_REPLY PDU, specifying the absence of the portable_id's and the fixed_id's.		
Field Name	Field Value	Comments
repeat_indicator_1	OMIT	
portable_id	OMIT	
portable_id_2	OMIT	
portable_id_3	OMIT	
repeat_indicator_2	OMIT	
fixed_id	OMIT	
fixed_id_2	OMIT	
fixed_id_3	OMIT	
Detailed Comments :		

PDU Constraint Declaration		
Constraint Name : Identity_request_tx_base PDU Type : IDENTITY_REQUEST Derivation Path : Comments : The basic send constraint for the IDENTITY_REQUEST PDU. Only one identity will be requested at the same time.		
Field Name	Field Value	Comments
network_header	Network_header_mm_ori	M
message_type	TSC_mt_identity_request	M
repeat_indicator	OMIT	N
identity_type	OMIT	M (t.b.s. in derived constraint)
iwu_to_iwu	OMIT	O
Detailed Comments :		

PDU Constraint Declaration		
Constraint Name : Identity_request_tx01		
PDU Type : IDENTITY_REQUEST		
Derivation Path : Identity_request_tx_base.		
Comments : A derived send constraint for the IDENTITY_REQUEST PDU, specifying the IPUI.		
Field Name	Field Value	Comments
identity_type	Identity_type_ipui	
Detailed Comments :		

PDU Constraint Declaration		
Constraint Name : Identity_request_tx02		
PDU Type : IDENTITY_REQUEST		
Derivation Path : Identity_request_tx_base.		
Comments : A derived send constraint for the IDENTITY_REQUEST PDU, specifying the PARK.		
Field Name	Field Value	Comments
identity_type	Identity_type_park	
Detailed Comments :		

PDU Constraint Declaration		
Constraint Name : Identity_request_tx03		
PDU Type : IDENTITY_REQUEST		
Derivation Path : Identity_request_tx_base.		
Comments : A derived send constraint for the IDENTITY_REQUEST PDU, specifying an unavailable identity type.		
Field Name	Field Value	Comments
identity_type	Identity_type_unavailable	
Detailed Comments :		

PDU Constraint Declaration		
Constraint Name : Identity_request_tx04		
PDU Type : IDENTITY_REQUEST		
Derivation Path : Identity_request_tx_base.		
Comments : A derived send constraint for the IDENTITY_REQUEST PDU, specifying the TPUI		
Field Name	Field Value	Comments
identity_type	Identity_type_tpui	
Detailed Comments :		

PDU Constraint Declaration		
Constraint Name : Identity_request_tx05		
PDU Type : IDENTITY_REQUEST		
Derivation Path : Identity_request_tx_base.		
Comments : A derived send constraint for the IDENTITY_REQUEST PDU, specifying the IPUI, but with an illegal transaction identifier value.		
Field Name	Field Value	Comments
network_header	Bi_network_header_mm_ori	Contains illegal TV
identity_type	Identity_type_ipui	
Detailed Comments :		

PDU Constraint Declaration		
Constraint Name : Key_allocate_tx_base		
PDU Type : KEY_ALLOCATE		
Derivation Path :		
Comments : The basic send constraint for the KEY_ALLOCATE PDU.		
Field Name	Field Value	Comments
network_header	Network_header_mm_ori	M
message_type	TSC_mt_key_allocate	M
allocation_type	OMIT	M (t.b.s. in derived constraint)
rand	OMIT	M (t.b.s. in derived constraint)
rs	OMIT	M (t.b.s. in derived constraint)
Detailed Comments :		

PDU Constraint Declaration		
Constraint Name : Key_allocate_tx01		
PDU Type : KEY_ALLOCATE		
Derivation Path : Key_allocate_tx_base.		
Comments : A derived send constraint for the KEY_ALLOCATE PDU, specifying allocation type with auth_algorithm DSAA., and with a rand and a rs.		
Field Name	Field Value	Comments
network_header	Network_header_mm_ori	
message_type	TSC_mt_key_allocate	
allocation_type	Allocation_type_tx_dsaa	
rand	Rand_tx_64_bit	
rs	Rs_tx_64_bit	
Detailed Comments :		

PDU Constraint Declaration		
Constraint Name : Key_allocate_tx02 PDU Type : KEY_ALLOCATE Derivation Path : Key_allocate_tx_base. Comments : A derived send constraint for the KEY_ALLOCATE PDU, specifying a wrong allocation type.		
Field Name	Field Value	Comments
network_header	Network_header_mm_ori	
message_type	TSC_mt_key_allocate	
allocation_type	Allocation_type_tx_unacc	
rand	Rand_tx_64_bit	
rs	Rs_tx_64_bit	
Detailed Comments :		

PDU Constraint Declaration		
Constraint Name : Lce_page_response_rx_base PDU Type : LCE_PAGE_RESPONSE Derivation Path : Comments : The basic receive constraint for the lce_page_response PDU.		
Field Name	Field Value	Comments
network_header	Network_header_lce_ori	M
message_type	TSC_mt_lce_page_response	M
portable_id	Portable_id_rx_base	M
fixed_id	(Fixed_id_rx_base, Fixed_id_rx_empty) IF_PRESENT	O
network_assigned_id	(Network_assigned_id_rx_base, Network_assigned_id_rx_empty) IF_PRESENT	O
cipher_info	(Cipher_info_rx_base, Cipher_info_rx_empty) IF_PRESENT	O
Detailed Comments :		

PDU Constraint Declaration		
Constraint Name : Lce_page_response_rx01 PDU Type : LCE_PAGE_RESPONSE Derivation Path : Lce_page_response_rx_base. Comments : A derived constraint for the lce_page_response PDU		
Field Name	Field Value	Comments
portable_id	Portable_id_ipui	
fixed_id	Fixed_id_park	
Detailed Comments :		

PDU Constraint Declaration		
Constraint Name : Lce_request_page_tx_base		
PDU Type : LCE_REQUEST_PAGE		
Derivation Path :		
Comments : The basic constraint for the LCE_REQUEST_PAGE message		
Field Name	Field Value	Comments
lce_header	OMIT	M (t.b.s. in derived constraint)
short_format_address	OMIT	O
Detailed Comments :		

PDU Constraint Declaration		
Constraint Name : Lce_request_page_tx01		
PDU Type : LCE_REQUEST_PAGE		
Derivation Path : Lce_request_page_tx_base.		
Comments : A derived constraint for the LCE_REQUEST_PAGE PDU, specifying CC services (with U-plane AND C-plane), and a short form address.		
Field Name	Field Value	Comments
lce_header	'100'B	1)
short_format_address	Short_frm_addr	
Detailed Comments : 1) This LCE header is used when MAC U-plane services are required		

PDU Constraint Declaration		
Constraint Name : Locate_accept_tx_base		
PDU Type : LOCATE_ACCEPT		
Derivation Path :		
Comments : The basic send constraint for the LOCATE_ACCEPT PDU. An empty Portable id is present, no TPUI assignment is done.		
Field Name	Field Value	Comments
network_header	Network_header_mm_dest	M
message_type	TSC_mt_locate_accept	M
portable_id	OMIT	M (t.b.s. in derived constraint)
location_area	OMIT	M (t.b.s. in derived constraint)
network_assigned_id	OMIT	O
duration	OMIT	O
iwu_to_iwu	OMIT	O
Detailed Comments :		

PDU Constraint Declaration		
Constraint Name : Locate_accept_tx01 PDU Type : LOCATE_ACCEPT Derivation Path : Locate_accept_tx_base. Comments : A derived send constraint for the LOCATE_ACCEPT PDU. No TPUI assignment is done (empty portable_id)		
Field Name	Field Value	Comments
portable_id	Portable_id_empty	
location_area	Location_area_lal_only	
Detailed Comments :		

PDU Constraint Declaration		
Constraint Name : Locate_accept_tx02 PDU Type : LOCATE_ACCEPT Derivation Path : Locate_accept_tx_base. Comments : A derived send constraint for the LOCATE_ACCEPT PDU. TPUI assignment is done.		
Field Name	Field Value	Comments
portable_id	Portable_id_tpui	
location_area	Location_area_lal_only	
Detailed Comments :		

PDU Constraint Declaration		
Constraint Name : Locate_accept_tx03 PDU Type : LOCATE_ACCEPT Derivation Path : Locate_accept_tx_base. Comments : A derived send constraint for the LOCATE_ACCEPT PDU. An unacceptable TPUI assignment is done.		
Field Name	Field Value	Comments
portable_id	Portable_id_tpui_unacc	
location_area	Location_area_lal_only	
Detailed Comments :		

PDU Constraint Declaration		
Constraint Name : Locate_reject_tx_base		
PDU Type : LOCATE_REJECT		
Derivation Path :		
Comments : The basic send constraint for the LOCATE_REJECT PDU.		
Field Name	Field Value	Comments
network_header	Network_header_mm_dest	M
message_type	TSC_mt_locate_reject	M
reject_reason	OMIT	O
duration	OMIT	O
Detailed Comments :		

PDU Constraint Declaration		
Constraint Name : Locate_request_rx_base		
PDU Type : LOCATE_REQUEST		
Derivation Path :		
Comments : The basic receive constraint for the locate_request PDU		
Field Name	Field Value	Comments
network_header	Network_header_mm_ori	M
message_type	TSC_mt_locate_request	M
portable_id	Portable_id_rx_base	M
fixed_id	Fixed_id_rx_base	O in Base standard/ M in GAP
location_area	Location_area_rx_base	O in Base standard/ M in GAP
network_assigned_id	(Network_assigned_id_rx_base, Network_assigned_id_rx_empty) IF_PRESENT	O
cipher_info	(Cipher_info_rx_base, Cipher_info_rx_empty) IF_PRESENT	O
setup_capability	(Setup_capability_rx_base, Setup_capability_rx_empty) IF_PRESENT	O
terminal_capability	(Terminal_capability_rx_base, Terminal_capability_rx_empty)	O in ETS 175-5 and M in GAP RES3-T decision is to follow GAP
iwu_to_iwu	(Iwu_to_iwu_rx_base, Iwu_to_iwu_rx_empty) IF_PRESENT	O
Detailed Comments :		

PDU Constraint Declaration		
Constraint Name : Locate_request_rx01		
PDU Type : LOCATE_REQUEST		
Derivation Path : Locate_request_rx_base.		
Comments : A derived receive constraint for the locate_request PDU.		
Field Name	Field Value	Comments
portable_id	Portable_id_ipui	
fixed_id	Fixed_id_ari_rpn	
location_area	Location_area_lal_only	
Detailed Comments :		

PDU Constraint Declaration		
Constraint Name : Mm_info_suggest_tx_base		
PDU Type : MM_INFO_SUGGEST		
Derivation Path :		
Comments : The basic send constraint for the MM_INFO_SUGGEST PDU.		
Field Name	Field Value	Comments
network_header	Network_header_mm_ori	M
message_type	TSC_mt_mm_info_suggest	M
info_type	OMIT	M (t.b.s. in derived constraint)
fixed_id	OMIT	O
location_area	OMIT	O
network_assigned_id	OMIT	O
network_parameter	OMIT	O
iwu_to_iwu	OMIT	O
Detailed Comments :		

PDU Constraint Declaration		
Constraint Name : Mm_info_suggest_tx01		
PDU Type : MM_INFO_SUGGEST		
Derivation Path : Mm_info_suggest_tx_base.		
Comments : A derived send constraint for the MM_INFO_SUGGEST PDU, specifying info type 'locate suggest'.		
Field Name	Field Value	Comments
info_type	Info_type_tx_locate_suggest	
Detailed Comments :		

PDU Constraint Declaration		
Constraint Name : Mm_out_of_scope_pdu_rx		
PDU Type : MM_OUT_OF_SCOPE		
Derivation Path :		
Comments : For any MM PDU which is out of scope acc. to ETS 300 444		
Field Name	Field Value	Comments
network_header	(Network_header_mm_dest, Network_header_mm_ori)	
message_type	(TSC_mt_mm_info_request, TSC_mt_mm_info_accept, TSC_mt_mm_info_reject, TSC_mt_detach, TSC_mt_temporary_id_assign)	
contents	*	
Detailed Comments :		

PDU Constraint Declaration		
Constraint Name : Temporary_id_assign_ack_rx_base		
PDU Type : TEMPORARY_ID_ASSIGN_ACK		
Derivation Path :		
Comments : The basic constraint for the TEMPORARY_ID_ASSIGN_ACK PDU.		
Field Name	Field Value	Comments
network_header	Network_header_mm_ori	M
message_type	TSC_mt_temporary_id_assign_ack	M
Detailed Comments :		

PDU Constraint Declaration		
Constraint Name : Temporary_id_assign_rej_rx_base		
PDU Type : TEMPORARY_ID_ASSIGN_REJECT		
Derivation Path :		
Comments : The basic constraint for the TEMPORARY_ID_ASSIGN_REJECT PDU.		
Field Name	Field Value	Comments
network_header	Network_header_mm_ori	M
message_type	TSC_mt_temporary_id_assign_reject	M
reject_reason	(Reject_reason_rx_base, Reject_reason_rx_empty) IF_PRESENT	O
Detailed Comments :		

IV

Dynamic Part

Test Case Dynamic Behaviour					
Test Case Name : TC_PT_CC_BV_OC_01 Group : PT/CC/BV/OC/ Purpose : Verify that the IUT is able to perform a CC-state transition from the T-00 state to T-10 state via T-01, T-02, T-03 and T-04 for an outgoing normal call set-up using piecewise method to transfer dialling information in state T-02. Configuration : Default : DF_handle_cc_timeout, DF_handle_cc_events, DF_handle_mm_events, DF_handle_any_timeout, DF_handle_unexpected_events Comments : Initial state: T-00 No progress indicator is sent in the messages cc_setup_ack, cc_call_proc or cc_alerting. IUT will connect U-plane after reception of cc_connect message. The testcase also checks that no called party number is included in the cc_setup message The TSPX_nr_of_digits_in_cpn parameter really defines the number of cc_info messages containing multi-keypad information elements that are going to be received. One multi-keypad information element can contain multiple digits. See ETS 300 175-5 [5], subclauses 9.1, 9.2, 9.3.1 – ETS 300 444 [10], subclause 8.1 figure 1					
Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1	B1	+PR_goto_t00			
2		+STP_invoke_outgoing_call			
3		+STP_handle_direct_link_est			
4		+STP_initialise_tf(TSC_iut_terminated)			
5		DLS ? DL_DATA_IND (TCV_pdu_cc_setup := DL_DATA_IND.message_unit, TCV_cc_tv := TCV_pdu_cc_setup.network_header.transaction_value)	DI_data_ind(TSV_dlei_value, Cc_setup_rx01(TCV_cc_lt_tf))	(PASS)	1)
6		START T_F_CC_01			
7		DLS ! DL_DATA_REQ (TCV_count := 0)	DI_data_req(TSV_dlei_value, Cc_setup_ack_tx_base(TCV_cc_tv, TCV_cc_lt_tf))		
8		REPEAT STP_receive_digit_info(Cc_info_rx01(TCV_cc_tv, TCV_cc_iut_tf)) UNTIL [TCV_count = TSPX_nr_of_digits_in_cpn]			
9		CANCEL T_F_CC_01			
10		DLS ! DL_DATA_REQ	DI_data_req(TSV_dlei_value, Cc_call_proc_tx_base(TCV_cc_tv, TCV_cc_lt_tf))		3)
11		DLS ! DL_DATA_REQ	DI_data_req(TSV_dlei_value, Cc_alerting_tx_base(TCV_cc_tv, TCV_cc_lt_tf))		4)
12		DLS ! DL_DATA_REQ	DI_data_req(TSV_dlei_value, Cc_connect_tx_base(TCV_cc_tv, TCV_cc_lt_tf))		

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Test Case Dynamic Behaviour					
Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
13		+STP_check_u_plane(TS V_dlei_value)			5)
14		+PO_normal_release			
Detailed Comments :					
1) Copy the transaction value used by the PT, into the variable TCV_cc_tv					
2) Initialise the transaction identifier flags used in the communication.					
3) Receive cc_info's with called party number in multi-keypad ie's					
4) At this moment, the complete called party number received					
5) Check U-plane connection.					

Test Case Dynamic Behaviour

Test Case Name : TC_PT_CC_BV_OC_02

Group : PT/CC/BV/OC/

Purpose : Verify that the IUT is able to perform a CC-state transition from the T-00 state to T-10 state via T-01 for an outgoing normal call set-up using piecewise method to transfer dialling information in state T-10.

Configuration :

Default : DF_handle_cc_timeout,
DF_handle_cc_events,
DF_handle_mm_events,
DF_handle_any_timeout,
DF_handle_unexpected_events

Comments : Initial state: T-00

No progress indicator is sent in the messages cc_setup_ack, cc_call_proc or cc_alerting. IUT will connect U-plane after reception of cc_connect message.

The testcase also checks that no called party number is included in the cc_setup message

The TSPX_nr_of_digits_in_cpn parameter really defines the number of cc_info messages containing multi-keypad information elements that are going to be received. One multi-keypad information element can contain multiple digits.

See ETS 300 175-5 [5], subclauses 9.1, 9.2, 9.3.1 – ETS 300 444 [10], subclause 8.1 figure 2

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments	
1	B1	+PR_goto_t00		(PASS)	1)	
2		+STP_invoke_outgoing_call				
3		+STP_handle_direct_link_est				
4		+STP_initialise_tf(TSC_iut_terminated)				
5		DLS ? DL_DATA_IND (TCV_pdu_cc_setup := DL_DATA_IND.message_unit, TCV_cc_tv := TCV_pdu_cc_setup.network_header.transaction_value)	DI_data_ind(TSV_dlei_value, Cc_setup_rx01(TCV_cc_iut_tf))			
6		DLS ! DL_DATA_REQ	DI_data_req(TSV_dlei_value, Cc_connect_tx_base(TCV_cc_tv, TCV_cc_lt_tf))			
7		REPEAT STP_receive_digit_info(Cc_info_rx01(TCV_cc_tv, TCV_cc_iut_tf)) UNTIL [TCV_count = TSPX_nr_of_digits_in_cpn]				2)
8		+STP_check_u_plane(TSV_dlei_value)				3)
9		+PO_normal_release				

Detailed Comments : 1) Copy the transaction value used by the PT, into the variable TCV_cc_tv
2) Receive cc_info's with called party number in multi-keypad ie's
3) At this moment, the complete called party number received

Test Case Dynamic Behaviour

Test Case Name : TC_PT_CC_BV_OC_03
Group : PT/CC/BV/OC/
Purpose : Verify that the IUT is able to perform a CC-state transition from the T-00 state to T-10 state via T-01 and T-02 for an outgoing normal call set-up using piecewise method to transfer dialling information in states T-02 and T-10.
Configuration :
Default : DF_handle_cc_timeout,
 DF_handle_cc_events,
 DF_handle_mm_events,
 DF_handle_any_timeout,
 DF_handle_unexpected_events
Comments : Initial state: T-00
 No progress indicator is sent in the messages cc_setup_ack, cc_call_proc or cc_alerting. IUT will connect U-plane after reception of cc_connect message.
 The testcase also checks that no called party number is included in the cc_setup message
 The TSPX_nr_of_digits_in_cpn parameter really defines the number of cc_info messages containing multi-keypad information elements that are going to be received. One multi-keypad information element can contain multiple digits. Note that the testcase is only selected if the called party number consists of more than one digit (otherwise the cpn cannot be transferred in two parts)
 See ETS 300 175-5 [5], subclauses 9.1, 9.2, 9.3.1 – ETS 300 444 [10], subclause 8.1 figure 3

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+PR_goto_t00			
2		+STP_invoke_outgoing_call			
3		+STP_handle_direct_link_est			
4		+STP_initialise_tf(TSC_iut_terminated)			
5	B1	DLS ? DL_DATA_IND (TCV_pdu_cc_setup := DL_DATA_IND.message_unit, TCV_cc_tv := TCV_pdu_cc_setup.network_header.transaction_value)	DI_data_ind(TSV_dlei_value, Cc_setup_rx01(TCV_cc_iut_tf))	(PASS)	1)
6		START T_F_CC_01			
7		DLS ! DL_DATA_REQ	DI_data_req(TSV_dlei_value, Cc_setup_ack_tx_base(TCV_cc_tv, TCV_cc_lt_tf))		
8		+STP_receive_digit_info(Cc_info_rx01(TCV_cc_tv, TCV_cc_iut_tf))			2)
9		CANCEL T_F_CC_01			
10		DLS ! DL_DATA_REQ (TCV_count := 1)	DI_data_req(TSV_dlei_value, Cc_connect_tx_base(TCV_cc_tv, TCV_cc_lt_tf))		
11		REPEAT STP_receive_digit_info(Cc_info_rx01(TCV_cc_tv, TCV_cc_iut_tf)) UNTIL [TCV_count = TSPX_nr_of_digits_in_cpn]			3)
12		+STP_check_u_plane(TSV_dlei_value)			4)
13		+PO_normal_release			

Detailed Comments : 1) Copy the transaction value used by the PT, into the variable TCV_cc_tv
 2) Receive a cc_info with the first digit of the called party number in the multi-keypad ie.

Continued from previous page

Test Case Dynamic Behaviour	
Detailed Comments : ... 3) Receive the remaining cc_info's with called party number in multi-keypad ie's 4) At this moment, the complete called party number received	

Test Case Dynamic Behaviour					
Test Case Name : TC_PT_CC_BV_OC_04 Group : PT/CC/BV/OC/ Purpose : Verify that the IUT is able to connect the U-plane on receipt of the {CC-SETUP-ACK} message with the information element <<PROGRESS INDICATOR>> containing "in-band information or appropriate pattern now available". Configuration : Default : DF_handle_cc_timeout, DF_handle_cc_events, DF_handle_mm_events, DF_handle_any_timeout, DF_handle_unexpected_events Comments : Initial state: T-01 See ETS 300 175-5 [5], subclauses 9.3.1.4 and 9.3.1.5 – ETS 300 444 [10], subclause 8.3, figure 9, table 11					
Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+PR_goto_t01			
2		DLS ! DL_DATA_REQ	DI_data_req(TSV_dlei_value, Cc_setup_ack_tx01(TCV_cc_tv, TCV_cc_lt_tf))		1)
3		+STP_check_u_plane(TSV_dlei_value)			2)
4		+PO_normal_release			
Detailed Comments : 1) Cc_setup_ack_tx01 contains <<PROGRESS INDICATOR>> containing "in-band information or appropriate pattern now available". 2) No timer CC-01 is started. U plane is checked.					

Test Case Dynamic Behaviour

Test Case Name : TC_PT_CC_BV_IC_01
Group : PT/CC/BV/IC/
Purpose : Verify that the IUT is able to process an incoming call via the states T-06, T-07 and T-08 to the state T-10, on receipt of the information element <<SIGNAL>> in the {CC-INFO} message.
Configuration :
Default : DF_handle_cc_timeout,
DF_handle_cc_events,
DF_handle_mm_events,
DF_handle_unexpected_events
Comments : Initial state: T-00
See ETS 300 175-5 [5], subclauses 9.1, 9.2, 9.3.2 – ETS 300 444 [10], subclause 8.11

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+PR_goto_t00			
2		+STP_indirect_link_establishment			
3		START T_F_CC_03			
4		+STP_initialise_tf(TSC_lt_originated)			1)
5		DLS ! DL_DATA_REQ (TCV_cc_tv := '000'B)	DI_data_req(TSV_dlei_value, Cc_setup_tx01(TCV_cc_tv, TCV_cc_lt_tf))		
6	B1	DLS ? DL_DATA_IND CANCEL T_F_CC_03	DI_data_ind(TSV_dlei_value, Cc_alerting_rx_base(TCV_cc_tv, TCV_cc_iut_tf))	(PASS)	
7		DLS ! DL_DATA_REQ	DI_data_req(TSV_dlei_value, Cc_info_tx01(TCV_cc_tv, TCV_cc_lt_tf))		2)
8		+STP_invoke_call_answering			
9	B2	DLS ? DL_DATA_IND CANCEL T_USER_INVOKE	DI_data_ind(TSV_dlei_value, Cc_connect_rx_base(TCV_cc_tv, TCV_cc_iut_tf))	(PASS)	
10		DLS ! DL_DATA_REQ	DI_data_req(TSV_dlei_value, Cc_connect_ack_tx_base (TCV_cc_tv, TCV_cc_lt_tf))		
11		+STP_check_u_plane(TSV_dlei_value)			
12		+PO_normal_release			
13	B3	DLS ? DL_DATA_IND CANCEL T_F_CC_03	DI_data_ind(TSV_dlei_value, Cc_connect_rx_base(TCV_cc_tv, TCV_cc_iut_tf))	(I)	3)
14		+PO_normal_release			

Detailed Comments : 1) Initialise the transaction id flag to be used in the communication.
2) Send cc_info with <<signal>> ie
3) The IUT can also send back cc_connect directly. This behaviour is valid according to ETS 300 175-5 [5], but NOT according to ETS 300 444 [10]. Result of the test is Inconclusive.

Test Case Dynamic Behaviour					
Test Case Name : TC_PT_CC_BV_IC_02					
Group : PT/CC/BV/IC/					
Purpose : Verify that the IUT is able to process an incoming call via the states T-06, T-07 and T-08 to the state T-10. The information element <<SIGNAL>> is in the {CC-SETUP} message.					
Configuration :					
Default : DF_handle_cc_timeout, DF_handle_cc_events, DF_handle_mm_events, DF_handle_unexpected_events					
Comments : Initial state: T-00 See ETS 300 175-5 [5], subclauses 9.1, 9.2, 9.3.2 – ETS 300 444 [10], subclause 8.11					
Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+PR_goto_t00			
2		+STP_indirect_link_establishment			
3		START T_F_CC_03			
4		+STP_initialise_tf(TSC_lt_originated)			
5		DLS ! DL_DATA_REQ (TCV_cc_tv := '000'B)	DI_data_req(TSV_dlei_value, Cc_setup_tx02(TCV_cc_tv, TCV_cc_lt_tf))		1)
6	B1	DLS ? DL_DATA_IND CANCEL T_F_CC_03	DI_data_ind(TSV_dlei_value, Cc_alerting_rx_base(TCV_cc_tv, TCV_cc_iut_tf))	(PASS)	
7		+STP_invoke_call_answering			
8	B2	DLS ? DL_DATA_IND CANCEL T_USER_INVOKE	DI_data_ind(TSV_dlei_value, Cc_connect_rx_base(TCV_cc_tv, TCV_cc_iut_tf))	(PASS)	
9		DLS ! DL_DATA_REQ	DI_data_req(TSV_dlei_value, Cc_connect_ack_tx_base (TCV_cc_tv, TCV_cc_lt_tf))		
10		+STP_check_u_plane(TSV_dlei_value)			
11		+PO_normal_release			
12	B3	DLS ? DL_DATA_IND CANCEL T_F_CC_03	DI_data_ind(TSV_dlei_value, Cc_connect_rx_base(TCV_cc_tv, TCV_cc_iut_tf))	(I)	2)
13		+PO_normal_release			
Detailed Comments : 1) Send cc_setup with <<signal>> ie 2) The IUT can also send back cc_connect directly. This behaviour is valid according to ETS 300 175-5 [5], but NOT according to ETS 300 444 [10]. Result of the test is Inconclusive.					

Test Case Dynamic Behaviour

Test Case Name : TC_PT_CC_BV_IC_03
Group : PT/CC/BV/IC/
Purpose : Verify that the IUT in case of incoming call, is able to connect the U-plane on receipt of the {CC-SETUP} message with the information element <<PROGRESS INDICATOR>> containing "in-band information or appropriate pattern now available".
Configuration :
Default : DF_handle_cc_timeout,
DF_handle_cc_events,
DF_handle_mm_events,
DF_handle_unexpected_events
Comments : Initial state: T-00
ETS-300 175-5 [5], subclauses 9.3.2.4 – ETS-300 444[10], subclause 8.12

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+PR_goto_t00			
2		+STP_indirect_link_establishment			
3		START T_F_CC_03			
4		+STP_initialise_tf(TSC_lt_originated)			
5		DLS ! DL_DATA_REQ (TCV_cc_tv := '000'B)	DI_data_req(TSV_dlei_value, Cc_setup_tx04(TCV_cc_tv, TCV_cc_lt_tf))		1)
6	B1	DLS ? DL_DATA_IND CANCEL T_F_CC_03	DI_data_ind(TSV_dlei_value, Cc_alerting_rx_base(TCV_cc_tv, TCV_cc_iut_tf))	(PASS)	
7		+STP_check_u_plane(TSV_dlei_valu e)			
8		+PO_normal_release			
9	B2	DLS ? DL_DATA_IND CANCEL T_F_CC_03	DI_data_ind(TSV_dlei_value, Cc_connect_rx_base(TCV_cc_tv, TCV_cc_iut_tf))	(PASS)	
10		+STP_check_u_plane(TSV_dlei_valu e)			
11		+PO_normal_release			

Detailed Comments : 1) send cc_setup with <<progress_indicator>>ie containing the value "in-band information or appropriate pattern now available".

Test Case Dynamic Behaviour					
Test Case Name : TC_PT_CC_BV_IC_04					
Group : PT/CC/BV/IC/					
Purpose : Verify that the IUT in case of incoming call, is able to connect the U-plane on receipt of the {CC-INFO} message with the information element <<PROGRESS INDICATOR>> containing "in-band information or appropriate pattern now available".					
Configuration :					
Default : DF_handle_cc_timeout, DF_handle_cc_events, DF_handle_mm_events, DF_handle_unexpected_events					
Comments : Initial state: T-00 ETS-300 175-5 [5], subclauses 9.3.2.4 – ETS-300 444[10], subclause 8.12					
Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+PR_goto_t00			
2		+STP_indirect_link_establishment			
3		START T_F_CC_03			
4		+STP_initialise_tf(TSC_lt_terminated)			
5		DLS ! DL_DATA_REQ (TCV_cc_tv := '000'B)	DI_data_req(TSV_dlei_value, Cc_setup_tx01(TCV_cc_tv, TCV_cc_lt_tf))		
6	B1	DLS ? DL_DATA_IND CANCEL T_F_CC_03	DI_data_ind(TSV_dlei_value, Cc_alerting_rx_base(TCV_cc_tv, TCV_cc_iut_tf))	(PASS)	
7		DLS ! DL_DATA_REQ	DI_data_req(TSV_dlei_value, Cc_info_tx02(TCV_cc_tv, TCV_cc_lt_tf))		1)
8		+STP_check_u_plane(TSV_dlei_value)			
9		+PO_normal_release			
10	B2	DLS ? DL_DATA_IND CANCEL T_F_CC_03	DI_data_ind(TSV_dlei_value, Cc_connect_rx_base(TCV_cc_tv, TCV_cc_iut_tf))	(I)	2)
11		+PO_normal_release			
Detailed Comments : 1) Send cc_info with <<progress_indicator.in-band information or appropriate pattern now available>> ie and <<signal>> 2) The IUT can also send back cc_connect directly. This behaviour is valid according to ETS 300 175-5 [5], but NOT according to ETS 300 444 [10]. Result of the test is Inconclusive.					

Test Case Dynamic Behaviour

Test Case Name : TC_PT_CC_BV_CI_01
Group : PT/CC/BV/CI/
Purpose : Verify that the IUT is able to alert the user of an incoming call, when the information element <<SIGNAL>> is present in the {CC-SETUP} message.
Configuration :
Default : DF_handle_cc_timeout,
DF_handle_cc_events,
DF_handle_mm_events,
DF_handle_unexpected_events
Comments : Initial state: T-06
ETS 300 175-5 [5], subclause 9.3.1.5 – ETS 300 444 [10], subclause 8.14

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+PR_goto_t06			1)
2	B1	DLS ? DL_DATA_IND CANCEL T_F_CC_03	DI_data_ind(TSV_dlei_value, Cc_alerting_rx_base(TCV_cc_tv, TCV_cc_iut_tf))	(PASS)	
3		+STP_check_user_alerting			
4		+PO_normal_release			
5	B2	DLS ? DL_DATA_IND CANCEL T_F_CC_03	DI_data_ind(TSV_dlei_value, Cc_connect_rx_base(TCV_cc_tv, TCV_cc_iut_tf))	(PASS)	2)
6		+STP_check_user_alerting			
7		+PO_normal_release			

Detailed Comments : 1) In this teststaep, a cc_setup is sent, containing a <<signal>> ie.
2) Although a CC-CONNECT is optional in GAP, the test is not I, because we are testing someting different here: user alerting. (See also TC_TP_CC_BV_IC_01 and 02)

Test Case Dynamic Behaviour					
Test Case Name : TC_PT_CC_BV_CI_02 Group : PT/CC/BV/CI/ Purpose : Verify that the IUT, after the user has invoked pulse (decadic) dialling, sends a {CC-INFO} message with a <<MULTI-KEYPAD>> information element containing keypad-info '12H' (goto pulse). (feature N.23 in ETS 300 444) Configuration : Default : DF_handle_cc_timeout, DF_handle_cc_events, DF_handle_mm_events, DF_handle_any_timeout, DF_handle_unexpected_events Comments : Initial state: T-02 ETS 300 175-5 [5], subclause 9.3.1.5 – ETS 300 444 [10], subclause 8.10, table 20					
Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1	B1	+PR_goto_t02	DI_data_ind(TSV_dlei_value, Cc_info_rx02(TCV_cc_tv, TCV_cc_iut_tf))	(PASS)	1)
2		+STP_invoke_pulse_dialling			2)
3		DLS ? DL_DATA_IND CANCEL T_USER_INVOKE, CANCEL T_F_CC_01			3)
4		+PO_normal_release			
Detailed Comments : 1) T_F_CC_01 is started 2) The feature goto pulse shall be invoked by the user, therefore a timer is started. 3) CC_INFO containing MULTI-KEYPAD information element, containing keypad-info '12H' (goto pulse) shall be received.					

Test Case Dynamic Behaviour					
Test Case Name : TC_PT_CC_BV_CI_03 Group : PT/CC/BV/CI/ Purpose : Verify that the IUT, after the user has invoked pulse (decadic) dialling, sends a {CC-INFO} message with a <<MULTI-KEYPAD>> information element containing keypad-info '12H' (goto pulse). (feature N.23 in ETS 300 444) Configuration : Default : DF_handle_cc_timeout, DF_handle_cc_events, DF_handle_mm_events, DF_handle_any_timeout, DF_handle_unexpected_events Comments : Initial state: T-10 ETS 300 175-5 [5], subclause 9.3.1.5 – ETS 300 444 [10], subclause 8.10, table 20					
Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1	B1	+PR_goto_t10	DI_data_ind(TSV_dlei_value, Cc_info_rx02(TCV_cc_tv, TCV_cc_iut_tf))	(PASS)	1)
2		+STP_invoke_pulse_dialling			2)
3		DLS ? DL_DATA_IND CANCEL T_USER_INVOKE			
4		+PO_normal_release			
Detailed Comments : 1) The feature goto pulse shall be invoked by the user, therefore a timer is started. 2) CC_INFO containing MULTI-KEYPAD information element, containing keypad-info '12H' (goto pulse) shall be received.					

Test Case Dynamic Behaviour					
<p>Test Case Name : TC_PT_CC_BV_CI_04</p> <p>Group : PT/CC/BV/CI/</p> <p>Purpose : Verify that the IUT, after the user has invoked dialling pause, sends a {CC-INFO} message with a <<MULTI-KEYPAD>> information element containing keypad-info '05H' (dialling pause). (feature N.7 in ETS 300 444)</p> <p>Configuration :</p> <p>Default : DF_handle_cc_timeout, DF_handle_cc_events, DF_handle_mm_events, DF_handle_any_timeout, DF_handle_unexpected_events</p> <p>Comments : Initial state: T-02 ETS 300 175-5 [5], subclause 9.3.1.5 – ETS 300 444 [10], subclause 8.10, table 20</p>					
Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+PR_goto_t02			1)
2		(TCV_count := 0)			
3		REPEAT STP_receive_digit_info(Cc_info_rx01(TCV_cc_tv, TCV_cc_iut_tf)) UNTIL [TCV_count = 1]			
4		+STP_invoke_dialling_pause			2)
5	B1	DLS ? DL_DATA_IND CANCEL T_USER_INVOKE, CANCEL T_F_CC_01	DI_data_ind(TSV_dlei_value, Cc_info_rx03(TCV_cc_tv, TCV_cc_iut_tf))	(PASS)	3)
6		+PO_normal_release			
<p>Detailed Comments : 1) T_F_CC_01 is started 2) The feature dialling pause shall be invoked by the user, therefore a timer is started. 3) CC-INFO containing MULTI-KEYPAD information element, containing keypad-info '05H' (dialling pause) shall be received.</p>					

Test Case Dynamic Behaviour

Test Case Name : TC_PT_CC_BV_CI_05
Group : PT/CC/BV/CI/
Purpose : Verify that the IUT, after the user has invoked dialling pause, sends a {CC-INFO} message with a <<MULTI-KEYPAD>> information element containing keypad-info '05H' (dialling pause). (feature N.7 in ETS 300 444)
Configuration :
Default : DF_handle_cc_timeout,
DF_handle_cc_events,
DF_handle_mm_events,
DF_handle_any_timeout,
DF_handle_unexpected_events
Comments : Initial state: T-10
ETS 300 175-5 [5], subclause 9.3.1.5 – ETS 300 444 [10], subclause 8.10, table 20

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+PR_goto_t10			
2		(TCV_count := 0)			
3		REPEAT STP_receive_digit_info(Cc_info_rx01(TCV_cc_tv, TCV_cc_iut_tf)) UNTIL [TCV_count = 1]			
4		+STP_invoke_dialling_pause			1)
5	B1	DLS ? DL_DATA_IND CANCEL T_USER_INVOKE	DI_data_ind(TSV_dlei_value, Cc_info_rx03(TCV_cc_tv, TCV_cc_iut_tf))	(PASS)	2)
6		+PO_normal_release			

Detailed Comments : 1) The feature dialling pause shall be invoked by the user, therefore a timer is started.
2) CC_INFO containing MULTI-KEYPAD information element, containing keypad-info '05H' (dialling pause) shall be received.

Test Case Dynamic Behaviour

Test Case Name : TC_PT_CC_BV_CI_06
Group : PT/CC/BV/CI/
Purpose : Verify that the IUT, after the user has invoked DTMF dialling with defined tone length, sends a {CC-INFO} message with a <<MULTI-KEYPAD>> information element containing keypad-info '14H' (goto DTMF, defined tone length). (feature N.6 in ETS 300 444)
Configuration :
Default : DF_handle_cc_timeout,
DF_handle_cc_events,
DF_handle_mm_events,
DF_handle_any_timeout,
DF_handle_unexpected_events
Comments : Initial state: T-02
ETS 300 175-5 [5], subclause 9.3.1.5 – ETS 300 444 [10], subclause 8.10, table 20

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+PR_goto_t02			1)
2		+STP_invoke_dtmf_defined_or_digit			2)
3	B1	DLS ? DL_DATA_IND CANCEL T_USER_INVOKE, CANCEL T_F_CC_01	DI_data_ind(TSV_dlei_value, Cc_info_rx04(TCV_cc_tv, TCV_cc_iut_tf))	(PASS)	3)
4		DLS ? DL_DATA_IND	DI_data_ind(TSV_dlei_value, Cc_info_rx01(TCV_cc_tv, TCV_cc_iut_tf))		
5		+PO_normal_release			
6		DLS ? DL_DATA_IND CANCEL T_USER_INVOKE, CANCEL T_F_CC_01	DI_data_ind(TSV_dlei_value, Cc_info_rx01(TCV_cc_tv, TCV_cc_iut_tf))		
7	B2	DLS ? DL_DATA_IND	DI_data_ind(TSV_dlei_value, Cc_info_rx04(TCV_cc_tv, TCV_cc_iut_tf))	(PASS)	3)
8		+PO_normal_release			

Detailed Comments : 1) T_F_CC_01 is started
2) The feature goto DTMF with defined tone length shall be invoked by the user, therefore a timer is started.
3) CC-INFO containing MULTI-KEYPAD information element, containing keypad-info '14H' (goto DTMF, defined tone length) shall be received.

Test Case Dynamic Behaviour

Test Case Name : TC_PT_CC_BV_CI_07
Group : PT/CC/BV/CI/
Purpose : Verify that the IUT, after the user has invoked DTMF dialling with defined tone length, sends a {CC-INFO} message with a <<MULTI-KEYPAD>> information element containing keypad-info '14H' (goto DTMF, defined tone length). (feature N.6 in ETS 300 444)
Configuration :
Default : DF_handle_cc_timeout,
DF_handle_cc_events,
DF_handle_mm_events,
DF_handle_any_timeout,
DF_handle_unexpected_events
Comments : Initial state: T-10
ETS 300 175-5 [5], subclause 9.3.1.5 – ETS 300 444 [10], subclause 8.10, table 20

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+PR_goto_t10			
2		+STP_invoke_dtmf_defined_or_digit			1)
3	B1	DLS ? DL_DATA_IND CANCEL T_USER_INVOKE	DI_data_ind(TSV_dlei_value, Cc_info_rx04(TCV_cc_tv, TCV_cc_iut_tf))	(PASS)	2)
4		DLS ? DL_DATA_IND	DI_data_ind(TSV_dlei_value, Cc_info_rx01(TCV_cc_tv, TCV_cc_iut_tf))		
5		+PO_normal_release			
6		DLS ? DL_DATA_IND CANCEL T_USER_INVOKE	DI_data_ind(TSV_dlei_value, Cc_info_rx01(TCV_cc_tv, TCV_cc_iut_tf))		
7	B2	DLS ? DL_DATA_IND	DI_data_ind(TSV_dlei_value, Cc_info_rx04(TCV_cc_tv, TCV_cc_iut_tf))	(PASS)	2)
8		+PO_normal_release			

Detailed Comments : 1) The feature goto DTMF with defined tone length shall be invoked by the user, therefore a timer is started.
2) CC-INFO containing MULTI-KEYPAD information element, containing keypad-info '14H' (goto DTMF, defined tone length) shall be received.

Test Case Dynamic Behaviour

Test Case Name : TC_PT_CC_BV_CI_08
Group : PT/CC/BV/CI/
Purpose : Verify that the IUT, after the user has invoked DTMF dialling with defined tone length, sends a {CC-INFO} message with a <<MULTI-KEYPAD>> information element containing keypad-info '16H' (goto DTMF, infinite tone length). (feature N.22 in ETS 300 444)
Configuration :
Default : DF_handle_cc_timeout,
 DF_handle_cc_events,
 DF_handle_mm_events,
 DF_handle_any_timeout,
 DF_handle_unexpected_events
Comments : Initial state: T-02
 ETS 300 175-5 [5], subclause 9.3.1.5 – ETS 300 444 [10], subclause 8.10, table 20

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+PR_goto_t02			1)
2		+STP_invoke_dtmf_infinite			2)
3	B1	DLS ? DL_DATA_IND CANCEL T_USER_INVOKE, CANCEL T_F_CC_01	DI_data_ind(TSV_dlei_value, Cc_info_rx05(TCV_cc_tv, TCV_cc_iut_tf))	(PASS)	3)
4		+PO_normal_release			

Detailed Comments : 1) T_F_CC_01 is started
 2) The feature goto DTMF with infinite tone length shall be invoked by the user, therefore a timer is started.
 3) CC-INFO containing MULTI-KEYPAD information element, containing keypad-info '16H' (goto DTMF, infinite tone length) shall be received.

Test Case Dynamic Behaviour

Test Case Name : TC_PT_CC_BV_CI_09
Group : PT/CC/BV/CI/
Purpose : Verify that the IUT, after the user has invoked DTMF dialling with defined tone length, sends a {CC-INFO} message with a <<MULTI-KEYPAD>> information element containing keypad-info '16H' (goto DTMF, infinite tone length). (feature N.22 in ETS 300 444)
Configuration :
Default : DF_handle_cc_timeout,
DF_handle_cc_events,
DF_handle_mm_events,
DF_handle_any_timeout,
DF_handle_unexpected_events
Comments : Initial state: T-10
ETS 300 175-5 [5], subclause 9.3.1.5 – ETS 300 444 [10], subclause 8.10, table 20

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+PR_goto_t10			
2		+STP_invoke_dtmf_infinite			1)
3	B1	DLS ? DL_DATA_IND CANCEL T_USER_INVOKE	DI_data_ind(TSV_dlei_value, Cc_info_rx05(TCV_cc_tv, TCV_cc_iut_tf))	(PASS)	2)
4		+PO_normal_release			

Detailed Comments : 1) The feature goto DTMF with infinite tone length shall be invoked by the user, therefore a timer is started.
2) CC-INFO containing MULTI-KEYPAD information element, containing keypad-info '16H' (goto DTMF, infinite tone length) shall be received.

Test Case Dynamic Behaviour

Test Case Name : TC_PT_CC_BV_CI_10
Group : PT/CC/BV/CI/
Purpose : Verify that the IUT, after the user has invoked the sending of the basic digits (0-9, star, hash mark), sends one or more {CC-INFO} messages with <<MULTI-KEYPAD>> information elements containing the basic digits.
 (feature N.4 in ETS 300 444)
Configuration :
Default : DF_handle_cc_timeout,
 DF_handle_cc_events,
 DF_handle_mm_events,
 DF_handle_any_timeout,
 DF_handle_unexpected_events
Comments : Initial state: T-02
 ETS 300 175-5 [5], subclause 9.3.1.5 – ETS 300 444 [10], subclause 8.10, table 20

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+PR_goto_t02			1)
2		(TCV_count := 0)			
3		REPEAT STP_receive_digit_info(Cc_info_rx06(TCV_cc_tv, TCV_cc_iut_tf)) UNTIL [TCV_count = TSPX_nr_of_digits_in_cpn]			2)
4	B1	CANCEL T_F_CC_01		(PASS)	3)
5		+PO_normal_release			

Detailed Comments : 1) T_F_CC_01 is started
 2) the IUT is invoked to dial digits, therefore a timer is started.
 3) All digits received. Test passes

Test Case Dynamic Behaviour					
Test Case Name : TC_PT_CC_BV_CI_11 Group : PT/CC/BV/CI/ Purpose : Verify that the IUT, after the user has invoked an internal call, performs one of the possible internal call setups, as described in ETS 300 444, subclause 8.18 Configuration : Default : DF_handle_cc_timeout, DF_handle_cc_events, DF_handle_mm_events, DF_handle_any_timeout, DF_handle_unexpected_events Comments : Initial state: T-00 PT can either send internal call specification in the CC-SETUP PDU, or in the CC-INFO PDU later on. ETS 300 175-5 [5], subclause 9.3.1.5 – ETS 300 444 [10], subclause 8.18					
Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+PR_goto_t00			
2		+STP_invoke_internal_call			1)
3		+STP_handle_direct_link_est			
4		+STP_initialise_tf(TSC_iut_terminated)			
5	B1	DLS ? DL_DATA_IND (TCV_pdu_cc_setup := DL_DATA_IND.message_unit, TCV_cc_tv := TCV_pdu_cc_setup.network_header.tr ansaction_value)	DI_data_ind(TSV_dlei_value, Cc_setup_rx02(TCV_cc_iut_tf))	(PASS)	2)
6		START T_F_CC_01			
7		DLS ! DL_DATA_REQ (TCV_count := 0)	DI_data_req(TSV_dlei_value, Cc_setup_ack_tx_base(TCV_cc_tv, TCV_cc_lt_tf))		
8	B2	DLS ? DL_DATA_IND CANCEL T_USER_INVOKE, CANCEL T_F_CC_01	DI_data_ind(TSV_dlei_value, Cc_info_rx07(TCV_cc_tv, TCV_cc_iut_tf))	(PASS)	3)
9		+PO_normal_release			
10		REPEAT STP_receive_digit_info(Cc_info_rx01(TCV_cc_tv, TCV_cc_iut_tf)) UNTIL [TCV_count = TSPX_nr_of_digits_in_cpn]			
11		DLS ! DL_DATA_REQ	DI_data_req(TSV_dlei_value, Cc_connect_tx_base(TCV_cc_tv, TCV_cc_lt_tf))		
12	B3	DLS ? DL_DATA_IND	DI_data_ind(TSV_dlei_value, Cc_info_rx07(TCV_cc_tv, TCV_cc_iut_tf))	(PASS)	4)
13		+PO_normal_release			

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Test Case Dynamic Behaviour					
Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
14	B4	DLS ? DL_DATA_IND (TCV_pdu_cc_setup := DL_DATA_IND.message_unit, TCV_cc_tv := TCV_pdu_cc_setup.network_header.tr ansaction_value)	DI_data_ind(TSV_dlei_value, Cc_setup_rx03(TCV_cc_iut_tf))	(PASS)	5)
15		DLS ! DL_DATA_REQ	DI_data_req(TSV_dlei_value, Cc_setup_ack_tx_base(TCV_cc_tv, TCV_cc_lt_tf))		6)
16		+PO_normal_release			6)
Detailed Comments : 1) The user shall invoke an internal call, therefore a timer is started. 2) Receive CC-SETUP with <<basic-service>> ie, specifying 'normal call class' 3) IUT sends internal call request in CC-INFO in state T-02. 4) IUT sends internal call request in CC-INFO in state T-10. 5) Receive CC-SETUP with <<basic-service>> ie, specifying 'internal call class'. 6) LT performs normal release.					

Test Case Dynamic Behaviour					
Test Case Name : TC_PT_CC_BV_CI_12 Group : PT/CC/BV/CI/ Purpose : Verify that the IUT, on reception of <<MULTI_DISPLAY>> information elements, containing standard characters in {CC-INFO} messages, is able to show these characters on the display. Configuration : Default : DF_handle_cc_timeout, DF_handle_cc_events, DF_handle_mm_events, DF_handle_any_timeout, DF_handle_unexpected_events Comments : Initial state: T-07 ETS 300 175-5 [5], subclause 9.3.1.5 – ETS 300 444 [10], subclause 8.16					
Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+PR_goto_t07			
2		DLS ! DL_DATA_REQ	DI_data_req(TSV_dlei_value, Cc_info_tx04(TCV_cc_tv, TCV_cc_lt_tf))		1)
3		+STP_check_stand_char			2)
4		+PO_normal_release			
Detailed Comments : 1) FT sends CC-INFO containing MULTI-DISPLAY information element, containing standard characters 1 to 4. 2) To check that the IUT shows the FT sent standard character on the display.					

Test Case Dynamic Behaviour					
<p>Test Case Name : TC_PT_CC_BV_CI_13 Group : PT/CC/BV/CI/ Purpose : Verify that the IUT, on reception of <<MULTI_DISPLAY>> information elements, containing control characters in {CC-INFO} messages, is able to understand and react upon these characters. Configuration : Default : DF_handle_cc_timeout, DF_handle_cc_events, DF_handle_mm_events, DF_handle_any_timeout, DF_handle_unexpected_events Comments : Initial state: T-07 ETS 300 175-5 [5], subclause 9.3.1.5 – ETS 300 444 [10], subclause 8.16, table 27 Note: This test should be performed after testcase TC_PT_CC_BV_CI_12</p>					
Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+PR_goto_t07			
2		DLS ! DL_DATA_REQ	DI_data_req(TSV_dlei_value, Cc_info_tx04(TCV_cc_tv, TCV_cc_lt_tf))		1)
3		DLS ! DL_DATA_REQ	DI_data_req(TSV_dlei_value, Cc_info_tx03(TCV_cc_tv, TCV_cc_lt_tf))		2)
4		+STP_check_ctrl_char			3)
5		+PO_normal_release			
<p>Detailed Comments : 1) FT sends CC-INFO containing MULTI-DISPLAY information element, containing standard characters 1 to 4, in order to put something on the display. 2) FT sends CC-INFO containing MULTI-DISPLAY information element, containing the control character with the meaning 'clear display'. 3) To check that the display of the IUT is cleared.</p>					

Test Case Dynamic Behaviour					
Test Case Name : TC_PT_CC_BV_CI_14 Group : PT/CC/BV/CI/ Purpose : Verify that the IUT, after invocation of 'register recall', is able to activate the feature register recall in a {CC-INFO} message. Configuration : Default : DF_handle_cc_timeout, DF_handle_cc_events, DF_handle_mm_events, DF_handle_any_timeout, DF_handle_unexpected_events Comments : Initial state: T-10 ETS 300 175-5 [5], subclause 9.3.1.5 – ETS 300 444 [10], subclause 8.10, table 20					
Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+PR_goto_t10			
2		+STP_invoke_register_recall			1)
3	B1	DLS ? DL_DATA_IND CANCEL T_USER_INVOKE	DI_data_ind(TSV_dlei_value, Cc_info_rx08(TCV_cc_tv, TCV_cc_iut_tf))	(PASS)	2)
4		+PO_normal_release			
Detailed Comments : 1) The user shall invoke register recall, therefore a timer is started. 2) CC-INFO containing MULTI-KEYPAD ie, containing keypad-info '15'H (register recall) shall be received.					

Test Case Dynamic Behaviour					
Test Case Name : TC_PT_CC_BV_CR_01 Group : PT/CC/BV/CR/ Purpose : Verify that the IUT is able to process a FT initiated normal release. Configuration : Default : DF_handle_cc_timeout, DF_handle_cc_events, DF_handle_mm_events, DF_handle_unexpected_events Comments : Initial state: T-02 Timer T_F_CC_01 is handled in DF_handle_cc_timeout ETS 300 175-5 [5], subclause 9.5.1 – ETS 300 444 [10], subclause 8.7					
Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+PR_goto_t02			
2		CANCEL T_F_CC_01			1)
3		+STP_cc_release_normal (TSC_lt_terminated)			2)
4		+PO_release_link			
Detailed Comments : 1) Timer T_F_CC_01 is stopped. 2) cc_release shall be sent, and a cc_release_com is expected.					

Test Case Dynamic Behaviour					
Test Case Name : TC_PT_CC_BV_CR_02					
Group : PT/CC/BV/CR/					
Purpose : Verify that the IUT is able to process a FT initiated normal release.					
Configuration :					
Default : DF_handle_cc_events, DF_handle_mm_events, DF_handle_unexpected_events					
Comments : Initial state: T-03 ETS 300 175-5 [5], subclause 9.5.1 – ETS 300 444 [10], subclause 8.7					
Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+PR_goto_t03			1)
2		+STP_cc_release_normal (TSC_lt_originated)			
3		+PO_release_link			
Detailed Comments : 1) cc_release shall be sent, and a cc_release_com is expected.					

Test Case Dynamic Behaviour					
Test Case Name : TC_PT_CC_BV_CR_03					
Group : PT/CC/BV/CR/					
Purpose : Verify that the IUT is able to process a FT initiated normal release.					
Configuration :					
Default : DF_handle_cc_events, DF_handle_mm_events, DF_handle_unexpected_events					
Comments : Initial state: T-04 ETS 300 175-5 [5], subclause 9.5.1 – ETS 300 444 [10], subclause 8.7					
Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+PR_goto_t04			1)
2		+STP_cc_release_normal (TSC_lt_originated)			
3		+PO_release_link			
Detailed Comments : 1) cc_release shall be sent, and a cc_release_com is expected.					

Test Case Dynamic Behaviour					
Test Case Name : TC_PT_CC_BV_CR_04 Group : PT/CC/BV/CR/ Purpose : Verify that the IUT is able to process a FT initiated normal release. Configuration : Default : DF_handle_cc_events, DF_handle_mm_events, DF_handle_unexpected_events Comments : Initial state: T-08 ETS 300 175-5 [5], subclause 9.5.1 – ETS 300 444 [10], subclause 8.7					
Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+PR_goto_t08			1)
2		+STP_cc_release_normal (TSC_lt_originated)			
3		+PO_release_link			
Detailed Comments : 1) cc_release shall be sent, and a cc_release_com is expected.					

Test Case Dynamic Behaviour					
Test Case Name : TC_PT_CC_BV_CR_05 Group : PT/CC/BV/CR/ Purpose : Verify that the IUT is able to process a FT initiated normal release. Configuration : Default : DF_handle_cc_events, DF_handle_mm_events, DF_handle_unexpected_events Comments : Initial state: T-10 ETS 300 175-5 [5], subclause 9.5.1 – ETS 300 444 [10], subclause 8.7					
Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+PR_goto_t10			1)
2		+STP_cc_release_normal (TSC_lt_originated)			
3		+PO_release_link			
Detailed Comments : 1) cc_release shall be sent, and a cc_release_com is expected.					

Test Case Dynamic Behaviour					
Test Case Name : TC_PT_CC_BV_CR_06					
Group : PT/CC/BV/CR/					
Purpose : Verify that the IUT is able to process an IUT initiated normal release.					
Configuration :					
Default : DF_handle_cc_events, DF_handle_mm_events, DF_handle_unexpected_events					
Comments : Initial state: T-10 ETS 300 175-5 [5], subclause 9.5.1 – ETS 300 444 [10], subclause 8.7					
Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+PR_goto_t10			
2		+STP_cc_release_normal (TSC_iut_originated)			
3		+PO_release_link			
Detailed Comments :					

Test Case Dynamic Behaviour					
Test Case Name : TC_PT_CC_BV_CR_07					
Group : PT/CC/BV/CR/					
Purpose : Verify that the IUT is able to process a FT initiated abnormal release.					
Configuration :					
Default : DF_handle_cc_events, DF_handle_mm_events, DF_handle_unexpected_events					
Comments : Initial state: T-01 ETS 300 175-5 [5], subclause 9.5.2 – ETS 300 444 [10], subclause 8.8					
Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+PR_goto_t01			
2		+STP_cc_release_abnormal			
3		+PO_release_link			
Detailed Comments : 1) Abnormal release, LT initiated					

Test Case Dynamic Behaviour					
Test Case Name : TC_PT_CC_BV_CR_08 Group : PT/CC/BV/CR/ Purpose : Verify that the IUT is able to process a FT initiated abnormal release. Configuration : Default : DF_handle_cc_events, DF_handle_mm_events, DF_handle_unexpected_events Comments : Initial state: T-02 ETS 300 175-5 [5], subclause 9.5.2 – ETS 300 444 [10], subclause 8.8					
Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+PR_goto_t02			
2		CANCEL T_F_CC_01			1)
3		+STP_cc_release_abnormal			2)
4		+PO_release_link			
Detailed Comments : 1) Timer T_F_CC_01 is stopped. 2) Abnormal release, LT initiated					

Test Case Dynamic Behaviour					
Test Case Name : TC_PT_CC_BV_CR_09 Group : PT/CC/BV/CR/ Purpose : Verify that the IUT is able to process a FT initiated abnormal release. Configuration : Default : DF_handle_cc_events, DF_handle_mm_events, DF_handle_unexpected_events Comments : Initial state: T-10 ETS 300 175-5 [5], subclause 9.5.2 – ETS 300 444 [10], subclause 8.8					
Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+PR_goto_t10			
2		+STP_cc_release_abnormal			1)
3		+PO_release_link			
Detailed Comments : 1) Abnormal release, LT initiated					

Test Case Dynamic Behaviour					
Test Case Name : TC_PT_CC_BV_CR_10 Group : PT/CC/BV/CR/ Purpose : Verify that the IUT is able to process a FT initiated partial release. Configuration : Default : DF_handle_cc_events, DF_handle_mm_events, DF_handle_unexpected_events Comments : Initial state: T-10 ETS 300 175-5 [5], subclause 14.2.7 – ETS 300 444 [10], subclause 8.9					
Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+PR_goto_t10			
2		+STP_cc_release_partial (TSC_it_terminated)			1)
3		+STP_check_link_present			2)
4	B1	[TCV_result = TRUE]		(PASS)	
5		+PO_release_link			
6	B2	[TCV_result = FALSE]		(FAIL)	
7		+PO_terminate			
Detailed Comments : 1) CC-RELEASE containing RELEASE-REASON with release reason code '15'H (partial release) shall be sent. 2) After a partial release, the link should remain in place. This is tested with STP_check_link_present.					

Test Case Dynamic Behaviour					
Test Case Name : TC_PT_CC_BV_CR_11 Group : PT/CC/BV/CR/ Purpose : Verify that the IUT is able to process a IUT initiated partial release. Configuration : Default : DF_handle_cc_events, DF_handle_mm_events, DF_handle_unexpected_events Comments : Initial state: T-10 ETS 300 175-5 [5], subclause 14.2.7 – ETS 300 444 [10], subclause 8.9					
Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+PR_goto_t10			
2		+STP_cc_release_partial (TSC_iut_terminated)			1)
3		+STP_check_link_present			2)
4	B1	[TCV_result = TRUE]		(PASS)	
5		+PO_release_link			
6	B2	[TCV_result = FALSE]		(FAIL)	
7		+PO_terminate			
Detailed Comments : 1) CC-RELEASE containing RELEASE-REASON ie, containing release reason code '15'H (partial release) shall be received. 2) After a partial release, the link shall be maintained. This is tested in STP_check_link_present					

Test Case Dynamic Behaviour

Test Case Name : TC_PT_CC_BV_RS_01
Group : PT/CC/BV/RS/
Purpose : Verify that the IUT shows the calling party number correctly on receipt of calling party number indication before accepting a call. (feature N.30 in ETS 300 444).
Configuration :
Default : DF_handle_cc_timeout,
DF_handle_cc_events,
DF_handle_mm_events,
DF_handle_any_timeout,
DF_handle_unexpected_events
Comments : Initial state: T-00
ETS 300 175-5 [5], subclause 9.3.2 – ETS 300 444 [10], subclause 8.12

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+PR_goto_t00			
2		+STP_indirect_link_establishment			
3		DLS ! DL_DATA_REQ (TCV_cc_tv := '000'B)	DI_data_req(TSV_dlei_value, Cc_setup_tx03(TCV_cc_tv, TCV_cc_lt_tf))		1)
4		START T_F_CC_03			
5		+STP_check_calling_party_number_ind			
6		DLS ? DL_DATA_IND CANCEL T_F_CC_03	DI_data_ind(TSV_dlei_value, Cc_alerting_rx_base(TCV_cc_tv, TCV_cc_iut_tf))		
7		+PO_normal_release			

Detailed Comments : 1) cc_setup with <<signal>> and <<calling_party_number>> iei

Test Case Dynamic Behaviour					
Test Case Name : TC_PT_CC_BO_01 Group : PT/CC/BO/ Purpose : Verify that the IUT ignores the unexpected message {CC-CALL-PROC}. Configuration : Default : DF_handle_cc_timeout, DF_handle_cc_events, DF_handle_mm_events, DF_handle_unexpected_events Comments : Initial state: T-08 The {CC-CALL-PROC} message occurs in an unexpected state. ETS 300 444 [10], subclause 6.9.4 – ETS 300 175-5 subclause 17.4.1					
Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+PR_goto_t08			
2		DLS ! DL_DATA_REQ (TCV_cc_tv := '000'B)	DI_data_req(TSV_dlei_value, Cc_call_proc_tx01(TCV_cc_tv, TCV_cc_lt_tf))		1)
3		(TCV_result := (TSO_cinpt_check_u_plane(TSV_dlei_valu e)))			2)
4	B1	[TCV_result = FALSE]		(PASS)	3)
5		+PO_release_link			
6	B2	[TCV_result = TRUE]		(FAIL)	4)
7		+PO_release_link			
Detailed Comments : 1) LT sends a {CC-CALL-PROC} message with progress_indicator containing "in-band info. or appropriate pattern now available". To be ignored. 2) If the message is ignored, the u-plane will not be connected. Check this with the TSO_cinpt_check_u_plane operator. Checking of U-plane has to be done within less than 10 seconds. 3) No message arrived when the timer was running: ok. 4) u-plane was illegally connected. Fail.					

Test Case Dynamic Behaviour

Test Case Name : TC_PT_CC_BO_02
Group : PT/CC/BO/
Purpose : Verify that the IUT is able to react correctly on a release collision, in the sense that on the reception of a {CC-RELEASE} message in state F-19, no {CC-RELEASE-COM} message is sent back, and the call is cleared.
Configuration :
Default : DF_handle_cc_timeout,
DF_handle_cc_events,
DF_handle_mm_events,
DF_handle_any_timeout,
DF_handle_unexpected_events
Comments : Initial state: T-19
ETS 300 175-5 subclause 17.4.1 – ETS 300 444 [10], subclause 8.7.2.1

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+PR_goto_t19			
2		DLS ! DL_DATA_REQ START T_F_CC_02	DI_data_req(TSV_dlei_value, Cc_release_tx_base(TCV_cc_tv, TCV_cc_lt_tf))		1)
3	B1	DLS ? DL_DATA_IND CANCEL T_F_CC_02	DI_data_ind(TSV_dlei_value, Cc_release_com_rx_base(TCV_cc_tv, TCV_cc_iut_tf))	(FAIL)	2)
4		+PO_release_link			
5		DLS ? DL_RELEASE_IND CANCEL T_F_CC_02	DI_rel_ind(TSV_dlei_value)	(PASS)	
6		+PO_terminate			
7	B2	? TIMEOUT T_F_CC_02		(PASS)	3)
8		+PO_release_link			

Detailed Comments : 1) Release Collision
2) IUT sent back a CC_RELEASE_COM. Test fails.
3) No CC_RELEASE-COM message received from IUT, test ok

Test Case Dynamic Behaviour					
Test Case Name : TC_PT_CC_BI_01 Group : PT/CC/BI/ Purpose : Verify that the IUT sends a {CC-RELEASE-COM} message, on receipt of a {CC-SETUP} message with a mandatory information element missing Configuration : Default : DF_handle_cc_timeout, DF_handle_mm_events, DF_handle_any_timeout, DF_handle_unexpected_events Comments : Initial state: T-00 The mandatory information element that is missing, is 'basic service'. ETS 300 175-5 [5], subclause 17.6.1 – ETS 300 444 [10], subclause 6.9.4					
Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+PR_goto_t00			
2		+STP_indirect_link_establishment			
3		START T_F_CC_03			
4		+STP_initialise_tf(TSC_lt_originated)			
5		DLS ! DL_DATA_REQ (TCV_cc_tv := '000'B)	DI_data_req(TSV_dlei_value, Bi_cc_setup_tx01(TCV_cc_tv, TCV_cc_lt_tf))		1)
6	B1	DLS ? DL_DATA_IND CANCEL T_F_CC_03	DI_data_ind(TSV_dlei_value, Cc_release_com_rx_base(TCV_cc_tv, TCV_cc_iut_tf))	(PASS)	2)
7		+PO_release_link			
Detailed Comments : 1) Constraint Bi_cc_setup_tx01 has the mandatory information element 'basic_service' missing. 2) A cc_release_com is received.					

Test Case Dynamic Behaviour

Test Case Name : TC_PT_CC_BI_02
Group : PT/CC/BI/
Purpose : Verify that the IUT on receipt of a {CC-SETUP} message containing a mandatory information element with invalid contents returns a {CC-RELEASE-COM} message.
Configuration :
Default : DF_handle_cc_timeout,
DF_handle_mm_events,
DF_handle_any_timeout,
DF_handle_unexpected_events
Comments : Initial state: T-00
The mandatory information element 'portable_id' has invalid contents.
ETS 300 175-5 subclause 17.6.2 – ETS 300 444 [10], subclause 6.9.4

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+PR_goto_t00			
2		+STP_indirect_link_establishment			
3		START T_F_CC_03			
4		+STP_initialise_tf(TSC_lt_originated)			
5		DLS ! DL_DATA_REQ (TCV_cc_tv := '000'B)	DI_data_req(TSV_dlei_value, Bi_cc_setup_tx02(TCV_cc_tv, TCV_cc_lt_tf))		1)
6	B1	DLS ? DL_DATA_IND CANCEL T_F_CC_03	DI_data_ind(TSV_dlei_value, Cc_release_com_rx_base(TCV_cc_tv, TCV_cc_iut_tf))	(PASS)	2)
7		+PO_release_link			

Detailed Comments : 1) This constraint for the CC_SETUP PDU contains the mandatory information element 'portable identity' with invalid contents.
2) A cc_release_com is received back. Test passes.

Test Case Dynamic Behaviour

Test Case Name : TC_PT_CC_BI_03
Group : PT/CC/BI/
Purpose : Verify that the IUT ignores an unrecognised message, when it is constructed as a {CC-SETUP} with one bit wrong in the <<message type>>.
Configuration :
Default : DF_handle_cc_timeout,
DF_handle_mm_events,
DF_handle_unexpected_events
Comments : Initial state: T-00
The {CC-SETUP} message has a wrong <<message type>>.
ETS 300 175-5 subclause 17.4.1 – ETS 300 444 [10], subclause 6.9.4

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+PR_goto_t00			
2		+STP_indirect_link_establishment			
3		START T_F_CC_03			1)
4		+STP_initialise_tf(TSC_lt_originated)			
5		DLS ! DL_DATA_REQ (TCV_cc_tv := '000'B)	DI_data_req(TSV_dlei_value, Bi_cc_unrec_tx_base(TCV_cc_tv, TCV_cc_lt_tf))		2)
6	B1	? TIMEOUT T_F_CC_03		(PASS)	3)
7		+PO_release_link			

Detailed Comments : 1) A timer is started to give the IUT a chance to send a wrong answer.
2) LT sends a {CC-SETUP} message with wrong <<message type>>
3) No message arrived when the timer was running: ok.

Test Case Dynamic Behaviour

Test Case Name : TC_PT_CC_BI_04
Group : PT/CC/BI/
Purpose : Verify that the IUT ignores a message that is too short to contain a complete message type info element.
Configuration :
Default : DF_handle_cc_timeout,
 DF_handle_mm_events,
 DF_handle_unexpected_events
Comments : Initial state: T-00
 Message is too short to contain a complete message type info element.
 ETS 300 175-5 subclause 17.2 – ETS 300 444 [10], subclause 6.9.4

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+PR_goto_t00			
2		+STP_indirect_link_establishment			
3		START T_F_CC_03			1)
4		+STP_initialise_tf(TSC_lt_terminated)			
5		DLS ! DL_DATA_REQ (TCV_cc_tv := '000'B)	DI_data_req(TSV_dlei_value, Bi_cc_short_tx_base(TCV_cc_tv, TCV_cc_lt_tf))		2)
6	B1	? TIMEOUT T_F_CC_03		(PASS)	3)
7		+PO_release_link			

Detailed Comments : 1) A timer is started to give the IUT a chance to send a wrong answer.
 2) LT sends a {CC-SETUP} message with a too short <<message type>>
 3) No message arrived when the timer was running: ok.

Test Case Dynamic Behaviour

Test Case Name : TC_PT_CC_TI_01
Group : PT/CC/TI/
Purpose : Verify that the IUT, after having started timer P-<CC.02>, sends a {CC_RELEASE_COM} message when the timer expires after the defined time. The {CC_RELEASE_COM} message should arrive within the allowed margin time of +-5%.
Configuration :
Default : DF_handle_cc_timeout,
DF_handle_cc_events,
DF_handle_mm_events,
DF_handle_any_timeout,
DF_handle_unexpected_events
Comments : Initial state: T-19
ETS 300 175-5 [5], subclause 9.5.1 – ETS 300 444 [10], subclause 8.7.2.3

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+PR_goto_t02			
2		+STP_invoke_normal_release			
3	B1	DLS ? DL_DATA_IND START T_P_CC_02_min, START T_P_CC_02_max, CANCEL T_USER_INVOKE, CANCEL T_F_CC_01	DI_data_ind(TSV_dlei_value, Cc_release_rx_base(TCV_cc_tv, TCV_cc_iut_tf))	(PASS)	1)
4	B2	DLS ? DL_DATA_IND CANCEL T_P_CC_02_min, CANCEL T_P_CC_02_max	DI_data_ind(TSV_dlei_value, Cc_release_com_rx_base(TCV_cc_tv, TCV_cc_iut_tf))	(FAIL)	2)
5		+PO_release_link			
6		? TIMEOUT T_P_CC_02_min			
7	B3	DLS ? DL_DATA_IND CANCEL T_P_CC_02_max	DI_data_ind(TSV_dlei_value, Cc_release_com_rx_base(TCV_cc_tv, TCV_cc_iut_tf))	(PASS)	3)
8		+PO_release_link			
9	B4	? TIMEOUT T_P_CC_02_max		(FAIL)	4)
10		+PO_release_link			

Detailed Comments : 1) Now the IUT is in state T-19
2) cc_release_com is received too soon. test fails.
3) cc_release_com is received within margins. Ok
4) cc_release_com is received too late. test fails.

Test Case Dynamic Behaviour

Test Case Name : TC_PT_CC_TI_02
Group : PT/CC/TV/
Purpose : Verify that the IUT, after having started timer P-<CC.03>, sends a {CC_RELEASE_COM} message when the timer expires after the defined time. The {CC_RELEASE_COM} message should arrive within the allowed margin time of +-5%.
Configuration :
Default : DF_handle_cc_timeout,
DF_handle_cc_events,
DF_handle_mm_events,
DF_handle_any_timeout,
DF_handle_unexpected_events
Comments : Initial state: T-01
ETS 300 175-5 [5], subclause 9.3.2.1
ETS 300 444 [10], subclause 8.2.2.1

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+PR_goto_t01			1)
2		START T_P_CC_03_min, START T_P_CC_03_max			2)
3	B1	DLS ? DL_DATA_IND CANCEL T_P_CC_03_min, CANCEL T_P_CC_03_max	DI_data_ind(TSV_dlei_value, Cc_release_com_rx_base(TCV_cc_tv, TCV_cc_iut_tf))	(FAIL)	3)
4		+PO_release_link			
5		? TIMEOUT T_P_CC_03_min			
6	B3	DLS ? DL_DATA_IND CANCEL T_P_CC_03_max	DI_data_ind(TSV_dlei_value, Cc_release_com_rx_base(TCV_cc_tv, TCV_cc_iut_tf))	(PASS)	4)
7		+PO_release_link			
8	B4	? TIMEOUT T_P_CC_03_max		(FAIL)	5)
9		+PO_release_link			

Detailed Comments : 1) IUT waits for CC-SETUP-ACK from LT.
2) T_P_CC_03 also started in LT only for this testcase.
3) cc_release_com is received too soon. test fails.
4) cc_release_com is received within margins. Ok
5) cc_release_com is received too late. test fails.

Test Case Dynamic Behaviour					
Test Case Name : TC_PT_CC_TI_03					
Group : PT/CC/TI/					
Purpose : Verify that the IUT is able to restart timer P-<CC.03> on receipt of a {CC-NOTIFY} message, sent by the FT.					
Configuration :					
Default : DF_handle_cc_timeout, DF_handle_cc_events, DF_handle_mm_events, DF_handle_any_timeout, DF_handle_unexpected_events					
Comments : Initial state: T-01 ETS 300 175-5 [5], subclause 9.3.2.1 – ETS 300 444 [10], subclause 8.2.1.1					
Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+PR_goto_t01			1)
2		START T_RESTART_DELAY			2)
3		? TIMEOUT T_RESTART_DELAY			
4		DLS ! DL_DATA_REQ START T_P_CC_03_min, START T_P_CC_03_max	DI_data_req(TSV_dlei_value, Cc_notify_tx01(TCV_cc_tv, TCV_cc_lt_tf))		3)
5	B1	DLS ? DL_DATA_IND CANCEL T_P_CC_03_min, CANCEL T_P_CC_03_max	DI_data_ind(TSV_dlei_value, Cc_release_com_rx_base(TCV_cc_tv, TCV_cc_iut_tf))	(FAIL)	4)
6		+PO_release_link			
7		? TIMEOUT T_P_CC_03_min			
8	B2	DLS ? DL_DATA_IND CANCEL T_P_CC_03_max	DI_data_ind(TSV_dlei_value, Cc_release_com_rx_base(TCV_cc_tv, TCV_cc_iut_tf))	(PASS)	5)
9		+PO_release_link			
10	B3	? TIMEOUT T_P_CC_03_max		(FAIL)	6)
11		+PO_release_link			
Detailed Comments : 1) IUT waits for CC-SETUP-ACK from LT. T_P_CC_03 running in the IUT. 2) Timer started to ensure that the timeout T_P_CC_03, when it is not restarted, will happen before the timeout of T_P_CC_03_min. 3) LT sends CC-NOTIFY to request the IUT to cancel and to restart the timer. T_P_CC_03 min and max started in LT. 4) Cc_release_com is received too soon. IUT did not accept CC-NOTIFY or wrong timer value in IUT. Test fails. 5) Cc_release_com is received within margins. Ok 6) Cc_release_com is received too late. Test fails.					

Test Case Dynamic Behaviour

Test Case Name : TC_PT_CC_TI_04
Group : PT/CC/TI/
Purpose : Verify that the IUT, after having started timer P-<CC.05>, releases the call using the normal procedure when the timer expires after the defined time. The {CC-RELEASE} message should arrive within the allowed margin time of +-5%.
Configuration :
Default : DF_handle_cc_timeout,
DF_handle_cc_events,
DF_handle_mm_events,
DF_handle_any_timeout,
DF_handle_unexpected_events
Comments : Initial state: T-08
ETS 300 175-5 [5], subclause 9.3.2.8 – ETS 300 444 [10], subclause 8.15.2.3

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+PR_goto_t08			1)
2		START T_P_CC_05_min, START T_P_CC_05_max			2)
3	B1	DLS ? DL_DATA_IND CANCEL T_P_CC_05_min, CANCEL T_P_CC_05_max	DI_data_ind(TSV_dlei_value, Cc_release_rx_base(TCV_cc_tv, TCV_cc_iut_tf))	(FAIL)	3)
4		+PO_release_link			
5		? TIMEOUT T_P_CC_05_min			
6	B2	DLS ? DL_DATA_IND CANCEL T_P_CC_05_max	DI_data_ind(TSV_dlei_value, Cc_release_rx_base(TCV_cc_tv, TCV_cc_iut_tf))	(PASS)	4)
7		+PO_release_link			
8	B3	? TIMEOUT T_P_CC_05_max		(FAIL)	5)
9		+PO_release_link			

Detailed Comments : 1) IUT waits for CC-CONNECT-ACK from LT.
2) T_P_CC_05 started also in LT only for this testcase.
3) cc_release_com is received too soon. test fails.
4) cc_release_com is received within margins. Ok
5) cc_release_com is received too late. test fails.

Test Case Dynamic Behaviour					
Test Case Name : TC_PT_MM_BV_ID_01 Group : PT/MM/BV/ID/ Purpose : Verify that the IUT, on receipt of an {IDENTITY-REQUEST} message specifying the IPUI, returns an {IDENTITY-REPLY} message with the IPUI. Configuration : Default : DF_handle_mm_timeout, DF_handle_mm_events, DF_handle_any_timeout, DF_handle_unexpected_events Comments : Initial state: T-00 ETS 300 175-5 [5], subclause 13.2.1 – ETS 300 444 [10], subclause 8.22					
Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+PR_goto_t00			
2		+STP_indirect_link_establishment			
3		START T_F_MM_ident_2			
4		DLS ! DL_DATA_REQ	DI_data_req(TSV_dlei_value, Identity_request_tx01)		
5	B1	DLS ? DL_DATA_IND CANCEL T_F_MM_ident_2	DI_data_ind(TSV_dlei_value, Identity_reply_rx01)	(PASS)	1)
6		+PO_release_link			
Detailed Comments : 1) IPUI is defined in the PIXIT. If the Identity_reply_rx01 is received, the testcase is ok. If the expected IPUI is not received, a default will handle the failed testcase.					

Test Case Dynamic Behaviour					
Test Case Name : TC_PT_MM_BV_ID_02 Group : PT/MM/BV/ID/ Purpose : Verify that the IUT, on receipt of an {IDENTITY-REQUEST} message specifying an unavailable identity type, returns an {IDENTITY-REPLY} message without identity information elements thereby indicating reject. Configuration : Default : DF_handle_mm_timeout, DF_handle_mm_events, DF_handle_cc_events, DF_handle_any_timeout, DF_handle_unexpected_events Comments : Initial state: T-00 ETS 300 175-5 [5], subclause 13.2.1 – ETS 300 444 [10], subclause 8.22.2.1					
Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+PR_goto_t00			
2		+STP_indirect_link_establishment			
3		START T_F_MM_ident_2			
4		DLS ! DL_DATA_REQ	DI_data_req(TSV_dlei_value, Identity_request_tx03)		1)
5	B1	DLS ? DL_DATA_IND CANCEL T_F_MM_ident_2	DI_data_ind(TSV_dlei_value, Identity_reply_rx09)	(PASS)	2)
6		+PO_release_link			
Detailed Comments : 1) Identity_request with unavailable identity type sent to IUT 2) Identity reply without information element is received.					

Test Case Dynamic Behaviour

Test Case Name : TC_PT_MM_BV_ID_03
Group : PT/MM/BV/ID/
Purpose : Verify that the IUT, on receipt of an {IDENTITY-REQUEST} message specifying a portable identity with IPUI type for which it has stored more than one identity, returns an {IDENTITY-REPLY} message with all available portable id's with IPUI.
Configuration :
Default : DF_handle_mm_timeout,
DF_handle_mm_events,
DF_handle_cc_events,
DF_handle_any_timeout,
DF_handle_unexpected_events
Comments : Initial state: T-00
In order for the IUT to receive more than one portable_id, a second accessrights request will have to be done, assigning a second portabis id.
ETS 300 175-5 [5], subclause 13.2.1 – NO GAP

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+PR_goto_t00			
2		+STP_invoke_obtain_accessrights			1)
3		+STP_handle_direct_link_est			
4		+STP_handle_acrghts_loc_reg (Access_rights_accept_tx03)			2)
5		START T_F_MM_ident_2			
6		DLS ! DL_DATA_REQ	DI_data_req(TSV_dlei_value, Identity_request_tx01)		3)
7	B1	DLS ? DL_DATA_IND CANCEL T_F_MM_ident_2	DI_data_ind(TSV_dlei_value, Identity_reply_rx04)	(PASS)	4)
8		+PO_release_link			

Detailed Comments : 1) A new accesrights procedure will be invoked, in order to assign a second portable id with IPUI to the IUT.
2) A second portable identity with IPUI type is specified.
3) LT sends identity request with portable id with IPUI type.
4) {IDENTITY-REPLY} with all available portable id's with IPUI is received.

Test Case Dynamic Behaviour					
<p>Test Case Name : TC_PT_MM_BV_ID_04 Group : PT/MM/BV/ID/ Purpose : Verify that the IUT, on receipt of an {IDENTITY-REQUEST} message specifying a fixed identity with PARK type for which it has stored more than one identity, returns an {IDENTITY-REPLY} message with all available fixed id's with PARK. Configuration : Default : DF_handle_mm_timeout, DF_handle_mm_events, DF_handle_cc_events, DF_handle_any_timeout, DF_handle_unexpected_events Comments : Initial state: T-00 In order for the IUT to receive more than one fixed_id, a second accessrights request will have to be done, assigning a second fixed-id. ETS 300 175-5 [5], subclause 13.2.1 – NO GAP</p>					
Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+PR_goto_t00			
2		+STP_invoke_obtain_accessrights			1)
3		+STP_handle_direct_link_est			
4		+STP_handle_acrghts_loc_reg (Access_rights_accept_tx03)			2)
5		START T_F_MM_ident_2			
6		DLS ! DL_DATA_REQ	DI_data_req(TSV_dlei_value, Identity_request_tx02)		3)
7	B1	DLS ? DL_DATA_IND CANCEL T_F_MM_ident_2	DI_data_ind(TSV_dlei_value, Identity_reply_rx05)	(PASS)	4)
8		+PO_release_link			
<p>Detailed Comments : 1) A new accesrights procedure will be invoked, in order to assign a second fixed id with PARK to the IUT. 2) A second fixed identity with PARK type is specified. 3) LT sends fixed id with PARK type for which IUT has stored more than one id. 4) {IDENTITY-REPLY} with all available fixed id's with PARK type is received.</p>					

Test Case Dynamic Behaviour

Test Case Name : TC_PT_MM_BV_ID_08
Group : PT/MM/BV/ID/
Purpose : Verify that the IUT, on receipt of an {IDENTITY-REQUEST} message specifying the PARK, returns an {IDENTITY-REPLY} message with the PARK.
Configuration :
Default : DF_handle_mm_timeout,
 DF_handle_mm_events,
 DF_handle_any_timeout,
 DF_handle_unexpected_events
Comments : Initial state: T-00
 ETS 300 175-5 [5], subclause 13.2.1 – ETS 300 444 [10], subclause 8.22

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+PR_goto_t00			
2		+STP_indirect_link_establishment			
3		START T_F_MM_ident_2			
4		DLS ! DL_DATA_REQ	DI_data_req(TSV_dlei_value, Identity_request_tx02)		1)
5	B1	DLS ? DL_DATA_IND CANCEL T_F_MM_ident_2	DI_data_ind(TSV_dlei_value, Identity_reply_rx02)	(PASS)	2)
6		+PO_release_link			

Detailed Comments : 1) Request for portable id with PARK.
 2) PARK is defined in the PIXIT. If the Identity_reply_rx01 is received, the testcase is ok. If the expected PARK is not received, a default will handle the failed testcase.

Test Case Dynamic Behaviour					
<p>Test Case Name : TC_PT_MM_BV_AU_01 Group : PT/MM/BV/AU/ Purpose : Verify that the IUT is able to operate the basic authentication of PT procedure (IUT has not stored ZAP value and service class information). Configuration : Default : DF_handle_mm_timeout, DF_handle_mm_events, DF_handle_unexpected_events Comments : Initial state: T-00 Authentication will be based on UAK, so a precondition to this test will be that the UAK is assigned. A DCK will not be stored by the PT. It is assumed that the IUT will reply to the authentication request automatically, without any user intervention needed. ETS 300 175-5 [5], subclause 13.3.1 – ETS 300 444 [10], subclause 8.24</p>					
Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+PR_goto_t00			1)
2		+STP_indirect_link_establishment			
3		START T_F_MM_auth_1			
4		DLS ! DL_DATA_REQ	DI_data_req(TSV_dlei_value, Auth_request_tx01)		2)
5	B1	DLS ? DL_DATA_IND (TCV_pdu_auth_reply := DL_DATA_IND.message_unit, TCV_res_rx := TCV_pdu_auth_reply.res.field) CANCEL T_F_MM_auth_1	DI_data_ind(TSV_dlei_value, Auth_reply_rx03)	(PASS)	3)
6		(TCV_xres := TSO_cinpt_algosb1_a1(TSC_rand, TSC_rs, TSV_uak))			4)
7	B2	[TCV_xres = TCV_res_rx]		(PASS)	
8		+PO_release_link			
9	B3	[TCV_xres <> TCV_res_rx]		(FAIL)	
10		+PO_release_link			
<p>Detailed Comments : 1) The normal PR_goto_t00 preamble assumes accessrights without zap filed and service class. 2) Authentication is based on UAK. No DCK is stored, ZAP value is not increased 3) Store received res in TCV_res_rx. Auth_reply_rx03 specifies the absence of zap field and service class. 4) Check if received res value matches calculated res value.</p>					

Test Case Dynamic Behaviour					
Test Case Name : TC_PT_MM_BV_AU_02 Group : PT/MM/BV/AU/ Purpose : Verify that the IUT, on receipt of an {AUTH-REQUEST} message containing unacceptable algorithm, returns an {AUTH-REJECT} message. Configuration : Default : DF_handle_mm_timeout, DF_handle_mm_events, DF_handle_unexpected_events Comments : Initial state: T-00 Authentication will be based on UAK, so a precondition to this test will be that the UAK is assigned. ETS 300 175-5 [5], subclause 13.3.1 – ETS 300 444 [10], subclause 8.24.2.1					
Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+PR_goto_t00			
2		+STP_indirect_link_establishment			
3		START T_F_MM_auth_1			
4		DLS ! DL_DATA_REQ	DI_data_req(TSV_dlei_value, Auth_request_tx02)		1)
5	B1	DLS ? DL_DATA_IND CANCEL T_F_MM_auth_1	DI_data_ind(TSV_dlei_value, Auth_reject_rx_base)	(PASS)	2)
6		+PO_release_link			
Detailed Comments : 1) Authentication Request with <<auth type>> ie containing a reserved value in the auth_algo_id field. 2) The <<reject_reason>>ie may contain the value for auth_algo not supported.					

Test Case Dynamic Behaviour					
Test Case Name : TC_PT_MM_BV_AU_03 Group : PT/MM/BV/AU/ Purpose : Verify that the IUT, when it has stored ZAP value, includes the <<ZAP field>> information element in the {AUTH-REPLY} message during the authentication of PT procedure. Configuration : Default : DF_handle_mm_timeout, DF_handle_mm_events, DF_handle_unexpected_events Comments : Initial state: T-00 Authentication will be based on UAK, so a precondition to this test will be that the UAK is assigned. ETS 300 175-5 [5], subclause 13.3.1 – ETS 300 444 [10], subclause 8.24					
Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+PR_t00_zap			
2		+STP_indirect_link_establishment			
3		START T_F_MM_auth_1			
4		DLS ! DL_DATA_REQ	DI_data_req(TSV_dlei_value, Auth_request_tx01)		1)
5	B1	DLS ? DL_DATA_IND (TCV_pdu_auth_reply := DL_DATA_IND.message_unit, TCV_res_rx := TCV_pdu_auth_reply.res.field) CANCEL T_F_MM_auth_1	DI_data_ind(TSV_dlei_value, Auth_reply_rx04)	(PASS)	2)
6		(TCV_xres := TSO_cinpt_algosb1_a1(TSC_rand, TSC_rs, TSV_uak))			3)
7	B2	[TCV_xres = TCV_res_rx]		(PASS)	
8		+PO_release_link			
9	B3	[TCV_xres <> TCV_res_rx]		(FAIL)	
10		+PO_release_link			
Detailed Comments : 1) Authentication is based on UAK. No DCK is stored, ZAP value is not increased. 2) The Auth_reply_rx01 constraint specifies the presence of zap field. Their value should be the same as the values assigned in the preamble. 3) Check if received res value matches calculated res value.					

Test Case Dynamic Behaviour

Test Case Name : TC_PT_MM_BV_AU_04
Group : PT/MM/BV/AU/
Purpose : Verify that the IUT increments the ZAP field during an authentication of PT procedure. The IUT may or may not authenticate the FT before incrementing the ZAP value.
Configuration :
Default : DF_handle_mm_timeout,
DF_handle_mm_events,
DF_handle_unexpected_events
Comments : Initial state: T-00
Authentication will be based on UAK, so a precondition to this test will be that the UAK is assigned.
A possible interrupting FT authentication initiated by the IUT, will be handled in the default DF_handle_mm_events.
ETS 300 175-5 [5], subclause 13.3.1 – ETS 300 444 [10], subclause 8.24

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+PR_t00_zap_service			1)
2		+STP_indirect_link_establishment			
3		START T_F_MM_auth_1			
4		DLS ! DL_DATA_REQ	DI_data_req(TSV_dlei_value, Auth_request_tx03)		2)
5	B1	DLS ? DL_DATA_IND (TCV_pdu_auth_reply := DL_DATA_IND.message_unit, TCV_res_rx := TCV_pdu_auth_reply.res.field) CANCEL T_F_MM_auth_1	DI_data_ind(TSV_dlei_value, Auth_reply_rx02)	(PASS)	3)
6		(TCV_xres := TSO_cinpt_algosb1_a1(TSC_rand, TSC_rs, TSV_uak))			4)
7	B2	[TCV_xres = TCV_res_rx]		(PASS)	
8		+PO_release_link			
9	B3	[TCV_xres <> TCV_res_rx]		(FAIL)	
10		+PO_release_link			

Detailed Comments : 1) The preamble assigns zap value 0.
2) Authentication is based on UAK. No DCK is stored, ZAP value is increased
3) The Auth_reply_rx02 constraint specifies the presence of zap field and service class. The value of the zap field should be '1', being one higher than the initial value.
4) Check if received res value matches calculated res value.

Test Case Dynamic Behaviour					
Test Case Name : TC_PT_MM_BV_AU_05 Group : PT/MM/BV/AU/ Purpose : Verify that the IUT, if it supports authentication of FT as part of the increment ZAP procedure, does not increment the ZAP value if the FT authentication fails. Configuration : Default : DF_handle_mm_timeout, DF_handle_mm_events, DF_handle_unexpected_events Comments : Initial state: T-00 Authentication will be based on UAK, so a precondition to this test will be that the UAK is assigned. ETS 300 175-5 [5], subclause 13.3.1 – ETS 300 444 [10], subclause 8.24					
Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+PR_t00_zap_service			1)
2		+STP_indirect_link_establishment			
3		START T_F_MM_auth_1			
4		DLS ! DL_DATA_REQ	DI_data_req(TSV_dlei_value, Auth_request_tx03)		2)
5	B1	DLS ? DL_DATA_IND	DI_data_ind(TSV_dlei_value, Auth_request_rx01)	(PASS)	3)
6		(TCV_res_tx := TSO_cinpt_bitstr_inc(TSO_cinpt_algosb1_a1(TSC_rand, TSC_rs, TSV_uak)))			4)
7		DLS ! DL_DATA_REQ	DI_data_req(TSV_dlei_value, Auth_reply_tx01(TCV_res_tx))		4)
8	B2	DLS ? DL_DATA_IND (TCV_pdu_auth_reply := DL_DATA_IND.message_unit, TCV_res_rx := TCV_pdu_auth_reply.res.field) CANCEL T_F_MM_auth_1	DI_data_ind(TSV_dlei_value, Auth_reply_rx01)	(PASS)	5)
9		(TCV_xres := TSO_cinpt_algosb1_a1(TSC_rand, TSC_rs, TSV_uak))			6)
10	B3	[TCV_xres = TCV_res_rx]		(PASS)	
11		+PO_release_link			
12	B4	[TCV_xres <> TCV_res_rx]		(FAIL)	
13		+PO_release_link			
14	B5	DLS ? DL_DATA_IND CANCEL T_F_MM_auth_1	DI_data_ind(TSV_dlei_value, Auth_reject_rx_base)	(PASS)	
15		+STP_release_link			
16		+STP_indirect_link_establishment			
17		+STP_perform_pt_authentication(Auth_request_tx01, Auth_reply_rx01)			7)
18		+STP_release_link			
Detailed Comments : 1) The preamble assigns zap value 0. 2) Authentication is based on UAK. No DCK is stored, ZAP value is increased. 3) An intervening FT authentication request is received. 4) A wrong RES value will be calculated and sent to fail the authentication of FT procedure.					

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Test Case Dynamic Behaviour

Detailed Comments : ...

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|---|
| <ul style="list-style-type: none">5) The Auth_reply_rx01 constraint specifies the presence of zap field and service class. The value of the zap field should still be '0', because the FT authentication failed.6) Check if received res value matches calculated res value.7) Perform PT authentication to check the ZAP value is still '0'. |
|---|

Test Case Dynamic Behaviour					
Test Case Name : TC_PT_MM_BV_AU_06 Group : PT/MM/BV/AU/ Purpose : Verify that the IUT, receiving an {AUTH-REQ} message containing an <<AUTH-TYPE>> information element, containing UPC bit = 1 (store DCK), stores the DCK and that the DCK can be used again in a successive FT initiated ciphering procedure. Configuration : Default : DF_handle_mm_timeout, DF_handle_mm_events, DF_handle_unexpected_events Comments : Initial state: T-00 Authentication will be based on UAK, so a precondition to this test will be that the UAK is assigned. The testpurpose will be checked by switching on ciphering, and afterwards requesting an identity (IPUI) of the IUT. If no response is received on this identity request, LT and IUT are probably ciphering with a different DCK. ETS 300 175-5 [5], subclause 13.8 and 7.7.24 – ETS 300 444 [10], subclause 8.24					
Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+PR_goto_t00			
2		+STP_indirect_link_establishment			
3		START T_F_MM_auth_1			
4		DLS ! DL_DATA_REQ	DI_data_req(TSV_dlei_value, Auth_request_tx04)		1)
5	B1	DLS ? DL_DATA_IND (TCV_pdu_auth_reply := DL_DATA_IND.message_unit, TCV_res_rx := TCV_pdu_auth_reply.res.field) CANCEL T_F_MM_auth_1	DI_data_ind(TSV_dlei_value, Auth_reply_rx_base)	(PASS)	2)
6		(TCV_xres := TSO_cinpt_algosb1_a1(TSC_rand, TSC_rs, TSV_uak), TSV_dck_value := TSO_cinpt_algos_dck_b1_a1(TSC_r and, TSC_rs, TSV_uak))			
7	B2	[TCV_xres <> TCV_res_rx]		(FAIL)	4)
8		+PO_release_link			
9	B3	[TCV_xres = TCV_res_rx]		(PASS)	4)
10		+STP_perform_ft_init_ciphering_ on			5)
11		START T_F_MM_ident_2			6)
12		DLS ! DL_DATA_REQ	DI_data_req(TSV_dlei_value, Identity_request_tx01)		
13	B4	DLS ? DL_DATA_IND CANCEL T_F_MM_ident_2	DI_data_ind(TSV_dlei_value, Identity_reply_rx01)	(PASS)	7)
14		+PO_release_link			
15	B5	? TIMEOUT T_F_MM_ident_2		(FAIL)	8)
16		+PO_release_link			
Detailed Comments : 1) Authentication is based on UAK. A new DCK is to be stored. 2) The Auth_reply_rx_base constraint does not require the presence of zap field or service class. 3) Store the calculated res value and dck value in variables. 4) Check if received res value matches calculated res value. 5) Activate ciphering. 6) Now request an identity from the IUT.					

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Test Case Dynamic Behaviour

Detailed Comments : ...

7) If a response is received: ok.

8) If no response is received: ciphering went wrong, IUT used wrong dck. test fails.
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Test Case Dynamic Behaviour					
Test Case Name : TC_PT_MM_BV_AU_07 Group : PT/MM/BV/AU/ Purpose : Verify that the IUT is able to operate the basic authentication of user procedure. Configuration : Default : DF_handle_mm_timeout, DF_handle_mm_events, DF_handle_unexpected_events Comments : Initial state: T-00 The user authentication procedure is tested. The user should provide the UPI to be used in the PIXIT. ETS 300 175-5 [5], subclause 13.3.2 – ETS 300 444 [10], subclause 8.25					
Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+PR_t00_no_acrght			1)
2		+STP_invoke_obtain_accessrights			
3		+STP_handle_direct_link_est			
4		+STP_handle_acrghts_loc_reg (Access_rights_accept_tx01)			
5		+STP_perform_pt_authentication(Auth_request_tx04, Auth_reply_rx03)			
6		+STP_release_link			
7		+LTS_body			
		LTS_body			
8		+STP_indirect_link_establishment			
9		START T_F_MM_auth_2			
10		DLS ! DL_DATA_REQ	DI_data_req(TSV_dlei_value, Auth_request_tx05)		2)
11		+STP_invoke_upi_entering			3)
12	B1	DLS ? DL_DATA_IND (TCV_pdu_auth_reply := DL_DATA_IND.message_unit, TCV_res_rx := TCV_pdu_auth_reply.res.field) CANCEL T_F_MM_auth_2	DI_data_ind(TSV_dlei_value, Auth_reply_rx03)	(PASS)	4)
13		(TCV_xres := TSO_cinpt_algosb2_a1(TSC_rand, TSC_rs, TSV_uak, TSO_cinpt_convert_upi_to_bitstring (TSPX_decimal_upi_value)))			5)
14	B2	[TCV_xres = TCV_res_rx]		(PASS)	
15		+PO_release_link			
16	B3	[TCV_xres <> TCV_res_rx]		(FAIL)	
17		+PO_release_link			
Detailed Comments : 1) The PR_t00_no_acrght preamble assumes state t00 without accessrights. 2) Authentication is based on UPI 3) Allow the user to type in the upi. The upi has to be specified in the PIXIT.. 4) Store received res in TCV_res_rx. Auth_reply_rx03 specifies the absence of zap field and service class. 5) Check if received res value matches calculated res value.					

Test Case Dynamic Behaviour

Test Case Name : TC_PT_MM_BV_AU_08
Group : PT/MM/BV/AU/
Purpose : Verify that the IUT, after invoking the procedure, is able operate the basic authentication of FT procedure.
Configuration :
Default : DF_handle_mm_invokation,
 DF_handle_mm_timeout,
 DF_handle_mm_events,
 DF_handle_cc_events,
 DF_handle_any_timeout,
 DF_handle_unexpected_events
Comments : Initial state: specified in PIXIT
 A precondition to this testcase is that a UAK is present in testsuitevariable TSV_uak.
 The result of the FT authentication is not tested in this testcase.
 ETS 300 175-5 [5], subclause 13.3.3 – ETS 300 444 [10], subclause 8.23

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1	B1	+PR_select_state (TSPX_mmproc_auft_ccstate)			1)
2		+STP_invoke_ft_authentication			
3		DLS ? DL_DATA_IND(TCV_pdu_auth_request := DL_DATA_IND.message_unit, TCV_rand := TCV_pdu_auth_request.rand.field) CANCEL T_USER_INVOKE	DI_data_ind(TSV_dlei_value, Auth_request_rx01)	(PASS)	2)
4		(TCV_res_tx := TSO_cinpt_algosb1_a2(TCV_rand, TSC_rs, TSV_uak))			
5		DLS ! DL_DATA_REQ	DI_data_req(TSV_dlei_value, Auth_reply_tx01(TCV_res_tx))		3)
6		+STP_handle_ft_auth_resp			
7		+PO_release_link			4)

Detailed Comments : 1) Goto the state that has been declared in the PIXIT, as initial state for this procedure. A postcondition to this teststep is that a link is established.
 2) Authentication on UAK mandated, so UAK has to be present beforehand.
 3) Copy calculated res field into reply message.
 4) Note that the result of the FT authentication is not tested.

Test Case Dynamic Behaviour					
Test Case Name : TC_PT_MM_BV_AU_09 Group : PT/MM/BV/AU/ Purpose : Verify that the IUT, when it has stored service class information, includes the <<Service class>> information element in the {AUTH-REPLY} message during the authentication of PT procedure. Configuration : Default : DF_handle_mm_timeout, DF_handle_mm_events, DF_handle_unexpected_events Comments : Initial state: T-00 Authentication will be based on UAK, so a precondition to this test will be that the UAK is assigned. ETS 300 175-5 [5], subclause 13.3.1 – ETS 300 444 [10], subclause 8.24					
Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+PR_t00_service			
2		+STP_indirect_link_establishment			
3		START T_F_MM_auth_1			
4		DLS ! DL_DATA_REQ	DI_data_req(TSV_dlei_value, Auth_request_tx01)		1)
5	B1	DLS ? DL_DATA_IND (TCV_pdu_auth_reply := DL_DATA_IND.message_unit, TCV_res_rx := TCV_pdu_auth_reply.res.field) CANCEL T_F_MM_auth_1	DI_data_ind(TSV_dlei_value, Auth_reply_rx05)	(PASS)	2)
6		(TCV_xres := TSO_cinpt_algosb1_a1(TSC_rand, TSC_rs, TSV_uak))			3)
7	B2	[TCV_xres = TCV_res_rx]		(PASS)	
8		+PO_release_link			
9	B3	[TCV_xres <> TCV_res_rx]		(FAIL)	
10		+PO_release_link			
Detailed Comments : 1) Authentication is based on UAK. No DCK is stored, ZAP value is not increased 2) The Auth_reply_rx05 constraint specifies the presence of service class. Their value should be the same as the values assigned in the preamble. 3) Check if received res value matches calculated res value.					

Test Case Dynamic Behaviour

Test Case Name : TC_PT_MM_BV_LO_01
Group : PT/MM/BV/LO/
Purpose : Verify that the IUT, if the a44 and a38 bits in the FT broadcasted "higher layer capabilities" were set to "1", is capable to operate the basic location registration procedure after it performed the obtain access rights procedure (FT does not perform TPUI assignment).
Configuration :
Default : DF_handle_mm_timeout,
DF_handle_mm_events,
DF_handle_any_timeout,
DF_handle_unexpected_events
Comments : Initial state: T-00
First an obtain accessrights procedure is performed. If the procedure finished successfully, a timer T_EXPECT_LOCATE is started, which waits for a locate_request message to arrive. If this message arrives, the location registration is performed, without a TPUI assignment. Timer T_F_MM_ident_1 is started. The IUT shall NOT respond with an TEMPORARY_ID_ASSIGN_ACK. If the timer T_F_MM_ident_1 times out, the test passes.
In this test, no authentication of PT is done.
ETS 300 175-5 [5], subclause 13.4.1 – ETS 300 444 [10], subclause 8.28

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+PR_t00_no_acrght			1)
2		+STP_invoke_obtain_accessrights			2)
3		+STP_handle_direct_link_est			
4		+STP_handle_acrghts_no_loc_reg (Access_rights_accept_tx01)			3)
5		START T_EXPECT_LOCATE			4)
6	B1	DLS ? DL_DATA_IND CANCEL T_EXPECT_LOCATE	DI_data_ind(TSV_dlei_value, Locate_request_rx01)	(PASS)	5)
7		START T_F_MM_ident_1			6)
8		DLS ! DL_DATA_REQ	DI_data_req(TSV_dlei_value, Locate_accept_tx01)		7)
9	B2	? TIMEOUT T_F_MM_ident_1		(PASS)	8)
10		+PO_release_link			
11	B3	DLS ? DL_DATA_IND CANCEL T_F_MM_ident_1	DI_data_ind(TSV_dlei_value, Temporary_id_assign_ack _rx_base)	(FAIL)	9)
12		+PO_release_link			

Detailed Comments : 1) Initial state: T-00
2) Invoke the accessrights procedure. (PT should support accessrights procedure, even when it already has accessrights to the LT).
3) Handle the accessrights procedure, but do not handle the location registration procedure yet. The accessrights_accept_tx01 constraint does not assign ZAP and service class.
4) Start timer T_EXPECT_LOCATE, guarding the time between accessrights_accept and the locate_request message. The expiry of the timer is handled in DF_handle_any_timeout
5) Receive a locate request message as specified in ETS 300 444, subclause 8.25
6) Start timer T_F_MM_ident_1 in order to wait for an erroneous TEMPORARY_ID_ASSIGN_ACK.
7) Send back a locate accept, with an empty portable id. No TPUI assignment is done.
8) If timer T_F_MM_ident_1 times out, the test passes.
9) If a TEMPORARY_ID_ASSIGN_ACK follows, the test fails

Test Case Dynamic Behaviour

Test Case Name : TC_PT_MM_BV_LO_02
Group : PT/MM/BV/LO/
Purpose : Verify that the IUT, if the a44 and a38 bits in the FT broadcasted "higher layer capabilities" were set to "1", is capable to operate the basic location registration procedure after it performed the obtain access rights procedure (FT does perform TPUI assignment).
Configuration :
Default : DF_handle_mm_timeout,
DF_handle_mm_events,
DF_handle_any_timeout,
DF_handle_unexpected_events
Comments : Initial state: T-00
First an obtain accessrights procedure is performed. If the procedure finished successfully, a timer T_EXPECT_LOCATE is started, which waits for a locate_request message to arrive. If this message arrives, the location registration is performed, including a TPUI assignment. Timer T_F_MM_ident_1 is started. The IUT shall respond within the duration of this timer, with a TEMPORARY_ID_ASSIGN_ACK. Expiry of the timer is handled in DF_handle_mm_timeout. ETS 300 175-5 [5], subclause 13.4.1 – ETS 300 444 [10], subclause 8.28

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+PR_t00_no_acrght			1)
2		+STP_invoke_obtain_accessrights			2)
3		+STP_handle_direct_link_est			
4		+STP_handle_acrghts_no_loc_reg (Access_rights_accept_tx01)			3)
5		START T_EXPECT_LOCATE			4)
6	B1	DLS ? DL_DATA_IND CANCEL T_EXPECT_LOCATE	DI_data_ind(TSV_dlei_value, Locate_request_rx01)	(PASS)	5)
7		START T_F_MM_ident_1			6)
8		DLS ! DL_DATA_REQ	DI_data_req(TSV_dlei_value, Locate_accept_tx02)		7)
9	B2	DLS ? DL_DATA_IND CANCEL T_F_MM_ident_1	DI_data_ind(TSV_dlei_value, Temporary_id_assign_ack _rx_base)	(PASS)	8)
10		+STP_check_id_in_pt(Identity _request_tx04, Identity_reply_rx06)			9)
11		+PO_release_link			

Detailed Comments : 1) Initial state: T-00
2) Invoke the accessrights procedure. (PT should support accessrights procedure, even when it already has accessrights to the LT).
3) Handle the accessrights procedure, but do not handle the location registration procedure yet. The accessrights_accept_tx01 constraint does not assign ZAP and service class.
4) Start timer T_EXPECT_LOCATE, guarding the time between accessrights_accept and the locate_request message. The expiry of the timer is handled in DF_handle_any_timeout
5) Receive a locate request message as specified in ETS 300 444, subclause 8.25
6) Start timer T_F_MM_ident_1 in order to wait for a TEMPORARY_ID_ASSIGN_ACK.
7) Send back a locate accept, with a portable id containing a TPUI.
8) Receive the TEMPORARY_ID_ASSIGN_ACK.
9) Check that the TPUI is stored in the IUT.

Test Case Dynamic Behaviour

Test Case Name : TC_PT_MM_BV_LO_03
Group : PT/MM/BV/LO/
Purpose : Verify that the IUT, if the a44 bit in the FT broadcasted "higher layer capabilities" was set to "1" but a38 is set to "0", does not initiate location registration procedure after it performed the obtain access rights procedure.
Configuration :
Default : DF_handle_mm_timeout,
DF_handle_mm_events,
DF_handle_any_timeout,
DF_handle_unexpected_events
Comments : Initial state: T-00
First the broadcasted "higher layer capabilities" bit a38 is set to 0, and then the IUT shall lock again to the LT. After this, an obtain accessrights procedure is performed. If the procedure finished successfully, a timer T_EXPECT_LOCATE is started, which waits for a locate_request message to arrive. If it arrives, the test fails. If the timer times out, the test passes.
ETS 300 175-5 [5], subclause 13.4.1 – ETS 300 444 [10], subclause 8.28

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+PR_goto_t00			1)
2		+STP_set_bit_a38(0)			2)
3		+STP_lose_and_regain_lock			3)
4		+STP_invoke_obtain_accessrights			4)
5		+STP_handle_direct_link_est			
6		+STP_handle_acrghts_no_loc_reg (Access_rights_accept_tx01)			5)
7		START T_EXPECT_LOCATE			6)
8	B1	DLS ? DL_DATA_IND CANCEL T_EXPECT_LOCATE	DI_data_ind(TSV_dlei_value, Locate_request_rx01)	(FAIL)	7)
9		+PO_release_link			
10	B2	? TIMEOUT T_EXPECT_LOCATE		(PASS)	8)
11		+PO_release_link			

Detailed Comments : 1) Initial state: T-00
2) Set bit a38 to 0.
3) Have the IUT lose lock, and regain it.
4) Invoke the accessrights procedure. (PT should support accessrights procedure, even when it already has accessrights to the LT).
5) Handle the accessrights procedure, but do not handle the location registration procedure yet. The accessrights_accept_tx01 constraint does not assign ZAP and service class.
6) Start timer T_EXPECT_LOCATE, guarding the time between accessrights_accept and the locate_request message.
7) If the message arrives, the test fails.
8) If the timer expires, the test passes.

Test Case Dynamic Behaviour					
<p>Test Case Name : TC_PT_MM_BV_LO_04 Group : PT/MM/BV/LO/ Purpose : Verify that the IUT, if the a38 bit in the FT broadcasted "higher layer capabilities" was set to "1" and if location area changes not during a CC call, is able to operate location registration procedure. (FT does not perform TPUI assignment.) Configuration : Default : DF_handle_mm_timeout, DF_handle_mm_events, DF_handle_any_timeout, DF_handle_unexpected_events Comments : Initial state: T-00 In this test, no authentication of PT is done. ETS 300 175-5 [5], subclause 13.4.1 – ETS 300 444 [10], subclause 8.28</p>					
Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+PR_goto_t00			
2		+STP_change_location_area			1)
3		+STP_handle_direct_link_est			
4	B1	DLS ? DL_DATA_IND CANCEL T_EXPECT_LOCATE	DI_data_ind(TSV_dlei_value, Locate_request_rx01)	(PASS)	2)
5		START T_F_MM_ident_1			3)
6		DLS ! DL_DATA_REQ	DI_data_req(TSV_dlei_value, Locate_accept_tx01)		4)
7	B2	? TIMEOUT T_F_MM_ident_1		(PASS)	5)
8		+PO_release_link			
9	B3	DLS ? DL_DATA_IND CANCEL T_F_MM_ident_1	DI_data_ind(TSV_dlei_value, Temporary_id_assign_ack _rx_base)	(FAIL)	6)
10		+PO_release_link			
<p>Detailed Comments : 1) Change the location area broadcasted by the LT. Timer T_EXPECT_LOCATE is started. The expiry of the timer is handled in DF_handle_any_timeout 2) Receive a locate request message as specified in ETS 300 444, subclause 8.25 3) Start timer T_F_MM_ident_1 in order to wait for an erroneous TEMPORARY_ID_ASSIGN_ACK. 4) Send back a locate accept, with an empty portable id. No TPUI assignment is done. 5) If timer T_F_MM_ident_1 times out, the test passes. 6) If a TEMPORARY_ID_ASSIGN_ACK follows, the test fails</p>					

Test Case Dynamic Behaviour

Test Case Name : TC_PT_MM_BV_LO_05
Group : PT/MM/BV/LO/
Purpose : Verify that the IUT, if the a38 bit in the FT broadcasted "higher layer capabilities" was set to "1", after power-off and power-on and after locking to the FT to which it has access rights, will initiate location registration procedure.
Configuration :
Default : DF_handle_mm_timeout,
DF_handle_mm_events,
DF_handle_any_timeout,
DF_handle_unexpected_events
Comments : Initial state: T-00
In this test, no authentication of PT is done.
ETS 300 175-5 [5], subclause 13.4.1 – ETS 300 444 [10], subclause 8.28

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+PR_goto_t00			
2		+STP_switch_iut_power_off_on			1)
3		+STP_handle_direct_link_est			
4	B1	DLS ? DL_DATA_IND CANCEL T_EXPECT_LOCATE	DI_data_ind(TSV_dlei_value, Locate_request_rx01)	(PASS)	2)
5		DLS ! DL_DATA_REQ	DI_data_req(TSV_dlei_value, Locate_accept_tx01)		3)
6		+PO_release_link			

Detailed Comments : 1) Have the power of the IUT switched off and on. Timer T_EXPECT_LOCATE is started.
The expiry of the timer is handled in DF_handle_any_timeout
2) Receive a locate request message as specified in ETS 300 444, subclause 8.25
3) Send back a locate accept, with an empty portable id. No TPUI assignment is done.

Test Case Dynamic Behaviour

Test Case Name : TC_PT_MM_BV_LO_06
Group : PT/MM/BV/LO/
Purpose : Verify that the IUT, during a location registration procedure on receipt of a {LOCATE-ACCEPT} message specifying an unacceptable TPUI, will reject the assignment.
Configuration :
Default : DF_handle_mm_timeout,
DF_handle_mm_events,
DF_handle_any_timeout,
DF_handle_unexpected_events
Comments : Initial state: T-00
ETS 300 175-5 [5], subclause 13.4.1 – ETS 300 444 [10], subclause 8.28

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+PR_goto_t00			
2		+STP_change_location_area			1)
3		+STP_handle_direct_link_est			
4	B1	DLS ? DL_DATA_IND CANCEL T_EXPECT_LOCATE	DI_data_ind(TSV_dlei_value, Locate_request_rx01)	(PASS)	2)
5		START T_F_MM_ident_1			3)
6		DLS ! DL_DATA_REQ	DI_data_req(TSV_dlei_value, Locate_accept_tx03)		4)
7	B2	DLS ? DL_DATA_IND CANCEL T_F_MM_ident_1	DI_data_ind(TSV_dlei_value, Temporary_id_assign_rej_ rx_base)	(PASS)	5)
8		+PO_release_link			
9	B3	DLS ? DL_DATA_IND CANCEL T_F_MM_ident_1	DI_data_ind(TSV_dlei_value, Temporary_id_assign_ack_ rx_base)	(FAIL)	6)
10		+PO_release_link			

Detailed Comments : 1) Change the location area broadcasted by the LT. Timer T_EXPECT_LOCATE is started.
The expiry of the timer is handled in DF_handle_any_timeout
2) Receive a locate request message as specified in ETS 300 444, subclause 8.25
3) Start timer T_F_MM_ident_1 in order to wait for a TEMPORARY_ID_ASSIGN_ACK.
4) Send back a locate accept, with an unacceptable TPUI.
5) Receive a TEMPORARY_ID_ASSIGN_REJ. Test passes
6) If a TEMPORARY_ID_ASSIGN_ACK follows, the test fails

Test Case Dynamic Behaviour

Test Case Name : TC_PT_MM_BV_LO_07
Group : PT/MM/BV/LO/
Purpose : Verify that the IUT, entering a new location area, deletes the individual assigned TPUI, before performing the location registration procedure. This shall be done by failing the location registration, and verifying that the IUT does not return the deleted TPUI in the identity request procedure.
Configuration :
Default : DF_handle_mm_timeout,
DF_handle_mm_events,
DF_handle_any_timeout,
DF_handle_unexpected_events
Comments : Initial state: T-00
In this test, no authentication of PT is done.
ETS 300 175-5 [5], subclause 13.4.1 – ETS 300 444 [10], subclause 8.28

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+PR_goto_t00			1)
2		+STP_change_location_area			2)
3		+STP_handle_direct_link_est			
4	B1	DLS ? DL_DATA_IND CANCEL T_EXPECT_LOCATE	DI_data_ind(TSV_dlei_value, Locate_request_rx01)	(PASS)	3)
5		START T_F_MM_ident_2			4)
6		DLS ! DL_DATA_REQ	DI_data_req(TSV_dlei_value, Identity_request_tx04)		
7	B2	DLS ? DL_DATA_IND CANCEL T_F_MM_ident_2	DI_data_ind(TSV_dlei_value, Identity_reply_rx07)	(PASS)	5)
8		DLS ! DL_DATA_REQ	DI_data_req(TSV_dlei_value, Locate_reject_tx_base)		6)
9		+PO_release_link			
10	B3	DLS ? DL_DATA_IND CANCEL T_F_MM_ident_2	DI_data_ind(TSV_dlei_value, Identity_reply_rx06)	(FAIL)	7)
11		DLS ! DL_DATA_REQ	DI_data_req(TSV_dlei_value, Locate_reject_tx_base)		6)
12		+PO_release_link			

Detailed Comments : 1) The preamble assumes the standard TPUI is assigned.
2) Change the location area broadcasted by the LT. Timer T_EXPECT_LOCATE is started.
The expiry of the timer is handled in DF_handle_any_timeout
3) Receive a locate request message as specified in ETS 300 444, subclause 8.25
4) Now start an identity request for the TPUI.
5) Identity_reply_rx07 specifies the absence of a TPUI, meaning that the TPUI has been deleted.
Test passes.
6) Send back a reject, in order to fail the location registration.
7) If the old TPUI is returned, test fails.

Test Case Dynamic Behaviour

Test Case Name : TC_PT_MM_BV_LO_08
Group : PT/MM/BV/LO/
Purpose : Verify that the IUT, as part of the parameter retrieval procedure on receipt of a location update request, will start location registration procedure within reasonable time, when in the broadcast attributes bit a38 was set to "1".
Configuration :
Default : DF_handle_mm_timeout,
DF_handle_mm_events,
DF_handle_any_timeout,
DF_handle_unexpected_events
Comments : Initial state: T-00
In this test, no authentication of PT is done.
Timer T_EXPECT_LOCATE guards the 'reasonable time' mentioned in the testpurpose. The expiry of this timer is handled in DF_handle_mm_timeout.
ETS 300 175-5 [5], subclause 13.7 – ETS 300 444 [10], subclause 8.29

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+PR_goto_t00			1)
2		+STP_indirect_link_establishment			
3		DLS ! DL_DATA_REQ START T_EXPECT_LOCATE	DI_data_req(TSV_dlei_value, Mm_info_suggest_tx01)		2)
4		+STP_handle_locate_request			3)
5		+PO_release_link			

Detailed Comments : 1) The standard preamble assures bit A38 was set to 1 during locking.
2) Send an mm_info_suggest PDU, with info type ie, containing parameter 'locate suggest', and start a timer to wait for the location registration procedure to follow.
3) Handle the location registration, including the TPUI assignment.

Test Case Dynamic Behaviour

Test Case Name : TC_PT_MM_BV_LO_09
Group : PT/MM/BV/LO/
Purpose : Verify that the IUT, as part of the parameter retrieval procedure on receipt of a location update request, will start location registration procedure within reasonable time, even when in the broadcast attributes bit a38 was set to "0".
Configuration :
Default : DF_handle_mm_timeout,
DF_handle_mm_events,
DF_handle_any_timeout,
DF_handle_unexpected_events
Comments : Initial state: T-00
In this test, no authentication of PT is done.
Timer T_EXPECT_LOCATE guards the 'reasonable time' mentioned in the testpurpose. The expiry of this timer is handled in DF_handle_mm_timeout.
ETS 300 175-5 [5], subclause 13.7 – ETS 300 444 [10], subclause 8.29

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+PR_goto_t00			1)
2		+STP_set_bit_a38(0)			2)
3		+STP_lose_and_regain_lock			3)
4		+STP_indirect_link_establishment			
5		DLS ! DL_DATA_REQ START T_EXPECT_LOCATE	DI_data_req(TSV_dlei_value, Mm_info_suggest_tx01)		4)
6		+STP_handle_locate_request			5)
7		+PO_release_link			

Detailed Comments : 1) The standard preamble assures bit A38 was set to 1 during locking.
2) Set bit a38 to 0.
3) Have the IUT lose lock, and regain it.
4) Send an mm_info_suggest PDU, with info type ie, containing parameter 'locate suggest', and start a timer to wait for the location registration procedure to follow.
5) Handle the location registration, including the TPUI assignment.

Test Case Dynamic Behaviour

Test Case Name : TC_PT_MM_BV_AR_01
Group : PT/MM/BV/AR/
Purpose : Verify that the IUT, after invocation, if the a44 bit in the FP broadcasted "higher layer capabilities" is set to "1" is able to perform the basic operation of the obtain access rights procedure. (PT has only AC)
Configuration :
Default : DF_handle_mm_timeout,
DF_handle_mm_events,
DF_handle_any_timeout,
DF_handle_unexpected_events
Comments : Initial state: No accessrights
in accessrights request message:
- IUT shall include <TERMINAL_CAPABILITY>> and <<AUTH_TYPE>> ie
- IUT may include <<CIPHER_INFO>> ie
ETS 300 175-5 [5], subclause 13.5.1 - ETS 300 444 [10], subclause 8.30

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+PR_t00_no_acrgh			1)
2		+STP_invoke_obtain_accessrights			2)
3		+STP_handle_direct_link_est			
4	B1	DLS ? DL_DATA_IND(TCV_pdu_acrgh_request := DL_DATA_IND.message_unit, TCV_ie_auth_type := TCV_pdu_acrgh_request.auth_type)	DI_data_ind(TSV_dlei_value, Access_rights_request_rx 01)	(PASS)	3)
5		DLS ! DL_DATA_REQ(TCV_pdu_acrgh_accept := DL_DATA_REQ.message_unit, TCV_pdu_acrgh_accept.auth_type := TCV_ie_auth_type, DL_DATA_REQ.message_unit := TCV_pdu_acrgh_accept)	DI_data_req(TSV_dlei_value, Access_rights_accept_tx 01)		4)
6		+STP_check_id_in_pt(Identity_reque st_tx01, Identity_reply_rx01)			5)
7		+STP_check_id_in_pt(Identity_requ est_tx02, Identity_reply_rx02)			6)
8		+PO_release_link			

Detailed Comments : 1) Remove accessrights
2) Invoke the accessrights procedure.
3) Auth_type ie has to be present, auth_key_type shall refer to AC. Portable-id should be of type IPEI or IPUI-N. Terminal Capability shall be present. Value as specified in PIXIT.
Copy auth_type in TCV_ie_auth_type in order to send it back to the IUT
4) No ZAP field and Service class are stored. LT sends back <<AUTH_TYPE>>
5) Check the storage of the IPUI identity, by means of an identity request. The Identity_request_tx01 specifies a request for the portable id containing an IPUI.
The Identity_reply_rx01 matches the result of the identity request with the specified IPUI.
6) Check the storage of the PARIK identity, by means of an identity request. The Identity_request_tx02 specifies a request for the fixed_id_containing a PARIK
The Identity_reply_rx02 matches the result of the identity request with the specified PARIK

Test Case Dynamic Behaviour

Test Case Name : TC_PT_MM_BV_AR_03
Group : PT/MM/BV/AR/
Purpose : Verify that the IUT, after invocation, if the a44 bit in the FT broadcasted "higher layer capabilities" is set to "0" does not initiate obtain access rights procedure after it has locked to the FT.
Configuration :
Default : DF_handle_mm_timeout,
DF_handle_mm_events,
DF_handle_any_timeout,
DF_handle_unexpected_events
Comments : Initial state: T-00
First the broadcasted "higher layer capabilities" bit a44 is set to 0, and then the IUT shall lock again to the LT. After this, an obtain accessrights procedure is invoked. If the IUT sends an accessrights request message, the test fails.
ETS 300 175-5 [5], subclause 13.5.1 – ETS 300 444 [10], subclause 8.30

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+PR_t00_no_acrgh			1)
2		+STP_set_bit_a44(0)			2)
3		+STP_lose_and_regain_lock			3)
4		+STP_invoke_obtain_accessrights			4)
5		+STP_handle_direct_link_est			
6	B1	DLS ? DL_DATA_IND(TCV_pdu_acrgh_request := DL_DATA_IND.message_unit, TCV_ie_auth_type := TCV_pdu_acrgh_request.auth_type)	DI_data_ind(TSV_dlei_value, Access_rights_request_rx _base)	(FAIL)	5)
7		+PO_release_link			
8	B2	? TIMEOUT T_USER_INVOKE		(PASS)	6)
9		+PO_release_link			

Detailed Comments : 1) Initial state: T-00
2) Set bit a44 to 0.
3) Have the IUT lose lock, and regain it.
4) Invoke the accessrights procedure.
5) If an accessrights message arrives, test fails.
6) If the invocation timer expires, the test passes.

Test Case Dynamic Behaviour

Test Case Name : TC_PT_MM_BV_AR_05
Group : PT/MM/BV/AR/
Purpose : Verify that the IUT, is able to perform the basic operation of the FT initiated terminate access rights procedure. (IUT may or may not authenticate the FT before performing the procedure.)
Configuration :
Default : DF_handle_mm_timeout,
DF_handle_mm_events,
DF_handle_cc_events,
DF_handle_any_timeout,
DF_handle_unexpected_events
Comments : Initial state: T-00
An FT authentication procedure interrupting this procedure will be handled in DF_handle_mm_events. The termination of accessrights will be tested by attempting an indirect link establishment. If this is possible after the termination of accessrights, the test fails.
ETS 300 175-5 [5], subclause 13.5.2 – ETS 300 444 [10], subclause 8.31

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+PR_goto_t00			
2		+STP_indirect_link_establishment			
3		START T_F_MM_access_2			1)
4		DLS ! DL_DATA_REQ	DI_data_req(TSV_dlei_value, Access_rights_term_requ est_tx01)		2)
5	B1	DLS ? DL_DATA_IND CANCEL T_F_MM_access_2	DI_data_ind(TSV_dlei_value, Access_rights_term_rejec t_rx_base)	(FAIL)	3)
6		+PO_release_link			
7	B2	DLS ? DL_DATA_IND CANCEL T_F_MM_access_2	DI_data_ind(TSV_dlei_value, Access_rights_term_acce pt_rx_base)	(PASS)	4)
8		+PO_release_link			
9		(TCV_count := 0)			
10		REPEAT STP_perform_paging UNTIL [(TCV_count = 3) OR (TCV_result = TRUE)]			
11	B3	[TCV_result = TRUE]		(FAIL)	5)
12		+PO_release_link			
13	B4	[TCV_result = FALSE]		(PASS)	6)
14		+PO_terminate			

Detailed Comments : 1) Start the T_F_MM_access_2 timer. Its timeout is handled in DF_handle_mm_timeout
2) Specify portable id IPUI and fixed id PARK to be deleted. A possible FT authentication in the middle of the procedure, is handled in DF_handle_mm_events.
3) A reject is received. Something went wrong.
4) The accessrights are terminated.
5) Testcase failed, if the PT answers to a paging request.
6) Testcase passed, if the PT does not answer a paging request.

Test Case Dynamic Behaviour

Test Case Name : TC_PT_MM_BV_AR_06
Group : PT/MM/BV/AR/
Purpose : Verify that the IUT, if requested by the FT to terminate the access rights, will first try to authenticate the FT and if this procedure fails, rejects the access rights terminate procedure.
Configuration :
Default : DF_handle_mm_timeout,
DF_handle_mm_events,
DF_handle_cc_events,
DF_handle_any_timeout,
DF_handle_unexpected_events
Comments : Initial state: T-00
See ETS 300 175-5 [5], subclause 13.5.2 – ETS 300 444 [10], subclause 8.31.2.1

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+PR_goto_t00			
2		+STP_indirect_link_establishment			
3		START T_F_MM_access_2			1)
4		DLS ! DL_DATA_REQ	DI_data_req(TSV_dlei_value, Access_rights_term_requ est_tx01)		2)
5	B1	DLS ? DL_DATA_IND(TCV_pdu_auth_request := DL_DATA_IND.message_unit, TCV_rand := TCV_pdu_auth_request.rand.field)	DI_data_ind(TSV_dlei_value, Auth_request_rx01)	(PASS)	3)
6		(TCV_res_tx := TSO_cinpt_bitstr_inc(TSO_cinpt_algosb1_a1(TSC_rand, TSC_rs, TSV_uak)))			4)
7		DLS ! DL_DATA_REQ	DI_data_req(TSV_dlei_value, Auth_reply_tx01(TCV_res _tx))		4)
8	B2	DLS ? DL_DATA_IND CANCEL T_F_MM_access_2	DI_data_ind(TSV_dlei_value, Access_rights_term_rejec t_rx_base)	(PASS)	5)
9		+PO_release_link			
10	B3	DLS ? DL_DATA_IND CANCEL T_F_MM_access_2	DI_data_ind(TSV_dlei_value, Access_rights_term_acce pt_rx_base)	(FAIL)	6)
11		+PO_release_link			

Detailed Comments : 1) Start the T_F_MM_access_2 timer. Its timeout is handled in DF_handle_mm_timeout
2) Specify portable id IPUI and fixed id PARK to be deleted.
3) Authentication shall be based on UAK, and with DSAA algorithm.
4) A wrong RES value is calculated and sent back to fail the authentication of FT procedure.
5) Testcase passed, if the request for the access rights fails.
6) Testcase failed, if the request for the access rights passes.

Test Case Dynamic Behaviour					
Test Case Name : TC_PT_MM_BV_AR_09 Group : PT/MM/BV/AR/ Purpose : Verify that the IUT, on receipt of the {ACCESS-RIGHTS-ACCEPT} message containing the information element <<ZAP-FIELD>>, will store this information. Configuration : Default : DF_handle_mm_timeout, DF_handle_mm_events, DF_handle_cc_events, DF_handle_any_timeout, DF_handle_unexpected_events Comments : Initial state: T-00 See ETS 300 175-5 [5], subclause 13.5.1 – ETS 300 444 [10], subclause 8.30					
Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1	B1	+PR_t00_no_acrgh			1)
2		+STP_invoke_obtain_accessrights			2)
3		+STP_handle_direct_link_est			
4		DLS ? DL_DATA_IND(TCV_pdu_acrgh_request := DL_DATA_IND.message_unit, TCV_ie_auth_type := TCV_pdu_acrgh_request.auth_type)	DI_data_ind(TSV_dlei_value, Access_rights_request_rx 01)	(PASS)	3)
5		+STP_perform_key_allocation			4)
6		DLS ! DL_DATA_REQ(TCV_pdu_acrgh_accept := DL_DATA_REQ.message_unit, TCV_pdu_acrgh_accept.auth_type := TCV_ie_auth_type, DL_DATA_REQ.message_unit := TCV_pdu_acrgh_accept)	DI_data_req(TSV_dlei_value, Access_rights_accept_tx 06)		5)
7		+STP_perform_pt_authentication(Auth_request_tx01, Auth_reply_rx04)			6)
8		+PO_release_link			
Detailed Comments : 1) Remove accessrights 2) Invoke the accessrights procedure. 3) Auth_type ie has to be present, auth_key_type shall refer to AC. Portable-id should be of type IPEI or IPUI-N. Terminal Capability shall be present. Value as specified in PIXIT. Copy auth_type in TCV_ie_auth_type in order to send it back to the IUT 4) Perform key allocation in order to be able to authenticate PT on UAK 5) ZAP field is stored. LT sends back <<AUTH_TYPE>>. 6) Check the storage of the ZAP value.					

Test Case Dynamic Behaviour

Test Case Name : TC_PT_MM_BV_AR_10
Group : PT/MM/BV/AR/
Purpose : Verify that the IUT, on receipt of the {ACCESS-RIGHTS-ACCEPT} message containing the information element <<SERVICE-CLASS>>, will store this information.
Configuration :
Default : DF_handle_mm_timeout,
DF_handle_mm_events,
DF_handle_cc_events,
DF_handle_any_timeout,
DF_handle_unexpected_events
Comments : Initial state: T-00
ETS 300 175-5 [5], , subclause 13.5.1 – ETS 300 323-1 [44], subclause 5.3.2.10

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1	B1	+PR_t00_no_acrght			1)
2		+STP_invoke_obtain_accessrights			2)
3		+STP_handle_direct_link_est			
4		DLS ? DL_DATA_IND(TCV_pdu_acrght_request := DL_DATA_IND.message_unit, TCV_ie_auth_type := TCV_pdu_acrght_request.auth_type)	DI_data_ind(TSV_dlei_value, Access_rights_request_rx 01)	(PASS)	3)
5		+STP_perform_key_allocation			4)
6		DLS ! DL_DATA_REQ(TCV_pdu_acrght_accept := DL_DATA_REQ.message_unit, TCV_pdu_acrght_accept.auth_type := TCV_ie_auth_type, DL_DATA_REQ.message_unit := TCV_pdu_acrght_accept)	DI_data_req(TSV_dlei_value, Access_rights_accept_tx 07)		5)
7		+STP_perform_pt_authentication(Auth_request_tx01, Auth_reply_rx05)			6)
8		+PO_release_link			

Detailed Comments : 1) Remove accessrights
2) Invoke the accessrights procedure.
3) Auth_type ie has to be present, auth_key_type shall refer to AC. Portable-id should be of type IPEI or IPUI-N. Terminal Capability shall be present. Value as specified in PIXIT.
Copy auth_type in TCV_ie_auth_type in order to send it back to the IUT
4) Perform key allocation in order to be able to authenticate PT on UAK
5) Service class is stored. LT sends back <<AUTH_TYPE>>.
6) Check the storage of the service class value.

Test Case Dynamic Behaviour					
<p>Test Case Name : TC_PT_MM_BV_KA_01 Group : PT/MM/BV/KA/ Purpose : Verify that the IUT is able to operate the basic key allocation procedure. Configuration : Default : DF_handle_mm_timeout, DF_handle_mm_events, DF_handle_cc_events, DF_handle_unexpected_events Comments : Initial state: T-00 This testcase will implicitly also test the AC to bistripping mapping, as specified in ETS 300 444 [10], subclause 14.2. The UAK is calculated, and stored in TSV_uak. ETS 300 175-5 [5], subclause 13.6 – ETS 300 444 [10], subclause 8.32</p>					
Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+PR_t00_no_key			1)
2		+STP_indirect_link_establishment			
3		START T_F_MM_key_1			
4		DLS ! DL_DATA_REQ	DI_data_req(TSV_dlei_value, Key_allocate_tx01)		2)
5	B1	DLS ? DL_DATA_IND(TCV_pdu_auth_request := DL_DATA_IND.message_unit, TCV_rand := TCV_pdu_auth_request.rand.field) CANCEL T_F_MM_key_1	DI_data_ind(TSV_dlei_value, Auth_request_rx02)	(PASS)	3)
6		(TCV_res_tx := TSO_cinpt_algosb1_a2(TCV_rand, TSC_rs, TSO_cinpt_convert_ac_to_bitstring(TSPX_decimal_ac_value)), TSV_uak := TSO_cinpt_algosb1_a21(TSC_rs, TSO_cinpt_convert_ac_to_bitstring(TSPX_decimal_ac_value)))			4)
7		DLS ! DL_DATA_REQ	DI_data_req(TSV_dlei_value, Auth_reply_tx02(TCV_res_tx))		5)
8		+STP_perform_pt_authentication (Auth_request_tx01, Auth_reply_rx03)			6)
9		+PO_release_link			
<p>Detailed Comments : 1) A special preamble PR_t00_no_key ensures that no keys are allocated. 2) Send a key allocation request 3) Wait for the auth_request answer, and store the received res value. 4) Calculate the res value and the UAK. 5) Send a auth_reply with the correct res value. 6) Perform a PT authentication afterward, based on the UAK, in order to check whether or not the calculated UAK is stored correctly. No ZAP and service class is assumed to be present in the PT.</p>					

Test Case Dynamic Behaviour

Test Case Name : TC_PT_MM_BV_KA_02
Group : PT/MM/BV/KA/
Purpose : Verify that the IUT is able to send an {AUTH_REJECT} message as a response to the key allocation procedure when the <<Allocation type>> information element is not acceptable.
Configuration :
Default : DF_handle_mm_timeout,
DF_handle_mm_events,
DF_handle_cc_events,
DF_handle_unexpected_events
Comments : Initial state: T-00
ETS 300 175-5 [5], subclause 13.6 – ETS 300 444 [10], subclause 8.32

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+PR_t00_no_key			1)
2		+STP_indirect_link_establishment			
3		START T_F_MM_key_1			
4		DLS ! DL_DATA_REQ	DI_data_req(TSV_dlei_value, Key_allocate_tx02)		2)
5	B1	DLS ? DL_DATA_IND CANCEL T_F_MM_key_1	DI_data_ind(TSV_dlei_value, Auth_reject_rx_base)	(PASS)	3)
6		+PO_release_link			

Detailed Comments : 1) A special preamble PR_t00_no_key ensures that no keys are allocated.
2) Send a key allocation request with an unacceptable allocation type ie.
3) Wait for the Authentication reject.

Test Case Dynamic Behaviour

Test Case Name : TC_PT_MM_BV_KA_03
Group : PT/MM/BV/KA/
Purpose : Verify that after failure of the authentication of FT as part of the key allocation procedure, the PT retains the AC and does not convert it into a UAK.
Configuration :
Default : DF_handle_mm_timeout,
DF_handle_mm_events,
DF_handle_cc_events,
DF_handle_unexpected_events
Comments : Initial state: T-00
ETS 300 175-5 [5], subclause 13.6 – ETS 300 444 [10], subclause 8.32

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+PR_t00_no_key			1)
2		+STP_indirect_link_establishment			
3		START T_F_MM_key_1			
4		DLS ! DL_DATA_REQ	DI_data_req(TSV_dlei_value, Key_allocate_tx01)		2)
5	B1	DLS ? DL_DATA_IND(TCV_pdu_auth_request := DL_DATA_IND.message_unit, TCV_rand := TCV_pdu_auth_request.rand.field) CANCEL T_F_MM_key_1	DI_data_ind(TSV_dlei_value, Auth_request_rx02)	(PASS)	3)
6		(TCV_res_tx := TSO_cinpt_bitstr_inc(TSO_cinpt_algosb1_a1(TSC_rand, TSC_rs, TSV_uak)))			4)
7		DLS ! DL_DATA_REQ	DI_data_req(TSV_dlei_value, Auth_reply_tx02(TCV_res_tx))		4)
8		+STP_invoke_ft_authentication			5)
9	B2	DLS ? DL_DATA_IND CANCEL T_USER_INVOKE	DI_data_ind(TSV_dlei_value, Auth_request_rx01)	(FAIL)	6)
10		+PO_release_link			
11	B3	DLS ? DL_DATA_IND CANCEL T_USER_INVOKE	DI_data_ind(TSV_dlei_value, Auth_request_rx03)	(PASS)	7)
12		+STP_handle_ft_auth_resp			
13		+PO_release_link			

Detailed Comments : 1) A special preamble PR_t00_no_key ensures that no keys are allocated.
2) Send a key allocation request.
3) Wait for the auth_request answer, and store the received res value.
4) Send an auth_reply with a wrong res value to fail the authentication of FT procedure.
5) Invoke authentication of FT
6) Testcase fails, authentication based on UAK
7) Testcase passes, authentication based on AC.

Test Case Dynamic Behaviour

Test Case Name : TC_PT_MM_BV_CH_01
Group : PT/MM/BV/CH/
Purpose : Verify that the IUT, being in unciphered mode, is able to operate the basic PT initiated cipher-switching procedure requesting "cipher-on".
Configuration :
Default : DF_handle_mm_invokation,
DF_handle_mm_timeout,
DF_handle_mm_events,
DF_handle_cc_events,
DF_handle_any_timeout,
DF_handle_unexpected_events
Comments : Initial state: specified in PIXIT
A precondition to this testcase, is that a valid dck is present in the testsuite variable TSV_dck
The correct functioning of the cipher procedure is tested by executing an identification of PT procedure afterward.
ETS 300 175-5 [5], subclause 13.8 – ETS 300 444 [10], subclause 8.34

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+PR_select_state (TSPX_mmproc_cipt_ccstate)			1)
2		+STP_invoke_pt_init_ciphering_on			
3	B1	DLS ? DL_DATA_IND	DI_data_ind(TSV_dlei_value, Cipher_suggest_rx01)	(PASS)	2)
4		DLS ! DL_ENC_KEY_REQ	DI_enc_key_req(TSV_dlei_value, TSV_dck_value)		3)
5		START T_F_MM_cipher_1			
6		DLS ! DL_DATA_REQ	DI_data_req(TSV_dlei_value, Cipher_request_tx02)		
7	B2	DLS ? DL_ENCRYPT_IND CANCEL T_F_MM_cipher_1	DI_enc_ind(TSV_dlei_value, TSC_cs_enabled)	(PASS)	4)
8		+STP_check_id_in_pt(Identity_re quest_tx01, Identity_reply_rx01)			5)
9		+PO_release_link			
10	B3	DLS ? DL_DATA_IND CANCEL T_F_MM_cipher_1	DI_data_ind(TSV_dlei_value, Cipher_reject_rx01)	(FAIL)	6)
11		+PO_release_link			

Detailed Comments : 1) Select the state appropriate for testing of pt initiated ciphering.
2) Receive message with request to switch ciphering on.
3) Pass dck value to DLC.
4) Wait for the DL_ENCRYPT_IND with ciphering status 'enabled', and then cancel the timer. The expiry of the timer is handled in DF_handle_mm_timeout.
5) Execute a PT identification procedure, in order to test if communication is still possible.
6) The ciphering request was rejected by the IUT.

Test Case Dynamic Behaviour					
Test Case Name : TC_PT_MM_BV_CH_02 Group : PT/MM/BV/CH/ Purpose : Verify that the IUT, being in ciphered mode, is able to operate the basic PT initiated cipher-switching procedure requesting "cipher-off". Configuration : Default : DF_handle_mm_invokation, DF_handle_mm_timeout, DF_handle_mm_events, DF_handle_cc_events, DF_handle_any_timeout, DF_handle_unexpected_events Comments : Initial state: specified in PIXIT A precondition to this testcase, is that a valid dck is present in the testsuite variable TSV_dck ETS 300 175-5 [5], subclause 13.8 – ETS 300 444 [10], subclause 8.34					
Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+PR_select_state (TSPX_mmproc_cipt_ccstate)			1)
2		+STP_perform_ft_init_ciphering_on			2)
3		+STP_invoke_pt_init_ciphering_off			3)
4	B1	DLS ? DL_DATA_IND CANCEL T_USER_INVOKE	DI_data_ind(TSV_dlei_value, Cipher_suggest_rx02)	(PASS)	4)
5		START T_F_MM_cipher_1			
6		DLS ! DL_DATA_REQ	DI_data_req(TSV_dlei_value, Cipher_request_tx03)		5)
7	B2	DLS ? DL_ENCRYPT_IND CANCEL T_F_MM_cipher_1	DI_enc_ind(TSV_dlei_value, TSC_cs_disabled)	(PASS)	6)
8		+PO_release_link			
9	B3	DLS ? DL_DATA_IND CANCEL T_F_MM_cipher_1	DI_data_ind(TSV_dlei_value, Cipher_reject_rx01)	(FAIL)	7)
10		+PO_release_link			
Detailed Comments : 1) Select the state appropriate for testing of pt initiated ciphering. After this teststep, a link is present. 2) Switch on ciphering, LT initiated. 3) Now invoke the IUT to switch off ciphering. 4) Receive message with request to switch ciphering off. 5) Send a cipher request to switch ciphering off. 6) Wait for the DL_ENCRYPT_IND with ciphering status 'disabled', and then cancel the timer. The expiry of the timer is handled in DF_handle_mm_timeout. 7) The ciphering request was rejected by the IUT.					

Test Case Dynamic Behaviour					
Test Case Name : TC_PT_MM_BV_CH_03 Group : PT/MM/BV/CH/ Purpose : Verify that the IUT, being in unciphered mode, is able to operate the basic FT initiated cipher-switching procedure requesting "cipher-on". Configuration : Default : DF_handle_mm_timeout, DF_handle_mm_events, DF_handle_any_timeout, DF_handle_unexpected_events Comments : Initial state: T-00 A precondition to this testcase, is that a valid dck is present in the testsuite variable TSV_dck ETS 300 175-5 [5], subclause 13.8 – ETS 300 444 [10], subclause 8.33					
Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+PR_goto_t00			
2		+STP_indirect_link_establishment			1)
3		DLS ! DL_ENC_KEY_REQ	DI_enc_key_req(TSV_dlei_value, TSV_dck_value)		3)
4		START T_F_MM_cipher_1			
5		DLS ! DL_DATA_REQ	DI_data_req(TSV_dlei_value, Cipher_request_tx01)		2)
6	B1	DLS ? DL_ENCRYPT_IND CANCEL T_F_MM_cipher_1	DI_enc_ind(TSV_dlei_value, TSC_cs_enabled)	(PASS)	4)
7	B2	DLS ? DL_DATA_IND CANCEL T_F_MM_cipher_1	DI_data_ind(TSV_dlei_value, Cipher_reject_rx_base)	(FAIL)	5)
Detailed Comments : 1) Establish link 2) Send ciphering request 3) Pass dck value to DLC 4) Wait for the DL_ENCRYPT_IND with ciphering status 'enabled', and then cancel the timer. The expiry of the timer is handled in DF_handle_mm_timeout. 5) The ciphering request was rejected by the IUT.					

Test Case Dynamic Behaviour					
<p>Test Case Name : TC_PT_MM_BV_CH_04 Group : PT/MM/BV/CH/ Purpose : Verify that the IUT, being in ciphered mode, is able to operate the basic FT initiated cipher-switching procedure requesting "cipher-off". Configuration : Default : DF_handle_mm_timeout, DF_handle_mm_events, DF_handle_cc_events, DF_handle_any_timeout, DF_handle_unexpected_events Comments : Initial state: specified in PIXIT A precondition to this testcase, is that a valid dck is present in the testsuite variable TSV_dck ETS 300 175-5 [5], subclause 13.8 – ETS 300 444 [10], subclause 8.33</p>					
Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+PR_goto_t00			
2		+STP_indirect_link_establishment			1)
3		+STP_perform_ft_init_ciphering_on			2)
4		START T_F_MM_cipher_1			
5		DLS ! DL_DATA_REQ	DI_data_req(TSV_dlei_value, Cipher_request_tx04)		3)
6	B1	DLS ? DL_ENCRYPT_IND CANCEL T_F_MM_cipher_1	DI_enc_ind(TSV_dlei_value, TSC_cs_disabled)	(PASS)	4)
7		+PO_release_link			
8	B2	DLS ? DL_DATA_IND CANCEL T_F_MM_cipher_1	DI_data_ind(TSV_dlei_value, Cipher_reject_rx_base)	(FAIL)	5)
9		+PO_release_link			
<p>Detailed Comments : 1) Establish link 2) Switch on ciphering, LT initiated. 3) Now switch off ciphering again. 4) Wait for the DL_ENCRYPT_IND with ciphering status 'disabled', and then cancel the timer. The expiry of the timer is handled in DF_handle_mm_timeout. 5) The ciphering request was rejected by the IUT.</p>					

Test Case Dynamic Behaviour

Test Case Name : TC_PT_MM_BV_CH_05
Group : PT/MM/BV/CH/
Purpose : Verify that the IUT, being in unciphered mode, on receipt of a {CIPHER-REQUEST} message containing unacceptable algorithm or key and requesting "cipher-on", will reject the request.
Configuration :
Default : DF_handle_mm_timeout,
DF_handle_mm_events,
DF_handle_any_timeout,
DF_handle_unexpected_events
Comments : Initial state: T-00
A precondition to this testcase, is that a valid dck is present in the testsuite variable TSV_dck
ETS 300 175-5 [5], subclause 13.8 – ETS 300 444 [10], subclause 8.33

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+PR_goto_t00			1)
2		+STP_indirect_link_establishment			
3		DLS ! DL_ENC_KEY_REQ	DI_enc_key_req(TSV_dlei_value,TSV_dck_value)		3)
4		START T_F_MM_cipher_1			
5		DLS ! DL_DATA_REQ	DI_data_req(TSV_dlei_value, Cipher_request_tx05)		2)
6	B1	DLS ? DL_DATA_IND CANCEL T_F_MM_cipher_1	DI_data_ind(TSV_dlei_value, Cipher_reject_rx_base)	(PASS)	4)
7	B2	DLS ? DL_ENCRYPT_IND CANCEL T_F_MM_cipher_1	DI_enc_ind(TSV_dlei_value, TSC_cs_enabled)	(FAIL)	5)

Detailed Comments : 1) Select the state appropriate for testing of pt initiated ciphering.
2) Send ciphering request with an unacceptable ciphering algorithm in the cipher info ie.
3) Pass dck value to DLC
5) When the ciphering request is rejected by the IUT, the test passes.
4) If the encryption is enabled, the test fails.

Test Case Dynamic Behaviour					
Test Case Name : TC_PT_MM_BO_01					
Group : PT/MM/BO/					
Purpose : Verify that the IUT ignores the unexpected message {ACCESSRIGHTS-ACCEPT} after the IUT has initiated the location registration procedure.					
Configuration :					
Default : DF_handle_mm_timeout, DF_handle_mm_events, DF_handle_any_timeout, DF_handle_unexpected_events					
Comments : Initial state: T-00 ETS 300 175-5 [5], subclause 17.4.4 – ETS 300 444 [10], subclause 13.1					
Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1	B1	+PR_goto_t00		(PASS)	1)
2		+STP_change_location_area			2)
3		+STP_handle_direct_link_est			3)
4		DLS ? DL_DATA_IND CANCEL T_EXPECT_LOCATE	DI_data_ind(TSV_dlei_value, Locate_request_rx01)		4)
5		DLS ! DL_DATA_REQ	DI_data_req(TSV_dlei_value, Access_rights_accept_tx 01)		5)
6		DLS ! DL_DATA_REQ START T_F_MM_ident_1	DI_data_req(TSV_dlei_value, Locate_accept_tx02)		
7		DLS ? DL_DATA_IND CANCEL T_F_MM_ident_1	DI_data_ind(TSV_dlei_value, Temporary_id_assign_ack _rx_base)		
8		+PO_release_link			
Detailed Comments : 1) Initial state: T-00 2) Change the location area broadcasted by the LT. Timer T_EXPECT_LOCATE is started. The expiry of the timer is handled in DF_handle_any_timeout 3) Receive a locate request message as specified in ETS 300 444, subclause 8.25 4) LT sends back an access rights accept, which is unexpected from the IUT. 5) Send back a locate accept, with a portable id containing a TPUI. The resulting TPUI assign ack is handled in the default DF_handle_mm_events					

Test Case Dynamic Behaviour

Test Case Name : TC_PT_MM_BI_01
Group : PT/MM/BI/
Purpose : Verify that the IUT ignores an invalid message with an unrecognised message type.
Configuration :
Default : DF_handle_mm_timeout,
DF_handle_mm_events,
DF_handle_cc_events,
DF_handle_any_timeout,
DF_handle_unexpected_events
Comments : Initial state: T-00
An identity request is sent, but the identity_request message is wrong. IUT should ignore.
See ETS 300 175-5 [5], subclause 17.4.4 – See ETS 300 444 [10], subclause 6.9.4

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+PR_goto_t00			
2		+STP_indirect_link_establishment			
3		START T_F_MM_ident_2			
4		DLS ! DL_DATA_REQ	DI_data_req(TSV_dlei_value, Bi_mm_unrec_tx_base)		1)
5	B1	DLS ? DL_DATA_IND CANCEL T_F_MM_ident_2	DI_data_ind(TSV_dlei_value, Identity_reply_rx01)	(FAIL)	2)
6	B2	? TIMEOUT T_F_MM_ident_2		(PASS)	3)
7		+PO_release_link			

Detailed Comments : 1) LT sends unrecognised message with wrong message type.
2) Testcase failed, if IUT does not ignore wrong message.
3) Testcase passed, if IUT ignores the message with the wrong message type.

Test Case Dynamic Behaviour

Test Case Name : TC_PT_MM_BI_02
Group : PT/MM/BI/
Purpose : Verify that the IUT's response to a {CIPHER-REQUEST} message with invalid <<cipher info>> information element is the sending of a {CIPHER-REJECT} message.
Configuration :
Default : DF_handle_mm_timeout,
DF_handle_mm_events,
DF_handle_cc_events,
DF_handle_any_timeout,
DF_handle_unexpected_events
Comments : Initial state:
See ETS 300 175-5 [5], subclause 17.6.4 – See ETS 300 444 [10], subclause 6.9.4

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+PR_goto_t00			
2		+STP_indirect_link_establishment			
3		START T_F_MM_cipher_1			
4		DLS ! DL_DATA_REQ	DI_data_req(TSV_dlei_value, Bi_cipher_request_tx01)		1)
5	B1	DLS ? DL_DATA_IND CANCEL T_F_MM_cipher_1	DI_data_ind(TSV_dlei_value, Cipher_reject_rx_base)	(PASS)	2)
6		+PO_release_link			

Detailed Comments : 1) LT sends {CIPHER-REQUEST} message with invalid <<cipher info>> ie, here with invalid cipher algorithm.
2) Testcase passed, if IUT rejects the wrong message.

Test Case Dynamic Behaviour

Test Case Name : TC_PT_MM_BI_03
Group : PT/MM/BI/
Purpose : Verify that the IUT, on receipt of an {AUTHENT-REQUEST} message without <<rand>> information element, sends back an {AUTH-REJECT} message.
Configuration :
Default : DF_handle_mm_timeout,
DF_handle_mm_events,
DF_handle_cc_events,
DF_handle_any_timeout,
DF_handle_unexpected_events
Comments : Initial state:
See ETS 300 175-5 [5], subclause 17.6.4 – See ETS 300 444 [10], subclause 6.9.4

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+PR_goto_t00			
2		+STP_indirect_link_establishment			
3		START T_F_MM_auth_1			
4		DLS ! DL_DATA_REQ	DI_data_req(TSV_dlei_value, Bi_auth_request_tx01)		1)
5	B1	DLS ? DL_DATA_IND CANCEL T_F_MM_auth_1	DI_data_ind(TSV_dlei_value, Auth_reply_rx_base)	(FAIL)	2)
6	B2	DLS ? DL_DATA_IND CANCEL T_F_MM_auth_1	DI_data_ind(TSV_dlei_value, Auth_reject_rx_base)	(PASS)	3)
7		+PO_release_link			

Detailed Comments : 1) LT sends unrecognised message with wrong message type.
2) Testcase failed, if IUT does not ignore wrong message.
3) Testcase passed, if IUT rejects the message with the missing ie <<rand>>.

Test Case Dynamic Behaviour

Test Case Name : TC_PT_MM_BI_04
Group : PT/MM/BI/
Purpose : Verify that the IUT, during a PT-initiated Obtain access rights procedure ignores an {ACCESS-RIGHTS-ACC} message containing a <<portable-id>> information element with invalid content.
Configuration :
Default : DF_handle_mm_timeout,
DF_handle_mm_events,
DF_handle_cc_events,
DF_handle_any_timeout,
DF_handle_unexpected_events
Comments : Initial state: No accessrights
See ETS 300 175-5 [5], subclause 17.6.4 – See ETS 300 444 [10], subclause 6.9.4

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+PR_t00_no_acrgh			1)
2		+STP_invoke_obtain_accessrights			2)
3		+STP_handle_direct_link_est			
4	B1	DLS ? DL_DATA_IND(TCV_pdu_acrgh_request := DL_DATA_IND.message_unit, TCV_ie_auth_type := TCV_pdu_acrgh_request.auth_type)	DI_data_ind(TSV_dlei_value, Access_rights_request_rx 01)	(PASS)	3)
5		DLS ! DL_DATA_REQ(TCV_pdu_acrgh_accept.auth_type := TCV_ie_auth_type, DL_DATA_REQ.message_unit := TCV_pdu_acrgh_accept)	DI_data_req(TSV_dlei_value, Bi_access_rights_accept_ tx01)		4)
6		(TCV_count := 0)			
7		REPEAT STP_perform_paging UNTIL [(TCV_count = 3) OR (TCV_result = TRUE)]			
8	B3	[TCV_result = TRUE]		(FAIL)	5)
9		+PO_release_link			
10	B4	[TCV_result = FALSE]		(PASS)	6)
11		+PO_terminate			

Detailed Comments : 1) Remove accessrights
2) Invoke the accessrights procedure.
3) Auth_type ie has to be present, auth_key_type shall refer to AC. Portable-id should be of type IPEI or IPUI-N. Value as specified in PIXIT.
Copy auth_type in TCV_ie_auth_type in order to send it back to the IUT
4) LT sends back an {ACCESS-RIGHTS-ACCEPT} with a wrong <<portable-id>> ie.
LT sends back <<AUTH_TYPE>> (No ZAP field and Service class are stored.)
5) Testcase failed, if the PT answers to a paging request.
6) Testcase passed, if the PT does not answer a paging request.

Test Case Dynamic Behaviour					
<p>Test Case Name : TC_PT_MM_TI_01</p> <p>Group : PT/MM/TI/</p> <p>Purpose : Verify that the IUT, when the timer P-<MM_auth.1> as part of the key allocation procedure expires after the defined time (+ 5%), aborts the procedure and thus allows the same priority procedure identity request of PT to proceed.</p> <p>Configuration :</p> <p>Default : DF_handle_mm_timeout, DF_handle_mm_events, DF_handle_cc_events, DF_handle_unexpected_events</p> <p>Comments : Initial state: T-00 The UAK is calculated, and stored in TSV_uak. ETS 300 175-5 [5], subclause 13.3.3 – ETS 300 444 [10], subclause 8.32</p>					
Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+PR_t00_no_key			
2		+STP_indirect_link_establishment			
3		START T_F_MM_key_1			
4		DLS ! DL_DATA_REQ	DI_data_req(TSV_dlei_value, Key_allocate_tx01)		1)
5	B1	DLS ? DL_DATA_IND START T_P_MM_auth_1_max, CANCEL T_F_MM_key_1	DI_data_ind(TSV_dlei_value, Auth_request_rx02)	(PASS)	2)
6		? TIMEOUT T_P_MM_auth_1_max			3)
7		+STP_check_id_in_pt(Identity_requ est_tx01, Identity_reply_rx01)			4)
8		+PO_release_link			
<p>Detailed Comments : 1) Send a key allocation request 2) Wait for the auth_request answer, and start the timer T_F_MM_auth_1_max, in order to guard the PT timer P-<MM_auth.1>. 3) When this timer expires, the PT timer should also have been expired. 4) Check this by performing an identification request. The id request should be able to proceed if the key allocation procedure has been aborted.</p>					

Test Case Dynamic Behaviour

Test Case Name : TC_PT_MM_TI_02
Group : PT/MM/TI/
Purpose : Verify that the IUT is capable of completing the FT Authentication procedure at a point in time 10% before expiry of the timer P-<MM_auth.1>.
Configuration :
Default : DF_handle_mm_timeout,
DF_handle_mm_events,
DF_handle_cc_events,
DF_handle_unexpected_events
Comments : Initial state: T-00
A minimal timer is started, and it is checked if the procedure can still proceed.
ETS 300 175-5 [5], subclause 13.3.3 – ETS 300 444 [10], subclause 8.23

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+PR_goto_t00			
2		+STP_indirect_link_establishment			
3		+STP_invoke_ft_authentication			1)
4	B1	DLS ? DL_DATA_IND(TCV_pdu_auth_request := DL_DATA_IND.message_unit, TCV_rand := TCV_pdu_auth_request.rand.field) START T_P_MM_auth_1_min, CANCEL T_USER_INVOKE	DI_data_ind(TSV_dlei_val ue, Auth_request_rx01)	(PASS)	2)
5		(TCV_res_tx := TSO_cinpt_algosb1_a2(TCV_rand, TSC_rs, TSV_uak))			
6		? TIMEOUT T_P_MM_auth_1_min			3)
7		DLS ! DL_DATA_REQ	DI_data_req(TSV_dlei_val ue, Auth_reply_tx01(TCV_res _tx))		
8		+STP_handle_ft_auth_resp			5)
9		+LTS_subtree			
		LTS_subtree			
10		+STP_check_id_in_pt(Identity_request_tx01, Identity_reply_rx01)			4)
11		+PO_release_link			

Detailed Comments : 1) Invoke authentication of FT procedure.
2) Wait for the auth_request answer for authentication of FT, and start the timer T_P_MM_auth_1_min, in order to guard the PT timer P-<MM_auth.1>.
3) When this timer expires, the PT timer should have remaining time and shall accept the response.
4) Check this by performing an identification request.
5) Handle Access Rights message if the FT Authentication procedure has been obtained by using Access Rights Terminate Request.

Test Case Dynamic Behaviour

Test Case Name : TC_PT_MM_TI_03
Group : PT/MM/TI/
Purpose : Verify that the IUT is capable of completing the Location Registration procedure at a point in time 10% before expiry of the timer P-<MM_locate.1>.
Configuration :
Default : DF_handle_mm_timeout,
DF_handle_mm_events,
DF_handle_any_timeout,
DF_handle_unexpected_events
Comments : Initial state: T-00
A minimal locate timer is started, and it is checked if the procedure can still proceed.
ETS 300 175-5 [5], subclause 13.4.1 – ETS 300 444 [10], subclause 8.28

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+PR_goto_t00			
2		+STP_change_location_area			1)
3		+STP_handle_direct_link_est			
4	B1	DLS ? DL_DATA_IND START T_P_MM_locate_1_min, CANCEL T_EXPECT_LOCATE	DI_data_ind(TSV_dlei_value, Locate_request_rx01)		2)
5		? TIMEOUT T_P_MM_locate_1_min			3)
6		START T_F_MM_ident_1			
7		DLS ! DL_DATA_REQ	DI_data_req(TSV_dlei_value, Locate_accept_tx02)		3)
8	B2	DLS ? DL_DATA_IND CANCEL T_F_MM_ident_1	DI_data_ind(TSV_dlei_value, Temporary_id_assign_ack _rx_base)	(PASS)	4)
9	B3	? TIMEOUT T_F_MM_ident_1		(FAIL)	5)
10		+PO_release_link			

Detailed Comments : 1) Change the location area.
2) Wait for the location request to occur. Start timer T_F_MM_locate_1_min, in order to guard the PT timer P-<MM_locate.1>.
3) When this timer expires, send the locate accept, containing a TPUI assignment.
4) The IUT should send back a TPUI assign ack.
5) If T_F_MM_ident_1 times out, the test fails.

Test Case Dynamic Behaviour					
Test Case Name : TC_PT_MM_TI_04 Group : PT/MM/TI/ Purpose : Verify that the IUT is capable of obtaining Access Rights at a point in time 10% before expiry of the timer P-<MM_access.1>. Configuration : Default : DF_handle_mm_timeout, DF_handle_mm_events, DF_handle_any_timeout, DF_handle_unexpected_events Comments : Initial state: T-00 A minimal access rights timer is started, and it is checked if the procedure can still proceed. ETS 300 175-5 [5], subclause 13.5.1 – ETS 300 444 [10], subclause 8.30					
Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1	B1	+PR_t00_no_acrght		(PASS)	1)
2		+STP_invoke_obtain_accessrights			
3		+STP_handle_direct_link_est			
4		DLS ? DL_DATA_IND START T_P_MM_access_1_min	DI_data_ind(TSV_dlei_value, Access_rights_request_rx 01)		
5		? TIMEOUT T_P_MM_access_1_min			
6		DLS ! DL_DATA_REQ	DI_data_req(TSV_dlei_value, Access_rights_accept_tx 01)		
7		+STP_check_id_in_pt(Identity_requ est_tx02, Identity_reply_rx02)			
8		+PO_release_link			
Detailed Comments : 1) Wait for access rights request occur. Start timer T_P_MM_access_1_min, in order to guard the PT timer P-<MM_access.1>. 2) When this timer expires, send access rights accept. 3) Check identities in PT, and see whether IPUI/PARK are stored.					

Test Case Dynamic Behaviour

Test Case Name : TC_PT_MM_TI_05
Group : PT/MM/TI/
Purpose : Verify that the IUT is capable of completing the PT initiated Ciphering procedure at a point in time 10% before expiry of the timer P-<MM_cipher.2>.
Configuration :
Default : DF_handle_mm_invokation,
DF_handle_mm_timeout,
DF_handle_mm_events,
DF_handle_any_timeout,
DF_handle_unexpected_events
Comments : Initial state: T-00
A minimal cipher timer is started, and it is checked if the procedure can still proceed.
See ETS 300 175-5 [5], subclause 13.8 (PT initiated cipher switching) – ETS 300 444 [10], subclause 8.34

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+PR_select_state (TSPX_mmproc_cipt_ccstate)			1)
2		+STP_invoke_pt_init_ciphering_on			
3		DLS ? DL_DATA_IND START T_P_MM_cipher_2_min, CANCEL T_USER_INVOKE	DI_data_ind(TSV_dlei_value, Cipher_suggest_rx01)		2)
4		? TIMEOUT T_P_MM_cipher_2_min			3)
5		DLS ! DL_ENC_KEY_REQ	DI_enc_key_req(TSV_dlei_value, TSV_dck_value)		
6		DLS ! DL_DATA_REQ	DI_data_req(TSV_dlei_value, Cipher_request_tx02)		4)
7	B2	DLS ? DL_ENCRYPT_IND CANCEL T_F_MM_cipher_1	DI_enc_ind(TSV_dlei_value, TSC_cs_enabled)	(PASS)	5)
8		+PO_release_link			
9	B3	DLS ? DL_DATA_IND CANCEL T_F_MM_cipher_1	DI_data_ind(TSV_dlei_value, Cipher_reject_rx01)	(FAIL)	
10		+PO_release_link			

Detailed Comments : 1) Select the state appropriate for testing of pt initiated ciphering.
2) A release indication is considered to be valid.
3) Again start a timer after receiving the ciphering suggest.
4) Proceed with ciphering procedure.
5) Test case passes, if IUT sends encryption ind.

Test Case Dynamic Behaviour

Test Case Name : TC_PT_ME_BV_01
Group : PT/ME/BV/
Purpose : Verify that the IUT is able to operate the authentication of PT procedure before answering to the {CC-SETUP} message.
Configuration :
Default : DF_handle_sending_of_cc_notify,
DF_handle_mm_timeout,
DF_handle_mm_events,
DF_handle_cc_timeout,
DF_handle_cc_events,
DF_handle_any_timeout,
DF_handle_unexpected_events
Comments : Initial state: T-00
An outgoing call will be invoked. After receiving the cc-setup message, a pt authentication is done. If this authentication is successful completed, a cc-setup-ack message is sent, containing a progress-indicator ' inband information or appropriate pattern now available'. After this, the connection of the U-plane is checked, and the call is released.
ETS 300 175-5 [5], subclause 15.5 – ETS 300 444 [10], subclause 6.9.6

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+PR_goto_t01			1)
2		START T_RESTART_DELAY			2)
3		+STP_perform_pt_authentication(Auth_request_tx01, Auth_reply_rx03)			3)
4		DLS ! DL_DATA_REQ CANCEL T_RESTART_DELAY	DI_data_req(TSV_dlei_value, Cc_setup_ack_tx01(TCV_cc_tv, TCV_cc_lt_tf))		4)
5		+STP_check_u_plane(TSV_dlei_value)			5)
6		+PO_normal_release			

Detailed Comments : 1) Start outgoing call and receive the cc-setup.
2) Start a T_RESTART_DELAY guarding timer. If this timer times out, the default DF_handle_sending_of_cc_notify will send a CC-NOTIFY message to restart the timer.
3) Perform PT authentication. Authentication is based on UAK. No DCK is stored, ZAP value is not increased. Check if received res value matches calculated res value.
4) Send cc-setup_ack with progress-indicator ' inband information or appropriate pattern now available'.
5) Check U-plane connection

Test Case Dynamic Behaviour

Test Case Name : TC_PT_ME_BV_02
Group : PT/ME/BV/
Purpose : Verify that the IUT, if interrupted by the parameter retrieval procedure indicating "locate suggest" during the PT initiated cipher switching procedure, finishes the ciphering procedure before initiating the location registration.
Configuration :
Default : DF_handle_mm_invokation,
DF_handle_mm_timeout,
DF_handle_mm_events,
DF_handle_cc_events,
DF_handle_cc_timeout,
DF_handle_any_timeout,
DF_handle_unexpected_events
Comments : Initial state: specified in PIXIT
A precondition to this testcase, is that a valid dck is present in the testsuite variable TSV_dck.
Note: This testcase doe NOT test the acual behaviour of the location update procedure. It merely tests its interaction with other MM procedures.
ETS 300 175-5 [5], subclause 15.5 – ETS 300 444 [10], subclause 8.28

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+PR_select_state (TSPX_mmproc_cipt_ccstate)			1)
2		+STP_invoke_pt_init_ciphering_on			
3	B1	DLS ? DL_DATA_IND	DI_data_ind(TSV_dlei_value, Cipher_suggest_rx01)	(PASS)	2)
4		DLS ! DL_DATA_REQ START T_EXPECT_LOCATE	DI_data_req(TSV_dlei_value, Mm_info_suggest_tx01)		3)
5	B2	DLS ? DL_DATA_IND CANCEL T_EXPECT_LOCATE	DI_data_ind(TSV_dlei_value, Locate_request_rx01)	(FAIL)	4)
6		+PO_release_link			
7	B3	? TIMEOUT T_EXPECT_LOCATE		(PASS)	5)
8		START T_F_MM_cipher_1			
9		DLS ! DL_DATA_REQ	DI_data_req(TSV_dlei_value, Cipher_request_tx02)		
10		DLS ! DL_ENC_KEY_REQ	DI_enc_key_req(TSV_dlei_value, TSV_dck_value)		6)
11	B4	DLS ? DL_ENCRYPT_IND CANCEL T_F_MM_cipher_1	DI_enc_ind(TSV_dlei_value, TSC_cs_enabled)	(PASS)	7)
12		+PO_release_link			
13	B5	DLS ? DL_DATA_IND CANCEL T_F_MM_cipher_1	DI_data_ind(TSV_dlei_value, Cipher_reject_rx01)	(FAIL)	8)
14		+PO_release_link			

Detailed Comments : 1) Select the state appropriate for testing of pt initiated ciphering.
2) Receive message with request to switch ciphering on.
3) Send an mm_info_suggest PDU, with info type ie, containing parameter 'locate suggest', and start a timer to wait for the location registration procedure to follow.
4) If the IUT starts location registration, the test fails, because first the ciphering procedure should be completed.
5) Ther T_EXPECT_LOCATE times out, so continue with the ciphering procedure.
6) Pass dck value to DLC.
7) Wait for the DL_ENCRYPT_IND with ciphering status 'enabled', and then cancel the timer. The

Continued from previous page

Test Case Dynamic Behaviour

Detailed Comments : ...

expiry of the timer is handled in DF_handle_mm_timeout. 8) The ciphering request was rejected by the IUT.
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Test Case Dynamic Behaviour

Test Case Name : TC_PT_ME_BV_03
Group : PT/ME/BV/
Purpose : Verify that the IUT is able to perform authentication of the user request, when it interrupts an obtain access rights procedure.
Configuration :
Default : DF_handle_mm_timeout,
DF_handle_mm_events,
DF_handle_any_timeout,
DF_handle_unexpected_events
Comments : Initial state: No accessrights
First the accessrights of the IUT are revoked. Then, an accessrights procedure is invoked. After the reception of the accessrights request, a user authentication is performed. Then, the accessrights procedure is completed. The correct storage of the identities is checked.
ETS 300 175-5 [5], subclause 15.5 – ETS 300 444 [10], subclause 6.9.6

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+PR_t00_no_acrgh			1)
2		+STP_invoke_obtain_accessrights			2)
3		+STP_handle_direct_link_est			
4	B1	DLS ? DL_DATA_IND(TCV_pdu_acrgh_request := DL_DATA_IND.message_unit, TCV_ie_auth_type := TCV_pdu_acrgh_request.auth_type)	DI_data_ind(TSV_dlei_value, Access_rights_request_rx 01)	(PASS)	3)
5		+STP_perform_key_allocation			4)
6		+STP_perform_user_authentication(Auth_request_tx05, Auth_reply_rx03)			5)
7		DLS ! DL_DATA_REQ(TCV_pdu_acrgh_accept := DL_DATA_REQ.message_unit, TCV_pdu_acrgh_accept.auth_type := TCV_ie_auth_type, DL_DATA_REQ.message_unit := TCV_pdu_acrgh_accept)	DI_data_req(TSV_dlei_value, Access_rights_accept_tx 01)		6)
8		+STP_check_id_in_pt(Identity_re quest_tx01, Identity_reply_rx01)			7)
9		+STP_check_id_in_pt(Identity_r equest_tx02, Identity_reply_rx02)			
10		+PO_release_link			

Detailed Comments : 1) Remove accessrights
2) Invoke the accessrights procedure.
3) Auth_type ie has to be present, auth_key_type shall refer to AC. Portable-id should be of type IPEI or IPUI-N. Terminal Capability shall be present. Value as specified in PIXIT.
Copy auth_type in TCV_ie_auth_type in order to send it back to the IUT.
4) Perform key allocation in order to be able to authenticate PT on UAK
5) Perform a user authentication in the middle of the accessrights procedure. Authentication is based on UPI. No DCK is stored, no zap field is increased.
6) No ZAP field and Service class are stored. LT sends back <<AUTH_TYPE>>
7) Check the storage of the IPUI identity, by means of an identity request. The Identity_request_tx01 specifies a request for the portable id containing an IPUI.
The Identity_reply_rx01 matches the result of the identity request with the specified IPUI.
8) Check the storage of the PARK identity, by means of an identity request. The Identity_request_tx02 specifies a request for the fixed_id_containing a PARK
The Identity_reply_rx02 matches the result of the identity request with the specified PARK

Test Case Dynamic Behaviour

Test Case Name : TC_PT_ME_BV_04
Group : PT/ME/BV/
Purpose : Verify that the IUT is able to perform authentication of PT request, when it interrupts an obtain access rights procedure
Configuration :
Default : DF_handle_mm_timeout,
DF_handle_mm_events,
DF_handle_any_timeout,
DF_handle_unexpected_events
Comments : Initial state: No accessrights
First the accessrights of the IUT are revoked. Then, an accessrights procedure is invoked. After the reception of the accessrights request, a PT authentication is performed. Then, the accessrights procedure is completed. The correct storage of the identities is checked.
ETS 300 175-5 [5], subclause 15.5 – ETS 300 444 [10], subclause 6.9.6

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+PR_t00_no_acrgh			1)
2		+STP_invoke_obtain_accessrights			2)
3		+STP_handle_direct_link_est			
4	B1	DLS ? DL_DATA_IND(TCV_pdu_acrgh_request := DL_DATA_IND.message_unit, TCV_ie_auth_type := TCV_pdu_acrgh_request.auth_type)	DI_data_ind(TSV_dlei_value, Access_rights_request_rx 01)	(PASS)	3)
5		+STP_perform_key_allocation			4)
6		+STP_perform_pt_authentication(Au th_request_tx01, Auth_reply_rx03)			5)
7		DLS ! DL_DATA_REQ(TCV_pdu_acrgh_accept := DL_DATA_REQ.message_unit, TCV_pdu_acrgh_accept.auth_type := TCV_ie_auth_type, DL_DATA_REQ.message_unit := TCV_pdu_acrgh_accept)	DI_data_req(TSV_dlei_value, Access_rights_accept_tx 01)		6)
8		+STP_check_id_in_pt(Identity_re quest_tx01, Identity_reply_rx01)			7)
9		+STP_check_id_in_pt(Identity_r equest_tx02, Identity_reply_rx02)			8)
10		+PO_release_link			

Detailed Comments : 1) Remove accessrights
2) Invoke the accessrights procedure.
3) Auth_type ie has to be present, auth_key_type shall refer to AC. Portable-id should be of type IPEI or IPUI-N. Terminal Capability shall be present. Value as specified in PIXIT.
Copy auth_type in TCV_ie_auth_type in order to send it back to the IUT.
4) Perform key allocation in order to be able to authenticate PT on UAK
5) Perform PT authentication. Authentication is based on UAK. No DCK is stored, ZAP value is not increased.
6) No ZAP field and Service class are stored. LT sends back <<AUTH_TYPE>>
7) Check the storage of the IPUI identity, by means of an identity request. The Identity_request_tx01 specifies a request for the portable id containing an IPUI.
The Identity_reply_rx01 matches the result of the identity request with the specified IPUI.
8) Check the storage of the PARK identity, by means of an identity request. The Identity_request_tx02 specifies a request for the fixed_id_containing a PARK
The Identity_reply_rx02 matches the result of the identity request with the specified PARK

Test Case Dynamic Behaviour

Test Case Name : TC_PT_ME_BV_05
Group : PT/ME/BV/
Purpose : Verify that the IUT is able to operate the authentication of PT procedure performed in parallel with an outgoing call establishment.
Configuration :
Default : DF_handle_mm_timeout,
DF_handle_mm_events,
DF_handle_cc_timeout,
DF_handle_cc_events,
DF_handle_any_timeout,
DF_handle_unexpected_events
Comments : Initial state: T-00
An outgoing call will be invoked. After receiving the cc-setup message, the It reacts with a cc-setup-ack. Then a pt authentication request is sent, followed by the CC-CONNECT message. The authentication replys is received, and if the res value is correct , the connection of the U-plane is checked, and the call is released.
ETS 300 175-5 [5], subclause 15.5 – ETS 300 444 [10], subclause 6.9.6

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+PR_goto_t02			1)
2		START T_F_MM_auth_1			
3		DLS ! DL_DATA_REQ	DI_data_req(TSV_dlei_value, Auth_request_tx01)		2)
4		DLS ! DL_DATA_REQ	DI_data_req(TSV_dlei_value, Cc_connect_tx_base(TCV_cc_tv, TCV_cc_lt_tf))		3)
5	B1	DLS ? DL_DATA_IND (TCV_pdu_auth_reply := DL_DATA_IND.message_unit, TCV_res_rx := TCV_pdu_auth_reply.res.field) CANCEL T_F_MM_auth_1	DI_data_ind(TSV_dlei_value, Auth_reply_rx03)	(PASS)	
6		(TCV_xres := TSO_cinpt_algosb1_a1(TSC_rand, TSC_rs, TSV_uak), TSV_dck_value := TSO_cinpt_algos_dck_b1_a1(TSC_r and, TSC_rs, TSV_uak))			
7	B2	[TCV_xres = TCV_res_rx]		(PASS)	4)
8		+STP_check_u_plane(TSV_dlei_v alue)			5)
9		+PO_normal_release			
10	B3	[TCV_xres <> TCV_res_rx]		(FAIL)	6)
11		+PO_normal_release			

Detailed Comments : 1) Start outgoing call and receive the CC-SETUP. Respond to it with a CC-SETUP-ACK.
2) Perform PT authentication. Authentication is based on UAK. No DCK is stored, ZAP value is not increased.
3) Send CC-CONNECT
4) Check if received res value matches calculated res value.
4) Check U-plane connection.
6) If res value is not correct, test fails

Test Case Dynamic Behaviour

Test Case Name : TC_PT_ME_BV_06
Group : PT/ME/BV/
Purpose : Verify that the IUT is able to perform the FT initiated cipher-switching procedure in parallel with an outgoing call establishment
Configuration :
Default : DF_handle_mm_timeout,
DF_handle_mm_events,
DF_handle_cc_timeout,
DF_handle_cc_events,
DF_handle_any_timeout,
DF_handle_unexpected_events
Comments : Initial state: T-00
An outgoing call will be invoked. After receiving the cc-setup message, the It reacts with a cc-setup-ack. Then ciphering is switched on, LT initiated. If this authentication is successful completed, a cc-connect message is sent, After this, the connection of the U-plane is checked, and the call is released.
ETS 300 175-5 [5], subclause 15.5 – ETS 300 444 [10], subclause 6.9.6

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+PR_goto_t02			1)
2		+STP_perform_ft_init_ciphering_on			2)
3		DLS ! DL_DATA_REQ	DI_data_req(TSV_dlei_value, Cc_connect_tx_base(TCV_cc_tv, TCV_cc_lt_tf))		3)
4		+STP_check_u_plane(TSV_dlei_value)			4)
5		+PO_normal_release			

Detailed Comments : 1) Start outgoing call and receive the cc-setup. Respond to it with a cc-setup-ack.
2) Perform FT initiated ciphering on.
3) Send cc-connect.
4) Check U-plane connection

Test Case Dynamic Behaviour

Test Case Name : TC_PT_ME_BV_07
Group : PT/ME/BV/
Purpose : Verify that the IUT is able to perform the FT initiated cipher-switching procedure, before reception of a {CC_SETUP_ACK} message during an outgoing call establishment
Configuration :
Default : DF_handle_sending_of_cc_notify,
 DF_handle_mm_timeout,
 DF_handle_mm_events,
 DF_handle_cc_timeout,
 DF_handle_cc_events,
 DF_handle_any_timeout,
 DF_handle_unexpected_events
Comments : Initial state: T-00
 An outgoing call will be invoked. After receiving the cc-setup message, the It will switch on ciphering. If this is successfully completed, a cc-setup-ack message is sent, containing a progress-indicator ' inband information or appropriate pattern now available'. After this, the connection of the U-plane is checked, and the call is released.
 ETS 300 175-5 [5], subclause 15.5 – ETS 300 444 [10], subclauses 6.9.6

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+PR_goto_t01			1)
2		START T_RESTART_DELAY			2)
3		+STP_perform_ft_init_ciphering_on			3)
4		DLS ! DL_DATA_REQ CANCEL T_RESTART_DELAY	DI_data_req(TSV_dlei_value, Cc_setup_ack_tx01(TCV_cc_tv, TCV_cc_lt_tf))		4)
5		+STP_check_u_plane(TSV_dlei_value)			5)
6		+PO_normal_release			

Detailed Comments : 1) Start outgoing call and receive the cc-setup.
 2) Start a T_RESTART_DELAY guarding timer. If this timer times out, the default DF_handle_sending_of_cc_notify will send a CC-NOTIFY message to restart the timer.
 3) Perform FT initiated ciphering on.
 4) Send cc-setup_ack with progress-indicator ' inband information or appropriate pattern now available'.
 5) Check U-plane connection

Test Case Dynamic Behaviour

Test Case Name : TC_PT_ME_BV_08
Group : PT/ME/BV/
Purpose : Verify that the IUT is able to restart the relevant CC timer, on receipt of a {CC-NOTIFY} message, when the outgoing call setup from the IUT is interrupted by a FT initiated user authentication procedure.
Configuration :
Default : DF_handle_sending_of_cc_notify,
DF_handle_mm_timeout,
DF_handle_mm_events,
DF_handle_cc_timeout,
DF_handle_cc_events,
DF_handle_any_timeout,
DF_handle_unexpected_events
Comments : Initial state: T-00
The default DF_handle_sending_of_cc_notify will take care of the sending of the CC-NOTIFY message, when timer T_P_CC_03_min times out.
ETS 300 175-5 [5], subclause 15.5 – ETS 300 444 [10], subclause 6.9.6

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+PR_goto_t01			1)
2		START T_RESTART_DELAY			2)
3		+STP_perform_user_authentication(Auth_request_tx05, Auth_reply_rx03)			3)
4		DLS ! DL_DATA_REQ CANCEL T_RESTART_DELAY	DI_data_req(TSV_dlei_value, Cc_setup_ack_tx01(TCV_cc_tv, TCV_cc_lt_tf))		4)
5		+STP_check_u_plane(TSV_dlei_value)			5)
6		+PO_normal_release			

Detailed Comments : 1) Start outgoing call and receive the cc-setup.
2) Start a T_RESTART_DELAY guarding timer. If this timer times out, the default DF_handle_sending_of_cc_notify will send a CC-NOTIFY message to restart the timer.
3) Perform user authentication. Wait a while when entering the UPI, in order for timer TT_RESTART_DELAY to expire. This will cause a CC-NOTIFY to be sent.
4) After the successful completion of the user authentication: send cc-setup_ack with progress-indicator 'inband information or appropriate pattern now available'.
5) Check U-plane connection

Test Case Dynamic Behaviour

Test Case Name : TC_PT_ME_BV_09
Group : PT/ME/BV/
Purpose : Verify that the IUT is able to operate correctly the procedure for storing the DCK started in cipher mode. The IUT shall store the DCK, but not use it for the current ciphering session.
Configuration :
Default : DF_handle_mm_timeout,
DF_handle_mm_events,
DF_handle_cc_events,
DF_handle_any_timeout,
DF_handle_unexpected_events
Comments : Initial state: T-00
A precondition to this testcase, is that a valid dck is present in the testsuite variable TSV_dck ETS 300 175-5 [5], subclause 13.8 and 7.7.24 – ETS 300 444 [10], subclause 8.27

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+PR_goto_t00			
2		+STP_indirect_link_establishment			1)
3		+STP_perform_ft_init_ciphering_on			2)
4		+STP_perform_pt_authentication(Auth_request_tx04, Auth_reply_rx_base)			3)
5		+STP_check_id_in_pt(Identity_request_tx01, Identity_reply_rx01)			4)
6		+PO_release_link			5)

Detailed Comments : 1) Establish link
2) Switch on ciphering, LT initiated.
3) Perform PT authentication, and derive new ciphering key.
4) Check if communication is still possible, by issueing an identity request.
5) Release link

Test Case Dynamic Behaviour

Test Case Name : TC_PT_ME_BV_10
Group : PT/ME/BV/
Purpose : Verify that the IUT, if the a38 bit in the FT broadcasted "higher layer capabilities" was set to "1" and if location area changes during a CC call, will initiate location registration procedure before or after entering the T-00 state. (FT does not perform TPUI assignment.)
Configuration :
Default : DF_handle_mm_timeout,
DF_handle_mm_events,
DF_handle_cc_events,
DF_handle_any_timeout,
DF_handle_unexpected_events
Comments : Initial state: T-10
The IUT is not authenticated during the location registration.
In this testcase, we are not sure when the PT will start the location registration. It may do so:
- immediately after the change of location area, during state T-10
- After completion of the call, using the link that is already present
- After the release of the link, using a default PMID for the new link.
- Wait for the location request to follow, and reply to it.
These three cases are dealt with in this testcase. A fourth possibility is that the location registration arrives after the CC-RELEASE message, before the PT sends back a CC-RELEASE-COM. This case is handled in de default DF_handle_mm_event
ETS 300 175-5 [5], subclause 13.4.1 – ETS 300 444 [10], subclause 8.28

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+PR_goto_t10			1)
2		+STP_change_location_area			2)
3	B1	DLS ? DL_DATA_IND CANCEL T_EXPECT_LOCATE	DI_data_ind(TSV_dlei_value, Locate_request_rx01)	(PASS)	3)
4		DLS ! DL_DATA_REQ	DI_data_req(TSV_dlei_value, Locate_accept_tx01)		
5		+PO_normal_release			4)
6	B2	? TIMEOUT T_EXPECT_LOCATE		(PASS)	5)
7		+STP_cc_release_normal (TSC_It_Originated)			
8		START T_EXPECT_LOCATE			6)
9	B3	DLS ? DL_DATA_IND CANCEL T_EXPECT_LOCATE	DI_data_ind(TSV_dlei_value, Locate_request_rx01)	(PASS)	7)
10		DLS ! DL_DATA_REQ	DI_data_req(TSV_dlei_value, Locate_accept_tx01)		
11		+PO_release_link			
12	B4	? TIMEOUT T_EXPECT_LOCATE		(PASS)	8)
13		+STP_release_link			
14		START T_EXPECT_LOCATE			9)
15		+STP_handle_direct_link_est			
16	B5	DLS ? DL_DATA_IND CANCEL T_EXPECT_LOCATE	DI_data_ind(TSV_dlei_value, Locate_request_rx01)	(PASS)	10)
17		DLS ! DL_DATA_REQ	DI_data_req(TSV_dlei_value, Locate_accept_tx01)		
18		+PO_release_link			

Detailed Comments : 1) Goto active state
2) change the location area

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Test Case Dynamic Behaviour

Detailed Comments : ...

- | |
|---|
| <ul style="list-style-type: none">3) Wait for the location request to follow, and reply to it.4) Release the call, test passed.5) If T_EXPECT_LOCATE expires, first release the call.6) Start the timer T_EXPECT_LOCATE again.7) Handle a location registration.8) If this locate request does not arrive, release the link first9) Wait for the location request to follow, and handle the link establishment10) Receive location request, and reply to it. |
|---|

Test Case Dynamic Behaviour

Test Case Name : TC_PT_ME_BV_11
Group : PT/ME/BV/
Purpose : Verify that the IUT is able to operate the terminate access rights procedure before answering to the {CC-SETUP} message.
Configuration :
Default : DF_handle_sending_of_cc_notify,
DF_handle_mm_timeout,
DF_handle_mm_events,
DF_handle_cc_timeout,
DF_handle_cc_events,
DF_handle_any_timeout,
DF_handle_unexpected_events
Comments : Initial state: T-00
An outgoing call will be invoked. After receiving the cc-setup message, a terminate accessrights request is sent. An FT authentication procedure interrupting this procedure will be handled in DF_handle_mm_events. After accepting the terminate accessrights, the call is released.
ETS 300 175-5 [5], subclause 15.5 – ETS 300 444 [10], subclause 6.9.6

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+PR_goto_t01			1)
2		START T_RESTART_DELAY			2)
3		START T_F_MM_access_2			
4		DLS ! DL_DATA_REQ	DI_data_req(TSV_dlei_value, Access_rights_term_requ est_tx01)		3)
5	B1	DLS ? DL_DATA_IND CANCEL T_F_MM_access_2, CANCEL T_RESTART_DELAY	DI_data_ind(TSV_dlei_value, Access_rights_term_rejec t_rx_base)	(FAIL)	4)
6		+PO_normal_release			
7	B2	DLS ? DL_DATA_IND CANCEL T_F_MM_access_2, CANCEL T_RESTART_DELAY	DI_data_ind(TSV_dlei_value, Access_rights_term_acce pt_rx_base)	(PASS)	5)
8		(TCV_count := 0)			
9		REPEAT STP_perform_paging UNTIL [(TCV_count = 3) OR (TCV_result = TRUE)]			
10	B3	[TCV_result = TRUE]		(FAIL)	6)
11		+PO_release_link			
12	B4	[TCV_result = FALSE]		(PASS)	7)
13		+PO_terminate			

Detailed Comments : 1) Start outgoing call and receive the cc-setup.
2) Start a T_RESTART_DELAY timer. If this timer times out, the default DF_handle_sending_of_cc_notify will send a CC-NOTIFY message to restart the timer.
3) Send terminate accessrights request. An FT authentication is handled in the defaults.
4) Something went wrong. A reject is sent.
5) Accessrights are terminated.
6) Testcase failed, if the PT answers to a paging request.
7) Testcase passed, if the PT does not answer a paging request.

Test Case Dynamic Behaviour

Test Case Name : TC_PT_ME_BV_12
Group : PT/ME/BV/
Purpose : Verify that the IUT, when the link fails during an active call, will clear the call.
Configuration :
Default : DF_handle_mm_timeout,
 DF_handle_mm_events,
 DF_handle_cc_timeout,
 DF_handle_cc_events,
 DF_handle_any_timeout,
 DF_handle_unexpected_events
Comments : Initial state: T-10
 An active call will be set up. After this, the link is released. After this, the link is restored again. It is checked if the call is cleared, by sending a CC-RELEASE message. If the call is still active, a CC-RELEASE-COM is sent back. If the call is no longer active, the CC-RELEASE will be ignored. ETS 300 175-5 [5], subclause 14.2.7 – ETS 300 444 [10], subclause 8.37

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+PR_goto_t10			1)
2		+STP_release_link			2)
3		+STP_indirect_link_establishment			3)
4		DLS ! DL_DATA_REQ START T_F_CC_02	DI_data_req(TSV_dlei_value, Cc_release_tx_base(TCV_cc_tv, TCV_cc_lt_tf))		4)
5	B1	DLS ? DL_DATA_IND CANCEL T_F_CC_02	DI_data_ind(TSV_dlei_value, Cc_release_com_rx_base(TCV_cc_tv, TCV_cc_iut_tf))	(FAIL)	5)
6		+PO_release_link			
7	B2	? TIMEOUT T_F_CC_02		(PASS)	6)
8		+PO_release_link			

Detailed Comments : 1) Goto state T-10
 2) Send a link release request, and wait for the confirm.
 3) Re-establish link, by sending an indirect link establish request (paging)
 4) Send a CC-RELEASE.
 5) A CC-RELEASE-COM is received back, meaning that the call is not cleared.
 6) Timer T_F_CC_02 times out, meaning the CC-RELEASE has been ignored. No active CC call was thus present. Test passes.

Test Case Dynamic Behaviour

Test Case Name : TC_PT_ME_BV_13
Group : PT/ME/BV/
Purpose : Verify that the IUT, after invocation, if the a44 bit in the FT broadcasted "higher layer capabilities" is set to "1", is able to accept key allocation procedure interrupting obtaining access rights procedure and to continue normal operation.
Configuration :
Default : DF_handle_mm_timeout,
DF_handle_mm_events,
DF_handle_any_timeout,
DF_handle_unexpected_events
Comments : Initial state: No accessrights
ETS 300 175-5 [5], subclause 13.5.1 – ETS 300 444 [10], subclause 8.30

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1	B1	+PR_t00_no_acrght			1)
2		+STP_invoke_obtain_accessrights			2)
3		+STP_handle_direct_link_est			
4		DLS ? DL_DATA_IND(TCV_pdu_acrght_request := DL_DATA_IND.message_unit, TCV_ie_auth_type := TCV_pdu_acrght_request.auth_type)	DI_data_ind(TSV_dlei_value, Access_rights_request_rx 01)	(PASS)	3)
5		+STP_perform_key_allocation			4)
6		DLS ! DL_DATA_REQ(TCV_pdu_acrght_accept := DL_DATA_REQ.message_unit, TCV_pdu_acrght_accept.auth_type := TCV_ie_auth_type, DL_DATA_REQ.message_unit := TCV_pdu_acrght_accept)	DI_data_req(TSV_dlei_value, Access_rights_accept_tx 01)		5)
7		+STP_check_id_in_pt(Identity_requ est_tx01, Identity_reply_rx01)			6)
8		+STP_check_id_in_pt(Identity_re quest_tx02, Identity_reply_rx02)			7)
9		+PO_release_link			

Detailed Comments : 1) Remove accessrights
2) Invoke the accessrights procedure.
3) Auth_type ie has to be present, auth_key_type shall refer to AC. Portable-id should be of type IPEI or IPUI-N. Terminal Capability shall be present. Value as specified in PIXIT.
Copy auth_type in TCV_ie_auth_type in order to send it back to the IUT
4) Perform key allocation.
5) No ZAP field and Service class are stored. LT sends back <<AUTH_TYPE>>
5) Check the storage of the IPUI identity, by means of an identity request. The Identity_request_tx01 specifies a request for the portable id containing an IPUI.
The Identity_reply_rx01 matches the result of the identity request with the specified IPUI.
6) Check the storage of the PARK identity, by means of an identity request. The Identity_request_tx02 specifies a request for the fixed_id_containing a PARK
The Identity_reply_rx02 matches the result of the identity request with the specified PARK

Test Case Dynamic Behaviour

Test Case Name : TC_PT_ME_BO_01
Group : PT/ME/BO/
Purpose : Verify that the IUT, if it receives during a FT authentication procedure an {AUTH-REQUEST} message as an attempt from the FT to initiate the authentication of PT procedure, will ignore the interrupting procedure.
Configuration :
Default : DF_handle_mm_invokation,
 DF_handle_mm_timeout,
 DF_handle_mm_events,
 DF_handle_any_timeout,
 DF_handle_unexpected_events
Comments : Initial state: T-00
 Actually, the only thing that is checked in this testcase, is that a PT authentication in the middle of an FT authentication, is ignored. The FT authentication is not completed.
 ETS 300 175-5 [5], subclauses 17.4.4 and 15.5 – ETS 300 444 [10], subclauses 6.9.6 and 13.1

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+PR_select_state (TSPX_mmproc_auft_ccstate)			1)
2		+STP_invoke_ft_authentication			
3	B1	DLS ? DL_DATA_IND(TCV_pdu_auth_request := DL_DATA_IND.message_unit, TCV_rand := TCV_pdu_auth_request.rand.field) CANCEL T_USER_INVOKE	DI_data_ind(TSV_dlei_value, Auth_request_rx01)	(PASS)	2)
4		(TCV_res_tx := TSO_cinpt_algosb1_a2(TCV_rand, TSC_rs, TSV_uak))			3)
5		START T_F_MM_auth_1			
6		DLS ! DL_DATA_REQ	DI_data_req(TSV_dlei_value, Auth_request_tx01)		4)
7	B2	DLS ? DL_DATA_IND CANCEL T_F_MM_auth_1	DI_data_ind(TSV_dlei_value, Auth_reply_rx03)	(FAIL)	5)
8		+PO_release_link			
9	B3	? TIMEOUT T_F_MM_auth_1		(PASS)	6)
10		+PO_release_link			
11		+STP_handle_ft_auth_resp			
12	B4	CANCEL T_F_MM_auth_1		(PASS)	
13		+PO_release_link			

Detailed Comments : 1) Goto the state that has been declared in the PIXIT, as initial state for this procedure. A postcondition to this teststep is that a link is established.
 2) Waiting for FT auth req from IUT.
 3) Calculate res field.
 4) LT tries to initiate authentication of PT procedure.
 5) Testcase fails if IUT reacts on that attempt.
 6) If the timer times out, test passes.

Test Case Dynamic Behaviour					
Test Case Name : TC_PT_LC_BV_LE_01 Group : PT/LC/BV/LE/ Purpose : Verify that the IUT, when no link to the FT exists, on receipt of a higher layer message is able to operate a direct link establishment procedure. Configuration : Default : DF_handle_cc_events, DF_handle_any_timeout, DF_handle_unexpected_events Comments : Initial state: T-00 ETS 300 175-5 [5], subclause 14.2.2 – ETS 300 444 [10], subclause 8.36					
Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+PR_goto_t00			
2		+STP_invoke_outgoing_call			
3	B1	DLS ? DL_ESTABLISH_IND (TSV_dlei_value := DL_ESTABLISH_IND. data_link_endpoint_identifier) CANCEL T_USER_INVOKE	DI_est_ind_no_pdu	(PASS)	1)
4		+PO_release_link			
Detailed Comments : 1) A link establishment indication is received. Test passes.					

Test Case Dynamic Behaviour					
Test Case Name : TC_PT_LC_BV_LE_02 Group : PT/LC/BV/LE/ Purpose : Verify that the IUT is able to respond to indirect (paged) FT-initiated link establishment request which uses a short address request paging and contains correct identity. Configuration : Default : DF_handle_cc_events, DF_handle_any_timeout, DF_handle_unexpected_events Comments : Initial state: T-00 ETS 300 175-5 [5], subclause 14.2.3 – ETS 300 444 [10], subclause 8.35					
Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+PR_goto_t00			
2		+STP_indirect_link_establishment			1)
3		+PO_release_link			
Detailed Comments : 1) Try to establish an indirect link.					

Test Case Dynamic Behaviour

Test Case Name : TC_PT_LC_BV_LR_01
Group : PT/LC/BV/LR/
Purpose : Verify that the IUT is able to perform a partial release after a MM procedure has been accomplished, and no other entities are using the link.
Configuration :
Default : DF_handle_cc_events,
DF_handle_mm_events,
DF_handle_mm_timeout,
DF_handle_any_timeout,
DF_handle_unexpected_events
Comments : Initial state: T-00
in this testcase it is assumed that no other entities are using the link.
ETS 300 175-5 [5], subclause 14.2.7 – ETS 300 444 [10], subclause 8.39

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+PR_goto_t00			
2		+STP_indirect_link_establishment			1)
3		+STP_check_id_in_pt(Identity_request_tx 01, Identity_reply_rx01)			2)
4		START T_P_LCE_02_min			3)
5		? TIMEOUT T_P_LCE_02_min			4)
6	B1	DLS ? DL_RELEASE_IND	DI_rel_ind(TSV_dlei_value)	(PASS)	
7		+PO_terminate			
8	B2	DLS ? DL_RELEASE_IND	DI_rel_ind(TSV_dlei_value)	(FAIL)	5)
9		+PO_terminate			

Detailed Comments : 1) Try to establish an indirect link.
2) Execute an MM procedure in order to be able to have the IUT start timer T_P_LCE_02 afterward. In this case: Identity request for the IPUI.
3) After completion: start timer T_P_LCE_02_min, being 5% smaller than the actual value.
4) When this timer expires: accept a DL_RELEASE_IND. Test passes
5) If the DL_RELEASE_IND comes sooner: test fails.

Test Case Dynamic Behaviour

Test Case Name : TC_PT_LC_BV_LR_02
Group : PT/LC/BV/LR/
Purpose : Verify that the IUT is able to perform a normal release after a CC procedure has been accomplished, and no other entities are using the link.
Configuration :
Default : DF_handle_cc_events,
DF_handle_mm_events,
DF_handle_mm_timeout,
DF_handle_any_timeout,
DF_handle_unexpected_events
Comments : Initial state: T-07
in this testcase it is assumed that no other entities are using the link.
After reception of the CC-RELEASE-COM message, the link release should follow within time T_P_LCE_02_max.
ETS 300 175-5 [5], subclause 14.2.7 – ETS 300 444 [10], subclause 8.37

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+PR_goto_t07			1)
2		DLS ! DL_DATA_REQ START T_F_CC_02	DI_data_req(TSV_dlei_value, Cc_release_tx_base(TCV_cc_tv, TCV_cc_lt_tf))		2)
3	B1	DLS ? DL_DATA_IND CANCEL T_F_CC_02, START T_P_LCE_02_max	DI_data_ind(TSV_dlei_value, Cc_release_com_rx_base(TCV_cc_tv, TCV_cc_iut_tf))	(PASS)	3)
4	B2	DLS ? DL_RELEASE_IND CANCEL T_P_LCE_02_max	DI_rel_ind(TSV_dlei_value)	(PASS)	4)
5		+PO_terminate			
6	B3	? TIMEOUT T_P_LCE_02_max		(FAIL)	5)
7		+PO_release_link			
8	B4	DLS ? DL_RELEASE_IND CANCEL T_F_CC_02	DI_rel_ind(TSV_dlei_value)	(FAIL)	6)
9		+PO_terminate			

Detailed Comments : 1) Start an incoming call.
2) Start a normal release
3) Receive the CC-RELEASE-COM. Timeout of timer T_F_CC_02 is handled in DF_handle_any_timeout. Start timer T_P_LCE_02_max, in order to wait for the link release.
4) Wait for the DL_RELEASE_IND. Test passes
5) If the DL_RELEASE_IND comes too late: test fails.
6) If the DL_RELEASE_IND comes too soon: test fails.

Test Case Dynamic Behaviour

Test Case Name : TC_PT_LC_BV_LR_03
Group : PT/LC/BV/LR/
Purpose : Verify that the IUT, after a CC requested partial release has been agreed, is able to maintain the link for a specified time, and no other entities are using the link.
Configuration :
Default : DF_handle_cc_events,
DF_handle_mm_events,
DF_handle_mm_timeout,
DF_handle_any_timeout,
DF_handle_unexpected_events
Comments : Initial state: T-07
in this testcase it is assumed that no other entities are using the link.
ETS 300 175-5 [5], subclause 14.2.7 – ETS 300 444 [10], subclause 8.39

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+PR_goto_t07			1)
2		DLS ! DL_DATA_REQ START T_F_CC_02	DI_data_req(TSV_dlei_value, Cc_release_tx01(TCV_cc_tv, TCV_cc_lt_tf))		2)
3	B1	DLS ? DL_DATA_IND CANCEL T_F_CC_02, START T_P_LCE_02_min	DI_data_ind(TSV_dlei_value, Cc_release_com_rx_base(TCV_cc_tv, TCV_cc_iut_tf))	(PASS)	3)
4	B2	DLS ? DL_RELEASE_IND CANCEL T_P_LCE_02_min	DI_rel_ind(TSV_dlei_value)	(FAIL)	4)
5		+PO_terminate			
6		? TIMEOUT T_P_LCE_02_min			
7	B3	DLS ? DL_RELEASE_IND	DI_rel_ind(TSV_dlei_value)	(PASS)	5)
8		+PO_terminate			

Detailed Comments : 1) Start an incoming call.
2) Request for a partial release
3) Receive the CC-RELEASE-COM. Timeout of timer T_F_CC_02 is handled in DF_handle_any_timeout. Start guard timer T_P_LCE_02_min, guarding the partial release time.
4) If the DL_RELEASE_IND comes before the timer expires: test fails.
5) After expiry of the timer, wait for the DL_RELEASE_IND. Test passes

Test Case Dynamic Behaviour					
Test Case Name : TC_PT_LC_BI_01 Group : PT/LC/BI/ Purpose : Verify that the IUT ignores a message containing a protocol discriminator value that indicates a service that is not supported by the IUT. Configuration : Default : DF_handle_cc_timeout, DF_handle_mm_events, DF_handle_unexpected_events Comments : Initial state: T-00 ETS 300 175-5 subclause 17.1 ETS 300 444 [10], subclause 6.9.4					
Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+PR_goto_t00			
2		+STP_indirect_link_establishment			
3		START T_F_CC_03			
4		+STP_initialise_tf(TSC_lt_originated)			1)
5		DLS ! DL_DATA_REQ (TCV_cc_tv := '000'B)	DI_data_req(TSV_dlei_value, Bi_cc_setup_tx03(TCV_cc_tv, TCV_cc_lt_tf))		2)
6	B1	DLS ? DL_DATA_IND CANCEL T_F_CC_03	DI_data_ind(TSV_dlei_value, Cc_alerting_rx_base(TCV_cc_tv, TCV_cc_iut_tf))	(FAIL)	3)
7		+PO_normal_release			
8	B2	? TIMEOUT T_F_CC_03		(PASS)	4)
9		+PO_normal_release			
Detailed Comments : 1) Initialise the transaction id flag to be used in the communication. 2) Send a CC_SETUP with a protocol discriminator that is not supported by the IUT. 3) If IUT sends back CC-ALERT, test fails, because the message should be ignored. 4) Test passes if timer times out.					

Test Case Dynamic Behaviour					
Test Case Name : TC_PT_LC_BI_03 Group : PT/LC/BI/ Purpose : Verify that the IUT ignores an {IDENTITY-REQUEST} message containing illegal transaction identifier. Configuration : Default : DF_handle_mm_events, DF_handle_unexpected_events Comments : Initial state: T-00 ETS 300 175-5 [5], subclause 17.3.1 – ETS 300 444 [10], subclause 6.9.4					
Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+PR_goto_t00			
2		+STP_indirect_link_establishment			
3		START T_F_MM_ident_2			
4		DLS ! DL_DATA_REQ	DI_data_req(TSV_dlei_value, Identity_request_tx05)		1)
5	B1	DLS ? DL_DATA_IND CANCEL T_F_MM_ident_2	DI_data_ind(TSV_dlei_value, Identity_reply_rx01)	(FAIL)	2)
6		+PO_release_link			
7	B2	? TIMEOUT T_F_MM_ident_2		(PASS)	3)
8		+PO_release_link			
Detailed Comments : 1) Send an Identity request for the IPUI, with an illegal transaction value. 2) If the reply follows, the test fails. 3) If nothing happens, test passes.					

Test Case Dynamic Behaviour

Test Case Name : TC_PT_LC_BI_04
Group : PT/LC/BI/
Purpose : Verify that the IUT ignores an {ACCESSRIGHTS-ACCEPT} message with a Transaction Identifier flag set illegally to '0', if the message was received during an obtain accessrights procedure.
Configuration :
Default : DF_handle_mm_timeout,
DF_handle_mm_events,
DF_handle_any_timeout,
DF_handle_unexpected_events
Comments : Initial state: T-00
ETS 300 175-5 [5], subclause 17.3.2.5 – ETS 300 444 [10], subclause 6.9.4

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+PR_t00_no_acrgh			1)
2		+STP_invoke_obtain_accessrights			2)
3		+STP_handle_direct_link_est			
4	B1	DLS ? DL_DATA_IND(TCV_pdu_acrgh_request := DL_DATA_IND.message_unit, TCV_ie_auth_type := TCV_pdu_acrgh_request.auth_type)	DI_data_ind(TSV_dlei_value, Access_rights_request_rx 01)	(PASS)	
5		DLS ! DL_DATA_REQ(TCV_pdu_acrgh_accept := DL_DATA_REQ.message_unit, TCV_pdu_acrgh_accept.auth_type := TCV_ie_auth_type, DL_DATA_REQ.message_unit := TCV_pdu_acrgh_accept)	DI_data_req(TSV_dlei_value, Access_rights_accept_tx 08)		3)
6		(TCV_count := 0)			
7		REPEAT STP_perform_paging UNTIL [(TCV_count = 3) OR (TCV_result = TRUE)]			
8	B2	[TCV_result = TRUE]		(FAIL)	5)
9		+PO_release_link			
10	B3	[TCV_result = FALSE]		(PASS)	6)
11		+PO_terminate			

Detailed Comments : 1) Remove accessrights
2) Invoke the accessrights procedure.
3) The accessrights accept message specifies a transaction flag illegally set to 0.
5) Testcase failed, if the PT answers to a paging request.
6) Testcase passed, if the PT does not answer a paging request.

Test Case Dynamic Behaviour

Test Case Name : TC_PT_LC_TI_02
Group : PT/LC/TI/
Purpose : Verify that the IUT, after termination of an MM procedure, maintains the link for a period of <LCE.02>. +- 5%.
Configuration :
Default : DF_handle_cc_events,
DF_handle_mm_events,
DF_handle_mm_timeout,
DF_handle_any_timeout,
DF_handle_unexpected_events
Comments : Initial state: T-00
in this testcase it is assumed that no other entities are using the link.
The authors of the testsuite congratulate you by reaching this point. Please call +31 35 89 31 48, and let us know who you are and what you think of it. Theo and Sandra
ETS 300 175-5 [5], subclause 14.2.7 – ETS 300 444 [10], subclause 8.39

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+PR_goto_t00			
2		+STP_indirect_link_establishment			1)
3		+STP_check_id_in_pt(Identity_request_tx 01, Identity_reply_rx01)			2)
4		START T_P_LCE_02_min, START T_P_LCE_02_max			3)
5		? TIMEOUT T_P_LCE_02_min			4)
6	B1	DLS ? DL_RELEASE_IND	DI_rel_ind(TSV_dlei_value)	(PASS)	
7		+PO_terminate			
8	B2	? TIMEOUT T_P_LCE_02_max		(FAIL)	5)
9		+PO_terminate			
10	B3	DLS ? DL_RELEASE_IND	DI_rel_ind(TSV_dlei_value)	(FAIL)	6)
11		+PO_terminate			

Detailed Comments : 1) Try to establish an indirect link.
2) Execute an MM procedure. In this case: Identity request for the IPUI.
3) After completion: start timer T_P_LCE_02_min, being 5% smaller than the actual value, and timer T_P_LCE_02_max, being 5% bigger than the actual value,
4) When the min timer expires: accept a DL_RELEASE_IND. Test passes.
5) If the max timer expires, it has taken too long, Test fails.
5) If the DL_RELEASE_IND comes sooner than the expiry of the min timer: test fails.

Test Step Dynamic Behaviour					
Test Step Name : PR_goto_t00					
Group : Preambles/					
Objective : To bring the IUT in state T-00 (null).					
Default : DF_handle_cc_events, DF_handle_mm_events, DF_handle_unexpected_events					
Comments : This is done by calling teststep PR_stable_state					
Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+PR_stable_state			
Detailed Comments :					

Test Step Dynamic Behaviour					
Test Step Name : PR_goto_t01					
Group : Preambles/					
Objective : To bring the IUT in state T-01 (Call initiated). This implies having the IUT start an outgoing call					
Default : DF_handle_cc_events, DF_handle_mm_events, DF_handle_unexpected_events					
Comments :					
Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+PR_stable_state			
2		+STP_invoke_outgoing_call			
3		+STP_handle_direct_link_est			
4		+STP_initialise_tf(TSC_iut_terminated)			
5	PR1	DLS ? DL_DATA_IND (TCV_pdu_cc_setup := DL_DATA_IND.message_unit, TCV_cc_tv := TCV_pdu_cc_setup.network_header.t ransaction_value)	DI_data_ind(TSV_dlei_value, Cc_setup_rx01(TCV_cc_lt_tf))	(PASS)	1)
Detailed Comments : 1) cc_setup_rx01 allows no 'called party address' to be specified. The transaction value of the cc message received, is stored in TCV_cc_tv.					

Test Step Dynamic Behaviour					
Test Step Name : PR_goto_t02 Group : Preambles/ Objective : To bring the IUT in state T-02 (Overlap sending). This implies having the IUT start an outgoing call (CC_SETUP), and respond to it with a CC_SETUP_ACK. Default : DF_handle_cc_timeout, DF_handle_cc_events, DF_handle_mm_events, DF_handle_unexpected_events Comments : Postcondition of this teststep: T_F_CC_01 is running					
Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+PR_goto_t01			
2		START T_F_CC_01			
3		DLS ! DL_DATA_REQ	DI_data_req(TSV_dlei_value, Cc_setup_ack_tx_base(TCV_cc_tv, TCV_cc_lt_tf))		
Detailed Comments :					

Test Step Dynamic Behaviour					
Test Step Name : PR_goto_t03 Group : Preambles/ Objective : To bring the IUT in state T-03 (Call proceeding). This implies having the IUT start an outgoing call (CC_SETUP), and respond to it with a CC_SETUP_ACK. After dialling has been invoked using the piecewise method of transferring dialling information, the LT send a CC_CALL_PROC. Default : DF_handle_cc_timeout, DF_handle_cc_events, DF_handle_mm_events, DF_handle_unexpected_events Comments : Postcondition of this teststep: T_F_CC_01 is stopped					
Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+PR_goto_t02			
2		(TCV_count := 0)			
3		REPEAT STP_receive_digit_info(Cc_info_rx01(TCV_cc_tv, TCV_cc_iut_tf)) UNTIL [TCV_count= TSPX_nr_of_digits_in_cpn]			
4		CANCEL T_F_CC_01			
5		DLS ! DL_DATA_REQ	DI_data_req(TSV_dlei_value, Cc_call_proc_tx_base(TCV_cc_tv, TCV_cc_lt_tf))		
Detailed Comments :					

Test Step Dynamic Behaviour					
Test Step Name : PR_goto_t04 Group : Preambles/ Objective : To bring the IUT in state T-04 (Call delivered). This implies having the IUT start an outgoing call (CC_SETUP), and respond to it with a CC_SETUP_ACK. After dialling has been invoked using the piecewise method of transferring dialling information, the LT send a CC_ALERTING Default : DF_handle_cc_timeout, DF_handle_cc_events, DF_handle_mm_events, DF_handle_unexpected_events Comments : Postcondition of this teststep: T_F_CC_01 is stopped					
Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+PR_goto_t02			
2		(TCV_count := 0)			
3		REPEAT STP_receive_digit_info(Cc_info_rx01(TCV_cc_tv, TCV_cc_iut_tf)) UNTIL [TCV_count = TSPX_nr_of_digits_in_cpn]			
4		CANCEL T_F_CC_01			
5		DLS ! DL_DATA_REQ	DI_data_req(TSV_dlei_value, Cc_alerting_tx_base(TCV_cc_tv, TCV_cc_lt_tf))		
Detailed Comments :					

Test Step Dynamic Behaviour					
Test Step Name : PR_goto_t06 Group : Preambles/ Objective : To bring the IUT in state T-06 (Call present). This implies the initiation of an incoming call (CC_SETUP) Default : DF_handle_cc_timeout, DF_handle_cc_events, DF_handle_mm_events, DF_handle_unexpected_events Comments : A postcondition to this teststep is that timer T_F_CC_03 is running.					
Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+PR_stable_state			
2		+STP_indirect_link_establishment			
3		START T_F_CC_03			
4		+STP_initialise_tf(TSC_lt_originated)			
5		DLS ! DL_DATA_REQ (TCV_cc_tv := '000'B)	DI_data_req(TSV_dlei_value, Cc_setup_tx02(TCV_cc_tv, TCV_cc_lt_tf))		1)
Detailed Comments : 1) cc_setup contains <<signal>> ie					

Test Step Dynamic Behaviour					
Test Step Name : PR_goto_t07 Group : Preambles/ Objective : To bring the IUT in state T-07 (Call received). This implies the initiation of an incoming call (CC_SETUP), and the reception of the (CC_ALERTING) message that should follow. Timer T_F_CC_03 is stopped. Default : DF_handle_cc_timeout, DF_handle_cc_events, DF_handle_mm_events, DF_handle_unexpected_events Comments :					
Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+PR_goto_t06			
2	PR1	DLS ? DL_DATA_IND CANCEL T_F_CC_03	DI_data_ind(TSV_dlei_value, Cc_alerting_rx_base(TCV_cc_tv, TCV_cc_iut_tf))	(PASS)	
Detailed Comments :					

Test Step Dynamic Behaviour					
Test Step Name : PR_goto_t08 Group : Preambles/ Objective : To bring the IUT in state T-08 (Connect pending). This implies the initiation of an incoming call CC_SETUP, and the reception of the CC_ALERTING and the CC_CONNECT message that should follow. Default : DF_handle_cc_timeout, DF_handle_cc_events, DF_handle_mm_events, DF_handle_any_timeout, DF_handle_unexpected_events Comments : As a postcondition to this teststep, no cc timer is running.					
Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+PR_goto_t07			
2		+STP_invoke_call_answering			
3	PR1	DLS ? DL_DATA_IND CANCEL T_USER_INVOKE	DI_data_ind(TSV_dlei_value, Cc_connect_rx_base(TCV_cc_tv, TCV_cc_iut_tf))	(PASS)	
Detailed Comments :					

Test Step Dynamic Behaviour					
Test Step Name : PR_goto_t10					
Group : Preambles/					
Objective : To bring the IUT in state T-10 (Active). This implies having the IUT start an outgoing call (CC_SETUP), and respond to it with a CC_CONNECT. No dialling information is transferred.					
Default : DF_handle_cc_events, DF_handle_mm_events, DF_handle_unexpected_events					
Comments :					
Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+PR_goto_t01			
2		DLS ! DL_DATA_REQ	DI_data_req(TSV_dlei_value, Cc_connect_tx_base(TCV_cc_tv, TCV_cc_lt_tf))		
Detailed Comments :					

Test Step Dynamic Behaviour					
Test Step Name : PR_goto_t19					
Group : Preambles/					
Objective : To bring the IUT in state T-19 (Release pending). This implies bringing the IUT is state T-01, and then invoking an IUT initiated normal release (CC_RELEASE)					
Default : DF_handle_cc_events, DF_handle_mm_events, DF_handle_unexpected_events					
Comments :					
Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+PR_goto_t01			
2		+STP_invoke_normal_release			
3	PR1	DLS ? DL_DATA_IND CANCEL T_USER_INVOKE, CANCEL T_F_CC_01	DI_data_ind(TSV_dlei_value, Cc_release_rx_base(TCV_cc_tv, TCV_cc_iut_tf))	(PASS)	
Detailed Comments :					

Test Step Dynamic Behaviour

Test Step Name : PR_select_state(param : CCSTATE_TYPE)
Group : Preambles/
Objective : To select a certain initial (CC) state to go to, as a preamble to the test of a PT initiated MM procedure. The input parameter indicates the required CC state for a certain MM procedure that is going to be tested.
If the selected state is F-00, then the teststep initiates link establishment.
Default : DF_handle_cc_timeout,
DF_handle_cc_events,
DF_handle_mm_timeout,
DF_handle_mm_events,
DF_handle_any_timeout,
DF_handle_unexpected_events
Comments : See also ETS 300 444 [10], subclause 6.9.6, table 9

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		[param = 0]			
2		+PR_goto_t00			
3		+STP_indirect_link_establishment			1)
4		[param = 1]			
5		+PR_goto_t01			
6		[param = 2]			
7		+PR_goto_t02			
8		[param = 3]			
9		+PR_goto_t03			
10		[param = 4]			
11		+PR_goto_t04			
12		[param = 6]			
13		+PR_goto_t06			
14		[param = 7]			
15		+PR_goto_t07			
16		[param = 10]			
17		+PR_goto_t10			
18		[param = 19]			
19		+PR_goto_t19			
20		[(param = 5) OR (param = 8) OR (param = 9) OR ((param > 10) AND (param < 19)) OR (param > 19)]		(I)	param outside range
21		+PO_terminate			

Detailed Comments : 1) Initiate link establishment

Test Step Dynamic Behaviour

Test Step Name : PR_stable_state

Group : Preambles/

Objective : To place the IUT in a stable state, which is defined as follows:
 - All identities needed for accessing the FT are available:
 Accessrights available, UAK assigned, TPUI assigned, DCK stored.
 - CC state T=00
 - No link established
 - IUT is locked to the FT

Default : DF_handle_cc_events,
 DF_handle_mm_events,
 DF_handle_unexpected_events

Comments : It is assumed that when the IUT locked to the tester, the higher layer broadcast bits A44 and A38 are both set to 1, thus enabling both obtaining accessrights and location registration.
 The teststep STP_init_broadcast_bits will initialise the relevant broadcast bits and the location area.

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+STP_init_broadcast_bits			
2		+LTS_handle_locate			
3		+STP_check_accessrights			
4	PR1	[TCV_result = FALSE]		(PASS)	1)
5		+STP_invoke_obtain_accessrights			
6		+STP_handle_direct_link_est			
7		+STP_handle_acrghs_loc_reg (Access_rights_accept_tx01)			2)
8		+STP_perform_pt_authentication(Auth_request_tx04, Auth_reply_rx03)			3)
9		+STP_release_link			
10	PR2	[TCV_result = TRUE]		(PASS)	4)
11		LTS_handle_locate START T_EXPECT_LOCATE			
12		DLS ? DL_ESTABLISH_IND(TSV_dlei_value := DL_ESTABLISH_IND. data_link_endpoint_identifier)	DI_est_ind_no_pdu		
13		DLS ? DL_RELEASE_IND CANCEL T_EXPECT_LOCATE	DI_rel_ind(TSV_dlei_value)		
14		?TIMEOUT T_EXPECT_LOCATE			

Detailed Comments : 1) Accessrights are not (or no longer) available. Invoke accessrightsprocedure
 2) The accessrights_accept_tx01 constraint does not assign ZAP and service class. The teststep does perform key allocation in the middle of the accessrights procedure.
 3) Perform a PT authentication, in order to derive a ciphering key (DCK).
 4) Accessrights still available: do nothing

Test Step Dynamic Behaviour

Test Step Name : PR_t00_no_acrght
Group : Preambles/
Objective : To terminate the accessrights of the IUT, as a preamble to testing the obtain accessrights procedures and the location registration after obtain accessrights procedures.
Default : DF_handle_cc_events,
DF_handle_mm_events,
DF_handle_mm_timeout,
DF_handle_unexpected_events
Comments : Check the accessrights. If accessrights are available, terminate them

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+STP_init_broadcast_bits			
2		+STP_check_accessrights			
3		[TCV_result = FALSE]			
4		+STP_release_link			1)
5		[TCV_result = TRUE]			2)
6		+STP_indirect_link_establishment			
7		+STP_perform_terminate_acrghts (Access_rights_term_request_tx01, Access_rights_term_accept_rx_base)			
8		+STP_release_link			3)

Detailed Comments : 1) No accessrights available: release link
2) accessrights are still available: terminate them
3) release link.

Test Step Dynamic Behaviour					
Test Step Name : PR_t00_no_key Group : Preambles/ Objective : Same as PR_goto_t00, except that in this case, no key allocation is done during the accessrights procedure. This way, the key allocation procedures can be tested. Default : DF_handle_cc_events, DF_handle_mm_events, DF_handle_unexpected_events Comments : It is assumed that when the IUT locked to the tester, the higher layer broadcast bits A44 and A38 are both set to 1, thus enabling both obtaining accessrights and location registration. The teststep STP_init_broadcast_bits will initialise the relevant broadcast bits and the location area.					
Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+STP_init_broadcast_bits			
2		+STP_check_accessrights			
3		[TCV_result = TRUE]			
4		+STP_indirect_link_establishment			
5		+STP_perform_terminate_acrghs (Access_rights_term_request_tx01, Access_rights_term_accept_rx_base)			1)
6		+STP_release_link			2)
7		+PRLTS_allocate_access_no_key			
8		[TCV_result = FALSE]			
9		+PRLTS_allocate_access_no_key			
		PRLTS_allocate_access_no_key			
10		+STP_invoke_obtain_accessrights			3)
11		+STP_handle_direct_link_est			
12	PR1	DLS ? DL_DATA_IND(TCV_pdu_acrgh_t_request := DL_DATA_IND.message_unit, TCV_ie_auth_type := TCV_pdu_acrgh_t_request.auth_type)	DI_data_ind(TSV_dlei_value, Access_rights_request_rx01)	(PASS)	4)
13		DLS ! DL_DATA_REQ(TCV_pdu_acrgh_t_accept := DL_DATA_REQ.message_unit, TCV_pdu_acrgh_t_accept.auth_type := TCV_ie_auth_type, DL_DATA_REQ.message_unit := TCV_pdu_acrgh_t_accept)	DI_data_req(TSV_dlei_value, Access_rights_accept_tx01)		5)
14		START T_EXPECT_LOCATE			6)
15		+STP_handle_locate_request			
16		+STP_release_link			
Detailed Comments : 1) Terminate accessrights. 2) Accessrights successfully terminated, release link. 3) Invoke again accessrights request, 4) Accessrights request containing IPEI 5) The accessrights_accept_tx01 constraint does not assign ZAP and service class. 6) Start a timer guarding the time between accessrights_accept and the locate_request message.					

Test Step Dynamic Behaviour

Test Step Name : PR_t00_service
Group : Preambles/
Objective : To assign a service class to the iut, by means of performing another obtain accessrights procedure.
Default : DF_handle_cc_events,
DF_handle_mm_events,
DF_handle_unexpected_events
Comments :

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+STP_check_link_present			
2		[TCV_result = TRUE]			
3		+STP_release_link			3)
4		+STP_invoke_obtain_accessrights			1)
5		+STP_handle_direct_link_est			
6		+STP_handle_acrghs_loc_reg (Access_rights_accept_tx07)			2)
7		+STP_release_link			3)
8		[TCV_result = FALSE]			
9		+STP_invoke_obtain_accessrights			1)
10		+STP_handle_direct_link_est			
11		+STP_handle_acrghs_loc_reg (Access_rights_accept_tx07)			2)
12		+STP_release_link			3)

Detailed Comments : 1) A new accessrights procedure is invoked.
2) The accessrights procedure is handled and a service class is assigned.
3) release link.

Test Step Dynamic Behaviour

Test Step Name : PR_t00_zap
Group : Preambles/
Objective : To assign a zap field to the iut, by means of performing another obtain accessrights procedure.
Default : DF_handle_cc_events,
DF_handle_mm_events,
DF_handle_unexpected_events
Comments :

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+STP_check_link_present			
2		[TCV_result = TRUE]			
3		+STP_release_link			3)
4		+STP_invoke_obtain_accessrights			1)
5		+STP_handle_direct_link_est			
6		+STP_handle_acrghs_loc_reg (Access_rights_accept_tx06)			2)
7		+STP_release_link			3)
8		[TCV_result = FALSE]			
9		+STP_invoke_obtain_accessrights			1)
10		+STP_handle_direct_link_est			
11		+STP_handle_acrghs_loc_reg (Access_rights_accept_tx06)			2)
12		+STP_release_link			3)

Detailed Comments : 1) A new accessrights procedure is invoked.
2) The accessrights procedure is handled and a zap is assigned.
3) release link.

Test Step Dynamic Behaviour					
Test Step Name : PR_t00_zap_service Group : Preambles/ Objective : To assign a zap field and a service class to the iut, by means of performing another obtain accessrights procedure. Default : DF_handle_cc_events, DF_handle_mm_events, DF_handle_unexpected_events Comments :					
Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+STP_check_link_present			
2		[TCV_result = TRUE]			
3		+STP_release_link			3)
4		+STP_invoke_obtain_accessrights			1)
5		+STP_handle_direct_link_est			
6		+STP_handle_acrghts_loc_reg (Access_rights_accept_tx02)			2)
7		+STP_release_link			3)
8		[TCV_result = FALSE]			
9		+STP_invoke_obtain_accessrights			1)
10		+STP_handle_direct_link_est			
11		+STP_handle_acrghts_loc_reg (Access_rights_accept_tx02)			2)
12		+STP_release_link			3)
Detailed Comments : 1) A new accessrights procedure is invoked. 2) The accessrights procedure is handled, and a zap and service class is assigned. 3) release link.					

Test Step Dynamic Behaviour					
Test Step Name : STP_cc_release_abnormal Group : Teststeps/CC/ Objective : To initiate the abnormal cc release procedure , initiated and the LT side. Default : DF_handle_cc_timeout, DF_handle_cc_events, DF_handle_mm_events, DF_handle_any_timeout, DF_handle_unexpected_events Comments : Postcondition: IUT enters the T-00 state					
Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		DLS ! DL_DATA_REQ	DI_data_req(TSV_dlei_value, Cc_release_com_tx_base(TCV_cc_tv, TCV_cc_lt_tf))		
2	S1	DLS ? DL_RELEASE_IND	DI_rel_ind(TSV_dlei_value)	(PASS)	
Detailed Comments :					

Test Step Dynamic Behaviour

Test Step Name : STP_cc_release_normal(param : TRANS_FLAG)
Group : Teststeps/CC/
Objective : To initiate the cc release procedure at the IUT side or LT side.
The parameter indicates the side which shall initiate the call release.
Default : DF_handle_cc_timeout,
DF_handle_cc_events,
DF_handle_mm_events,
DF_handle_any_timeout,
DF_handle_unexpected_events
Comments : Precondition: No timer is running.
Postcondition: IUT enters the T-00 state The link is not yet released.

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		[param = TSC_lt_terminated]			1)
2		DLS ! DL_DATA_REQ START T_F_CC_02	DI_data_req(TSV_dlei_value, Cc_release_tx_base(TCV_cc_tv, TCV_cc_lt_tf))		
3	S1	DLS ? DL_DATA_IND CANCEL T_F_CC_02	DI_data_ind(TSV_dlei_value, Cc_release_com_rx_base(TCV_cc_tv, TCV_cc_iut_tf))	(PASS)	
4	S2	DLS ? DL_RELEASE_IND CANCEL T_F_CC_02	DI_rel_ind(TSV_dlei_value)	(I)	2)
5		[param = TSC_iut_terminated]			3)
6		+STP_invoke_normal_release			
7	S3	DLS ? DL_DATA_IND CANCEL T_USER_INVOKE	DI_data_ind(TSV_dlei_value, Cc_release_rx_base(TCV_cc_tv, TCV_cc_iut_tf))	(PASS)	
8		DLS ! DL_DATA_REQ	DI_data_req(TSV_dlei_value, Cc_release_com_tx_base(TCV_cc_tv, TCV_cc_lt_tf))		
9	S4	DLS ? DL_RELEASE_IND CANCEL T_USER_INVOKE	DI_rel_ind(TSV_dlei_value)	(I)	2)
10	S5	[(param <> TSC_lt_terminated) AND (param <> TSC_iut_terminated)]		(I)	
11		+PO_release_link			

Detailed Comments : 1) Release is to be initiated by the IUT
2) DL_REL_IND received. Result of the test is Inconclusive
3) Release is to be initiated by the LT

Test Step Dynamic Behaviour

Test Step Name : STP_cc_release_partial(param : TRANS_FLAG)
Group : Teststeps/CC/
Objective : To initiate the partial cc release procedure at the IUT side or LT side.
 The parameter indicates the side which shall initiate the partial release.
Default : DF_handle_cc_timeout,
 DF_handle_cc_events,
 DF_handle_mm_events,
 DF_handle_any_timeout,
 DF_handle_unexpected_events
Comments : Precondition: No timer is running.
 Postcondition: IUT enters the T-00 state The link is not yet released.
 TO BE COMPLETED

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		[param = TSC_lt_terminated]			1)
2		DLS ! DL_DATA_REQ START T_F_CC_02	DI_data_req(TSV_dlei_value, Cc_release_tx01(TCV_cc_tv, TCV_cc_lt_tf))		2)
3	S1	DLS ? DL_DATA_IND CANCEL T_F_CC_02	DI_data_ind(TSV_dlei_value, Cc_release_com_rx01(TCV_cc_tv, TCV_cc_iut_tf))	(PASS)	3)
4	S2	DLS ? DL_DATA_IND CANCEL T_F_CC_02	DI_data_ind(TSV_dlei_value, Cc_release_com_rx_base(TCV_cc_tv, TCV_cc_iut_tf))	(FAIL)	4)
5	S3	DLS ? DL_RELEASE_IND CANCEL T_F_CC_02	DI_rel_ind(TSV_dlei_value)	(I)	
6		[param = TSC_iut_terminated]			5)
7		+STP_invoke_partial_release			
8	S4	DLS ? DL_DATA_IND CANCEL T_USER_INVOKE	DI_data_ind(TSV_dlei_value, Cc_release_rx01(TCV_cc_tv, TCV_cc_iut_tf))	(PASS)	6)
9		DLS ! DL_DATA_REQ	DI_data_req(TSV_dlei_value, Cc_release_com_tx01(TCV_cc_tv, TCV_cc_lt_tf))		7)
10	S5	DLS ? DL_DATA_IND CANCEL T_USER_INVOKE	DI_data_ind(TSV_dlei_value, Cc_release_rx_base(TCV_cc_tv, TCV_cc_iut_tf))	(I)	8)
11		DLS ! DL_DATA_REQ	DI_data_req(TSV_dlei_value, Cc_release_com_tx_base(TCV_cc_tv, TCV_cc_lt_tf))		
12	S6	DLS ? DL_RELEASE_IND CANCEL T_USER_INVOKE	DI_rel_ind(TSV_dlei_value)	(FAIL)	9)
13	S7	[(param <=> TSC_lt_terminated) AND (param <=> TSC_iut_terminated)]		(I)	10)
14		+PO_release_link			

Detailed Comments : 1) Release is to be initiated by the IUT
 2) cc_release_tx01 contains release-reason with release reason code '15'H (partial release)
 3) cc_release_com_rx01 specifies release reason 'partial release'
 4) If CC-RELEASE-COM message does not contain this release reason: test fails.

Continued from previous page

Test Step Dynamic Behaviour					
Detailed Comments : ...					
5) Release is to be initiated by the LT					
6) cc_release_rx01 specifies 'partial release'. Test preliminary passes.					
7) LT sends back CC-RELEASE-COM with release reason 'partial release'.					
8) cc_release_rx_base captures all other release variants. No partial release is specified. Test is inconclusive.					
9) The link should be maintained after a partial release. Test fails					
10) An error in calling this teststep has been made.					

Test Step Dynamic Behaviour					
Test Step Name : STP_check_calling_party_number_ind					
Group : Teststeps/CC/					
Objective : To check whether the calling party number is indicated on the IUT					
Default :					
Comments :					
Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		(TCV_result := (TSO_check_calling_party_number_ind()))			
2	S1	[TCV_result = TRUE]		(PASS)	
3	S2	[TCV_result = FALSE]		(FAIL)	
Detailed Comments :					

Test Step Dynamic Behaviour					
Test Step Name : STP_check_ctrl_char					
Group : Teststeps/CC/					
Objective : To check that the IUT is able to understand and react upon the control character meaning 'clear display'					
Default :					
Comments :					
Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		(TCV_result := (TSO_check_ctrl_char()))			
2	S1	[TCV_result = TRUE]		(PASS)	
3	S2	[TCV_result = FALSE]		(FAIL)	
Detailed Comments :					

Test Step Dynamic Behaviour					
Test Step Name : STP_check_stand_char					
Group : Teststeps/CC/					
Objective : To check that the IUT is able to show standard character, here digit 1, in the display.					
Default :					
Comments :					
Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		(TCV_result := (TSO_check_stand_char()))			
2	S1	[TCV_result = TRUE]		(PASS)	
3	S2	[TCV_result = FALSE]		(FAIL)	
Detailed Comments :					

Test Step Dynamic Behaviour					
Test Step Name : STP_check_u_plane(dlei : DATA_LINK_ENDPOINT_IDENTIFIER)					
Group : Teststeps/CC/					
Objective : To check if the U-plane between the IUT and LT is in place.					
Default :					
Comments :					
Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		(TCV_result := (TSO_cinpt_check_u_plane(dlei)))			
2	S1	[TCV_result = TRUE]		(PASS)	
3	S2	[TCV_result = FALSE]		(FAIL)	
Detailed Comments :					

Test Step Dynamic Behaviour					
Test Step Name : STP_check_user_alerting					
Group : Teststeps/CC/					
Objective : To check that the IUT is alerting the user of an incoming call					
Default :					
Comments :					
Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		(TCV_result := (TSO_check_user_alerting()))			
2	S1	[TCV_result = TRUE]		(PASS)	
3	S2	[TCV_result = FALSE]		(FAIL)	
Detailed Comments :					

Test Step Dynamic Behaviour					
Test Step Name : STP_invoke_call_answering					
Group : Teststeps/CC/					
Objective : To invoke the IUT to answer the incoming call. The IUT will go off hook when call present. See PIXIT Question B.9.2					
Default :					
Comments :					
Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		<IUT ! DL_DATA_IND>	DI_data_ind(TSV_dlei_value, Cc_connect_rx_base(TCV_cc_tv, TCV_cc_iut_tf))		
2		START T_USER_INVOKE			
Detailed Comments :					

Test Step Dynamic Behaviour					
Test Step Name : STP_invoke_dialled_digit(param : PDU)					
Group : Teststeps/CC/					
Objective : To invoke the IUT to dial a digit See PIXIT Question B.9.3					
Default :					
Comments :					
Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		<IUT!DL_DATA_IND>	DI_data_ind(TSV_dlei_value, param)		
2		START T_USER_INVOKE			
Detailed Comments :					

Test Step Dynamic Behaviour					
Test Step Name : STP_invoke_dialling_pause					
Group : Teststeps/CC/					
Objective : To invoke the IUT to make a dialling pause. See PIXIT Question B.9.4					
Default :					
Comments :					
Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		<IUT ! DL_DATA_IND>	DI_data_ind(TSV_dlei_value, Cc_info_rx03(TCV_cc_tv, TCV_cc_iut_tf))		1)
2		START T_USER_INVOKE			
Detailed Comments : 1) Cc_info constraint containing multi-keypad ie with value 'dialling pause'					

Test Step Dynamic Behaviour					
Test Step Name : STP_invoke_dtmf_defined Group : Teststeps/CC/ Objective : To invoke the IUT to go to DTMF dialling with defined tone length. See PIXIT Question B.9.5 Default : Comments :					
Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		<IUT ! DL_DATA_IND>	DI_data_ind(TSV_dlei_value, Cc_info_rx04(TCV_cc_tv, TCV_cc_iut_tf))		1)
2		START T_USER_INVOKE			
Detailed Comments : 1) Cc_info constraint containing multi-keypad ie with value 'dtmf defined'					

Test Step Dynamic Behaviour					
Test Step Name : STP_invoke_dtmf_defined_or_digit Group : Teststeps/CC/ Objective : To invoke the IUT to go to DTMF dialling with defined tone length (one digit shall be dialled before or after the "go to DTMF" depending of the IUT). See PIXIT Question B.9.5 Default : Comments :					
Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		<IUT ! DL_DATA_IND>	DI_data_ind(TSV_dlei_value, Cc_info_rx09(TCV_cc_tv, TCV_cc_iut_tf))		1)
2		START T_USER_INVOKE			
Detailed Comments : 1) Cc_info constraint containing multi-keypad ie with value 'dtmf defined' or "digit".					

Test Step Dynamic Behaviour					
Test Step Name : STP_invoke_dtmf_infinite Group : Teststeps/CC/ Objective : To invoke the IUT to go to DTMF dialling with infinite tone length. See PIXIT Question B.9.6 Default : Comments :					
Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		<IUT ! DL_DATA_IND>	DI_data_ind(TSV_dlei_value, Cc_info_rx05(TCV_cc_tv, TCV_cc_iut_tf))		1)
2		START T_USER_INVOKE			
Detailed Comments : 1) Cc_info constraint containing multi-keypad ie with value 'dtmf infinite'					

Test Step Dynamic Behaviour					
Test Step Name : STP_invoke_internal_call					
Group : Teststeps/CC/					
Objective : To invoke the IUT to go off hook for an internal call setup, while in state T-00 See PIXIT Question B.9.7					
Default :					
Comments :					
Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		<IUT ! DL_ESTABLISH_IND>	DI_est_ind_no_pdu		1)
2		START T_USER_INVOKE			
Detailed Comments : 1) LT expects a DL_EST_IND without a PDU					

Test Step Dynamic Behaviour					
Test Step Name : STP_invoke_normal_release					
Group : Teststeps/CC/					
Objective : To invoke the IUT to go on hook, thus initiating a normal release, while in any cc state See PIXIT Question B.9.8					
Default :					
Comments : A dl_data_indication is to be expected, containing a CC_RELEASE message.					
Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		<IUT ! DL_DATA_IND>	DI_data_ind(TSV_dlei_value, Cc_release_rx_base(TCV_cc_tv, TCV_cc_iut_tf))		
2		START T_USER_INVOKE			
Detailed Comments :					

Test Step Dynamic Behaviour					
Test Step Name : STP_invoke_outgoing_call					
Group : Teststeps/CC/					
Objective : To invoke the IUT to go off hook for a normal outgoing call setup, while in state T-00 See PIXIT Question B.9.10					
Default :					
Comments :					
Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		<IUT ! DL_ESTABLISH_IND>	DI_est_ind_no_pdu		1)
2		START T_USER_INVOKE			
Detailed Comments : 1) LT expects a DL_EST_IND without a PDU					

Test Step Dynamic Behaviour					
Test Step Name : STP_invoke_partial_release Group : Teststeps/CC/ Objective : To invoke the IUT to initiate a partial release. See PIXIT Question B.9.11 Default : Comments : A precondition to the execution of this teststep is, that a link exists between the It and the iut.					
Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		<IUT ! DL_DATA_IND>	DI_data_ind(TSV_dlei_value, Cc_release_rx_base(TCV_cc_tv, TCV_cc_iut_tf))		1)
2		START T_USER_INVOKE			
Detailed Comments : 1) cc_release_rx_base does not put any constraint on the release reason, because release reasons are optional in ETS 300 444.					

Test Step Dynamic Behaviour					
Test Step Name : STP_invoke_pulse_dialling Group : Teststeps/CC/ Objective : To invoke the IUT to go to pulse. See PIXIT Question B.9.12 Default : Comments :					
Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		<IUT ! DL_DATA_IND>	DI_data_ind(TSV_dlei_value, Cc_info_rx02(TCV_cc_tv, TCV_cc_iut_tf))		1)
2		START T_USER_INVOKE			
Detailed Comments : 1) Cc_info constraint containing multi-keypad ie with value 'goto pulse'					

Test Step Dynamic Behaviour					
Test Step Name : STP_invoke_register_recall					
Group : Teststeps/CC/					
Objective : To invoke the IUT to initiate register recall. See PIXIT Question B.9.15					
Default :					
Comments :					
Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		<IUT ! DL_DATA_IND>	DI_data_ind(TSV_dlei_value, Cc_info_rx08(TCV_cc_tv, TCV_cc_iut_tf))		1)
2		START T_USER_INVOKE			
Detailed Comments : 1) Cc_info constraint containing multi-keypad ie with value 'register recall'					

Test Step Dynamic Behaviour					
Test Step Name : STP_receive_digit_info(param : CC_INFO)					
Group : Teststeps/CC/					
Objective : To receive the dialling information to be send by the IUT					
Default :					
Comments : The number of digits in the called party number is indicated by the parameter TSPX_nr_of_digits_in_cpn The value of the digits is indicated by the parameters TSPX_digit_n					
Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+STP_invoke_dialled_digit(param)			
2	S1	DLS ? DL_DATA_IND (TCV_count := TCV_count + 1) CANCEL T_USER_INVOKE, START T_F_CC_01	DI_data_ind(TSV_dlei_value,param)	(PASS)	
Detailed Comments :					

Test Step Dynamic Behaviour					
Test Step Name : STP_change_location_area					
Group : Teststeps/MM/					
Objective : To change the location area broadcasted by the LT. The location area is considered to be different to the one specified in STP_init_broadcast_bits See PIXIT Question B.9.1					
Default : DF_handle_unexpected_events					
Comments : The implicit send will contain a DI_est_ind_no_pdu, because the IUT should begin link establishment, in order to perform location registration.					
Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		<IUT ! DL_ESTABLISH_IND>	DI_est_ind_no_pdu		
2		START T_EXPECT_LOCATE			
Detailed Comments :					

Test Step Dynamic Behaviour

Test Step Name : STP_check_accessrights
Group : Teststeps/MM/
Objective : To test whether or not the IUT has accessrights to the lower tester. The way to test this shall be to initiate an indirect link establishment from the LT, and to request the portable identity IPUI from the IUT, using the PT initiated identity request procedure. If the link establishment AND the identity request succeeds, it is assumed that the IUT has accessrights to the LT
The result of the check accessrights test is stored in the variable TCV_result.
Default : DF_handle_mm_timeout,
DF_handle_mm_events,
DF_handle_cc_events,
DF_handle_any_timeout,
DF_handle_unexpected_events
Comments : A precondition to this test is that the IUT shall be in state T00. A postcondition is that the IUT is also in state T-00
The verdicts assigned in this teststep are always (PASS), because all results are ok.

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+STP_indirect_link_no_fail			1)
2	S1	[TCV_result = TRUE]		(PASS)	
3		START T_F_MM_ident_2			
4		DLS ! DL_DATA_REQ	DI_data_req(TSV_dlei_value, Identity_request_tx01)		2)
5	S2	DLS ? DL_DATA_IND (TCV_result := TRUE) CANCEL T_F_MM_ident_2	DI_data_ind(TSV_dlei_value, Identity_reply_rx01)	(PASS)	3)
6		+STP_release_link			
7	S3	DLS ? DL_DATA_IND (TCV_result := FALSE) CANCEL T_F_MM_ident_2	DI_data_ind(TSV_dlei_value, Identity_reply_rx09)	(PASS)	4)
8		+STP_release_link			
9	S4	[TCV_result = FALSE]		(PASS)	

Detailed Comments : 1) The teststep returns the variable TCV_result, indicating link establishment failure or success.
2) Identity request contains request for portable_id with IPUI
3) Identity reply contains requested portable id, implying IUT has still accessrights.
4) Identity reply contains no portable id, implying IUT no longer has accessrights.

Test Step Dynamic Behaviour					
Test Step Name : STP_check_id_in_pt(param_tx : PDU; param_rx : PDU)					
Group : Teststeps/MM/					
Objective : To check the storage/deletion of the requested identity.					
Default : DF_handle_mm_timeout, DF_handle_mm_events, DF_handle_cc_events, DF_handle_any_timeout, DF_handle_unexpected_events					
Comments : param_tx is an input parameter specifying the constraints containing the requested identity. param_rx is an output parameter, specifying the constraint containing the reply from the IUT.					
Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		START T_F_MM_ident_2			
2		DLS ! DL_DATA_REQ	DI_data_req(TSV_dlei_value, param_tx)		
3	S1	DLS ? DL_DATA_IND CANCEL T_F_MM_ident_2	DI_data_ind(TSV_dlei_value, param_rx)	(PASS)	
Detailed Comments :					

Test Step Dynamic Behaviour

Test Step Name : STP_handle_acrghs_no_loc_reg(param : PDU)
Group : Teststeps/MM/
Objective : To handle an obtain accessrights request issued by the IUT, while NOT waiting for the mandatory location registration afterward.
A key allocation is done in the middle of the accessrights request.
Default : DF_handle_mm_timeout,
DF_handle_mm_events,
DF_handle_cc_events,
DF_handle_any_timeout,
DF_handle_unexpected_events
Comments : The parameter specifies the constraint to be sent for accessrights accept.

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1	S1	DLS ? DL_DATA_IND(TCV_pdu_acrgh_t_request := DL_DATA_IND.message_unit, TCV_ie_auth_type := TCV_pdu_acrgh_t_request.auth_type)	DI_data_ind(TSV_dlei_value, Access_rights_request_rx01)	(PASS)	1)
2		+STP_perform_key_allocation			
3		DLS ! DL_DATA_REQ(TCV_pdu_acrgh_t_accept := DL_DATA_REQ.message_unit, TCV_pdu_acrgh_t_accept.auth_type := TCV_ie_auth_type, DL_DATA_REQ.message_unit := TCV_pdu_acrgh_t_accept)	DI_data_req(TSV_dlei_value, param)		2)
4	S2	DLS ? DL_DATA_IND(TCV_pdu_acrgh_t_request := DL_DATA_IND.message_unit, TCV_ie_auth_type := TCV_pdu_acrgh_t_request.auth_type)	DI_data_ind(TSV_dlei_value, Access_rights_request_rx02)	(PASS)	1)
5		+STP_perform_key_allocation			
6		DLS ! DL_DATA_REQ(TCV_pdu_acrgh_t_accept := DL_DATA_REQ.message_unit, TCV_pdu_acrgh_t_accept.auth_type := TCV_ie_auth_type, DL_DATA_REQ.message_unit := TCV_pdu_acrgh_t_accept)	DI_data_req(TSV_dlei_value, param)		2)

Detailed Comments : 1) Accessrights_request can contain IPEI or IPUi in portable id, depending on accessrights already present or not
2) The actual pdu to be sent in the accessrights accept message is parameterized, in order to be able to assign zap and service class.

Test Step Dynamic Behaviour

Test Step Name : STP_handle_acrghs_loc_reg(param : PDU)
Group : Teststeps/MM/
Objective : To handle an obtain accessrights request issued by the IUT, including the mandatory location registration afterward.
 A key allocation is done in the middle of the accessrights request.
Default : DF_handle_mm_timeout,
 DF_handle_mm_events,
 DF_handle_cc_events,
 DF_handle_any_timeout,
 DF_handle_unexpected_events
Comments : The parameter specifies the constraint to be sent for accessrights accept.

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1	S1	DLS ? DL_DATA_IND(TCV_pdu_acrgh_t_request := DL_DATA_IND.message_unit, TCV_ie_auth_type := TCV_pdu_acrgh_t_request.auth_type)	DI_data_ind(TSV_dlei_value, Access_rights_request_rx01)	(PASS)	1)
2		+LTS_allocate_keys			
3	S2	DLS ? DL_DATA_IND(TCV_pdu_acrgh_t_request := DL_DATA_IND.message_unit, TCV_ie_auth_type := TCV_pdu_acrgh_t_request.auth_type)	DI_data_ind(TSV_dlei_value, Access_rights_request_rx02)	(PASS)	1)
4		+LTS_allocate_keys			Local Tree:
5		LTS_allocate_keys			2)
6	S3	+STP_perform_key_allocation			3)
7		DLS ! DL_DATA_REQ(TCV_pdu_acrgh_t_accept := DL_DATA_REQ.message_unit, TCV_pdu_acrgh_t_accept.auth_type := TCV_ie_auth_type, DL_DATA_REQ.message_unit := TCV_pdu_acrgh_t_accept)	DI_data_req(TSV_dlei_value, param)		4)
8	S4	START T_EXPECT_LOCATE			
9		DLS ? DL_DATA_IND CANCEL T_EXPECT_LOCATE	DI_data_ind(TSV_dlei_value, Locate_request_rx_base)	(PASS)	
10		START T_F_MM_ident_1			
11	S5	DLS ! DL_DATA_REQ	DI_data_req(TSV_dlei_value, Locate_accept_tx02)		5)
		DLS ? DL_DATA_IND CANCEL T_F_MM_ident_1	DI_data_ind(TSV_dlei_value, Temporary_id_assign_ack_r x_base)	(PASS)	

Detailed Comments : 1) Accessrightsrequest can contain IPEI or IPUI in portable id, depending on accessrights already present or not.
 2) Perform key allocation. AC shall be present in the IUT and in the LT.
 3) The actual pdu to be sent in the accessrights accept message is parameterized, in order to be able to assign zap and service class.
 4) Start a timer guarding the time between accessrights_accept and the locate_request message.
 5) Locate accept contains TPUI assignment

Test Step Dynamic Behaviour					
Test Step Name : STP_handle_ft_auth_resp Group : Teststeps/MM/ Objective : To handle the consequences of invoking the PT initiated FT authentication procedure, once the procedure has been completed. This test step deals with the PT response to the scenarios used in the test step STP_invoke_ft_authentication. See PIXIT Question B.9.17 and PIXIT Question B.7.3. Default : Comments : The PIXIT parameter TSPX_mmproc_auft_invoke (See PIXIT Question B.7.3), specifies the way the authentication of FT procedure will be invoked. This can either be in a proprietary user invoked fashion (value is 0), or by means of a protocol stimulus (value !=0). This test step must handle the subsequent protocol events if the second method of invocation is specified.					
Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		[TSPX_mmproc_auft_invoke = 0]			1)
2		[TSPX_mmproc_auft_invoke = 1]			2)
3		DLS ? DL_DATA_IND	DI_data_ind(TSV_dlei_value, Access_rights_term_accept _rx_base)		
4		DLS ? DL_DATA_IND	DI_data_ind(TSV_dlei_value, Access_rights_term_reject_r x_base)		
5		[TSPX_mmproc_auft_invoke = 2]			3)
Detailed Comments : 1) Invoked by user in a proprietary fashion, as specified in PIXIT. No protocol stimulus is used, and therefore no protocol response needs to be handled. 2) FT initiated terminate access rights procedure used – support possible protocol response. 3) t.b.s					

Test Step Dynamic Behaviour					
Test Step Name : STP_handle_locate_request Group : Teststeps/MM/ Objective : To handle a locate request issued by the IUT. Default : DF_handle_mm_timeout, DF_handle_mm_events, DF_handle_cc_events, DF_handle_any_timeout, DF_handle_unexpected_events Comments : The locate accept message that is sent as a response to the locate request, contains a TPUI. Therefore, a TEMPORARY_ID_ASSIGN_ACK is to be expected (within time T_F_MM_ident_1). This message is handled in DF_handle_mm_events. If timer T_EXPECT_LOCATE is running, it is cancelled in this teststep.					
Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1	S1	DLS ? DL_DATA_IND CANCEL T_EXPECT_LOCATE	DI_data_ind(TSV_dlei_value, Locate_request_rx01)	(PASS)	
2		START T_F_MM_ident_1			1)
3		DLS ! DL_DATA_REQ	DI_data_req(TSV_dlei_value, Locate_accept_tx02)		2)
Detailed Comments : 1) Timer T_MM_ident_1 is started, because a TEMPORARY_ID_ASSIGN_ACK is expected., 2) Locate accept message contains TPUI					

Test Step Dynamic Behaviour					
Test Step Name : STP_init_broadcast_bits					
Group : Teststeps/MM/					
Objective : To set the value of the broadcasted "higher layer capabilities" bits, and of the location area.					
Default : DF_handle_unexpected_events					
Comments : A call to TSO_init_broadcast_bits is made.					
Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		(TCV_result := TSO_init_broadcast_bits())			
Detailed Comments :					

Test Step Dynamic Behaviour					
Test Step Name : STP_invoke_ft_authentication					
Group : Teststeps/MM/					
Objective : To invoke the PT initiated FT authentication procedure See PIXIT Question B.9.17 and PIXIT Question B.7.3					
Default :					
Comments : The PIXIT parameter TSPX_mmproc_auft_invoke (See PIXIT Question B.7.3), specifies the way the authentication of FT procedure will be invoked. This can either be in a proprietary manner (value is 0), or by means of a protocol stimulus (value !=0). If the value of this parameter is set to 0, PIXIT Question B.9.17 specifies the way to invoke the procedure (NOT using protocol stimuli). If the value of this parameter is set to any other value, the teststep provides a number of alternative protocol stimuli for invoking the procedure.					
Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		[TSPX_mmproc_auft_invoke = 0]			1)
2		<IUT ! DL_DATA_IND>	DI_data_ind(TSV_dlei_value, Auth_request_rx_base)		
3		START T_USER_INVOKE			
4		[TSPX_mmproc_auft_invoke = 1]			2)
5		DLS ! DL_DATA_REQ	DI_data_req(TSV_dlei_value, Access_rights_term_request _tx01)		
6		[TSPX_mmproc_auft_invoke = 2]			3)
Detailed Comments : 1) Invoke the authentication of FT procedure in a proprietary way, as specified in the PIXIT. No protocol stimulus is used. 2) Use terminate accessrights to invoke authentication of FT. 3) t.b.s					

Test Step Dynamic Behaviour					
Test Step Name : STP_invoke_obtain_accessrights Group : Teststeps/MM/ Objective : To invoke the obtain accessrights procedure, initiated by the IUT Default : Comments : A DI_est_ind_no_pdu is to be expected, because the IUT will start link establishment, in order to executed the obtain accessrights procedure. Possible, the AC has to be entered in order to start the obtain accessrights procedure.					
Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		<IUT ! DL_ESTABLISH_IND>	DI_est_ind_no_pdu		
2		START T_USER_INVOKE			
Detailed Comments :					

Test Step Dynamic Behaviour					
Test Step Name : STP_invoke_pt_init_cipherying_on Group : Teststeps/MM/ Objective : To invoke the PT to initiate cipherying on See PIXIT Question B.9.13 and PIXIT Question B.7.4 Default : Comments : The PIXIT parameter TSPX_mmproc_cipt_invoke (See PIXIT Question B.7.4), specifies the way the PT initiated cipherying procedure will be invoked. This can either be in a proprietary manner (value is 0), or by means of a protocol stimulus (value !=0). If the value of this parameter is set to 0, PIXIT Question B.9.13 specifies the way to invoke the procedure (NOT using protocol stimuli). If the value of this parameter is set to any other value, the teststep provides a number of alternative protocol stimuli for invoking the procedure.					
Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		[TSPX_mmproc_cipt_invoke = 0]			1)
2		<IUT ! DL_DATA_IND>	DI_data_ind(TSV_dlei_value, Cipher_suggest_rx01)		
3		START T_USER_INVOKE			
4		[TSPX_mmproc_cipt_invoke = 1]			2)
Detailed Comments : 1) Invoke the authentication of FT procedure in a proprietary way, as specified in the PIXIT. No protocol stimulus is used. 2) t.b.s					

Test Step Dynamic Behaviour					
Test Step Name : STP_invoke_pt_init_cipherring_off Group : Teststeps/MM/ Objective : To invoke the PT to initiate cipherring off See PIXIT Question B.9.14 and PIXIT Question B.7.4 Default : Comments : The PIXIT parameter TSPX_mmproc_cipt_invoke (See PIXIT Question B.7.4), specifies the way the PT initiated cipherring procedure will be invoked. This can either be in a proprietary manner (value is 0), or by means of a protocol stimulus (value !=0). If the value of this parameter is set to 0, PIXIT Question B.9.14 specifies the way to invoke the procedure (NOT using protocol stimuli). If the value of this parameter is set to any other value, the teststep provides a number of alternative protocol stimuli for invoking the procedure.					
Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		[TSPX_mmproc_cipt_invoke = 0]			1)
2		<IUT ! DL_DATA_IND>	DI_data_ind(TSV_dlei_value, Cipher_suggest_rx02)		
3		START T_USER_INVOKE			
4		[TSPX_mmproc_cipt_invoke = 1]			2)
Detailed Comments : 1) Invoke the authentication of FT procedure in a proprietary way, as specified in the PIXIT. No protocol stimulus is used. 2) t.b.s					

Test Step Dynamic Behaviour					
Test Step Name : STP_invoke_upi_entering Group : Teststeps/MM/ Objective : To enter the user personal identity at the PT. See PIXIT Question B.9.16 Default : Comments : The user types in its upi, and after this a dl_data_ind is to be expected, containing an AUTH_REPLY message. The value of the UPI has to be specified in the PIXIT parameter TSPX_decimal_upi_value.					
Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		<IUT ! DL_DATA_IND>	DI_data_ind(TSV_dlei_value, Auth_reply_rx_base)		
2		START T_USER_INVOKE			
Detailed Comments :					

Test Step Dynamic Behaviour					
Test Step Name : STP_lose_and_regain_lock					
Group : Teststeps/MM/					
Objective : The objective of this teststep is to temporarily remove the lock that the IUT has with the LT, and after a few seconds, to restore the lock again.					
Default : DF_handle_unexpected_events					
Comments : The testsuite operator TSO_lose_and_regain_lock will do the job.					
Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		(TCV_result := TSO_lose_and_regain_lock())			
Detailed Comments :					

Test Step Dynamic Behaviour					
Test Step Name : STP_perform_key_allocation					
Group : Teststeps/MM/					
Objective : To execute the FT initiated key allocation procedure, in order to allocate the PT identities					
Default : DF_handle_mm_timeout, DF_handle_mm_events, DF_handle_cc_events, DF_handle_any_timeout, DF_handle_unexpected_events					
Comments : When this teststep is executed, a link has to be present. The UAK is calculated, and stored in TSV_uak. The expiry of timer T_F_MM_key_1 is handled in DF_handle_mm_timeout.					
Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		START T_F_MM_key_1			
2		DLS ! DL_DATA_REQ	DI_data_req(TSV_dlei_value, Key_allocate_tx01)		1)
3	B1	DLS ? DL_DATA_IND(TCV_pdu_auth_request := DL_DATA_IND.message_unit, TCV_rand := TCV_pdu_auth_request.rand.field) CANCEL T_F_MM_key_1	DI_data_ind(TSV_dlei_value, Auth_request_rx02)	(PASS)	2)
4		(TCV_res_tx := TSO_cinpt_algosb1_a2(TCV_rand, TSC_rs, TSO_cinpt_convert_ac_to_bitstring(TS PX_decimal_ac_value)), TSV_uak := TSO_cinpt_algosb1_a21(TSC_rs, TSO_cinpt_convert_ac_to_bitstring(TS PX_decimal_ac_value)))			3)
5		DLS ! DL_DATA_REQ	DI_data_req(TSV_dlei_value, Auth_reply_tx02(TCV_res_t x))		4)
Detailed Comments : 1) Send a key allocation request 2) Wait for the auth_request answer, and store the received res value. 3) Calculate the res value and the UAK. 4) Send a auth_reply with the correct res value.					

Test Step Dynamic Behaviour					
Test Step Name : STP_perform_ft_init_cipherng_off Group : Teststeps/MM/ Objective : To execute the FT initiated cipherng procedure, in order to switch off cipherng. Default : DF_handle_mm_timeout, DF_handle_mm_events, DF_handle_cc_events, DF_handle_any_timeout, DF_handle_unexpected_events Comments : A precondition to this teststep, is that a valid dck is present in the testsuite variable TSV_dck. Also, a link between the LT and the IUT must be present.					
Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		START T_F_MM_cipher_1			
2		DLS ! DL_DATA_REQ	DI_data_req(TSV_dlei_value, Cipher_request_tx04)		1)
3	S1	DLS ? DL_ENCRYPT_IND CANCEL T_F_MM_cipher_1	DI_enc_ind(TSV_dlei_value, TSC_cs_disabled)	(PASS)	2
4	S2	DLS ? DL_DATA_IND CANCEL T_F_MM_cipher_1	DI_data_ind(TSV_dlei_value, Cipher_reject_rx_base)	(FAIL)	3)
Detailed Comments : 1) Disable cipherng. 2) Wait for the DL_ENCRYPT_IND with cipherng status 'disabled', and then cancel the timer. The expiry of the timer is handled in DF_handle_mm_timeout. 3) The cipherng request was rejected by the IUT.					

Test Step Dynamic Behaviour

Test Step Name : STP_perform_ft_init_cipherng_on
Group : Teststeps/MM/
Objective : To execute the FT initiated cipherng procedure, in order to switch on cipherng.
Default : DF_handle_sending_of_cc_notify,
DF_handle_mm_timeout,
DF_handle_mm_events,
DF_handle_cc_events,
DF_handle_any_timeout,
DF_handle_unexpected_events
Comments : A precondition to this teststep, is that a valid dck is present in the testsuite variable TSV_dck.
Also, a link between the LT and the IUT must be present.

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		DLS ! DL_ENC_KEY_REQ	DI_enc_key_req(TSV_dlei_value, TSV_dck_value)		1)
2		START T_F_MM_cipher_1			
3		DLS ! DL_DATA_REQ	DI_data_req(TSV_dlei_value, Cipher_request_tx01)		
4	S1	DLS ? DL_ENCRYPT_IND CANCEL T_F_MM_cipher_1	DI_enc_ind(TSV_dlei_value, TSC_cs_enabled)	(PASS)	2)
5	S2	DLS ? DL_DATA_IND CANCEL T_F_MM_cipher_1	DI_data_ind(TSV_dlei_value, Cipher_reject_rx_base)	(FAIL)	3)

Detailed Comments : 1) Pass dck value to DLC
2) Wait for the DL_ENCRYPT_IND with cipherng status 'enabled', and then cancel the timer. The expiry of the timer is handled in DF_handle_mm_timeout.
3) The cipherng request was rejected by the IUT.

Test Step Dynamic Behaviour					
<p>Test Step Name : STP_perform_pt_authentication(param_tx : PDU; param_rx : PDU)</p> <p>Group : Teststeps/MM/</p> <p>Objective : A general teststep for performing PT authentication.</p> <p>Default : DF_handle_sending_of_cc_notify, DF_handle_mm_timeout, DF_handle_mm_events, DF_handle_cc_events, DF_handle_any_timeout, DF_handle_unexpected_events</p> <p>Comments : param_tx is an input parameter specifying the constraints for the authentication request. param_rx is an output parameter, specifying the constraint for the authentication reply. A precondition to this teststep, is that a valid uak is present in the testsuite variable TSV_uak. Also, a link has to be present.</p>					
Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		START T_F_MM_auth_1			1)
2		DLS ! DL_DATA_REQ	DI_data_req(TSV_dlei_value,param_tx)		2)
3	S1	DLS ? DL_DATA_IND (TCV_pdu_auth_reply := DL_DATA_IND.message_unit, TCV_res_rx := TCV_pdu_auth_reply.res.field) CANCEL T_F_MM_auth_1	DI_data_ind(TSV_dlei_value,param_rx)	(PASS)	3)
4		(TCV_xres := TSO_cinpt_algosb1_a1(TSC_rand, TSC_rs, TSV_uak), TSV_dck_value := TSO_cinpt_algos_dck_b1_a1(TSC_ran d, TSC_rs, TSV_uak))			4)
5	S2	[TCV_xres = TCV_res_rx]		(PASS)	
6	S3	[TCV_xres <> TCV_res_rx]		(FAIL)	
<p>Detailed Comments : 1) Start timer. 2) Send authentication request, with param_tx 3) Receive authentication reply with param_rx. Store received res in TCV_res_rx. 4) Check if received res value matches calculated res value. Also, calculate a possible derived ciphering key (Only used if the auth_request constraint specifies upc = 1)</p>					

Test Step Dynamic Behaviour					
<p>Test Step Name : STP_perform_terminate_acrghs(param_tx : PDU; param_rx : PDU)</p> <p>Group : Teststeps/MM/</p> <p>Objective : A general teststep for performing the FT initiated terminate accessrights procedure.</p> <p>Default : DF_handle_sending_of_cc_notify, DF_handle_mm_timeout, DF_handle_mm_events, DF_handle_cc_events, DF_handle_any_timeout, DF_handle_unexpected_events</p> <p>Comments : param_tx is an input parameter specifying the constraints for the terminate accessrights request. param_rx is an output parameter, specifying the constraint for the terminate accessrights accept. A precondition to this teststep, is that a link has to be present. The intervening FT authentication will be handled in DF_handle_mm_event.</p>					
Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		START T_F_MM_access_2			1)
2		DLS ! DL_DATA_REQ	DI_data_req(TSV_dlei_value,param_tx)		2)
3	S1	DLS ? DL_DATA_IND CANCEL T_F_MM_access_2	DI_data_ind(TSV_dlei_value, Access_rights_term_reject_r x_base)	(FAIL)	3)
4	S2	DLS ? DL_DATA_IND CANCEL T_F_MM_access_2	DI_data_ind(TSV_dlei_value, param_rx)	(PASS)	4)
<p>Detailed Comments : 1) Start the T_F_MM_access_2 timer. Its timeout is handled in DF_handle_mm_timeout 2) Specify portable id IPUI and fixed id PARK to be deleted. A possible FT authentication in the middle of the procedure, is handled in DF_handle_mm_events. 3) A reject is received. Something went wrong. 4) The accessrights are terminated.</p>					

Test Step Dynamic Behaviour					
Test Step Name : STP_perform_user_authentication(param_tx : PDU; param_rx : PDU) Group : Teststeps/MM/ Objective : A general teststep for performing user authentication. Default : DF_handle_sending_of_cc_notify, DF_handle_mm_timeout, DF_handle_mm_events, DF_handle_cc_events, DF_handle_any_timeout, DF_handle_unexpected_events Comments : param_tx is an input parameter specifying the constraints for the authentication request. param_rx is an output parameter, specifying the constraint for the authentication reply. A precondition to this teststep, is that a valid uak is present in the testsuite variable TSV_uak. Also, a link has to be present.					
Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		START T_F_MM_auth_2			1)
2		DLS ! DL_DATA_REQ	DI_data_req(TSV_dlei_value, param_tx)		2)
3		+STP_invoke_upi_entering			3)
4	S1	DLS ? DL_DATA_IND (TCV_pdu_auth_reply := DL_DATA_IND.message_unit, TCV_res_rx := TCV_pdu_auth_reply.res.field) CANCEL T_F_MM_auth_2	DI_data_ind(TSV_dlei_value, param_rx)	(PASS)	4)
5		(TCV_xres := TSO_cinpt_algosb2_a1(TSC_rand, TSC_rs, TSV_uak, TSO_cinpt_convert_upi_to_bitstring(TSPX_decimal_upi_value)))			5)
6	S2	[TCV_xres = TCV_res_rx]		(PASS)	
7	S3	[TCV_xres <> TCV_res_rx]		(FAIL)	
Detailed Comments : 1) Start timer. 2) Send authentication request, with param_tx. 3) Invoke the UPI entering. 4) Receive authentication reply with param_rx. Store received res in TCV_res_rx. 5) Check if received res value matches calculated res value.					

Test Step Dynamic Behaviour					
Test Step Name : STP_set_bit_a38(param : INT_8) Group : Teststeps/MM/ Objective : The set the value of the broadcasted "higher layer capabilities" bit a 38. The parameter indicates the value that the bit shall get. Default : DF_handle_unexpected_events Comments : The testsuite operator TSO_cinpt_set_bit_a38 will do the job.					
Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		(TCV_result := TSO_cinpt_set_bit_a38(param))			
Detailed Comments :					

Test Step Dynamic Behaviour					
Test Step Name : STP_set_bit_a44(param : INT_8)					
Group : Teststeps/MM/					
Objective : The set the value of the broadcasted "higher layer capabilities" bit a 44. The parameter indicates the value that the bit shall get.					
Default : DF_handle_unexpected_events					
Comments : The testsuite operator TSO_set_bit_a44 will do the job.					
Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		(TCV_result := TSO_set_bit_a44(param))			
Detailed Comments :					

Test Step Dynamic Behaviour					
Test Step Name : STP_switch_iut_power_off_on					
Group : Teststeps/MM/					
Objective : To switch the power of the IUT off, and afterwards on.					
Default : DF_handle_unexpected_events					
Comments : The implicit send will contain a DI_est_ind_no_pdu, because the IUT should begin link establishment, in order to perform location registration.					
Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		<IUT ! DL_ESTABLISH_IND>	DI_est_ind_no_pdu		
2		START T_EXPECT_LOCATE			
Detailed Comments :					

Test Step Dynamic Behaviour					
Test Step Name : STP_check_link_present					
Group : Teststeps/LC/					
Objective : To test if a link is present between the iut and the lt.					
Default : DF_handle_any_timeout, DF_handle_unexpected_events					
Comments : The boolean variable TCV_result contains the result of the test. If it is TRUE, a link is still present, if it is FALSE, no link is present.					
Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		(TCV_result := (TSO_cinpt_check_link_present()))			
Detailed Comments :					

Test Step Dynamic Behaviour					
Test Step Name : STP_handle_direct_link_est Group : Teststeps/LC/ Objective : To handle the direct link establishment, initiated by the IUT. Default : DF_handle_cc_timeout, DF_handle_mm_timeout, DF_handle_mm_events, DF_handle_cc_events, DF_handle_any_timeout, DF_handle_unexpected_events Comments : Precondition: Timer T_USER_INVOKE is started. After the link establishment, the timer is cancelled.					
Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1	S1	DLS ? DL_ESTABLISH_IND (TSV_dlei_value := DL_ESTABLISH_IND. data_link_endpoint_identifier) CANCEL T_USER_INVOKE	DI_est_ind_no_pdu	(PASS)	1)
Detailed Comments : 1) Store dlei value to be used for communication in TSV_dlei_value. ONLY a DI_est_ind WITHOUT a PDU is expected here. Cancel the invocation timer started in the STP_invoke... teststep. In DLC class A, the DL_ESTABLISH_RES may be omitted.					

Test Step Dynamic Behaviour					
Test Step Name : STP_indirect_link_establishment Group : Teststeps/LC/ Objective : To establish a link, initiated by the LT, using the indirect link establishment procedure as described in ETS 300 444, subclause 8.35 Default : DF_handle_any_timeout, DF_handle_unexpected_events Comments : A page request is retransmitted three times. If the IUT still does not repond, the testcase is failed. The PT will be paged with an assigned TPUI. Therefore, TPUI assignment has to be done as a precondition to this teststep. A postcondition to this teststep is that a link is present, because if the link establishment fails, a postamble is executed, terminating the testcase					
Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		(TCV_count := 0)			
2		REPEAT STP_perform_paging UNTIL [(TCV_count = 3) OR (TCV_result = TRUE)]			
3	S1	[TCV_result = TRUE]		(PASS)	
4	S2	[TCV_result = FALSE]		(FAIL)	
5		+PO_terminate			1)
Detailed Comments : 1) Abort testcase, because link could not be established					

Test Step Dynamic Behaviour					
Test Step Name : STP_indirect_link_no_fail Group : Teststeps/LC/ Objective : To establish a link, initiated by the LT, using the indirect link establishment procedure as described in ETS 300 444, subclause 8.35. The difference with STP_indirect_link_establishment is that the testcase is NOT failed when no link could be established. Default : DF_handle_any_timeout, DF_handle_unexpected_events Comments : A page request is retransmitted three times. If the IUT still does not repond, the testcase variable TCV_result will contain the value FALS, otherwise TRUE. The PT will be paged with an assigned TPUI. Therefore, TPUI assignment has to be done as a precondition to this teststep.					
Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		(TCV_count := 0)			
2		REPEAT STP_perform_paging UNTIL [(TCV_count = 3) OR (TCV_result = TRUE)]			
Detailed Comments :					

Test Step Dynamic Behaviour					
Test Step Name : STP_initialise_tf(param : TRANS_FLAG) Group : Teststeps/LC/ Objective : To initialise the transaction flag used in the network header of the CC messages Default : Comments :					
Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		[param = TSC_iut_originated]			
2		(TCV_cc_iut_tf := '0'B, TCV_cc_lt_tf := '1'B)			
3		[param = TSC_lt_originated]			
4		(TCV_cc_iut_tf := '1'B, TCV_cc_lt_tf := '0'B)			
Detailed Comments :					

Test Step Dynamic Behaviour					
Test Step Name : STP_perform_paging Group : Teststeps/LC/ Objective : To page the IUT, as part of the FT initiated indirect link establishment procedure. Default : DF_handle_any_timeout, DF_handle_unexpected_events Comments : The IUT will be paged with an assigned TPUI. Therefore, TPUI assignment has to be done as a precondition to this teststep. The boolean variableTCV_result indicates whether or not the IUT has responded to the page.					
Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		DLB ! DL_BROADCAST_REQ (TCV_count := TCV_count + 1) START T_F_LCE_03	DI_brc_req(Lce_request_page_tx01)		1)
2	S1	DLS ? DL_ESTABLISH_IND (TCV_result := TRUE, TSV_dlei_value := DL_ESTABLISH_IND. data_link_endpoint_identifier) CANCEL T_F_LCE_03	DI_est_ind_pdu(Lce_page_response_rx01)	(PASS)	2)
3		? TIMEOUT T_F_LCE_03 (TCV_result := FALSE)			3)
Detailed Comments : 1) U-plane services requested 2) Set transaction value to be used in outgoing cc message,. to 0. Store dlei value to be used in TSV_dlei_value. In DLC class A, the DL_ESTABLISH_RES may be omitted. 3) PT does not respond in time.					

Test Step Dynamic Behaviour					
Test Step Name : STP_release_link Group : Teststeps/LC/ Objective : To initiate the link release procedure. A DL_RELEASE_REQ is sent, and the DL_RELEASE_CFM is waited for. Default : DF_handle_any_timeout, DF_handle_unexpected_events Comments : It could happen that no link is present whe this teststep is called.					
Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		[NOT TSO_cinpt_check_link_present()]		(PASS)	
2		DLS ! DL_RELEASE_REQ START T_F_LCE_01	DI_rel_req(TSV_dlei_value, TSC_rm_normal)		
3	S1	DLS ? DL_RELEASE_CFM CANCEL T_F_LCE_01	DI_rel_cfm(TSV_dlei_value)	(PASS)	
4	S2	DLS ? DL_RELEASE_IND CANCEL T_F_LCE_01	DI_rel_ind(TSV_dlei_value)	(PASS)	1)
5	S3	? TIMEOUT T_F_LCE_01		(PASS)	
Detailed Comments : 1) This receive statement captures release collision.					

Test Step Dynamic Behaviour					
Test Step Name : PO_normal_release Group : Postambles/ Objective : To perform a normal release, initiated by the LT, and to release the link. A final verdict is assigned. Default : DF_handle_mm_invokation, DF_handle_cc_timeout, DF_handle_mm_timeout, DF_handle_mm_events, DF_handle_cc_events, DF_handle_any_timeout, DF_handle_unexpected_events Comments : Expiry of timer T_F_CC_02 is handled in default DF_handle_cc_timeout Before terminating the testcase, time T_RELEASE_DELAY seconds is waited, in order to catch any strange behaviour of the IUT, and act upon it.					
Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		START T_RELEASE_DELAY			
2	PO1	? TIMEOUT T_RELEASE_DELAY		(PASS)	
3		+STP_cc_release_normal (TSC_lt_terminated)			
4		+STP_release_link			
5	PO2	CANCEL		R	
Detailed Comments :					

Test Step Dynamic Behaviour					
Test Step Name : PO_release_link Group : Postambles/ Objective : To perform a link release procedure, initiated by the LT. A final verdict is assigned. Default : DF_handle_mm_invokation, DF_handle_cc_timeout, DF_handle_mm_timeout, DF_handle_any_timeout, DF_handle_unexpected_events Comments : Timer T_F_LCE_02 is the link maintain timer. All events received during this time will lead to failure of the testcase (except the events described in DF_handle_mm_invokation)					
Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		START T_F_LCE_02			
2	PO1	? TIMEOUT T_F_LCE_02		(PASS)	
3		+STP_release_link			
4	PO2	CANCEL		R	
5	S2	DLS ? DL_RELEASE_IND CANCEL T_F_LCE_02	DI_rel_ind(TSV_dlei_value)	(PASS)	
Detailed Comments :					

Test Step Dynamic Behaviour					
Test Step Name : PO_terminate Group : Postambles/ Objective : To terminate the testcase, in case no link is present. A final verdict is assigned. Default : DF_handle_mm_invokation, DF_handle_cc_timeout, DF_handle_mm_timeout, DF_handle_mm_events, DF_handle_cc_events, DF_handle_any_timeout, DF_handle_unexpected_events Comments : Before terminating the testcase, time T_RELEASE_DELAY seconds is waited, in order to catch any strange behaviour of the IUT, and act upon it.					
Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		START T_RELEASE_DELAY			
2	PO1	? TIMEOUT T_RELEASE_DELAY		(PASS)	
3	PO2	CANCEL		R	
Detailed Comments :					

Default Dynamic Behaviour

Default Name : DF_handle_any_timeout
Group :
Objective : To handle a timeout of any of the timers started in a testcase, and FAIL the testcase
Comments :

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1	D1	? TIMEOUT T_USER_INVOKE		(FAIL)	
2		+DFLTS_cc_release_abnormal			
3	D2	CANCEL		R	
4	D3	? TIMEOUT T_EXPECT_LOCATE		(FAIL)	
5		+DFLTS_release_link			
6	D4	CANCEL		R	
7	D5	? TIMEOUT T_F_LCE_01		(FAIL)	
8		+DFLTS_release_link			
9	D6	CANCEL		R	
10	D7	? TIMEOUT		(FAIL)	1)
11		+DFLTS_cc_release_abnormal			
12	D8	CANCEL		R	
13		DFLTS_cc_release_abnormal DLS ! DL_DATA_REQ	DI_data_req(TSV_dlei_value, Cc_release_com_tx_base(TCV_cc_tv, TCV_cc_lt_tf))		
14	DS1	DLS ? DL_RELEASE_IND	DI_rel_ind(TSV_dlei_value)		
15	DS2	DLS ? OTHERWISE		(FAIL)	
16		+DFLTS_release_link			
17	DS3	CANCEL		R	
18		DFLTS_release_link DLS ! DL_RELEASE_REQ START T_DLC_RESPONSE	DI_rel_req(TSV_dlei_value, TSC_rm_abnormal)		
19	DS4	DLS ? DL_RELEASE_CFM CANCEL T_DLC_RESPONSE	DI_rel_cfm(TSV_dlei_value)		
20	DS5	DLS ? DL_RELEASE_IND CANCEL T_DLC_RESPONSE	DI_rel_ind(TSV_dlei_value)		
21	DS6	? TIMEOUT T_DLC_RESPONSE		(I)	
22	DS7	CANCEL		R	
23	DS8	DLS ? OTHERWISE		(FAIL)	
24	DS9	CANCEL		R	

Detailed Comments : 1) Catch all timeouts

Default Dynamic Behaviour

Default Name : DF_handle_cc_events

Group :

Objective : To handle any other cc event, and to return to the testcase.

Comments :

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1	D1	DLS ? DL_DATA_IND	DI_data_ind(TSV_dlei_value, Cc_info_rx_base(TCV_cc_tv, TCV_cc_iut_tf))		1)
2		RETURN			

Detailed Comments : 1) Handle CC_INFO, and return to the testcase

Default Dynamic Behaviour

Default Name : DF_handle_cc_timeout
Group :
Objective : To handle a timeout of any of the CC timers started in a testcase, and fail the testcase
Comments :

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1	D1	? TIMEOUT T_F_CC_01		(FAIL)	
2		+DFLTS_cc_release_normal			
3	D2	CANCEL		R	
4	D3	? TIMEOUT T_F_CC_02		(FAIL)	
5		+DFLTS_cc_release_abnormal			
6	D4	CANCEL		R	
7	D5	? TIMEOUT T_F_CC_03		(FAIL)	
8		+DFLTS_cc_release_abnormal			
9	D6	CANCEL		R	
10		DFLTS_cc_release_normal DLS ! DL_DATA_REQ START T_F_CC_02	DI_data_req(TSV_dlei_value, Cc_release_tx_base(TCV_cc_tv, TCV_cc_lt_tf))		
11	DS1	DLS ? DL_DATA_IND CANCEL T_F_CC_02	DI_data_ind(TSV_dlei_value, Cc_release_com_rx_base(TCV_cc_tv, TCV_cc_iut_tf))		
12		+DFLTS_release_link			
13	DS2	DLS ? DL_RELEASE_IND CANCEL T_F_CC_02	DI_rel_ind(TSV_dlei_value)		
14	DS3	? TIMEOUT T_F_CC_02		(I)	
15		+DFLTS_cc_release_abnormal			
16	DS4	DLS ? OTHERWISE		(FAIL)	
17		+DFLTS_release_link			
18	DS5	CANCEL		R	
19		DFLTS_cc_release_abnormal DLS ! DL_DATA_REQ	DI_data_req(TSV_dlei_value, Cc_release_com_tx_base(TCV_cc_tv, TCV_cc_lt_tf))		
20	DS6	DLS ? DL_RELEASE_IND	DI_rel_ind(TSV_dlei_value)		
21	DS7	DLS ? OTHERWISE		(FAIL)	
22		+DFLTS_release_link			
23	DS8	CANCEL		R	
24		DFLTS_release_link DLS ! DL_RELEASE_REQ START T_DLC_RESPONSE	DI_rel_req(TSV_dlei_value, TSC_rm_abnormal)		
25	DS9	DLS ? DL_RELEASE_CFM CANCEL T_DLC_RESPONSE	DI_rel_cfm(TSV_dlei_value)		
26	DS10	DLS ? DL_RELEASE_IND CANCEL T_DLC_RESPONSE	DI_rel_ind(TSV_dlei_value)		
27	DS11	? TIMEOUT T_DLC_RESPONSE		(I)	
28	DS12	CANCEL		R	
29	DS13	DLS ? OTHERWISE		(FAIL)	
30	DS14	CANCEL		R	

Detailed Comments :

Default Dynamic Behaviour					
Default Name : DF_handle_mm_events					
Group :					
Objective : To handle intervening MM procedures, during CC testcases					
Comments : The procedure is handled, and afterwards control is passed back to the testcase					
Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+DFLTS_handle_auth			
2		RETURN			
3		+DFLTS_handle_obtain_accessrights			
4		RETURN			
5		+DFLTS_handle_locate_request			
6		RETURN			
7		+DFLTS_handle_tpui_assign_ack			
8		RETURN			
9		+DFLTS_handle_pt_init_cipherring_off			
10		RETURN			
11		+DFLTS_handle_pt_init_cipherring_on			
12		RETURN			
13	DS1	DLS ? DL_ESTABLISH_IND(TSV_dlei_value := DL_ESTABLISH_IND. data_link_endpoint_identifier)	DI_est_ind_no_pdu		
14		+DFLTS_handle_auth			
15		RETURN			
16		+DFLTS_handle_obtain_accessrights			
17		RETURN			
18		+DFLTS_handle_locate_request			
19		RETURN			
20		+DFLTS_handle_tpui_assign_ack			
21		RETURN			
22		+DFLTS_handle_pt_init_cipherring_off			
23		RETURN			
24		+DFLTS_handle_pt_init_cipherring_on			
25		RETURN			
26	DS2	DFLTS_handle_auth DLS ? DL_DATA_IND(TCV_pdu_auth_request := DL_DATA_IND.message_unit, TCV_rand := TCV_pdu_auth_request.rand.field)	DI_data_ind(TSV_dlei_value, Auth_request_rx01)		
27		(TCV_res_tx := TSO_cinpt_algosb1_a2(TCV_rand, TSC_rs, TSV_uak))			
28		DLS ! DL_DATA_REQ	DI_data_req(TSV_dlei_value, Auth_reply_tx01(TCV_res_t x))		
29	DS3	DFLTS_handle_obtain_accessrights DLS ? DL_DATA_IND(TCV_pdu_acrgh_t_request := DL_DATA_IND.message_unit, TCV_ie_auth_type := TCV_pdu_acrgh_t_request.auth_type)	DI_data_ind(TSV_dlei_value, Access_rights_request_rx01)		1)

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Default Dynamic Behaviour					
Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
30		DLS ! DL_DATA_REQ(TCV_pdu_acrgh_t_accept := DL_DATA_REQ.message_unit, TCV_pdu_acrgh_t_accept.auth_type := TCV_ie_auth_type, DL_DATA_REQ.message_unit := TCV_pdu_acrgh_t_accept)	DI_data_req(TSV_dlei_value, Access_rights_accept_tx01)		2)
31		DLS ? DL_DATA_IND(TCV_pdu_acrgh_t_request := DL_DATA_IND.message_unit, TCV_ie_auth_type := TCV_pdu_acrgh_t_request.auth_type)	DI_data_ind(TSV_dlei_value, Access_rights_request_rx02)		1)
32		DLS ! DL_DATA_REQ(TCV_pdu_acrgh_t_accept := DL_DATA_REQ.message_unit, TCV_pdu_acrgh_t_accept.auth_type := TCV_ie_auth_type, DL_DATA_REQ.message_unit := TCV_pdu_acrgh_t_accept)	DI_data_req(TSV_dlei_value, Access_rights_accept_tx01)		2)
33	DS4	DFLTS_handle_locate_request DLS ? DL_DATA_IND	DI_data_ind(TSV_dlei_value, Locate_request_rx01)		
34		START T_F_MM_ident_1			3)
35		DLS ! DL_DATA_REQ	DI_data_req(TSV_dlei_value, Locate_accept_tx02)		4)
36	DS5	DFLTS_handle_tpui_assign_ack DLS ? DL_DATA_IND CANCEL T_F_MM_ident_1	DI_data_ind(TSV_dlei_value, Temporary_id_assign_ack_r x_base)		5)
37	DS6	DFLTS_handle_pt_init_cipherng_off DLS ? DL_DATA_IND	DI_data_ind(TSV_dlei_value, Cipher_suggest_rx02)		6)
38		START T_F_MM_cipher_1			
39		DLS ! DL_DATA_REQ	DI_data_req(TSV_dlei_value, Cipher_request_tx03)		
40		DLS ? DL_ENCRYPT_IND CANCEL T_F_MM_cipher_1	DI_enc_ind(TSV_dlei_value, TSC_cs_disabled)		7)
41	DS7	DLS ? DL_DATA_IND CANCEL T_F_MM_cipher_1	DI_data_ind(TSV_dlei_value, Cipher_reject_rx01)	(FAIL)	8)
42	DS8	DFLTS_handle_pt_init_cipherng_on DLS ? DL_DATA_IND	DI_data_ind(TSV_dlei_value, Cipher_suggest_rx01)		9)
43		START T_F_MM_cipher_1			
44		DLS ! DL_DATA_REQ	DI_data_req(TSV_dlei_value, Cipher_request_tx02)		

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Default Dynamic Behaviour					
Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
45		DLS ! DL_ENC_KEY_REQ	DI_enc_key_req(TSV_dlei_value, TSV_dck_val ue)		10)
46		DLS ? DL_ENCRYPT_IND CANCEL T_F_MM_cipher_1	DI_enc_ind(TSV_dlei_value, TSC_cs_enabled)		11)
47	DS9	DLS ? DL_DATA_IND CANCEL T_F_MM_cipher_1	DI_data_ind(TSV_dlei_value, Cipher_reject_rx01)	(FAIL)	12)
<p>Detailed Comments : 1) Accessrights_request can contain IPEI or IPUI in portable id, depending on accessrights already present or not 2) No ZAP field and Service class are stored. 3) Timer T_MM_ident_1 is started, because a TEMPORARY_ID_ASSIGN_ACK is expected., 4) Locate accept message contains TPUI 5) Accessrights_request can contain IPEI or IPUI in portable id, depending on accessrights already present or not 6) Receive message with request to switch ciphering off. 7) Wait for the DL_ENCRYPT_IND with ciphering status 'disabled', and then cancel the timer. The expiry of the timer is handled in DF_handle_mm_timeout. 8) The request to switch off ciphering was rejected by the IUT. 9) Receive message with request to switch ciphering on. 10) Pass dck value to DLC. 11) Wait for the DL_ENCRYPT_IND with ciphering status 'enabled', and then cancel the timer. The expiry of the timer is handled in DF_handle_mm_timeout. 12) The ciphering request was rejected by the IUT.</p>					

Default Dynamic Behaviour					
<p>Default Name : DF_handle_mm_invokation Group : Objective : To handle the reply of a LT (FT) initiated MM procedure used for invoking an PT (IUT) initiated procedure. Comments : The procedure is handled, and afterwards control is passed back to the testcase</p>					
Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1	DS1	DLS ? DL_DATA_IND CANCEL T_F_MM_access_2	DI_data_ind(TSV_dlei_value, Access_rights_term_accept_rx_base)		
2		RETURN			
<p>Detailed Comments :</p>					

Default Dynamic Behaviour

Default Name : DF_handle_mm_timeout

Group :

Objective : To handle a timeout of any of the MM timers started in a testcase, and fail the testcase

Comments :

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1	D1	? TIMEOUT T_F_MM_access_2		(FAIL)	
2		+DFLTS_release_link			
3	D2	CANCEL		R	
4	D3	? TIMEOUT T_F_MM_auth_1		(FAIL)	
5		+DFLTS_release_link			
6	D4	CANCEL		R	
7	D5	? TIMEOUT T_F_MM_auth_2		(FAIL)	
8		+DFLTS_release_link			
9	D6	CANCEL		R	
10	D7	? TIMEOUT T_F_MM_cipher_1		(FAIL)	
11		+DFLTS_release_link			
12	D8	CANCEL		R	
13	D9	? TIMEOUT T_F_MM_ident_1		(FAIL)	
14		+DFLTS_release_link			
15	D10	CANCEL		R	
16	D11	? TIMEOUT T_F_MM_ident_2		(FAIL)	
17		+DFLTS_release_link			
18	D12	CANCEL		R	
19	D13	? TIMEOUT T_F_MM_key_1		(FAIL)	
20		+DFLTS_release_link			
21	D14	CANCEL		R	
		DFLTS_release_link			
22		DLS ! DL_RELEASE_REQ START T_DLC_RESPONSE	DI_rel_req(TSV_dlei_value, TSC_rm_abnormal)		
23	DS1	DLS ? DL_RELEASE_CFM CANCEL T_DLC_RESPONSE	DI_rel_cfm(TSV_dlei_value)		
24	DS2	DLS ? DL_RELEASE_IND CANCEL T_DLC_RESPONSE	DI_rel_ind(TSV_dlei_value)		
25	DS3	? TIMEOUT T_DLC_RESPONSE		(I)	
26	DS4	CANCEL		R	
27	DS5	DLS ? OTHERWISE		(FAIL)	
28	DS6	CANCEL		R	

Detailed Comments :

Default Dynamic Behaviour

Default Name : DF_handle_sending_of_cc_notify

Group :

Objective : To restart a CC timer in the IUT, by means of a {CC_NOTIFY} message containing a 'restart timer' ie, in case an intervening MM procedure takes too long.

Comments : To check the necessity for a timer restart, a guard timer in the LT should be started, which should have a value lower as the value of the timer in the IUT. If the guard timer times out, a CC-NOTIFY is sent, and the timer in the IUT and the guard timer are restarted. The teststep will pass back control to the testcase.

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1	D1	? TIMEOUT T_RESTART_DELAY			
2		DLS ! DL_DATA_REQ START T_RESTART_DELAY	DI_data_req(TSV_dlei_value, Cc_notify_tx01(TCV_cc_tv, TCV_cc_lt_tf))		
3		RETURN			

Detailed Comments :

Default Dynamic Behaviour

Default Name : DF_handle_unexpected_events
Group :
Objective : To release the link and to FAIL the testase in case of an unexpected event. PDUs which are out of scope in the GAP (ETS 300 444) are ignored.
Comments : In case a release indication arrives, the result of the test is inconclusive. CISS, COMS and some CC and MM PDUs, which are out of scope, are ignored. CLMS PDUs , which are also out of scope, are not considered since no PCO is declared for the Connectionless SAP (SAPI=3).

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1	D1	DLS ? DL_RELEASE_IND	DI_rel_ind(TSV_dlei_value)	I	1)
2	D2	CANCEL		R	
3	D3	DLS ? OTHERWISE		(FAIL)	2)
4		+DFLTS_release_link			
5	D4	CANCEL		R	
6	D5	DLB ? OTHERWISE		(FAIL)	3)
7		+DFLTS_release_link			
8	D6	CANCEL		R	
9		DLS ? DL_DATA_IND	DI_data_ind(TSV_dlei_value,Ciss_any_pdu_rx)		4)
10		DLS ? DL_DATA_IND	DI_data_ind(TSV_dlei_value,Coms_any_pdu_rx)		5)
11		DLS ? DL_DATA_IND	DI_data_ind(TSV_dlei_value,Cc_out_of_scope_pdu_rx(TCV_cc_tv, TCV_cc_iut_tf))		6)
12		DLS ? DL_DATA_IND	DI_data_ind(TSV_dlei_value,Mm_out_of_scope_pdu_rx)		7)
		DFLTS_release_link			
13		DLS ! DL_RELEASE_REQ START T_DLC_RESPONSE	DI_rel_req(TSV_dlei_value, TSC_rm_abnormal)		
14	DS1	DLS ? DL_RELEASE_CFM CANCEL T_DLC_RESPONSE	DI_rel_cfm(TSV_dlei_value)		
15	DS2	DLS ? DL_RELEASE_IND CANCEL T_DLC_RESPONSE	DI_rel_ind(TSV_dlei_value)		
16	DS3	? TIMEOUT T_DLC_RESPONSE		(I)	
17	DS4	CANCEL		R	
18	DS5	DLS ? OTHERWISE		(FAIL)	
19	DS6	CANCEL		R	

Detailed Comments : 1) Unexpected link release: result is inconclusive. Check external conditions
2) General otherwise statement, cathcing all unexpected (and thus invalid) events from DLS PCO
3) General otherwise statement, cathcing all unexpected (and thus invalid) events from DLB PCO
4) Ignore any CISS PDU, which is out of scope in the GAP.
5) Ignore any COMS PDU, which is out of scope in the GAP.
6) Ignore CC PDUs, which are out of scope in the GAP.
7) Ignore MM PDUs, which are out of scope in the GAP.

Annex B (normative): Partial PIXIT proforma

Notwithstanding the provisions of the copyright clause related to the text of this ETS, ETSI grants that users of this ETS may freely reproduce the PIXIT proforma in this annex so that it can be used for its intended purposes and may further publish the completed PIXIT.

The PIXIT Proforma is based on ISO/IEC 9646-6 [26]. Any additional information needed can be found in this international standard document.

B.1 Identification summary

Table B.1

PIXIT Number:	
Test Laboratory Name:	
Date of Issue:	
Issued to:	

B.2 ATS summary

Table B.2

Protocol Specification:	
Protocol to be tested:	
ATS Specification:	
Abstract Test Method:	Embedded variant of the Remote Test Method with no UT

B.3 Test laboratory

Table B.3

Test Laboratory Identification:	
Test Laboratory Manager:	
Means of Testing:	
SAP Address:	

B.4 Client identification

Table B.4

Client Identification:	
Client Test manager:	
Test Facilities required:	

B.5 SUT

Table B.5

Name:	
Version:	
SCS Number:	
Machine configuration:	
Operating System Identification:	
IUT Identification:	
PICS Reference for IUT:	
Limitations of the SUT:	
Environmental Conditions:	

B.6 Protocol layer information

B.6.1 Protocol identification

Table B.6

Name:	DECT - Data Link Control Layer
Version:	
PICS References:	

B.6.2 IUT information

Table B.7: General Configuration

Item	Parameter	Parameter Type	Explanation and ETS Reference	Value
1	TSPX_mmproc_auft_ccstate	CCSTATE_TYPE (INTEGER 1, 2, 3, 4, 5, 6, 7, 10, 19)	Indicates the PT cc state, the authentication of FT test cases shall be tested in Ref. ETS 300 175 [5], subclause 13.3.3	
2	TSPX_mmproc_cipt_ccstate	CCSTATE_TYPE (INTEGER 1, 2, 3, 4, 5, 6, 7, 10, 19)	Indicates the PT cc state, the PT init. ciphering test cases shall be tested in Ref. ETS 300 175 [5], subclause 13.8	
3	TSPX_mmproc_auft_invoke	MMPROC_TYPE (INTEGER 0 .. 10)	Indicates the way of invoking the authentication of FT proc. Ref. ETS 300 175 [5], subclause 13.3.3	
4	TSPX_mmproc_cipt_invoke	MMPROC_TYPE (INTEGER 0 .. 10)	Indicates the way of invoking the PT initiated ciphering proc. Ref. ETS 300 175 [5], subclause 13.8	
5	TSPX_nr_of_digits_in_cpn	INT_8 (INTEGER 0..255)	In order to facilitate testing, a number of digits less than 10 is advised. This parameter really indicates the number of CC_INFO messages to be expected during call setup	

Table B.8: Addresses

Item	Address name	Parameter Type	Explanation and ETS Reference	Value
1	TSPX_decimal_ac_value	OCT_4 (OCTETSTRING[4])	Value of AC to be used. The AC will be entered as maximal 8 decimal digits. The AC to bitstring mapping will be done with operator TSO_convert_ac_to_bitstring. Ref. ETS 300 444 [9], subclause 14.2	
2	TSPX_complete_fixed_id_ari_rpn_value	FIXED_ID_VALUE_TYPE (BITSTRING[8..72])	Value of fixed_id to be used in case of ARI + RPN Ref. ETS 300 175 [5], subclause 7.7.18 40 bits starting with 0	
3	TSPX_ipei_value	PORT_ID_VALUE_TYPE (BITSTRING[8..104])	Value of IPEI (IPUI-N) to be expected from the IUT (before subscription) Ref. ETS 300 175 [5], subclause 7.7.30	
4	TSPX_ipui_value	PORT_ID_VALUE_TYPE (BITSTRING[8..104])	Value of portable_id to be used in case of a IPUI (after subscription) Ref. ETS 300 175 [5], subclause 7.7.30	
5	TSPX_ipui_value_2	PORT_ID_VALUE_TYPE (BITSTRING[8..104])	Value of portable_id to be used in case of a second IPUI (after subscription) Ref. ETS 300 175 [5], subclause 7.7.30	
6	TSPX_location_area_level	BIT_6 (BITSTRING[6])	The location area level that is going to be used Ref. ETS 300 175 [5], subclause 7.7.25	
7	TSPX_complete_fixed_id_park_value	FIXED_ID_VALUE_TYPE (BITSTRING[8..72])	Value of fixed_id to be used in case of PARK If PARK A 40 bits with MSB equal to 0, 36 bits of PARK A, and the LSB bits set to '000'B If PARK B, C, D 32 bits with MSB equal to 0, and 31 bits of PARK B, C or D Ref. ETS 300 175 [5], subclause 7.7.18	
8	TSPX_complete_fixed_id_park_value_2	FIXED_ID_VALUE_TYPE (BITSTRING[8..72])	Value of fixed_id to be used in case of a second PARK If PARK A 40 bits with MSB equal to 0, 36 bits of PARK A, and the LSB bits set to '000'B If PARK B, C, D 32 bits with MSB equal to 0, and 31 bits of PARK B, C or D Ref. ETS 300 175 [5], subclause 7.7.18	
9	TSPX_tpui_value	PORT_ID_VALUE_TYPE (BITSTRING[8..104])	Value of tpui to be used, when assigning a tpui to the IUT Ref. ETS 300 175 [5], subclause 7.7.30	
10	TSPX_decimal_upi_value	OCT_4 (OCTETSTRING[4])	Value of UPI to be used. The UPI will be entered as maximal 8 decimal digits. The UPI to bitstring mapping will be done with operator TSO_convert_upi_to_bitstring. Ref. ETS 300 444 [9], subclause 8.22	
11	TSPX_park_length_indicator	PARK_LENGTH_TYPE	Number of significant bits in TSPX_park_value	
12	TSPX_park_length_indicator_2	PARK_LENGTH_TYPE	Number of significant bits in TSPX_park_value_2	

Table B.9: Implicit send events

Item	PIXIT (see Note)	Related implicit send message (PDU)	Indication how the implicit send event can be invoked
1	TSPX_change_location_area	To change the location area broadcasted by the LT. The location area is considered to be different to the one specified in STP_init_broadcast_bits. The implicit send will contain a DL_est_ind_no_pdu, because the IUT should begin link establishment, in order to perform location registration.	
2	TSPX_invoke_call_answering	To invoke the IUT to answer the incoming call. The IUT will go off hook when call present. Expected constraint: Cc_connect_rx_base	
3	TSPX_invoke_dialled_digit	To invoke the IUT to dial a digit.	
4	TSPX_invoke_dialling_pause	To invoke the IUT to make a dialling pause, the Cc_info constraint contains multi-keypad i.e. with the value "dialling pause" Expected constraint: Cc_info_rx03	
5	TSPX_invoke_dtmf_defined	To invoke the IUT to go to DTMF dialling with defined tone length, the Cc_info constraint contains a multi-keypad i.e. with the value "dtmf defined" Expected constraint: Cc_info_rx04	
6	TSPX_invoke_dtmf_infinite	To invoke the IUT to go to DTMF dialling with infinite tone length, the Cc_info constraint contains a multi-keypad i.e. with the value "dtmf infinite" Expected constraint: Cc_info_rx05	
7	TSPX_invoke_internal_call	To invoke the IUT to go off hook for an internal call setup, while in state T-00, a DL_EST_IND without a PDU is expected to be send by the IUT.	
8	TSPX_invoke_normal_release	To invoke the IUT to go on hook, thus initiating a normal release, while in any cc state. A dl_data_indication is to be expected, containing a CC_RELEASE message. Expected Constraint: Cc_release_rx_base	
9	TSPX_invoke_obtain_accessrights	To invoke the obtain access rights procedure, initiated by the IUT. A DL_est_ind_no_pdu is to be expected, because the IUT will start link establishment, in order to executed the obtain access rights procedure. The AC has to be entered in order to start the obtain access rights procedure. Expected Constraint: DL_est_ind_no_pdu	

(continued)

Table B.9 (concluded): Implicit send events

10	TSPX_invoke_outgoing_call	To invoke the IUT to go off hook for a normal outgoing call setup, while in state T-00, a DL_EST_IND without a PDU is expected to be send by the IUT.	
11	TSPX_invoke_partial_release	To invoke the IUT to initiate a partial release. (when a link to the IUT is active), a CC_RELEASE message is expected, but no requirements on the release reason are made as the release reasons is optional in ETS 300 444. Expected constraint: Cc_release_rx_base	
12	TSPX_invoke_pulse_dialling	To invoke the IUT to go to pulse, the Cc_info constraint contains multi-keypad i.e. with the value "goto pulse" Expected constraint: Cc_info_rx02	
13	TSPX_invoke_pt_init_ciphering	To invoke the PT to initiate ciphering on. A dl_data_ind is expected, containing a CIPHER-SUGGEST PDU. Expected constraint: Cipher_suggest_rx01	
14	TSPX_invoke_pt_off_ciphering	To invoke the PT to initiate ciphering off. A dl_data_ind is expected, containing a CIPHER-SUGGEST PDU. Expected Constraint: Cipher_suggest_rx02	
15	TSPX_invoke_register_recall	To invoke the IUT to initiate register recall, the Cc_info constraint contains multi-keypad i.e. with the value "register recall" Expected constraint: Cc_info_rx08	
16	TSPX_invoke_upi_entering	To enter the user personal identity at the PT. The user types in its upi, and after this a dl_data_ind is to be expected, containing an AUTH_REPLY message. The value of the UPI has to be specified in the PIXIT parameter TSPX_decimal_upi_value. Expected constraint: Auth_reply_rx_base	
17	TSPX_invoke_ft_authentication	To invoke the PT initiated FT authentication Expected constraint: Auth_req_rx_base	

NOTE: The PIXIT names are related to the test steps where the Implicit send events are handled, e.g. the PIXIT TSPX_invoke_abnormal_release is related to the test step STP_invoke_abnormal_release.

Annex C (normative): Protocol Conformance Test Report (PCTR) Proforma for DECT NWK

Notwithstanding the provisions of the copyright clause related to the text of this ETS, ETSI grants that users of this ETS may freely reproduce the PCTR proforma in this annex so that it can be used for its intended purposes and may further publish the completed PCTR.

The PCTR Proforma is based on ISO/IEC 9646-6 [26]. Any additional information needed can be found in this document.

C.1 Identification summary

C.1.1 Protocol conformance test report

Table C.1

PCTR Number:	
PCTR Date:	
Corresponding SCTR Number:	
Corresponding SCTR Date:	
Test Laboratory Identification:	
Test Laboratory Manager:	
Signature:	

C.1.2 IUT identification

Table C.2

Name:	
Version:	
Protocol specification:	
PICS:	
Previous PCTR if any:	

C.1.3 Testing environment

Table C.3

PIXIT Number:	
ATS Specification:	
Abstract Test Method:	Remote test method, Embedded variant with no UT
Means of Testing identification:	
Date of testing:	
Conformance Log reference(s):	
Retention Date for Log reference(s):	

C.1.4 Limits and reservation

Additional information relevant to the technical contents or further use of the test report, or the rights and obligations of the test laboratory and the client, may be given here. Such information may include restriction on the publication of the report.

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C.1.5 Comments

Additional comments may be given by either the client or the test laboratory on any of the contents of the PCTR, for example, to note disagreement between the two parties.

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C.2 IUT Conformance status

This IUT has or has not been shown by conformance assessment to be non conforming to the specified protocol specification.

Strike the appropriate words in this sentence. If the PICS for this IUT is consistent with the static conformance requirements (as specified in clause 3 in this report) and there are no "FAIL" verdicts to be recorded (in clause 6) strike the words "has or". otherwise strike the words "or has not".

C.3 Static conformance summary

The PICS for this IUT is or is not consistent with the static conformance requirements in the specified protocol.

Strike the appropriate words in this sentence.

C.4 Dynamic conformance summary

The test campaign did or did not reveal errors in the IUT.

Strike the appropriate words in this sentence. If there are no "FAIL" verdicts to be recorded (in clause 6 of this report) strike the words "did or". otherwise strike the words "or did not".

Summary of the results of groups of test:

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C.5 Static conformance review report

If clause 3 indicates non-conformance, this subclause itemises the mismatches between the PICS and the static conformance requirements of the specified protocol specification.

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C.6 Test campaign report

Table C.4

ATS Reference	Selected?	Run?	Verdict	Observations (Reference to any observations made in clause 7)
TC_PT_CC_BV_OC_01	Yes/No	Yes/No		
TC_PT_CC_BV_OC_02	Yes/No	Yes/No		
TC_PT_CC_BV_OC_03	Yes/No	Yes/No		
TC_PT_CC_BV_OC_04	Yes/No	Yes/No		
TC_PT_CC_BV_IC_01	Yes/No	Yes/No		
TC_PT_CC_BV_IC_02	Yes/No	Yes/No		
TC_PT_CC_BV_IC_03	Yes/No	Yes/No		
TC_PT_CC_BV_IC_04	Yes/No	Yes/No		
TC_PT_CC_BV_CI_01	Yes/No	Yes/No		
TC_PT_CC_BV_CI_02	Yes/No	Yes/No		
TC_PT_CC_BV_CI_03	Yes/No	Yes/No		
TC_PT_CC_BV_CI_04	Yes/No	Yes/No		
TC_PT_CC_BV_CI_05	Yes/No	Yes/No		
TC_PT_CC_BV_CI_06	Yes/No	Yes/No		
TC_PT_CC_BV_CI_07	Yes/No	Yes/No		
TC_PT_CC_BV_CI_08	Yes/No	Yes/No		
TC_PT_CC_BV_CI_09	Yes/No	Yes/No		
TC_PT_CC_BV_CI_10	Yes/No	Yes/No		
TC_PT_CC_BV_CI_11	Yes/No	Yes/No		
TC_PT_CC_BV_CI_12	Yes/No	Yes/No		
TC_PT_CC_BV_CI_13	Yes/No	Yes/No		
TC_PT_CC_BV_CI_14	Yes/No	Yes/No		
TC_PT_CC_BV_CR_01	Yes/No	Yes/No		
TC_PT_CC_BV_CR_02	Yes/No	Yes/No		
TC_PT_CC_BV_CR_03	Yes/No	Yes/No		
TC_PT_CC_BV_CR_04	Yes/No	Yes/No		
TC_PT_CC_BV_CR_05	Yes/No	Yes/No		
TC_PT_CC_BV_CR_06	Yes/No	Yes/No		
TC_PT_CC_BV_CR_07	Yes/No	Yes/No		
TC_PT_CC_BV_CR_08	Yes/No	Yes/No		
TC_PT_CC_BV_CR_09	Yes/No	Yes/No		
TC_PT_CC_BV_CR_10	Yes/No	Yes/No		
TC_PT_CC_BV_CR_11	Yes/No	Yes/No		
TC_PT_CC_BV_RS_01	Yes/No	Yes/No		
TC_PT_CC_BO_01	Yes/No	Yes/No		
TC_PT_CC_BO_02	Yes/No	Yes/No		
TC_PT_CC_BI_01	Yes/No	Yes/No		
TC_PT_CC_BI_02	Yes/No	Yes/No		
TC_PT_CC_BI_03	Yes/No	Yes/No		
TC_PT_CC_BI_04	Yes/No	Yes/No		
TC_PT_CC_TI_01	Yes/No	Yes/No		
TC_PT_CC_TI_02	Yes/No	Yes/No		
TC_PT_CC_TI_03	Yes/No	Yes/No		
TC_PT_CC_TI_04	Yes/No	Yes/No		
TC_PT_MM_BV_ID_01	Yes/No	Yes/No		
TC_PT_MM_BV_ID_02	Yes/No	Yes/No		
TC_PT_MM_BV_ID_03	Yes/No	Yes/No		
TC_PT_MM_BV_ID_04	Yes/No	Yes/No		
TC_PT_MM_BV_ID_08	Yes/No	Yes/No		
TC_PT_MM_BV_AU_01	Yes/No	Yes/No		
TC_PT_MM_BV_AU_02	Yes/No	Yes/No		
TC_PT_MM_BV_AU_03	Yes/No	Yes/No		
TC_PT_MM_BV_AU_04	Yes/No	Yes/No		

(continued)

Table C.4

TC_PT_MM_BV_AU_05	Yes/No	Yes/No		
TC_PT_MM_BV_AU_06	Yes/No	Yes/No		
TC_PT_MM_BV_AU_07	Yes/No	Yes/No		
TC_PT_MM_BV_AU_08	Yes/No	Yes/No		
TC_PT_MM_BV_AU_09	Yes/No	Yes/No		
TC_PT_MM_BV_LO_01	Yes/No	Yes/No		
TC_PT_MM_BV_LO_02	Yes/No	Yes/No		
TC_PT_MM_BV_LO_03	Yes/No	Yes/No		
TC_PT_MM_BV_LO_04	Yes/No	Yes/No		
TC_PT_MM_BV_LO_05	Yes/No	Yes/No		
TC_PT_MM_BV_LO_06	Yes/No	Yes/No		
TC_PT_MM_BV_LO_07	Yes/No	Yes/No		
TC_PT_MM_BV_LO_08	Yes/No	Yes/No		
TC_PT_MM_BV_LO_09	Yes/No	Yes/No		
TC_PT_MM_BV_AR_01	Yes/No	Yes/No		
TC_PT_MM_BV_AR_03	Yes/No	Yes/No		
TC_PT_MM_BV_AR_05	Yes/No	Yes/No		
TC_PT_MM_BV_AR_06	Yes/No	Yes/No		
TC_PT_MM_BV_AR_09	Yes/No	Yes/No		
TC_PT_MM_BV_AR_10	Yes/No	Yes/No		
TC_PT_MM_BV_KA_01	Yes/No	Yes/No		
TC_PT_MM_BV_KA_02	Yes/No	Yes/No		
TC_PT_MM_BV_KA_03	Yes/No	Yes/No		
TC_PT_MM_BV_CH_01	Yes/No	Yes/No		
TC_PT_MM_BV_CH_02	Yes/No	Yes/No		
TC_PT_MM_BV_CH_03	Yes/No	Yes/No		
TC_PT_MM_BV_CH_04	Yes/No	Yes/No		
TC_PT_MM_BV_CH_05	Yes/No	Yes/No		
TC_PT_MM_BO_01	Yes/No	Yes/No		
TC_PT_MM_BI_01	Yes/No	Yes/No		
TC_PT_MM_BI_02	Yes/No	Yes/No		
TC_PT_MM_BI_03	Yes/No	Yes/No		
TC_PT_MM_BI_04	Yes/No	Yes/No		
TC_PT_MM_TI_01	Yes/No	Yes/No		
TC_PT_MM_TI_02	Yes/No	Yes/No		
TC_PT_MM_TI_03	Yes/No	Yes/No		
TC_PT_MM_TI_04	Yes/No	Yes/No		
TC_PT_MM_TI_05	Yes/No	Yes/No		
TC_PT_MM_TI_06	Yes/No	Yes/No		
TC_PT_ME_BV_01	Yes/No	Yes/No		
TC_PT_ME_BV_02	Yes/No	Yes/No		
TC_PT_ME_BV_03	Yes/No	Yes/No		
TC_PT_ME_BV_04	Yes/No	Yes/No		
TC_PT_ME_BV_05	Yes/No	Yes/No		
TC_PT_ME_BV_06	Yes/No	Yes/No		
TC_PT_ME_BV_07	Yes/No	Yes/No		
TC_PT_ME_BV_08	Yes/No	Yes/No		
TC_PT_ME_BV_09	Yes/No	Yes/No		
TC_PT_ME_BV_10	Yes/No	Yes/No		
TC_PT_ME_BV_11	Yes/No	Yes/No		
TC_PT_ME_BV_12	Yes/No	Yes/No		
TC_PT_ME_BV_13	Yes/No	Yes/No		
TC_PT_ME_BV_14	Yes/No	Yes/No		
TC_PT_ME_BO_01	Yes/No	Yes/No		
TC_PT_LC_BV_LE_01	Yes/No	Yes/No		
TC_PT_LC_BV_LE_02	Yes/No	Yes/No		
TC_PT_LC_BV_LR_01	Yes/No	Yes/No		
TC_PT_LC_BV_LR_02	Yes/No	Yes/No		

(continued)

Table C.4 (concluded)

TC_PT_LC_BV_LR_03	Yes/No	Yes/No		
TC_PT_LC_BI_01	Yes/No	Yes/No		
TC_PT_LC_BI_03	Yes/No	Yes/No		
TC_PT_LC_BI_04	Yes/No	Yes/No		
TC_PT_LC_TI_02	Yes/No	Yes/No		

C.7 Observations

Additional information relevant to the technical content of the PCTR are given here.

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Annex D (informative): Bibliography

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