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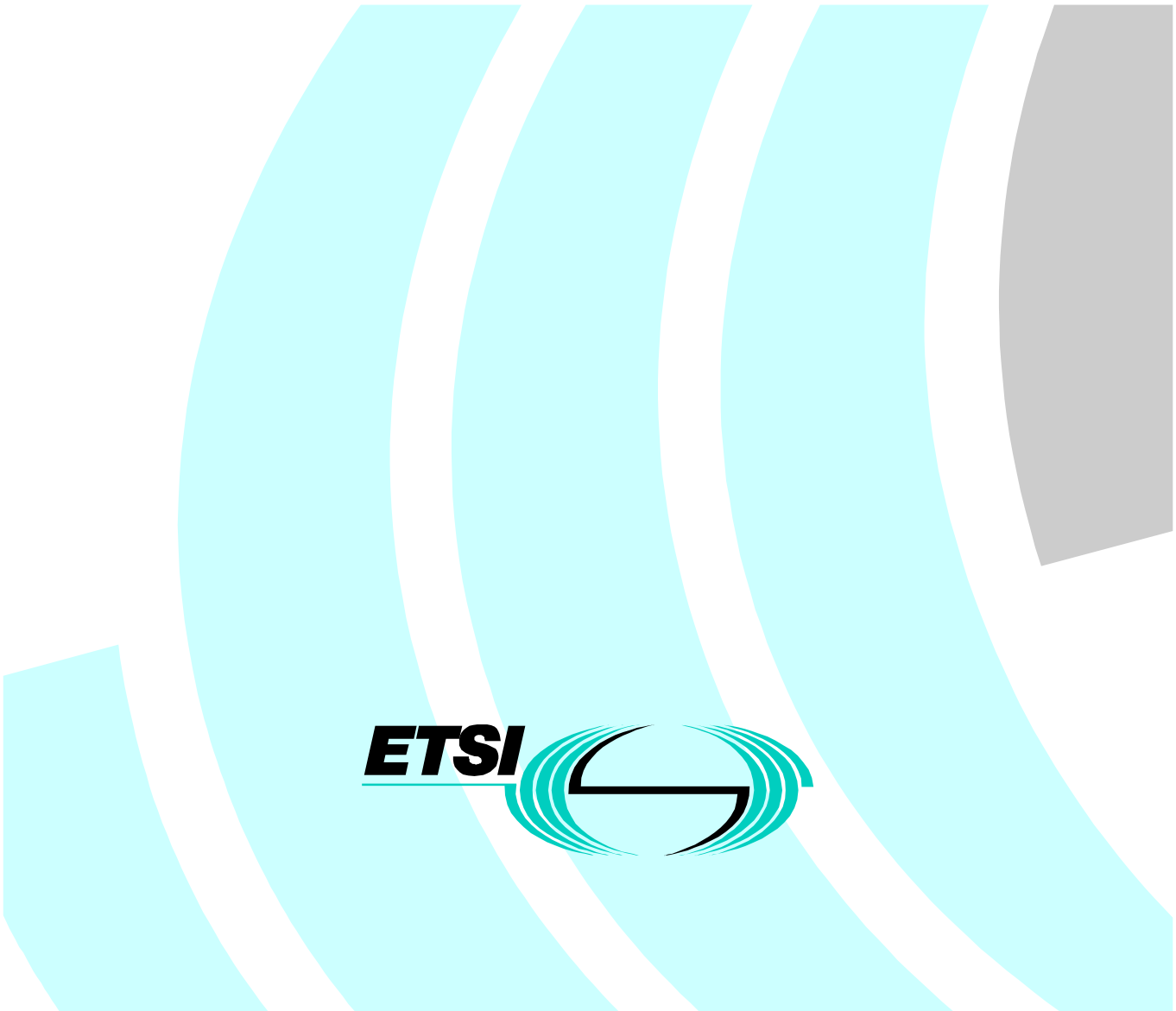
European Standard (Telecommunications series)

Private Integrated Services Network (PISN); Inter-exchange signalling protocol; Circuit mode basic services; Network Layer (NL); Part 1: Test Suite Structure and Test Purposes (TSS&TP) specification



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Contents

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Foreword

This European Standard (Telecommunications series) has been produced by European Computer Manufacturers Association (ECMA) on behalf of its members and those of the European Telecommunications Standards Institute (ETSI), and is now submitted for the Voting phase of the ETSI standards Two-step Approval Procedure.

The present document is part 1 of a multi-part EN covering the Private Integrated Services Network (PISN); Inter-exchange signalling protocol; Circuit mode basic services; Network Layer (NL), as identified below:

Part 1: "Test Suite Structure and Test Purposes (TSS&TP) specification";

Part 2: "Abstract Test Suite (ATS) specification".

Proposed national transposition dates	
Date of latest announcement of this EN (doa):	3 months after ETSI publication
Date of latest publication of new National Standard or endorsement of this EN (dop/e):	6 months after doa
Date of withdrawal of any conflicting National Standard (dow):	6 months after doa

1 Scope

The present document specifies the Test Suite Structure (TSS) and Test Purposes (TPs) for the Network Layer, Circuit Mode Basic Services of the Inter-exchange signalling protocol for Private Integrated Services Networks (PISN).

The objective of this TSS and TPs specification is to provide conformance tests which give a high probability of inter-operability of the Network Layer. The TSS and TPs specification covers the procedures described in EN 300 172 [2]. In addition this TSS&TP specification covers those parts of EN 301 048 [1] which relate to the use of the transit counter in connection with Basic Call procedures.

NOTE 1: The parts of EN 301 048 [1] included are those which are equivalent to ETS 300 172 [3] annex ZB.

NOTE 2: Some or all of the TPs in the present document can be used for testing equipment implemented according to other PSS1 specifications.

The ISO standard for the methodology of conformance testing (ISO/IEC 9646-1 [7] and ISO/IEC 9646-2 [8]) is used as basis for the test methodology.

The present document is applicable to the support of Basic Call, at the Q-reference point between Private Integrated Services Network Exchanges (PINXs) connected together within a PISN. The Q reference point is defined in ETS 300 475-1 [6].

2 References

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

- References are either specific (identified by date of publication, edition number, version number, etc.) or non-specific.
- For a specific reference, subsequent revisions do not apply.
- For a non-specific reference, the latest version applies.
- A non-specific reference to an ETS shall also be taken to refer to later versions published as an EN with the same number.

[1] ETSI EN 301 048 (V1.1): "Private Integrated Services Network (PISN); Inter-exchange signalling protocol; Transit counter additional network feature [ISO/IEC 15056 (1997) modified]".

[2] ETSI EN 300 172 (V1.4): "Private Integrated Services Network (PISN); Inter-exchange signalling protocol; Circuit-mode basic services [ISO/IEC 11572 (1996) modified]".

[3] ETSI ETS 300 172: "Private Telecommunication Network (PTN); Inter-exchange signalling protocol; Circuit mode basic services".

[4] ETSI ETS 300 239 (1995): "Private Integrated Services Network (PISN); Inter-exchange signalling protocol; Generic functional protocol for the support of supplementary services [ISO/IEC 11582 (1995), modified]".

[5] ETSI EN 300 403-1: "Integrated Services Digital Network (ISDN); Digital Subscriber Signalling System No. one (DSS1) protocol; Signalling network layer for circuit-mode basic call control; Part 1: Protocol specification [ITU-T Recommendation Q.931 (1993), modified]".

[6] ETSI ETS 300 475-1 (1995): "Private Telecommunication Network (PTN); Reference configuration; Part 1: Reference configuration for PTN eXchanges (PTNX) [ISO/IEC 11579-1 (1994), modified]".

[7] ISO/IEC 9646-1 (1994): "Information technology - Open Systems Interconnection - Conformance testing methodology and framework - Part 1: General concepts".

[8] ISO/IEC 9646-2 (1994): "Information technology - Open Systems Interconnection - Conformance testing methodology and framework - Part 2: Abstract Test Suite specification".

[9] ISO/IEC 11572: "Information Technology - Telecommunications and information exchange between systems - Private Integrated Services Network - Circuit mode bearer services - Inter-exchange signalling procedures and protocol".

[10] ISO/IEC 15056 (1997): "Information technology - Telecommunications and information exchange between systems - Private Integrated Services Network - Inter-exchange signalling protocol - Transit counter additional network feature".

[11] ITU-T Recommendation I.112 (1993): "Vocabulary of terms for ISDNs".

[12] ITU-T Recommendation Q.931 (1998): "SDN user-network interface layer 3 specification for basic call control".

[13] ECMA-143: "Private Integrated Services Network (PISN) - Circuit Mode Bearer Services - Inter-exchange Signalling Procedures and Protocol".

[14] ECMA-225: "Private Integrated Services Network (PISN) - Inter-exchange Signalling Protocol Transit Counter Additional Network Feature".

3 Definitions, symbols and abbreviations

3.1 Definitions

For the purposes of the present document, the terms and definitions given in ITU-T Recommendation I.112 [11] and the following apply:

Abstract Test Suite (ATS): see ISO/IEC 9646-1 [7].

final test purpose: test purpose which is intended to be mapped to a single test case (except if it is untestable).

NOTE: In the present document all final test purposes are individual test purposes as there is no combination of test purposes.

Implementation Under Test (IUT): see ISO/IEC 9646-1 [7].

incoming call: see EN 300 172 [2].

incoming gateway PINX: see EN 300 172 [2].

Individual test purpose: test purpose focusing on a single conformance requirement, produced before any combining of test purposes. This term is not defined in ISO/IEC 9646-1 [7] but corresponds to the "individual test purpose" referred to in ISO/IEC 9646-2 [8] subclause 10.3.3.

information elements with invalid contents: see EN 300 172 [2].

originating PINX: see EN 300 172 [2].

outgoing call: see EN 300 172 [2].

outgoing gateway PINX: see EN 300 172 [2].

preceding PINX: see EN 300 172 [2].

Private Integrated Network Exchange (PINX): see EN 300 172 [2].

Private Integrated Services Network (PISN): see EN 300 172 [2].

Protocol Implementation Conformance Statement (PICS): see ISO/IEC 9646-1 [7].

Protocol Implementation Extra Information For Testing (PIXIT): see ISO/IEC 9646-1 [7].

reassembly: process whereby an implementation on receipt of the parts of a single message which has been segmented for transmission, reassembles these parts to make up the original message.

segmentation: process by which a message is divided into parts when the message size exceeds the maximum size of the SCM information field.

Signalling Carriage Mechanism (SCM): see EN 300 172 [2].

subsequent PINX: see EN 300 172 [2].

super test purpose: general test purpose from which one or more test purposes may be derived. These derived test purposes may be more detailed than the Super Test Purpose. This term is not defined in ISO/IEC 9646-1 [7] but corresponds to the "more specific test objectives" referred to in ISO/IEC 9646-2 [8] subclause 10.3.1.

terminating PINX: see EN 300 172 [2].

transit PINX: see EN 300 172 [2].

unexpected message: see EN 300 172 [2].

unrecognized information element: see EN 300 172 [2].

3.2 Symbols

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

BO	Inopportune Behaviour (TSS group)
BV	Valid Behaviour (TSS group)
CC	Call Clearing (TSS group)
CE	Call Establishing (TSS group)
CR	Call Reference (value)
IG	Incoming Gateway (TSS group)
IV	InValid behaviour tests (TSS group)
IO	InOpportune behaviour test (TSS group)
MS	Message Segmentation (TSS group)
OG	Outgoing Gateway (TSS group)
PC	Protocol Control (TSS group)
PV	Parameter Variations (TSS group)
SE	State Event transitions (TSS group)
TR	TRansit (TSS group)
TE	TErminating (TSS group)

3.3 Abbreviations

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

ATS	Abstract Test Suite
IE	Information Element
IUT	Implementation Under Test
PICS	Protocol Implementation Conformance Statement
PINX	Private Integrated Services Network eXchange
PISN	Private Integrated Services Network
PIXIT	Protocol Implementation eXtra Information for Testing
PSS1	Private Integrated Signalling System Number 1
SCM	Signalling Carriage Mechanism
STP	Super Test Purpose
TP	Test purpose
TSS	Test Suite Structure

4 Test Suite Structure (TSS)

The test suite is structured as a tree with the following levels:

1st level: the name representing the base specification (EN 300 172 [2]):

- PSS1_BC.

2nd level: Call Control for the major roles of the base specification (Originating, Terminating, Transit, Incoming Gateway, Outgoing Gateway) and Protocol Control which is common to all the behaviours:

- Protocol Control (PC);
- call control for OrIginating (OI);
- call control for TErminating (TE);
- call control for TRansit (TR);
- call control for Incoming Gateway (IG);
- call control for Outgoing Gateway (OG).

3rd level: the phases of the base specification:

- Call Establishing (CE);
- Call Clearing (CC);
- Message Segmentation (MS) (this group is empty for call control requirements);
- STATUS Procedures (ST) (this group is empty for call control requirements);
- Layer Management (LM) (this group is empty for call control requirements).

4th level: the nature of the test:

- Valid behaviour tests (BV);
- InValid behaviour tests (IV);
- InOpportune behaviour tests (IO).

Figure 1 shows the PSS1 Layer 3 Test Suite Structure overview. Not all the branches have been expanded to the final details. Only groups which are expected to contain TPs are shown.

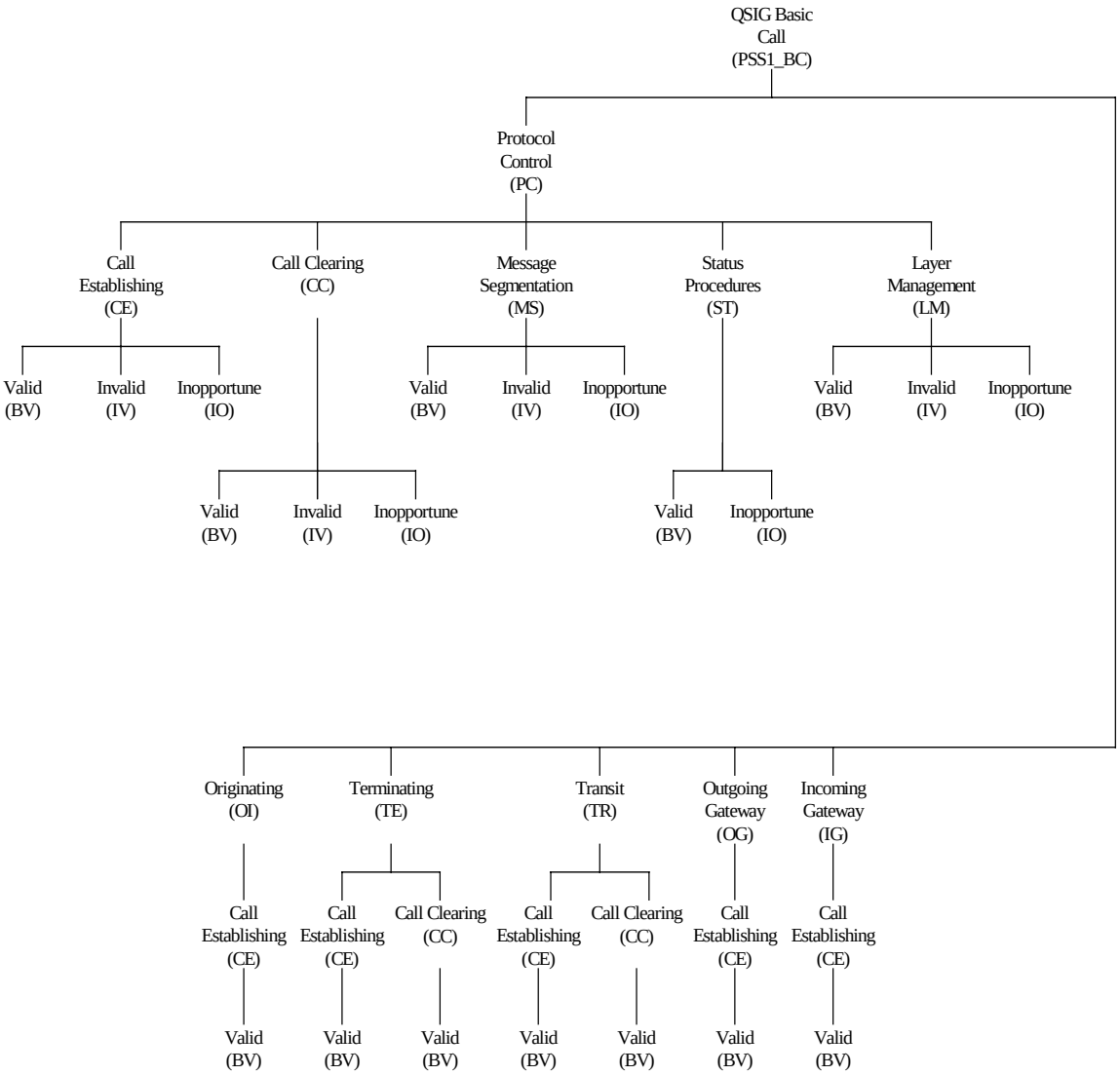

Figure 1: PSS1 Layer 3 Test Suite Structure overview

5 Test Purposes (TP)

5.1 Introduction to Test Purposes

5.1.1 Test purposes production method

The TPs production method consists of reviewing the standard and specifying everything that should be tested, i.e. all the characteristics that could be determined from the standard, which an implementation is required to conform to.

This first phase led to the production of "Super" Test Purposes (STPs), which are general TPs, reflecting more the functional aspects and the structure of the standard rather than the TSS itself (see clause 4).

The second phase consisted of deriving from each STP several "Final" TPs. These "Final" TPs are the individual TPs as identified in the Abstract Test Suite (ATS) (each of which will give rise to a Test Case). The criteria for deriving these "Final" TPs was to take into account the TSS, in order to ensure good coverage for testing. The objective was to derive "Final" TPs and distribute them over the complete TSS, taking into account all the testing aspects (valid behaviour, inopportune behaviour, timer, parameter variations, state event transition, etc.), while retaining all the requirements of the standard. In this way, one or more "Final" TPs may be derived from an STP.

Although an STP may generate a number of "final" TPs, not all of them may be retained, as they may deal with a requirement which has already been covered by a previous "final" TP. This ensures a more efficient testing with good coverage, avoiding repeatedly testing the same aspect of the standard, probably leading to the same verdict each time.

Some STPs are not decomposed into "final" derived TPs because the requirement of this STP has already been covered by another "final" TP.

5.1.2 STP identifier

The STP identifier is described using a 5 digit alphanumeric code, this code is used in the following manner:

- characters 5 - 4: "SP";
- digit 3 - 2 - 1: STP number;
- PATTERN: SP<xyz> with <xyz> = 000 -> 999.

5.1.3 "Final" derived TP identifier

The TP identifier is described using an 7 digit alphanumeric code, this code is used in the following manner:

- characters 7-6: "TC";
- digit 5: 2nd level of TSS;
- digit 4: 3rd level of TSS;
- digit 3: 4th level of TSS;
- characters 2 - 1: letters identifying the final TP.

PATTERN: TC<u><v><w><xy> with:

- <u> =

  0: protocol control;

  1: call control originating;

  2: call control terminating;

  3: call control transit;

  4: call control outgoing gateway;

  5: call control incoming gateway.

- <v> =

  0: call establishing;

  1: call clearing;

  2: message segmentation;

  3: status procedures;

  4: layer management.

- <w> =

  2: valid behaviour tests;

  3: invalid behaviour test;

  4: inopportune behaviour tests.

- <xy> = AA-> ZZ

EXAMPLE 1: TC212KW is the number of the **test purpose KW,** for a **terminating** PINX, to test the **valid behaviour** of the IUT during **call clearing**.

EXAMPLE 2: TC212KU is the number of the **test purpose KU,** for a **terminating** PINX, to test the **valid behaviour** of the IUT during **call clearing**.

5.1.4 Standard options

In reviewing the standard to produce TPs, two situations have been identified regarding optional requirements.

The first case is where either the Implementation Under Test (IUT) performs an action which can be tested, or does nothing that can be tested. In this situation there is a TP for the case where the IUT does something testable and a Protocol Implementation eXtra Information for Testing (PIXIT) question should be used to select the associated test case.

The second case is where the IUT always performs a first action which has to be tested and optionally performs a second action which has also to be tested if it occurs. In this situation no PIXIT question is asked for this selection.

5.1.5 Message segmentation

Where a TP refers to a message sent by the IUT, this message may be segmented (unless otherwise stated) without affecting the TP.

5.2 Test purpose writing rules

Writing rules have been defined in order to have consistency between all the TPs. However, in some cases, it is not possible to use them without losing the real objective of the test. Consequently, a small number of TPs may deviate from these rules in a minor way.

5.2.1 Terminating, Originating, Incoming/Outgoing Gateway PINX

Table 1 gives the test purposes writing rules for non-transit PINX requirements.

Table 1: Test Purpose writing rules for non-transit PINX requirements

TP part	Text	Example
Header (note 2)	**<Identifier>** *tab* **<subclause number in base EN>** *tab* **<type of test>** *CR*	see 5.1.2 and 5.1.3 **subclause x.x.x** **valid, invalid, inopportune etc.**
Precondition **Stimulus**	Ensure that the IUT in [call] state<basic call state> [and in <layer management or segmentation state>] [<condition> *see below for message structure if message*] <trigger> *see below for message structure* *or* <goal> [<Condition>] *CR*	 0, 1, 2, 3, etc. Reassembly null state after having sent a XXX message. on receiving a XXXX message to request a... as a result of called user action
Reaction	<action> [<conditions>] *if the action is sending see below for message structure* [and/or <next action>], *etc.* and enters [call] state <basic call state> *and/or* enters <layer management or segmentation state> *and/or* and remains in the same [call] state(s)	sends, does, discards, etc. for the outgoing call 0, 1, 2, 3, etc. Reassembly null state
Message structure	<message type> message containing a *a)* <info element> IE with *or* containing *b)* a <field name> encoded as *or* including <coding of the field> and *back to a or b,*	SETUP, CONNECT etc. Bearer capability, cause etc. Cause value etc.
NOTE 1: Text in italics does not appear in TPs, text between <> is filled in for each TP and differs from one TP to the next text between [ ] only appear in certain TPs. NOTE 2: Where the text of an STP and a TP derived from it are identical there are two headers.		

5.2.2 Transit PINX

Table 2 gives the test purposes writing rules for transit PINX requirements.

Table 2: Test Purpose writing rules for transit PINX requirements

TP part	Text	Example
Header (note 2)	<Identifier> *tab* <subclause number in base EN> *tab* <type of test> *CR*	see 5.1.2 and 5.1.3 subclause x.x.x valid, invalid, inopportune etc.
Precondition	Ensure that the IUT in transit state<transit state> in state <basic call state> for the call on interface X and in state <basic call state> for the call on interface Y [<condition> *see below for message structure if message*]	 TCC_AwaitDigits 7,8,9 etc. 1, 2, 3, etc. after having received a XXX message on interface X.
Stimulus	<trigger> *see below for message structure* *or* <goal> [<Condition>] *CR*	on receiving a XXXX message on interface X in order to initiate call clearing with sufficient address information to route the call
Reaction	<action> [<conditions>] [on/for interface <interface>] *if the action is sending see below for message structure* [and/or <next action>], *etc.* and enters state <basic call state> for the call on interface X and enters state <basic call state> for the call on interface Y *and/or* and remains in the same [call] state(s)	sends, does, discards, etc. for the outgoing call X,Y 7,8,9 etc.. 1,2,3 etc
Message structure	<message type> message containing a *a)* <info element> IE with *or* containing *b)* a <field name> encoded as *or* including <coding of the field> and *back to a or b,*	SETUP, CONNECT etc. Bearer capability, cause etc. Cause value etc.
NOTE 1: Text in italics does not appear in TPs, text between <> is filled in for each TP and differs from one TP to the next text between [ ] only appear in certain TPs. NOTE 2: Where the text of an STP and a TP derived from it are identical there are two headers.		

5.3 Test Purposes

All PICS items referred to in this subclause are as specified in EN 300 172 [2] unless indicated otherwise. Where there is a reference to the ANF-TC PICS this refers to EN 301 048 [1].

Unless specified:

- the messages indicated are valid and contain at least the mandatory information elements and possibly optional information elements;
- the information elements indicated are valid and contain at least the mandatory parameters and possibly optional parameters.

NOTE 1: Only the derived "Final" TPs are used to produce test cases.

NOTE 2: Where a test purpose specifies that the IUT enters or remains in a specified Protocol Control or Layer Management state, this is verified as specified in subclause 5.3.13.

NOTE 3: Where TPs are not applicable to all implementations this is indicated by a selection statement. Where such a statement appears at the start of a subclause it applies to all TPs in that subclause, where it appears after a STP it applies to that STP and all its derived TPs, where it appears after a derived TP it applies to that TP only. A TP is applicable if the selection statements (if any) for the TP, STP and subclause are all satisfied.

5.3.1 Protocol Control requirements for Call Establishment

The TPs in this subclause refer to EN 300 172 [2], subclause 10.1.

5.3.1.1 Call Request

5.3.1.1.1 Outgoing side

The TPs in this subclause refer to EN 300 172 [2], subclause 10.1.1.

Selection: IUT supports procedures for call request. PICS B6.

SP001 subclauses 10.1.1 and 14.5.5 Valid

TC002XD subclauses 10.1.1 and 14.5.5. Valid

Ensure that the IUT in state 0, in order to initiate a call supporting 64 kbits/s Unrestricted, sends a SETUP message containing a Bearer Capability IE with an Information Transfer Capability field encoded as Unrestricted.

Selection: IUT supports 64 kbit/s Unrestricted bearer. PICS: Z1.

SP002 subclauses 10.1.1 and 14.5.5 Valid

TC002XE subclauses 10.1.1 and 14.5.5 Valid

Ensure that the IUT in state 0, in order to initiate a call supporting 64 kbits/s Speech, sends a SETUP message containing a Bearer Capability IE with an Information Transfer Capability field encoded as Speech.

Selection: IUT supports 64 kbit/s Speech bearer. PICS: Z2.

SP003 subclauses 10.1.1 and 14.5.5 Valid

TC002XF subclauses 10.1.1 and 14.5.5 Valid

Ensure that the IUT in state 0, in order to initiate a call supporting 64 kbits/s 3,1 kHz Audio, sends a SETUP message containing a Bearer Capability IE with an Information Transfer Capability field encoded as 3,1 kHz Audio.

Selection: IUT supports 64 kbit/s 3,1 kHz Audio bearer. PICS: Z3.

SP310 subclauses 10.1.1 and 14.5.5 Valid

TC002YJ subclauses 10.1.1 and 14.5.5 Valid

Ensure that the IUT in state 0, in order to initiate a call supporting a multirate bearer, sends a SETUP message containing a Bearer Capability IE with an Information Transfer Rate field encoded as Multirate, 384 kbit/s, 1536 kbit/s or 1920 kbit/s.

Selection: IUT supports multirate bearer. PICS: Z4.

SP311 subclauses 10.1.1 and 14.5.5 Valid

TC002YK subclauses 10.1.1 and 14.5.5 Valid

Ensure that the IUT in state 0, in order to initiate a call supporting A-law user information layer 1 protocol, sends a SETUP message containing a Bearer Capability IE with the User Information Layer 1 Protocol field encoded as A-law.

Selection: IUT supports A-law. PICS: Z5.

SP312 subclauses 10.1.1 and 14.5.5 Valid

TC002YL subclauses 10.1.1 and 14.5.5 Valid

Ensure that the IUT in state 0, in order to initiate a call supporting μ-law user information layer 1 protocol, sends a SETUP message containing a Bearer Capability IE with the User Information Layer 1 Protocol field encoded as μ-law.

Selection: IUT supports μ-law. PICS: Z6.

SP306 subclauses 10.1.1 and 14.5.5 Valid

TC002YG subclauses 10.1.1 and 14.5.5 Valid

Ensure that the IUT in state 0, in order to initiate a call supporting 64 kbits/s unrestricted digital information with tones and announcements, sends a SETUP message containing a Bearer Capability IE with an Information Transfer Capability field encoded as unrestricted digital information with tones and announcements.

Selection: IUT supports 64 kbit/s unrestricted digital information with tones and announcements bearer. PICS: Z7.

NOTE: The PICS reference Z7 is taken from ECMA-143. The identifier in EN 300 172 [2] (in the delta) is Z5 which conflicts with an item in ISO/IEC 11572 [9].

SP007 subclauses 10.1.1 and 13.2.10 Valid

TC002AA subclause 10.1.1 Valid

Ensure that the IUT in state 0, in order to initiate a call, sends a SETUP message with all the mandatory IE, and enters state 1.

SP008 subclause 10.1.1 Valid

TC002AE subclause 10.1.1 Valid

Ensure that the IUT in state 1, at first expiry of timer T303, sends the same SETUP message as the one sent previously, and remains in the same state.

Selection: IUT supports re-transmission of SETUP.

SP009 subclause 10.1.1 Valid

TC002AG subclause 10.1.1 Valid

Ensure that the IUT in state 1, at the second expiry of timer T303, sends a RELEASE COMPLETE message containing a Cause IE with a Cause Value encoded as 102, and enters state 0 (reference EN 300 172 [2], subclause 10.1.1).

Selection: IUT supports re-transmission of SETUP.

SP010 subclause 10.1.1 Valid

TC002AI subclause 10.1.1 Valid

Ensure that the IUT in state 0, in order to initiate a call, sends a SETUP message containing a Channel Identification IE with a Channel Number indicating a free channel, and enters state 1.

SP011 subclauses 10.1.1 and 14.3 Valid

TC002AJ subclauses 10.1.1 and 14.3 Valid

Ensure that the IUT in state 0, in order to initiate a call, sends a SETUP message containing a Call Reference IE with a Call Reference Flag encoded as 0 and a Call Reference Value coded in 2 octets, and enters state 1.

SP012 subclause 10.1.1 Valid

TC002AL subclause 10.1.1 Valid

Ensure that the IUT in state 0, in order to initiate a call, using en-bloc sending, sends a SETUP message containing a Called Party Number IE encoded as a complete Number as stated in the PIXIT.

SP013 subclause 10.1.1 Valid

TC002AM subclause 10.1.1 Valid

Ensure that the IUT in state 0, in order to initiate a call, using en-bloc sending, sends a SETUP message containing a Sending Complete IE, and enters state 1.

Selection: IUT supports inclusion of Sending Complete in the SETUP message. PICS: B7 OR J12.

5.3.1.1.2 Incoming side

The TPs in this subclause refer to EN 300 172 [2], subclause 10.1.1.

Selection: IUT supports procedures for incoming calls: PICS B3 OR B4 OR B5.

SP014 subclause 10.1.1 Valid

TC002UZ subclause 10.1.1 Valid

Ensure that the IUT in state 0, on receiving a SETUP message, enters state 6 (reference EN 300 172 [2], subclause 10.1.1).

NOTE: This STP is referenced in 'Untestable TPs' section in the associated ATS specification document.

5.3.1.2 Information channel selection

The TPs in this subclause refer to EN 300 172 [2], subclause 10.1.2.

5.3.1.2.1 Outgoing side

Selection: IUT supports procedures for call request. PICS B6.

SP016 subclause 10.1.2 Valid

Ensure that the IUT in state 1, on receiving an ALERTING or CONNECT message as the first response to the SETUP message, does not indicate a protocol error.

TC002AZ subclause 10.1.2 Valid

Ensure that the IUT in state 1, on receiving an ALERTING message as the first response to the SETUP message, does not indicate a protocol error.

TC002BA subclause 10.1.2 Valid

Ensure that the IUT in state 1, on receiving a CONNECT message as the first response to the SETUP message, sends a CONNECT ACK message.

Selection: IUT supports sending of CONNECT ACKNOWLEDGE.

SP017 subclauses 10.1.2 and 10.2.2 Valid

TC002BB subclauses 10.1.2 and 10.2.2 Valid

Ensure that the IUT in state 1, on receiving a RELEASE COMPLETE message containing a Cause IE with a Cause Value encoded as 44, as the first response to the SETUP message containing a Channel Identification IE with the preferred/exclusive field encoded as exclusive, enters state 0.

Selection: IUT supports sending SETUP including exclusive Channel ID.

SP018 subclauses 10.1.2 and 10.2.2 Valid

TC002BC subclauses 10.1.2 and 10.2.2 Valid

Ensure that the IUT in state 1, on receiving a RELEASE COMPLETE message containing a Cause IE with a Cause Value encoded as 34, as the first response to the SETUP message containing a Channel Identification IE with the preferred/exclusive field encoded as preferred, enters state 0.

Selection: IUT supports sending SETUP including preferred Channel ID.

SP019 subclauses 10.1.2 and 10.2.2 Valid

Ensure that the IUT in state 1, on receiving a CALL PROCEEDING or SETUP ACKNOWLEDGE message containing a Channel Identification IE with a Channel Number encoded with an unacceptable channel number, as the first response to the SETUP message, sends a RELEASE message containing a Cause IE with a Cause Value encoded as 6, and enters state 19.

TC002BD subclauses 10.1.2 and 10.2.2 Valid

Ensure that the IUT in state 1, on receiving a CALL PROCEEDING message containing a Channel Identification IE with a Channel Number encoded with a non-existent channel number, as the first response to the SETUP message, sends a RELEASE message containing a Cause IE with a Cause Value encoded as 6, and enters state 19.

TC002BE subclauses 10.1.2 and 10.2.2 Valid

Ensure that the IUT in state 1, on receiving a SETUP ACKNOWLEDGE message containing a Channel Identification IE with a Channel Number encoded with a channel number known to be busy, as the first response to the SETUP message, sends a RELEASE message containing a Cause IE with a Cause Value encoded as 6.

5.3.1.2.2 Incoming side - single information channel

Selection: IUT supports procedures for incoming calls: PICS B3 OR B4 OR B5.

SP020 subclause 10.1.2 Valid

Ensure that the IUT in state 0, on receiving a SETUP message, containing a Channel Identification IE with a Channel Number encoded as **n,** known to be available, sends a CALL PROCEEDING or SETUP ACK message containing a Channel Identification IE with a Channel Number encoded as **n** and enters state 9 or 25.

TC002JD subclause 10.1.2 Valid

Ensure that the IUT in state 0, on receiving a SETUP message, containing a Channel Identification IE with a Channel Number encoded as **n,** known to be available, and a Sending Complete IE, sends a CALL PROCEEDING message containing a Channel Identification IE with a Channel Number encoded as **n**.

SP021 subclause 10.1.2 Valid

Ensure that the IUT in state 0, on receiving a SETUP message containing a Channel Identification IE with a Channel Number encoded as **n,** known to be busy, and a preferred/exclusive field encoded as preferred, having an alternative available Information channel whose number is **m**, sends a CALL PROCEEDING or SETUP ACK message containing a Channel Identification IE with a Channel Number encoded as **m**, and enters state 9 or 25 respectively.

TC002JE subclause 10.1.2 Valid

Ensure that the IUT in state 0, on receiving a SETUP message containing a Channel Identification IE with a Channel Number encoded as **n,** known to be busy, and a preferred/exclusive field encoded as preferred, and a Sending Complete IE, having an alternative available Information channel whose number is **m**, sends a CALL PROCEEDING message containing a Channel Identification IE with a Channel Number encoded as **m**.

SP022 subclause 10.1.2 Valid

TC002JF subclause 10.1.2 Valid

Ensure that the IUT in state 0, on receiving a SETUP message containing a Channel Identification IE with a Channel Number known to be busy and a preferred/exclusive field encoded as exclusive, sends a RELEASE COMPLETE message containing a Cause IE with a Cause Value encoded as 44, and enters state 0.

SP023 subclause 10.1.2 Valid

TC002JG subclause 10.1.2 Valid

Ensure that the IUT in state 0, on receiving a SETUP message containing a Channel Identification IE with a Channel Number known to be busy and a preferred/exclusive field encoded as preferred, and having no alternative Information channel available, sends a RELEASE COMPLETE message containing a Cause IE with a Cause Value encoded as 34, and enters state 0.

5.3.1.2.3 Incoming side - multirate

Selection: IUT supports procedures for incoming calls: PICS B3 OR B4 OR B5.

Selection: IUT supports multirate bearers: PICS Z4.

SP313 subclause 10.1.2 Valid

Ensure that the IUT in state 0, on receiving a SETUP message, containing a Channel Identification IE indicating multiple channels**,** all known to be available, sends a CALL PROCEEDING or SETUP ACK message containing a Channel Identification IE indicating the same channels as in the SETUP message and enters state 9 or 25.

TC002YM subclause 10.1.2 Valid

Ensure that the IUT in state 0, on receiving a SETUP message, containing a Channel Identification indicating multiple channels**,** all known to be available, and a Sending Complete IE, sends a CALL PROCEEDING message containing a Channel Identification IE indicating the same channels as in the SETUP message.

SP314 subclause 10.1.2 Valid

Ensure that the IUT in state 0, on receiving a SETUP message containing a Channel Identification IE indicating multiple channels, where one or more of the channels is known to be busy and the preferred/exclusive field encoded as preferred, and where there are sufficient channels which are not busy, sends a CALL PROCEEDING or SETUP ACK message containing a Channel Identification IE identifying the same number of channels as that in the SETUP message such that none of the channels identified are busy and all the channels identified in the SETUP message that are not busy are included, and enters state 9 or 25 respectively.

TC002YN subclause 10.1.2 Valid

Ensure that the IUT in state 0, on receiving a SETUP message containing the Sending complete IE and a Channel Identification IE indicating multiple channels, where one of the channels is known to be busy and the preferred/exclusive field encoded as preferred, and where there are sufficient channels which are not busy, sends a CALL PROCEEDING message containing a Channel Identification IE identifying the same number of channels as that in the SETUP message including all the channels identified in the SETUP message that are not busy and one other channel that is not busy.

SP315 subclause 10.1.2 Valid

TC002YO subclause 10.1.2 Valid

Ensure that the IUT in state 0, on receiving a SETUP message containing a Channel Identification IE indicating multiple channels, where one or more of the channels is known to be busy and the preferred/exclusive field encoded as exclusive, sends a RELEASE COMPLETE message containing a Cause IE with a Cause Value encoded as 44, and enters state 0.

SP316 subclause 10.1.2 Valid

TC002YP subclause 10.1.2 Valid

Ensure that the IUT in state 0, on receiving a SETUP message containing a Channel Identification IE indicating multiple channels, where one or more of the channels is known to be busy and the preferred/exclusive field encoded as preferred and insufficient alternative information channels are available, sends a RELEASE COMPLETE message containing a Cause IE with a Cause Value encoded as 34, and enters state 0.

SP317 subclauses 10.1.2 and 9.6.2 Invalid

Ensure that the IUT in state 0, on receiving a SETUP message containing a Bearer capability IE and a Channel Identification IE encoded such that the number of channels identified by the Channel identification IE does not match the information transfer rate indicated in the Bearer capability IE, sends a RELEASE COMPLETE message containing a Cause IE with a Cause value encoded as 100.

TC003YQ subclauses 10.1.2 and 9.6.2 Invalid

Ensure that the IUT in state 0, on receiving a SETUP message containing a Bearer capability IE with the Information transfer rate field encoded multirate and the multiplier coded as 2 and a Channel Identification IE identifying a single channel, sends a RELEASE COMPLETE message containing a Cause IE with a Cause value encoded as 100.

5.3.1.3 Overlap Sending and Receiving

The TPs in this subclause refer to EN 300 172 [2], subclause 10.1.3.

5.3.1.3.1 Incoming side

Selection: IUT supports overlap receiving procedures. PICS: B9.

Selection: Overlap receiving procedures are to be tested.

SP024 subclause 10.1.3 Valid

TC002JH subclause 10.1.3 Valid

Ensure that the IUT in state 0, on receiving a SETUP message, not containing a Sending Complete IE and containing a Called Party Number IE with an incomplete number, sends a SETUP ACK message and enters state 25.

SP025 subclause 10.1.3 Valid

TC002JI subclause 10.1.3 Valid

Ensure that the IUT in state 25, on expiry of timer T302 and with called party number information which the IUT can determine to be incomplete, sends a DISCONNECT message containing a Cause IE with a Cause Value encoded as 28, and enters state 11.

SP026 subclause 10.1.3 Valid

TC002JK subclause 10.1.3 Valid

Ensure that the IUT in state 25, on expiry of timer T302 and where the IUT cannot determine that the called number information is incomplete, sends a CALL PROCEEDING message, and enters state 9.

SP027 subclause 10.1.3 Valid

Ensure that the IUT in state 25, on receiving an INFORMATION message, not containing a Sending Complete IE and where the IUT can determine that the called number information is complete, sends a CALL PROCEEDING message and enters state 9.

TC002JL subclause 10.1.3 Valid

Ensure that the IUT in state 25, on receiving an INFORMATION message, not containing a Sending Complete IE and where the IUT can determine that the called number information is complete, sends a CALL PROCEEDING message.

5.3.1.3.2 Outgoing side

Selection: IUT supports overlap sending procedures. PICS: B10.

SP028 subclause 10.1.3 Valid

Ensure that the IUT in state 1, on receiving a SETUP ACK message, enters state2, and sends an INFORMATION message containing either a Sending Complete IE, or a Called Party Number IE, or both IEs.

TC002BF subclause 10.1.3 Valid

Ensure that the IUT in state 1, on receiving a SETUP ACK message, enters state 2.

TC002BG subclause 10.1.3 Valid

Ensure that the IUT in state 1, on receiving a SETUP ACK message, sends an INFORMATION message containing either a Sending Complete IE, or a Called Party Number IE, or both IEs.

Selection: IUT supports sending of the INFORMATION message.

SP029 subclause 10.1.3 Valid

TC002BH subclause 10.1.3 Valid

Ensure that the IUT in state 2, on expiry of T304, sends a DISCONNECT message containing a Cause IE with a Cause Value encoded as 102, and enters state 11.

5.3.1.4 Call Proceeding

The TPs in this subclause refer to EN 300 172 [2], subclause 10.1.4.

SP030 subclauses 10.1.3 and 10.1.4.2 Valid

Ensure that the IUT in state 25, on receiving an INFORMATION message containing a Sending Complete IE and a Called Party Number IE with a valid number completing the called number information, sends a CALL PROCEEDING message, and enters state 9.

Selection: IUT supports overlap receiving procedures. PICS: B9.

TC002JM subclauses 10.1.3 and 10.1.4.2 Valid

Ensure that the IUT in state 25, on receiving an INFORMATION message containing a Sending Complete IE and a Called Party Number IE with a valid number completing the called number information, sends a CALL PROCEEDING message.

Selection: IUT supports overlap receiving procedures. PICS: B9.

Selection: Overlap receiving procedures are to be tested.

SP032 subclause 10.1.4.1 Valid

TC002JO subclause 10.1.4.1 Valid

Ensure that the IUT in state 0, on receiving a SETUP message containing a Sending Complete IE, sends a CALL PROCEEDING message and enters state 9.

Selection: IUT supports procedures for incoming calls: PICS B3 OR B4 OR B5.

SP033 subclause 10.1.4 Valid

Ensure that the IUT in state 0, on receiving a SETUP message not containing a Sending Complete IE, where the IUT can determine that the called number information is complete, sends a CALL PROCEEDING message and enters state 9.

Selection: IUT supports procedures for incoming calls: PICS B3 OR B4 OR B5.

TC002JP subclause 10.1.4 Valid

Ensure that the IUT in state 0, on receiving a SETUP message not containing a Sending Complete IE, where the IUT can determine that the called number information is complete, sends a CALL PROCEEDING message.

Selection: IUT supports procedures for incoming calls: PICS B3 OR B4 OR B5.

SP034 subclause 10.1.4.1 Valid

TC002UY subclause 10.1.4.1 Valid

Ensure that the IUT in state 0, on receiving a SETUP message, where the IUT can determine that for some reason the call cannot be supported, initiates call clearing.

NOTE: This STP is referenced in the "Untestable TPs" section in the associated ATS specification document.

SP035 subclause 10.1.4.2 Valid

Ensure that the IUT in state 25, where the IUT can determine that for some reason the call cannot be supported, sends a DISCONNECT message and enters state 11.

Selection: IUT supports overlap receiving procedures. PICS: B9.

Selection: Overlap receiving procedures are to be tested (see PICS B9 note 1).

TC002JR subclause 10.1.4.2 Valid

Ensure that the IUT in state 25, on receiving an INFORMATION message containing a Called Party Number IE with an unassigned number, sends a DISCONNECT message and enters state 11.

Selection: IUT supports overlap receiving procedures. PICS: B9.

Selection: Overlap receiving procedures are to be tested (see PICS B9 note 1).

SP036 subclause 10.1.4.1 Valid

TC002BJ subclause 10.1.4.1 Valid

Ensure that the IUT in state 1, on receiving a CALL PROCEEDING message, enters state 3.

Selection: IUT supports procedures for call request. PICS B6.

SP037 subclause 10.1.4.2 Valid

TC002BK subclause 10.1.4.2 Valid

Ensure that the IUT in state 2, on receiving a CALL PROCEEDING message, enters state 3.

Selection: IUT supports overlap sending procedures. PICS B10.

SP038 subclause 10.1.4.3 Valid

TC002BL subclause 10.1.4.3 Valid

Ensure that the IUT in state 3, on expiry of timer T310, sends a DISCONNECT message and enters state 11.

Selection: IUT supports timer T310. PICS I8.

5.3.1.5 Call Confirmation indication

The TPs in this subclause refer to EN 300 172 [2], subclause 10.1.5.

SP039 subclause 10.1.5 Valid

Ensure that the IUT in state 2 or 3, on receiving an ALERTING message, enters state 4.

Selection: IUT supports procedures for call request. PICS B6.

TC002XC subclause 10.1.5 Valid

Ensure that the IUT in state 2, on receiving an ALERTING message, enters state.

Selection: IUT supports overlap sending procedures. PICS: B10.

TC002BN subclause 10.1.5 Valid

Ensure that the IUT in state 3, on receiving an ALERTING message, enters state 4.

Selection: IUT supports procedures for call request. PICS B6.

SP040 subclause 10.1.5 Valid

TC002BO subclause 10.1.5 Valid

Ensure that the IUT in state 4, on expiry of timer T301, sends a DISCONNECT message containing a Cause IE, and enters state 11.

Selection: IUT supports timer T301. PICS I1.

SP041 subclause 10.1.5 Valid

Ensure that the IUT in state 9 in order to indicate that the called user is being alerted, sends an ALERTING message and enters state 7.

Selection: IUT supports procedures for incoming calls: PICS B3 OR B4 OR B5.

TC002JS subclause 10.1.5 Valid

Ensure that the IUT in state 9 in order to indicate that the called user is being alerted, sends an ALERTING message and enters state 7.

Selection: IUT supports procedures for incoming calls: PICS B3 OR B4 OR B5.

5.3.1.6 Call Connected

The TPs in this subclause refer to EN 300 172 [2], subclause 10.1.6.

SP042 subclause 10.1.6 Valid

Ensure that the IUT in state 2, 3, or 4, on receiving a CONNECT message sends a CONNECT ACK message, and enters state 10.

Selection: IUT supports procedures for call request. PICS B6.

Selection: IUT supports sending of CONNECT ACKNOWLEDGE.

TC002XA subclause 10.1.6 Valid

Ensure that the IUT in state 2, on receiving a CONNECT message, sends a CONNECT ACKNOWLEDGE message and enters state 10.

Selection: IUT supports overlap sending procedures. PICS: B10.

Selection: IUT supports sending of CONNECT ACKNOWLEDGE.

TC002XB subclause 10.1.6 Valid

Ensure that the IUT in state 3, on receiving a CONNECT message, sends a CONNECT ACKNOWLEDGE message and enters state 10.

Selection: IUT supports procedures for call request. PICS B6.

Selection: IUT supports sending of CONNECT ACKNOWLEDGE.

TC002BQ subclause 10.1.6 Valid

Ensure that the IUT in state 4, on receiving a CONNECT message, sends a CONNECT ACKNOWLEDGE message and enters state 10.

Selection: IUT supports procedures for call request. PICS B6.

Selection: IUT supports sending of CONNECT ACKNOWLEDGE.

SP318 subclause 10.1.6 Valid

Ensure that the IUT in state 2, 3, or 4, on receiving a CONNECT message (when CONNECT ACKNOWLEDGE is not being used), enters state 10.

Selection: IUT supports procedures for call request. PICS B6.

Selection: IUT does not support timer T313. PICS: NOT I9.

Selection: IUT supports procedures not using CONNECT ACKNOWLEDGE.

TC002YR subclause 10.1.6 Valid

Ensure that the IUT in state 2, on receiving a CONNECT message (when CONNECT ACKNOWLEDGE is not being used), enters state 10.

Selection: IUT supports overlap sending procedures. PICS: B10.

Selection: IUT does not support timer T313. PICS: NOT I9.

Selection: IUT supports procedures not using CONNECT ACKNOWLEDGE.

TC002YS subclause 10.1.6 Valid

Ensure that the IUT in state 3, on receiving a CONNECT message (when CONNECT ACKNOWLEDGE is not being used), enters state 10.

Selection: IUT supports procedures for call request. PICS B6.

Selection: IUT does not support timer T313. PICS: NOT I9.

Selection: IUT supports procedures not using CONNECT ACKNOWLEDGE.

TC002YT subclause 10.1.6 Valid

Ensure that the IUT in state 4, on receiving a CONNECT message (when CONNECT ACKNOWLEDGE is not being used), enters state 10.

Selection: IUT supports procedures for call request. PICS B6.

Selection: IUT does not support timer T313. PICS: NOT I9.

Selection: IUT supports procedures not using CONNECT ACKNOWLEDGE.

SP043 subclause 10.1.6 Valid

Ensure that the IUT in state 9 or 7, in order to indicate that the call has been answered, sends a CONNECT message and enters state 8 or 10.

Selection: IUT supports procedures for incoming calls: PICS B3 OR B4 OR B5.

TC002JU subclause 10.1.6 Valid

Ensure that the IUT in state 9, in order to indicate that the call has been answered, sends a CONNECT message and enters state 8 or 10.

Selection: IUT supports procedures for incoming calls: PICS B3 OR B4 OR B5.

TC002JV subclause 10.1.6 Valid

Ensure that the IUT in state 7, in order to indicate that the call has been answered, sends a CONNECT message and enters state 8 or 10.

Selection: IUT supports procedures for incoming calls: PICS B3 OR B4 OR B5.

SP044 subclause 10.1.6 Valid

TC002JW subclause 10.1.6 Valid

Ensure that the IUT in state 8, on receiving a CONNECT ACK message, enters state 10.

Selection: IUT supports timer T313. PICS I9.

SP045 subclause 10.1.6 Valid

Ensure that the IUT in state 10, for an incoming call, on receiving a CONNECT ACK message, remains in the same state.

Selection: IUT does not support timer T313. PICS: NOT I9.

Selection: IUT supports procedures for incoming calls. PICS B3 OR B4 OR B5.

TC002JX subclause 10.1.6 Valid

Ensure that the IUT in state 10, after having sent a CONNECT message, on receiving a CONNECT ACK message, remains in the same state.

Selection: IUT does not support timer T313. PICS: NOT I9.

Selection: IUT supports procedures for incoming calls. PICS B3 OR B4 OR B5.

SP046 subclauses 10.1.6 and 10.1.4.2 Valid

Ensure that the IUT in state 7, 8, 9 or 10, on receiving an INFORMATION message, discards the message and remains in the same state.

Selection: IUT supports procedures for incoming calls. PICS B3 OR B4 OR B5.

TC002JY subclauses 10.1.6 and 10.1.4.2 Valid

Ensure that the IUT in state 7, on receiving an INFORMATION message, discards the message and remains in the same state.

Selection: IUT supports procedures for incoming calls. PICS B3 OR B4 OR B5.

TC002JZ subclauses 10.1.6 and 10.1.4.2 Valid

Ensure that the IUT in state 8, on receiving an INFORMATION message, discards the message and remains in the same state.

Selection: IUT supports timer T313. PICS I9.

TC002KA subclauses 10.1.6 and 10.1.4.2 Valid

Ensure that the IUT in state 9, on receiving an INFORMATION message, discards the message and remains in the same state.

Selection: IUT supports procedures for incoming calls: PICS B3 OR B4 OR B5.

TC002KB subclauses 10.1.6 and 10.1.4.2 Valid

Ensure that the IUT in state 10 for an incoming call, on receiving an INFORMATION message, discards the message and remains in the same state.

Selection: IUT supports procedures for incoming calls: PICS B3 OR B4 OR B5.

SP047 subclauses 10.1.6 and 10.2.3 Valid

TC002KC subclauses 10.1.6 and 10.2.3 Valid

Ensure that the IUT in state 8, on expiry of timer T313, sends a DISCONNECT message containing a Cause IE with a Cause Value encoded as 102, and enters state 11.

Selection: IUT supports timer T313. PICS I9.

5.3.1.7 Use of the PROGRESS message

The TPs in this subclause refer to EN 300 172 [2], subclause 10.1.7.

SP048 subclause 10.1.7.1 Valid

Ensure that the IUT in state 2, 3, or 4, on receiving a PROGRESS message, remains in the same state.

Selection: IUT supports procedures for call request. PICS B6.

NOTE: No final test purpose has been derived because this super TP is covered by TC002BS, TC002BT and TC002BU derived from SP049.

SP049 subclause 10.1.7.1 Valid

Ensure that the IUT in state 2, 3, or 4, on receiving a PROGRESS message containing a Progress Indicator IE with a Progress Description value encoded as 1, 2 or 8, remains in the same state.

Selection: IUT supports procedures for call request. PICS B6.

TC002BS subclause 10.1.7.1 Valid

Ensure that the IUT in state 2, on receiving a PROGRESS message containing a Progress Indicator IE with a Progress Description value encoded as 1, remains in the same state.

Selection: IUT supports overlap sending procedures. PICS: B10.

TC002BT subclause 10.1.7.1 Valid

Ensure that the IUT in state 3, on receiving a PROGRESS message containing a Progress Indicator IE with a Progress Description value encoded as 2, remains in the same state.

Selection: IUT supports procedures for call request. PICS B6.

TC002BU subclause 10.1.7.1 Valid

Ensure that the IUT in state 4, on receiving a PROGRESS message containing a Progress Indicator IE with a Progress Description value encoded as 8, remains in the same state.

Selection: IUT supports procedures for call request. PICS B6.

SP050 subclause 10.1.7.1 Valid

Ensure that the IUT in state 7, 9, 10 or 25 in order to indicate progress information, sends an ALERTING or CONNECT or PROGRESS message containing a Progress Indicator IE.

Selection: IUT supports sending progress information during call establishment. PICS: B17.

TC002KM subclause 10.1.7.1 Valid

Ensure that the IUT in state 7, in order to indicate progress information, sends a PROGRESS message containing a Progress Indicator IE.

Selection: IUT supports sending progress information during call establishment. PICS: B17.

TC002KN subclause 10.1.7.1 Valid

Ensure that the IUT in state 7, in order to indicate progress information, sends a CONNECT message containing a Progress Indicator IE.

Selection: IUT supports inclusion of the Progress indicator IE in CONNECT. PICS: J6.

TC002KP subclause 10.1.7.1 Valid

Ensure that the IUT in state 9, in order to indicate progress information, sends a PROGRESS message containing a Progress Indicator IE.

Selection: IUT supports sending progress information during call establishment. PICS: B17.

TC002KQ subclause 10.1.7.1 Valid

Ensure that the IUT in state 9, in order to indicate progress information, sends an ALERTING message containing a Progress Indicator IE.

Selection: IUT supports inclusion of the Progress indicator IE in ALERTING. PICS: J5.

TC002KR subclause 10.1.7.1 Valid

Ensure that the IUT in state 9, in order to indicate progress information, sends a CONNECT message containing a Progress Indicator IE.

Selection: IUT supports inclusion of the Progress indicator IE in CONNECT. PICS: J6.

TC002KS subclause 10.1.7.1 Valid

Ensure that the IUT in state 10, in order to indicate progress information, sends a PROGRESS message containing a Progress Indicator IE.

Selection: IUT supports sending progress information during call establishment. PICS: B17.

TC002KT subclause 10.1.7.1 Valid

Ensure that the IUT in state 25, in order to indicate progress information, sends a PROGRESS message containing a Progress Indicator IE.

Selection: IUT supports sending progress information during call establishment. PICS: B17.

Selection: IUT supports overlap receiving procedures. PICS: B9.

Selection: Overlap receiving procedures are to be tested (see PICS B9 note 1).

5.3.1.8 Call collisions

The TPs in this subclause refer to EN 300 172 [2], subclause 10.3.

Selection: IUT supports procedures for incoming and outgoing calls: PICS (B3 OR B4 OR B5) AND B6.

SP051 subclause 10.3 Valid

Ensure that the IUT in state 1, configured as A, after having sent a SETUP message containing a Channel Identification IE with a preferred/exclusive field encoded as exclusive, on receiving a SETUP message containing a Channel Identification IE with a preferred/exclusive field encoded as exclusive, where one or more information channels are identified in both SETUP messages, sends a RELEASE COMPLETE message containing a Cause IE with a Cause Value encoded as 44, and enters state 0 for the incoming call.

Selection: IUT supports sending SETUP including exclusive Channel ID.

TC002BV subclause 10.3 Valid

Ensure that the IUT in state 1, configured as A, after having sent a SETUP message containing a Channel Identification IE with a Channel Number encoded as **n** and a preferred/exclusive field encoded as exclusive, on receiving a SETUP message containing a Channel Identification IE with a Channel Number encoded as **n** and a preferred/exclusive field encoded as exclusive, sends a RELEASE COMPLETE message, and enters state 0 for the incoming call.

Selection: IUT supports sending SETUP including exclusive Channel ID.

TC002BW subclause 10.3 Valid

Ensure that the IUT in state 1, configured as A, after having sent a SETUP message containing a Channel Identification IE with a Channel Number encoded as **n** and a preferred/exclusive field encoded as exclusive, on receiving a SETUP message containing a Channel Identification IE with a Channel Number encoded as **n** and a preferred/exclusive field encoded as exclusive, sends a RELEASE COMPLETE message containing a Cause IE with a Cause Value encoded as 44.

Selection: IUT supports sending SETUP including exclusive Channel ID.

TC002YU subclause 10.3 Valid

Ensure that the IUT in state 1, configured as A, after having sent a SETUP message containing a Channel Identification IE identifying more than one channel and with a preferred/exclusive field encoded as exclusive, on receiving a SETUP message containing a Channel Identification IE with a preferred/exclusive field encoded as exclusive, where one channel is identified in both SETUP messages, sends a RELEASE COMPLETE message containing a Cause IE with a Cause Value encoded as 44, and enters state 0 for the incoming call.

Selection: IUT supports multirate bearer. PICS: Z4.

Selection: IUT supports sending SETUP including exclusive Channel ID.

SP052 subclause 10.3 Valid

Ensure that the IUT in state 1, configured as B, after having sent a SETUP message containing a Channel Identification IE with a preferred/exclusive field encoded as exclusive, on receiving a SETUP message containing a Channel Identification IE a preferred/exclusive field encoded as exclusive, where one or more information channels are identified in both SETUP messages, sends a CALL PROCEEDING or SETUP ACK message containing a Channel Identification IE identifying the same channel(s) as in the incoming SETUP message, and enters state 9 or 25 respectively for the incoming call.

Selection: IUT supports sending SETUP including exclusive Channel ID.

TC002BX subclause 10.3 Valid

Ensure that the IUT in state 1, configured as B, after having sent a SETUP message containing a Channel Identification IE with a Channel Number encoded as **n** and a preferred/exclusive field encoded as exclusive, on receiving a SETUP message containing a Channel Identification IE with a Channel Number **n** and a preferred/exclusive field encoded as exclusive, sends a CALL PROCEEDING or SETUP ACK message, and enters state 9 or 25 respectively for the incoming call.

NOTE 1: This TP does not specify the behaviour of the IUT for the outgoing call. Test cases derived from this TP should allow for the possibility that the IUT may send a clearing message or re-transmit SETUP (on expiry of T303).

Selection: IUT supports sending SETUP including exclusive Channel ID.

TC002BY subclause 10.3 Valid

Ensure that the IUT in state 1, configured as B, after having sent a SETUP message containing a Channel Identification IE with a Channel Number encoded as **n** and a preferred/exclusive field encoded as exclusive, on receiving a SETUP message containing a Channel Identification IE with a Channel Number **n** and a preferred/exclusive field encoded as exclusive, sends a CALL PROCEEDING or SETUP ACK message containing a Channel Identification IE with a Channel Number encoded as **n**.

NOTE 2: This TP does not specify the behaviour of the IUT for the outgoing call. Test cases derived from this TP should allow for the possibility that the IUT may send a clearing message or re-transmit SETUP (on expiry of T303).

Selection: IUT supports sending SETUP including exclusive Channel ID.

TC002YV subclause 10.3 Valid

Ensure that the IUT in state 1, configured as B, after having sent a SETUP message containing a Channel Identification IE identifying more than one channel and with a preferred/exclusive field encoded as exclusive, on receiving a SETUP message containing a Channel Identification IE a preferred/exclusive field encoded as exclusive and identifying the same channels as in the outgoing SETUP message, sends a CALL PROCEEDING or SETUP ACK message containing a Channel Identification IE identifying the same channels as in the incoming SETUP message, and enters state 9 or 25 respectively for the incoming call.

NOTE 3: This TP does not specify the behaviour of the IUT for the outgoing call. Test cases derived from this TP should allow for the possibility that the IUT may send a clearing message or re-transmit SETUP (on expiry of T303).

Selection: IUT supports multirate bearer. PICS: Z4.

Selection: IUT supports sending SETUP including exclusive Channel ID.

SP053 subclause 10.3 Valid

Ensure that the IUT in state 1, configured as A, after having sent a SETUP message containing a Channel Identification IE with a preferred/exclusive field encoded as preferred, on receiving a SETUP message containing a Channel Identification IE with a preferred/exclusive field encoded as preferred, where one or more information channels are identified in both SETUP messages, and having insufficient alternative Information channel(s) available, sends a RELEASE COMPLETE message containing a Cause IE with a Cause Value encoded as 34, and enters state 0 for the incoming call.

Selection: IUT supports sending SETUP including preferred Channel ID.

TC002BZ subclause 10.3 Valid

Ensure that the IUT in state 1, configured as A, after having sent a SETUP message containing a Channel Identification IE with a Channel Number encoded as **n** and a preferred/exclusive field encoded as preferred, on receiving a SETUP message containing a Channel Identification IE with a Channel Number encoded as **n** and a preferred/exclusive field encoded as preferred, and having no alternative Information channel available, sends a RELEASE COMPLETE message containing a Cause IE with a Cause Value encoded as 34.

Selection: IUT supports sending SETUP including preferred Channel ID.

TC002YW subclause 10.3 Valid

Ensure that the IUT in state 1, configured as A, after having sent a SETUP message containing a Channel Identification IE identifying more than one channel and with a preferred/exclusive field encoded as preferred, on receiving a SETUP message containing a Channel Identification IE with a preferred/exclusive field encoded as preferred, where one channel is identified in both SETUP messages and having insufficient alternative channels available, sends a RELEASE COMPLETE message containing a Cause IE with a Cause Value encoded as 34, and enters state 0 for the incoming call.

Selection: IUT supports multirate bearer. PICS: Z4.

Selection: IUT supports sending SETUP including preferred Channel ID.

SP054 subclause 10.3 Valid

Ensure that the IUT in state 1, configured as A, after having sent a SETUP message containing a Channel Identification IE with a preferred/exclusive field encoded as preferred, on receiving a SETUP message containing a Channel Identification IE with a preferred/exclusive field encoded as preferred, where one or more information channels are identified in both SETUP messages, and having sufficient alternative Information channel(s) available, sends a CALL PROCEEDING or SETUP ACK message containing a Channel Identification IE identifying the same number of channels as in the incoming SETUP message, not including any channels identified in the outgoing SETUP message but including any other channels identified in the incoming SETUP message, and enters state 9 or 25 respectively for the incoming call.

Selection: IUT supports sending SETUP including preferred Channel ID.

TC002CA subclause 10.3 Valid

Ensure that the IUT in state 1, configured as A, after having sent a SETUP message containing a Channel Identification IE with a Channel Number encoded as **n** and a preferred/exclusive field encoded as preferred, on receiving a SETUP message containing a Channel Identification IE with a Channel Number encoded as **n** and a preferred/exclusive field encoded as preferred, and having an alternative Information channel available, sends a CALL PROCEEDING or SETUP ACK message containing a Channel Identification IE with a Channel Number encoded with a different channel number from **n**.

Selection: IUT supports sending SETUP including preferred Channel ID.

TC002YX subclause 10.3 Valid

Ensure that the IUT in state 1, configured as A, after having sent a SETUP message containing a Channel Identification IE identifying more than one channel and with a preferred/exclusive field encoded as preferred, on receiving a SETUP message containing a Channel Identification IE a preferred/exclusive field encoded as preferred and where one channel is identified in both SETUP messages and having an alternative Information channel available, sends a CALL PROCEEDING or SETUP ACK message containing a Channel Identification IE identifying the same number of channels as in the incoming SETUP message, not including any channels identified in the outgoing SETUP message but including any other channels identified in the incoming SETUP message, and enters state 9 or 25 respectively for the incoming call.

Selection: IUT supports multirate bearer. PICS: Z4.

Selection: IUT supports sending SETUP including preferred Channel ID.

SP055 subclause 10.3 Valid

Ensure that the IUT in state 1, configured as B, after having sent a SETUP message containing a Channel Identification IE with a preferred/exclusive field encoded as preferred, on receiving a SETUP message containing a Channel Identification IE with a preferred/exclusive field encoded as preferred, where one or more information channels are identified in both SETUP messages, sends a CALL PROCEEDING or SETUP ACK message containing a Channel Identification IE identifying the same channel(s) as in the incoming SETUP message, and enters state 9 or 25 respectively for the incoming call.

Selection: IUT supports sending SETUP including preferred Channel ID.

TC002CB subclause 10.3 Valid

Ensure that the IUT in state 1, configured as B, after having sent a SETUP message containing a Channel Identification IE with a Channel Number encoded as **n** and a preferred/exclusive field encoded as preferred, on receiving a SETUP message containing a Channel Identification IE with a Channel Number encoded as **n** and a preferred/exclusive field encoded as preferred, sends a CALL PROCEEDING or SETUP ACK message containing a Channel Identification IE with a Channel Number encoded as **n**.

Selection: IUT supports sending SETUP including preferred Channel ID.

TC002YY subclause 10.3 Valid

Ensure that the IUT in state 1, configured as B, after having sent a SETUP message containing a Channel Identification IE identifying more than one channel and with a preferred/exclusive field encoded as preferred, on receiving a SETUP message containing a Channel Identification IE a preferred/exclusive field encoded as preferred and identifying the same channels as in the outgoing SETUP message, sends a CALL PROCEEDING or SETUP ACK message containing a Channel Identification IE identifying the same channels as in the incoming SETUP message, and enters state 9 or 25 respectively for the incoming call.

Selection: IUT supports multirate bearer. PICS: Z4.

Selection: IUT supports sending SETUP including preferred Channel ID.

SP056 subclause 10.3 Valid

Ensure that the IUT in state 1, after having sent a SETUP message containing a Channel Identification IE with a preferred/exclusive field encoded as exclusive, on receiving a SETUP message containing a Channel Identification IE with a preferred/exclusive field encoded as preferred, where one or more information channels are identified in both SETUP messages, and having no alternative Information channel available, sends a RELEASE COMPLETE message containing a Cause IE with a Cause Value encoded as 34, and enters state 0 for the incoming call.

Selection: IUT supports sending SETUP including exclusive Channel ID.

TC002CC subclause 10.3 Valid

Ensure that the IUT in state 1, after having sent a SETUP message containing a Channel Identification IE with a Channel Number encoded as **n** and a preferred/exclusive field encoded as exclusive, on receiving a SETUP message containing a Channel Identification IE with a Channel Number encoded as **n** and a preferred/exclusive field encoded as preferred, and having no alternative Information channel available, sends a RELEASE COMPLETE message containing a Cause IE with a Cause Value encoded as 34.

Selection: IUT supports sending SETUP including exclusive Channel ID.

TC002YZ subclause 10.3 Valid

Ensure that the IUT in state 1, after having sent a SETUP message containing a Channel Identification IE identifying more than one channel and with a preferred/exclusive field encoded as exclusive, on receiving a SETUP message containing a Channel Identification IE with a preferred/exclusive field encoded as preferred and identifying the same channels as in the outgoing SETUP message and having insufficient alternative channels available, sends a RELEASE COMPLETE message containing a Cause IE with a Cause Value encoded as 34, and enters state 0 for the incoming call.

Selection: IUT supports multirate bearer. PICS: Z4.

Selection: IUT supports sending SETUP including exclusive Channel ID.

SP057 subclause 10.3 Valid

Ensure that the IUT in state 1, after having sent a SETUP message containing a Channel Identification IE with a preferred/exclusive field encoded as exclusive, on receiving a SETUP message containing a Channel Identification IE with a preferred/exclusive field encoded as preferred, where one or more information channels are identified in both SETUP messages, and having sufficient alternative Information channel(s) available, sends a CALL PROCEEDING or SETUP ACK message containing a Channel Identification IE identifying the same number of channels as in the incoming SETUP message, not including any channels identified in the outgoing SETUP message but including any other channels identified in the incoming SETUP message, and enters state 9 or 25 respectively for the incoming call.

Selection: IUT supports sending SETUP including exclusive Channel ID.

TC002CD subclause 10.3 Valid

Ensure that the IUT in state 1, after having sent a SETUP message containing a Channel Identification IE with a Channel Number encoded as **n** and a preferred/exclusive field encoded as exclusive, on receiving a SETUP message containing a Channel Identification IE with a Channel Number encoded as **n** and a preferred/exclusive field encoded as preferred, and having an alternative Information channel available, sends a CALL PROCEEDING or SETUP ACK message containing a Channel Identification IE with a Channel Number encoded with a channel number different from **n**.

Selection: IUT supports sending SETUP including exclusive Channel ID.

TC002ZA subclause 10.3 Valid

Ensure that the IUT in state 1, configured as A, after having sent a SETUP message containing a Channel Identification IE identifying more than one channel and with a preferred/exclusive field encoded as preferred, on receiving a SETUP message containing a Channel Identification IE a preferred/exclusive field encoded as exclusive and identifying the same channels as in the outgoing SETUP message and having an alternative Information channel available, sends a CALL PROCEEDING or SETUP ACK message containing a Channel Identification IE identifying the same number of channels as in the incoming SETUP message, not including any channels identified in the outgoing SETUP message but including any other channels identified in the incoming SETUP message, and enters state 9 or 25 respectively for the incoming call.

Selection: IUT supports multirate bearer. PICS: Z4.

Selection: IUT supports sending SETUP including exclusive Channel ID.

SP058 subclause 10.3 Valid

Ensure that the IUT in state 1, after having sent a SETUP message containing a Channel Identification IE with a preferred/exclusive field encoded as preferred, on receiving a SETUP message containing a Channel Identification IE with a preferred/exclusive field encoded as exclusive, where one or more information channels are identified in both SETUP messages, sends a CALL PROCEEDING or SETUP ACK message containing a Channel Identification IE identifying the same channel(s) as in the incoming SETUP message, and enters state 9 or 25 respectively for the incoming call.

Selection: IUT supports sending SETUP including preferred Channel ID.

TC002CE subclause 10.3 Valid

Ensure that the IUT in state 1, after having sent a SETUP message containing a Channel Identification IE with a Channel Number encoded as **n** and a preferred/exclusive field encoded as preferred, on receiving a SETUP message containing a Channel Identification IE with a Channel Number encoded as **n** and a preferred/exclusive field encoded as exclusive, sends a CALL PROCEEDING or SETUP ACK message containing a Channel Identification IE with a Channel Number encoded as **n**.

Selection: IUT supports sending SETUP including preferred Channel ID.

TC002ZB subclause 10.3 Valid

Ensure that the IUT in state 1, after having sent a SETUP message containing a Channel Identification IE identifying more than one channel and with a preferred/exclusive field encoded as Preferred, on receiving a SETUP message containing a Channel Identification IE a preferred/exclusive field encoded as exclusive and identifying the same channels as in the outgoing SETUP message, sends a CALL PROCEEDING or SETUP ACK message containing a Channel Identification IE identifying the same channels as in the incoming SETUP message, and enters state 9 or 25 respectively for the incoming call.

Selection: IUT supports multirate bearer. PICS: Z4.

Selection: IUT supports sending SETUP including preferred Channel ID.

5.3.1.9 Additional progress descriptions

The TPs in this subclause refer to EN 300 172 [2], annex ZB.

NOTE: The clearing messages mentioned in the TPs in this subclause are to allow for the possibility that the implementation dependant action according to the progress descriptions received results in call clearing.

SP320 subclause ZB.2 Valid

Ensure that the IUT in state 0, on receiving a SETUP message containing three progress indicator IEs, sends a CALL PROCEEDING or SETUP ACK message or a RELEASE COMPLETE message containing a Cause IE with a cause value not in the invalid message or protocol error class.

Selection: IUT supports procedures for incoming calls: PICS B3 OR B4 OR B5.

TC002ZD subclause ZB.2 Valid

Ensure that the IUT in state 0, on receiving a SETUP message containing three progress indicator IEs encoded as ISO/IEC 17, CCITT 1 and ISO/IEC 16, sends a CALL PROCEEDING or SETUP ACK message or a RELEASE COMPLETE message containing a Cause IE with a cause value not in the invalid message or protocol error class.

Selection: IUT supports procedures for incoming calls: PICS B3 OR B4 OR B5.

SP321 subclause ZB.2 Valid

Ensure that the IUT in states 2, 3, 4, 7, 8, 9 or 25 on receiving an PROGRESS message containing three progress indicator IEs, remains in the same state and does not send any STATUS message.

TC002ZE subclause ZB.2 Valid

Ensure that the IUT in state 3, on receiving an PROGRESS message containing three progress indicator IEs encoded as ISO/IEC16, ISO/IEC 18 and CCITT 1, remains in the same state and does not send any STATUS message or sends a RELEASE or DISCONNECT message.

Selection: IUT supports procedures for call request. PICS B6.

SP322 subclause ZB.2 Valid

Ensure that the IUT in state 3, on receiving an ALERTING message containing three progress indicator IEs, enters state 4 and does not send any STATUS message or sends a RELEASE or DISCONNECT message.

Selection: IUT supports procedures for call request. PICS B6.

TC002ZF subclause ZB.2 Valid

Ensure that the IUT in state 3, on receiving an ALERTING message containing three progress indicator IEs encoded as ISO/IEC16, ISO/IEC 18 and CCITT 1, enters state 4 and does not send any STATUS message or sends a RELEASE or DISCONNECT message.

Selection: IUT supports procedures for call request. PICS B6.

SP323 subclause ZB.2 Valid

Ensure that the IUT in state 4, on receiving an CONNECT message containing three progress indicator IEs, optionally sends a CONNECT ACKNOWLEDGE message, enters state 10 and does not send any STATUS message or sends a DISCONNECT message.

Selection: IUT supports procedures for call request. PICS B6.

TC002ZG subclause ZB.2 Valid

Ensure that the IUT in state 4, on receiving an CONNECT message containing three progress indicator IEs encoded as ISO/IEC19, ISO/IEC 16 and CCITT 1, optionally sends a CONNECT ACKNOWLEDGE message, enters state 10 and does not send any STATUS message or sends a DISCONNECT message.

Selection: IUT supports procedures for call request. PICS B6.

5.3.2 Protocol Control requirements for Call Clearing

The TPs in this subclause refer to EN 300 172 [2], subclause 10.2.

5.3.2.1 Clearing

The TPs in this subclause refer to EN 300 172 [2], subclause 10.2.3.

SP059 subclause 10.2.3 Valid

Ensure that the IUT in state 2, 3, 4, 7, 8, 9, 10 or 25 in order to initiate call clearing, sends a DISCONNECT message, (disconnects the Information channel, starts T305), and enters state 11.

TC012CI subclause 10.2.3 Valid

Ensure that the IUT in state 10, in order to initiate call clearing, sends a DISCONNECT message and enters state 11.

TC012XL subclause 10.2.3 Valid

Ensure that the IUT in state 2, in order to initiate call clearing, sends a DISCONNECT message and enters state 11.

Selection: IUT supports overlap sending procedures. PICS: B10.

TC012XM subclause 10.2.3 Valid

Ensure that the IUT in state 3, in order to initiate call clearing, sends a DISCONNECT message and enters state 11.

Selection: IUT supports procedures for call request. PICS B6.

TX012XN subclause 10.2.3 Valid

Ensure that the IUT in state 4, in order to initiate call clearing, sends a DISCONNECT message and enters state 11.

Selection: IUT supports procedures for call request. PICS B6.

TC012CF subclause 10.2.3 Valid

Ensure that the IUT in state 7, in order to initiate call clearing, sends a DISCONNECT message and enters state 11.

Selection: IUT supports procedures for incoming calls: PICS B3 OR B4 OR B5.

TC012CG subclause 10.2.3 Valid

Ensure that the IUT in state 8, in order to initiate call clearing, sends a DISCONNECT message and enters state 11.

Selection: IUT supports procedures for incoming calls: PICS B3 OR B4 OR B5.

TC012CH subclause 10.2.3 Valid

Ensure that the IUT in state 9, in order to initiate call clearing, sends a DISCONNECT message and enters state 11.

Selection: IUT supports procedures for incoming calls: PICS B3 OR B4 OR B5.

TC012CJ subclause 10.2.3 Valid

Ensure that the IUT in state 25, in order to initiate call clearing, sends a DISCONNECT message and enters state 11.

Selection: IUT supports overlap receiving procedures. PICS: B9.

Selection: Overlap receiving procedures are to be tested (see PICS B9 note 1).

SP060 subclause 10.2.3 Valid

Ensure that the IUT in state 2, 3, 4, 7, 8, 9, 10 or 25, on receiving a DISCONNECT message, (disconnects the Information channel, starts T308), sends a RELEASE message and enters state 19.

TC012CK subclause 10.2.3 Valid

Ensure that the IUT in state 2, on receiving a DISCONNECT message, sends a RELEASE message and enters state 19.

Selection: IUT supports overlap sending procedures. PICS: B10.

TC012CL subclause 10.2.3 Valid

Ensure that the IUT in state 3, on receiving a DISCONNECT message, sends a RELEASE message and enters state 19.

Selection: IUT supports procedures for call request. PICS B6.

TC012CM subclause 10.2.3 Valid

Ensure that the IUT in state 4, on receiving a DISCONNECT message,

sends a RELEASE message and enters state 19.

Selection: IUT supports procedures for call request. PICS B6.

TC012CN subclause 10.2.3 Valid

Ensure that the IUT in state 7, on receiving a DISCONNECT message, sends a RELEASE message and enters state 19.

Selection: IUT supports procedures for incoming calls: PICS B3 OR B4 OR B5.

TC012CO subclause 10.2.3 Valid

Ensure that the IUT in state 8, on receiving a DISCONNECT message, sends a RELEASE message and enters state 19.

Selection: IUT supports procedures for incoming calls: PICS B3 OR B4 OR B5.

TC012CP subclause 10.2.3 Valid

Ensure that the IUT in state 9, on receiving a DISCONNECT message, sends a RELEASE message and enters state 19.

Selection: IUT supports procedures for incoming calls: PICS B3 OR B4 OR B5.

TC012CR subclause 10.2.3 Valid

Ensure that the IUT in state 25, on receiving a DISCONNECT message, sends a RELEASE message and enters state 19.

Selection: IUT supports overlap receiving procedures. PICS: B9.

Selection: Overlap receiving procedures are to be tested (see PICS B9 note 1).

TC012CQ subclause 10.2.3 Valid

Ensure that the IUT in state 10, on receiving a DISCONNECT message, sends a RELEASE message and enters state 19.

SP061 subclause 10.2.3 Valid

TC012CS subclause 10.2.3 Valid

Ensure that the IUT in state 11, on receiving a RELEASE message, sends a RELEASE COMPLETE message and enters state 0.

SP062 subclause 10.2.3 Valid

TC012CU subclause 10.2.3 Valid

Ensure that the IUT in state 19, on receiving a RELEASE COMPLETE message, enters state 0.

SP063 subclause 10.2.3 Valid

Ensure that the IUT in state 11, on expiry of T305, sends a RELEASE message containing a Cause IE with a Cause Value encoded as in the DISCONNECT message sent previously and enters state 19.

TC012CV subclause 10.2.3 Valid

Ensure that the IUT in state 11, on expiry of T305, sends a RELEASE message containing a Cause IE with a Cause Value encoded as in the DISCONNECT message sent previously.

TC012CW subclause 10.2.3 Valid

Ensure that the IUT in state 11, on expiry of T305, sends a RELEASE message and enters state 19.

SP064 subclause 10.2.3 Valid

Ensure that the IUT in state 19, on first expiry of T308, sends another RELEASE message, and remains in the same state.

TC012CX subclause 10.2.3 Valid

Ensure that the IUT in state 19, on first expiry of T308, sends another RELEASE message.

TC012CY subclause 10.2.3 Valid

Ensure that the IUT in state 19, on first expiry of T308, sends another RELEASE message and remains in the same state.

SP065 subclause 10.2.3 Valid

Ensure that the IUT in state 19, on second expiry of T308, (places the Information channel in a maintenance condition, releases the call reference), enters state 0.

TC012CZ subclause 10.2.3 Valid

Ensure that the IUT in state 19, on second expiry of T308, enters state 0.

NOTE: The TC for this TP should allow for the possibility that the IUT may send a RESTART message.

5.3.2.2 Clear Collision

The TPs in this subclause refer to EN 300 172 [2], subclause 10.2.4.

SP066 subclause 10.2.4 Valid

TC012DI subclause 10.2.4 Basic Interconnection

Ensure that the IUT in state 11, on receiving a DISCONNECT message, sends a RELEASE message and enters state 19.

SP067 subclause 10.2.4 Valid

Ensure that the IUT in state 19, on receiving a RELEASE message, (releases the Information channel and the call reference, stops T308), and enters state 0.

TC012DJ subclause 10.2.4 Basic interconnection

Ensure that the IUT in state 19, on receiving a RELEASE message, enters state 0.

5.3.2.3 Exception conditions

The TPs in this subclause refer to EN 300 172 [2], subclause 10.2.2.

SP068 subclause 10.2.2 Valid

TC012DK subclause 10.2.2 Valid

Ensure that the IUT in state 1, in order to clear the call as a result of calling user action, sends a RELEASE message containing a Cause IE and enters state 19 or sends a DISCONNECT message and enters state 11.

5.3.3 Protocol Control requirements for Message Segmentation

The TPs in this subclause refer annex ZA.

5.3.3.1 Procedures for segmentation

The TPs in this subclause refer to subclause ZA.3.1.

The TPs in this subclause are only applicable to an IUT if it is declared in the PICS that it supports segmentation.

SP069 subclause ZA.3.1 Valid

Ensure that the IUT in state 0, in order to send a SETUP message exceeding the maximum implemented SCM information field length, sends 2 to 8 SEGMENT messages, each containing the same Call Reference IE and a Segmented Message IE with the First Segment Indicator field encoded as 1 in the first message and as 0 in all other messages, with the Number Of Segments Remaining field encoded as 0 in the last message and incremented by 1 for each SEGMENT message before the last, with a Segmented Message Type field encoded as SETUP, and each SEGMENT message containing 1 or more octets following the Segmented Message IE, which form, in the correct order, IEs permitted in a SETUP message (excluding Protocol Discriminator IE, Call Reference IE, Message Type IE), when concatenated from all the SEGMENT messages.

Selection: IUT supports Procedures for messages segmentation. PICS: K5.

TC022EL subclause ZA.3.1 Capability

Ensure that the IUT in state 0, in order to send a SETUP message exceeding the maximum implemented SCM information field length, sends 2 to 8 SEGMENT messages, with each containing the same Call Reference IE.

TC022EM subclause ZA.3.1 Valid

Ensure that the IUT in state 0, in order to send a SETUP message exceeding the maximum implemented SCM information field length, sends a SEGMENT message containing a Segmented Message IE with the First Segment Indicator field encoded as 1.

TC022EN subclause ZA.3.1 Valid

Ensure that the IUT in state 0, in order to send a SETUP message exceeding the maximum implemented SCM information field length, sends 2 to 8 SEGMENT messages, with second and subsequent messages containing a Segmented Message IE with the First Segment Indicator field encoded as 0.

TC022EO subclause ZA.3.1 Valid

Ensure that the IUT in state 0, in order to send a SETUP message exceeding the maximum implemented SCM information field length, sends 2 to 8 SEGMENT messages, with second and subsequent messages containing a Segmented Message IE with the Number Of Segments Remaining field decremented by 1 from the value in the previous SEGMENT message.

TC022EP subclause ZA.3.1 Valid

Ensure that the IUT in state 0, in order to send a SETUP message exceeding the maximum implemented SCM information field length, sends 2 to 8 SEGMENT messages, with the last message containing a Segmented Message IE with the Number Of Segments Remaining field encoded as 0.

TC022EQ subclause ZA.3.1 Valid

Ensure that the IUT in state 0, in order to send a SETUP message exceeding the maximum implemented SCM information field length, sends 2 to 8 SEGMENT messages, with all messages containing a Segmented Message IE with a Segmented Message Type field encoded as SETUP.

TC022ER subclause ZA.3.1 Valid

Ensure that the IUT in state 0, in order to send a SETUP message exceeding the maximum implemented SCM information field length, sends 2 to 8 SEGMENT messages, with each message containing 1 or more octets following the Segmented Message IE, which form, in the correct order, IEs permitted in a SETUP message (excluding Protocol Discriminator IE, Call Reference IE, Message Type IE), when concatenated from all the SEGMENT messages.

5.3.3.2 Procedures for reassembly

The TPs in this subclause refer to subclause ZA.3.2.

The TPs in this subclause are only applicable to an IUT if it is declared in the PICS that it supports reassembly.

NOTE: Except where otherwise specified all messages in each of these TPs are sent using the same call reference.

SP070 subclause ZA.3.2 Valid

Ensure that the IUT in Call state 0 and in Reassembly null state, on receiving 2 to 8 SEGMENT messages, together forming a segmented SETUP message, sends a SETUP ACK, CALL PROCEEDING or RELEASE COMPLETE message.

Selection: IUT supports Procedures for messages re-assembly. PICS: K6.

TC022ES subclause ZA.3.2 Valid

Ensure that the IUT in Call state 0 and in Reassembly null state, on receiving 2 SEGMENT messages, together forming a segmented SETUP message, sends a SETUP ACK, CALL PROCEEDING or RELEASE COMPLETE message.

TC022ET subclause ZA.3.2 Valid

Ensure that the IUT in Call state 0 and in Reassembly null state, on receiving 5 SEGMENT messages, together forming a segmented SETUP message, sends a SETUP ACK, CALL PROCEEDING or RELEASE COMPLETE message.

TC022EU subclause ZA.3.2 Valid

Ensure that the IUT in Call state 0 and in Reassembly null state, on receiving 8 SEGMENT messages, together forming a segmented SETUP message, sends a SETUP ACK, CALL PROCEEDING or RELEASE COMPLETE message.

SP304 subclause ZA.3.2.f Valid

Ensure that the IUT, in any call state and in the Reassembly null state, on receiving a message, other than a SEGMENT message, passes that message for further Protocol Control processing.

Selection: IUT supports Procedures for messages re-assembly. PICS: K6.

TC022YE subclause ZA.3.2.f Valid

Ensure that the IUT in state 10 and in the Reassembly null state, on receiving an unsegmented DISCONNECT message sends a RELEASE message.

SP305 subclause ZA.3.2.f Invalid

Ensure that the IUT, in any call state and in the Reassembly null state, on receiving a message which is too short to contain a message type, passes that message for further Protocol Control processing.

Selection: IUT supports Procedures for messages re-assembly. PICS: K6.

TC023YF subclause ZA.3.2.f Invalid

Ensure that the IUT in state 10 and in the Reassembly null state, on receiving a message too short to contain a Message Type IE, does not send any message in response to the received message and remains in the same state.

SP071 subclause ZA.3.2.g Invalid

Ensure that the IUT in any Call state except state 0, and in Reassembly null state, on receiving a SEGMENT message, not containing a Segmented Message IE, discards that message and remains in the same state.

Selection: IUT supports Procedures for messages re-assembly. PICS: K6.

TC023EV subclause ZA.3.2.g Invalid

Ensure that the IUT in Call state 10 and in Reassembly null state, on receiving a SEGMENT message, not containing a Segmented Message IE, discards that message and remains in the same state.

SP072 subclause ZA.3.2.g Inopportune

Ensure that the IUT in any Call state and in Reassembly null state, on receiving a SEGMENT message containing a Segmented Message IE with the First Segment Indicator field encoded as 0, discards that message and remains in the same state.

Selection: IUT supports Procedures for messages re-assembly. PICS: K6.

TC024EW subclause ZA.3.2.g Inopportune

Ensure that the IUT in Call state 10 and in Reassembly null state, on receiving a SEGMENT message containing a Segmented Message IE with the First Segment Indicator field encoded as 0, discards that message and remains in the same state.

SP073 subclause ZA.3.2.g Invalid

Ensure that the IUT in any Call state and in Reassembly null state, on receiving a SEGMENT message containing a Segmented Message IE with the First Segment Indicator field encoded as 1 and with the Number Of Segments Remaining field encoded as greater than 7, discards that message and remains in the same state.

Selection: IUT supports Procedures for messages re-assembly. PICS: K6.

TC023EX subclause ZA.3.2.g Invalid

Ensure that the IUT in Call state 10 and in Reassembly null state, on receiving a SEGMENT message containing a Segmented Message IE with the First Segment Indicator field encoded as 1 and with the Number Of Segments Remaining field encoded as 8, discards that message and remains in the same state.

SP074 subclause ZA.3.2.g Invalid

Ensure that the IUT in any Call state and in Reassembly null state, on receiving a SEGMENT message containing a Segmented Message IE with the First Segment Indicator field encoded as 1, with the Number Of Segments Remaining field encoded as 0 and with the Segmented Message Type encoded as a valid message type for the Call state and with all the mandatory IEs for the message type after the Segmented Message IE, discards that message and remains in the same state.

Selection: IUT supports Procedures for messages re-assembly. PICS: K6.

TC023EY subclause ZA.3.2.g Invalid

Ensure that the IUT in Call state 10 and in Reassembly null state, on receiving a SEGMENT message containing a Segmented Message IE with the First Segment Indicator field encoded as 1, with the Number Of Segments Remaining field encoded as 0 and with the Segmented Message Type encoded as DISCONNECT and with Cause IE after the Segmented Message IE, discards that message and remains in the same state.

SP075 subclause ZA.3.2.h Inopportune

Ensure that the IUT in any Call state and in ReceivingSegmentedMessage state, on receiving an unsegmented message (other than SETUP, RELEASE or RELEASE COMPLETE) specifying a Call Reference different from that in the received SEGMENT message, processes that message normally.

Selection: IUT supports Procedures for messages re-assembly. PICS: K6.

TC024EZ subclause ZA.3.2.h Inopportune

Ensure that the IUT in Call state 10 and in ReceivingSegmentedMessage state, after having received a SEGMENT message containing a Call Reference IE with a Call Reference Value encoded as CR1 and containing a Segmented Message IE with a Segmented Message Type field encoded as PROGRESS, on receiving a CONNECT ACK message containing a Call Reference IE with a Call Reference Value encoded as CR2 (not in use for any call), sends a RELEASE COMPLETE message containing a Call Reference IE with a Call Reference Value encoded as CR2 and containing a Cause IE with a Cause Value encoded as 81.

SP076 subclause ZA.3.2.h Inopportune

Ensure that the IUT, in any Call state and in ReceivingSegmentedMessage state, on receiving an unsegmented message specifying a Call Reference different from that in the received SEGMENT message, enters Reassembly null state.

Selection: IUT supports Procedures for messages re-assembly. PICS: K6.

TC024FA subclause ZA.3.2.h Inopportune

Ensure that the IUT in Call state 0 and in ReceivingSegmentedMessage state, after having received a SEGMENT message containing a Call Reference IE with a Call Reference Value encoded as CR1 and containing a Segmented Message IE with a Segmented Message Type field encoded as SETUP, on receiving a RELEASE COMPLETE message containing a Call Reference IE with a Call Reference Value encoded as CR2 (not in use for any call), enters ReassemblyNull state.

This is verified by sending a SEGMENT message to the IUT, completing the segmented SETUP message, and ensuring that the IUT does not respond to that message.

SP077 subclause ZA.3.2.h Inopportune

Ensure that the IUT, in any Call state and in ReceivingSegmentedMessage state, on receiving an unsegmented message with the same call reference value responds normally to that message.

Selection: IUT supports Procedures for messages re-assembly. PICS: K6.

TC024FB subclause ZA.3.2.h Inopportune

Ensure that the IUT in Call state 10 and in ReceivingSegmentedMessage state, after having received a SEGMENT message containing a Segmented Message IE with a Segmented Message Type field encoded as PROGRESS, on receiving a DISCONNECT message with the same call reference value, sends a RELEASE message.

SP078 subclause ZA.3.2.h Inopportune

Ensure that the IUT, in any Call state and in ReceivingSegmentedMessage state, on receiving an unsegmented message with the same call reference value, enters Reassembly Null state.

Selection: IUT supports Procedures for messages re-assembly. PICS: K6.

TC024FC subclause ZA.3.2.h Inopportune

Ensure that the IUT in Call state 0 and in ReceivingSegmentedMessage state, after having received the first segment of a segmented SETUP message, on receiving a RELEASE COMPLETE message with the same call reference value, enters ReassemblyNull state.

This is verified by sending a SEGMENT message to the IUT, completing the segmented SETUP message, and ensuring that the IUT does not respond to that message.

SP079 subclause ZA.3.2.h Inopportune

Ensure that the IUT in any Call state and in ReceivingSegmentedMessage state, on receiving a SEGMENT message containing a Segmented Message IE with a First Segment Indicator field encoded as 1 and a Segmented Message Type field encoded as a message that would normally cause a response, does not respond to that message.

Selection: IUT supports Procedures for messages re-assembly. PICS: K6.

TC024FD subclause ZA.3.2.h Inopportune

Ensure that the IUT in Call state 0 and in ReceivingSegmentedMessage state, after having received a SEGMENT message containing a Segmented Message IE with a Segmented Message Type field encoded as SETUP, with a First Segment Indicator field encoded as 1, with a Number Of Segments Remaining encoded as 1, on receiving a SEGMENT message containing a Segmented Message IE with a Segmented Message Type field encoded as DISCONNECT, with a First Segment Indicator field encoded as 1 and with a Number Of Segments Remaining encoded as 1, does not send any message.

SP080 subclause ZA.3.2.h Inopportune

Ensure that the IUT in any Call state and in ReceivingSegmentedMessage state, on receiving a SEGMENT message containing a Segmented Message IE with a First Segment Indicator field encoded as 1 and a Segmented Message Type field encoded as a message that would normally cause a response, and on receiving a SEGMENT message completing the original segmented message that was being received, does not respond to that message.

Selection: IUT supports Procedures for messages re-assembly. PICS: K6.

TC024FE subclause ZA.3.2.h Inopportune

Ensure that the IUT in Call state 0 and in ReceivingSegmentedMessage state, after having received a SEGMENT message containing a Segmented Message IE with a Segmented Message Type field encoded as SETUP, with a First Segment Indicator field encoded as 1, with a Number Of Segments Remaining encoded as 1, on receiving a SEGMENT message containing a Segmented Message IE with a Segmented Message Type field encoded as DISCONNECT, with a First Segment Indicator field encoded as 1 and with a Number Of Segments Remaining encoded as 1, and on receiving a SEGMENT message containing a Segmented Message IE with a Segmented Message Type field encoded as SETUP, with a First Segment Indicator field encoded as 0, with a Number Of Segments Remaining encoded as 0 completing the segmented SETUP message, does not respond to that message.

SP081 subclause ZA.3.2.h Inopportune

Ensure that the IUT in any Call state and in ReceivingSegmentedMessage state, on receiving a SEGMENT message containing a Segmented Message IE with a First Segment Indicator field encoded as 1 and a Segmented Message Type field encoded as a message that would normally cause a response, and on receiving a SEGMENT message completing the second segmented message that was being received, does not respond to that message.

Selection: IUT supports Procedures for messages re-assembly. PICS: K6.

TC024FF subclause ZA.3.2.h Inopportune

Ensure that the IUT in Call state 0 and in ReceivingSegmentedMessage state, after having received a SEGMENT message containing a Segmented Message IE with a Segmented Message Type field encoded as SETUP, with a First Segment Indicator field encoded as 1, with a Number Of Segments Remaining encoded as 1, on receiving a SEGMENT message containing a Segmented Message IE with a Segmented Message Type field encoded as DISCONNECT, with a First Segment Indicator field encoded as 1 and with a Number Of Segments Remaining encoded as 1, and on receiving a SEGMENT message containing a Segmented Message IE with a Segmented Message Type field encoded as DISCONNECT, with a First Segment Indicator field encoded as 0, with a Number Of Segments Remaining encoded as 0 completing the segmented CONNECT message, does not respond to that message.

SP082 subclause ZA.3.2.h Invalid

Ensure that the IUT, in any Call state and in ReceivingSegmentedMessage state, on receiving a SEGMENT message not containing a Segmented Message IE, remains in the same Call state.

Selection: IUT supports Procedures for messages re-assembly. PICS: K6.

TC023FG subclause ZA.3.2.h Invalid

Ensure that the IUT, in Call state 10 and in ReceivingSegmentedMessage state, after having received a SEGMENT message containing a Segmented Message IE with a Segmented Message Type field encoded as PROGRESS, on receiving a SEGMENT message not containing a Segmented Message IE, remains in the same Call state.

SP083 subclause ZA.3.2.h Invalid

Ensure that the IUT in any Call state and in ReceivingSegmentedMessage state, on receiving a SEGMENT message not containing a Segmented Message IE, and on receiving a SEGMENT message completing the segmented message that was being received, does not respond to that message and remains in the same Call state.

Selection: IUT supports Procedures for messages re-assembly. PICS: K6.

TC023FH subclause ZA.3.2.h Invalid

Ensure that the IUT in Call state 0 and in ReceivingSegmentedMessage state, after having received a SEGMENT message containing a Segmented Message IE with a Segmented Message Type field encoded as SETUP, on receiving a SEGMENT message not containing a Segmented Message IE, and on receiving a SEGMENT message completing the segmented SETUP message, does not respond to that message, and remains in the same Call state.

SP084 subclause ZA.3.2.h Invalid

Ensure that the IUT in any Call state and in ReceivingSegmentedMessage state, on receiving a SEGMENT message containing a Segmented Message IE with a Number Of Segments Remaining field encoded as a number, different than the number in the previous message decremented by one, remains in the same Call state.

Selection: IUT supports Procedures for messages re-assembly. PICS: K6

TC023FI subclause ZA.3.2.h Invalid

Ensure that the IUT in Call state 10 and in ReceivingSegmentedMessage state, after having received a SEGMENT message containing a Segmented Message IE with a Segmented Message Type field encoded as PROGRESS, with a Number Of Segments Remaining field encoded as 2, on receiving a SEGMENT message containing a Segmented Message IE with a Number Of Segments Remaining field encoded as 2, remains in the same Call state.

SP085 subclause ZA.3.2.h Invalid

Ensure that the IUT in any Call state and in ReceivingSegmentedMessage state, on receiving a SEGMENT message containing a Segmented Message IE with a Number Of Segments Remaining field encoded as a number not one less than in the previous message, and on receiving a SEGMENT message continuing the segmented message that was being received, does not respond to that message and remains in the same Call state.

Selection: IUT supports Procedures for messages re-assembly. PICS: K6

TC023FJ subclause ZA.3.2.h Invalid

Ensure that the IUT in Call state 0 and in ReceivingSegmentedMessage state, after having received a SEGMENT message containing a Segmented Message IE with a Segmented Message Type field encoded as SETUP, with a Number Of Segments Remaining field encoded as 1, on receiving a SEGMENT message containing a Segmented Message IE with a Number Of Segments Remaining field encoded as 1, and on receiving a SEGMENT message completing the segmented SETUP message, does not respond to that message and remains in the same Call state.

SP086 subclause ZA.3.2.h Invalid

Ensure that the IUT in any Call state and in ReceivingSegmentedMessage state, on receiving a SEGMENT message containing a Segmented Message IE with a Segmented Message Type field encoded differently from the previous message but which otherwise would have completed the segmented message, remains in the same Call state.

Selection: IUT supports Procedures for messages re-assembly. PICS: K6.

TC023FK subclause ZA.3.2.h Invalid

Ensure that the IUT in Call state 10 and in ReceivingSegmentedMessage state, after having received a SEGMENT message containing a Segmented Message IE with a Segmented Message Type field encoded as PROGRESS, on receiving a SEGMENT message completing the segmented PROGRESS message, but containing a Segmented Message IE with a Segmented Message Type field encoded as SETUP, remains in the same Call state.

SP087 subclause ZA.3.2.h Invalid

Ensure that the IUT in any Call state and in ReceivingSegmentedMessage state, on receiving a SEGMENT message containing a Segmented Message IE with a Segmented Message Type field encoded differently from the previous message but which otherwise would have completed the segmented message, and on receiving a SEGMENT message completing the segmented message that was being received, does not respond to that message and remains in the same Call state.

Selection: IUT supports Procedures for messages re-assembly. PICS: K6.

TC023FL subclause ZA.3.2.h Invalid

Ensure that the IUT in Call state 0 and in ReceivingSegmentedMessage state, after having received a SEGMENT message containing a Segmented Message IE with a Segmented Message Type field encoded as SETUP, on receiving a SEGMENT message completing the segmented SETUP message, but containing a Segmented Message IE with a Segmented Message Type field encoded as PROGRESS, and on receiving a SEGMENT message completing the segmented SETUP message, does not respond to that message and remains in the same Call state.

SP088 subclause ZA.3.2.i Valid

Ensure that the IUT in any Call state and in ReceivingSegmentedMessage state, on expiry of T314, remains in the same Call state.

Selection: IUT supports Procedures for messages re-assembly. PICS: K6.

Selection: IUT supports timer T 314. PICS: K8.

TC022FM subclause ZA.3.2.i Valid

Ensure that the IUT in Call state 4 and in ReceivingSegmentedMessage state, after having received a SEGMENT message containing a Segmented Message IE with a Segmented Message Type field encoded as CONNECT, on expiry of T314, remains in the same Call state.

SP089 subclause ZA.3.2.i Valid

Ensure that the IUT in any Call state and in ReceivingSegmentedMessage state, on expiry of T314, and on receiving a SEGMENT message completing the segmented message that was being received, does not respond to that message, and remains in the same Call state.

Selection: IUT supports Procedures for messages re-assembly. PICS: K6.

Selection: IUT supports timer T 314. PICS: K8.

TC022FN subclause ZA.3.2.i Valid

Ensure that the IUT in Call state 0 and in ReceivingSegmentedMessage state, after having received a SEGMENT message containing a Segmented Message IE with a Segmented Message Type field encoded as SETUP, after expiry of T314, on receiving a SEGMENT message completing the segmented SETUP message, does not respond to that message, and remains in the same Call state.

5.3.4 Protocol Control requirements for STATUS procedures

The TPs in this subclause refer to subclause 9.3.

5.3.4.1 Receiving a STATUS message

The TPs in this subclause refer to subclause 9.3.2.

SP090 subclause 9.3.2.1 Valid

Ensure that the IUT in state 0, on receiving a STATUS message containing a Call Reference IE with a Call Reference Value encoded as other than the Global Call Reference and containing a Call State IE with a Call State Value encoded as other than 0, sends a RELEASE COMPLETE or RELEASE message containing a Cause IE with a Cause Value encoded as 101.

TC032SA subclause 9.3.2.1 Valid

Ensure that the IUT in state 0, on receiving a STATUS message containing a Call Reference IE with a Call Reference Value encoded as other than the Global Call Reference and containing a Call State IE with a Call State Value encoded as 3, sends a RELEASE COMPLETE or RELEASE message containing a Cause IE with a Cause Value encoded as 101.

SP091 subclause 9.3.2.1 Valid

Ensure that the IUT in state 19, on receiving a STATUS message containing a Call State IE with a Call State Value encoded as other than 0 remains in the same state.

TC032SB subclause 9.3.2.1 Valid

Ensure that the IUT in state 19, on receiving a STATUS message containing a Call State IE with a Call State Value encoded as 4, remains in the same state.

SP092 subclause 9.3.2.1 Valid

Ensure that the IUT in state 1, 2, 3, 4, 7, 8, 9, 10, 11, 19, or 25 on receiving a STATUS message containing a Call State IE with a Call State Value encoded as 0, enters state 0.

TC032SC subclause 9.3.2.1 Valid

Ensure that the IUT in state 1, on receiving a STATUS message containing a Call State IE with a Call State Value encoded as 0, enters state 0.

TC032SD subclause 9.3.2.1 Valid

Ensure that the IUT in state 4, on receiving a STATUS message containing a Call State IE with a Call State Value encoded as 0, enters state 0.

TC032SE subclause 9.3.2.1 Valid

Ensure that the IUT in state 9, on receiving a STATUS message containing a Call State IE with a Call State Value encoded as 0, enters state 0.

TC032SF subclause 9.3.2.1 Valid

Ensure the IUT in state 10, on receiving a STATUS message containing a Call State IE with a Call State Value encoded as 0, enters state 0.

TC032SG subclause 9.3.2.1 Valid

Ensure that the IUT in state 19, on receiving a STATUS message containing a Call State IE with a Call State Value encoded as 0, enters state 0.

SP093 subclause 9.3.2.2 Valid

Ensure that the IUT in state 0, on receiving a STATUS message containing a Call State IE with a Call State Value encoded as 0 remains in the same state.

TC032SH subclause 9.3.2.2 Valid

Ensure that the IUT in state 0, on receiving a STATUS message containing a Call State IE with a Call State Value encoded as 0, remains in the same state.

SP094 subclause 9.3.2.2 Valid

Ensure that the IUT in state 1, 2, 3, 4, 7, 8, 9, 10, 11, 19 or 25, on receiving a STATUS message containing a Call State IE with a Call State Value encoded as a compatible state and containing a Cause IE with a Cause Value encoded as other than 96 or 97 or 99 or 100, remains in the same state.

TC032SI subclause 9.3.2.2 Valid

Ensure that the IUT in state 2, on receiving a STATUS message containing a Call State IE with a Call State Value encoded as 25 and containing a Cause IE with a Cause Value encoded as other than 96 or 97 or 99 or 100, remains in the same state.

Selection: IUT supports overlap sending procedures. PICS: B10.

TC032SJ subclause 9.3.2.2 Valid

Ensure that the IUT in state 7, on receiving a STATUS message containing a Call State IE with a Call State Value encoded as 4 and containing a Cause IE with a Cause Value encoded as other than 96 or 97 or 99 or 100, remains in the same state.

TC032SK subclause 9.3.2.2 Valid

Ensure that the IUT in state 8, on receiving a STATUS message containing a Call State IE with a Call State Value encoded as 10 and containing a Cause IE with a Cause Value encoded as other than 96 or 97 or 99 or 100, remains in the same state.

TC032SL subclause 9.3.2.2 Valid

Ensure that the IUT in state 11, on receiving a STATUS message containing a Call State IE with a Call State Value encoded as 12 and containing a Cause IE with a Cause Value encoded as other than 96 or 97 or 99 or 100, remains in the same state

TC032SM subclause 9.3.2.2 Valid

Ensure that the IUT in state 25, on receiving a STATUS message containing a Call State IE with a Call State Value encoded as 2 and containing a Cause IE with a Cause Value encoded as other than 96 or 97 or 99 or 100, remains in the same state.

Selection: IUT supports overlap receiving procedures. PICS: B9.

SP095 subclause 9.3.2.3 Valid

Ensure that the IUT in Layer Management state R0 or R1, on receiving a STATUS message containing a Call Reference IE with a Call Reference Value encoded as the Global Call Reference and a Call State IE with a Call State Value encoded as a Layer Management compatible state, remains in the same state.

TC032SN subclause 9.3.2.3 Valid

Ensure that the IUT in Layer Management state R0, on receiving a STATUS message containing a Call Reference IE with a Call Reference Value encoded as the Global Call Reference and a Call State IE with a Call State Value encoded as R0, remains in the same state.

TC032SO subclause 9.3.2.3 Valid

Ensure that the IUT in Layer Management state R1, on receiving a STATUS message containing a Call Reference IE with a Call Reference Value encoded as the Global Call Reference and a Call State IE with a Call State Value encoded as R2, remains in the same state.

5.3.4.2 Status enquiry procedure

The TPs in this subclause refer to subclause 9.3.1.

SP096 subclause 9.3.1 Valid

Ensure that the IUT in state 1, 2, 3, 4, 7, 8, 9, 10, 11, 19 or 25, on receiving a STATUS ENQUIRY message, sends a STATUS message containing a Call State IE with a Call State Value encoded as the current state of the IUT and a Cause IE with a Cause Value encoded as 30.

TC032SP subclause 9.3.1 Valid

Ensure that the IUT in state 2, on receiving a STATUS ENQUIRY message, sends a STATUS message containing a Call State IE with a Call State Value encoded as state 2 and a Cause IE with a Cause Value encoded as 30.

Selection: IUT supports overlap sending procedures. PICS: B10.

TC032SQ subclause 9.3.1 Valid

Ensure that the IUT in state 3, on receiving a STATUS ENQUIRY message, sends a STATUS message containing a Call State IE with a Call State Value encoded as state 3 and a Cause IE with a Cause Value encoded as 30.

TC032SR subclause 9.3.1 Valid

Ensure that the IUT in state 8, on receiving a STATUS ENQUIRY message, sends a STATUS message containing a Call State IE with a Call State Value encoded as state 8 and a Cause IE with a Cause Value encoded as 30.

TC032SS subclause 9.3.1 Valid

Ensure that the IUT in state 9, on receiving a STATUS ENQUIRY message, sends a STATUS message containing a Call State IE with a Call State Value encoded as state 9 and a Cause IE with a Cause Value encoded as 30.

TC032ST subclause 9.3.1 Valid

Ensure that the IUT in state 11, on receiving a STATUS ENQUIRY message, sends a STATUS message containing a Call State IE with a Call State Value encoded as state 11 and a Cause IE with a Cause Value encoded as 30.

SP097 subclause 9.3.1 Valid

Ensure that the IUT in state 1, 2, 3, 4, 7, 8, 9, 10, 11, 19 or 25, after having sent a STATUS ENQUIRY message, on first expiry of timer T322, without receiving a STATUS message, sends a STATUS ENQUIRY message and remains in the same state.

Selection: IUT supports Sending of a STATUS ENQUIRY message. PICS: A14.

TC032SU subclause 9.3.1 Valid

Ensure that the IUT in state 2, after having sent a STATUS ENQUIRY message, on first expiry of timer T322, without receiving a STATUS message, sends a STATUS ENQUIRY message and remains in the same state.

Selection: IUT supports overlap sending procedures. PICS: B10.

TC032EB subclause 9.3.1 Valid

Ensure that the IUT in state 25, after having sent a STATUS ENQUIRY message, on first expiry of timer T322, without receiving a STATUS message, sends a STATUS ENQUIRY message and remains in the same state.

Selection: IUT supports overlap receiving procedures. PICS: B9.

SP098 subclause 9.3.1 Valid

Ensure that the IUT in state 1, 2, 3, 4, 7, 8, 9, 10, 11, 19 or 25, after having sent a STATUS ENQUIRY message, on occurrence of an event which would usually provoke the sending of a STATUS ENQUIRY, does not re-start T322, does not send a STATUS ENQUIRY message until expiry of T322 and remains in the same state.

Selection: IUT supports Sending of a STATUS ENQUIRY message. PICS: A14.

TC032SV subclause 9.3.1 Valid

Ensure that the IUT in state 3, after having sent a STATUS ENQUIRY message, on occurrence of an event which would usually provoke the sending of a STATUS ENQUIRY, does not re-start T322, does not send a STATUS ENQUIRY message until expiry of T322 and remains in the same state.

TC032EC subclause 9.3.1 Valid

Ensure that the IUT in state 7, after having sent a STATUS ENQUIRY message, on occurrence of an event which would usually provoke the sending of a STATUS ENQUIRY, does not re-start T322, does not send a STATUS ENQUIRY message until expiry of T322 and remains in the same state.

SP099 subclause 9.3.1 Valid

TC032UX subclause 9.3.1 Valid

Ensure that the IUT in state 1, after having sent the maximum implemented number of STATUS ENQUIRY messages, as stated in the PIXIT, on expiry of timer T322, sends a RELEASE message containing a Cause IE with a Cause Value encoded as 41 and enters state 19.

NOTE: This STP is referenced in 'Untestable TPs' section in the associated ATS specification document.

SP100 subclause 9.3.1 Valid

Ensure that the IUT in state 2, 3, 4, 7, 8, 9, 10 or 25, after having sent the maximum implemented number of STATUS ENQUIRY messages, as stated in the PIXIT, on expiry of timer T322, sends a DISCONNECT message containing a Cause IE with a Cause Value encoded as 41, and enters state 11.

Selection: IUT supports Sending of a STATUS ENQUIRY message. PICS: A14.

TC032SX subclause 9.3.1 Valid

Ensure that the IUT in state 4, after having sent the maximum implemented number of STATUS ENQUIRY messages, as stated in the PIXIT, on expiry of timer T322, sends a DISCONNECT message containing a Cause IE with a Cause Value encoded as 41, and enters state 11.

TC032ED subclause 9.3.1 Valid

Ensure that the IUT in state 10, after having sent the maximum implemented number of STATUS ENQUIRY messages, as stated in the PIXIT, on expiry of timer T322, sends a DISCONNECT message containing a Cause IE with a Cause Value encoded as 41, and enters state 11.

SP101 subclause 9.3.1 Valid

Ensure that the IUT in state 1, 2, 3, 4, 7, 8, 9, 10, 11, 19 or 25, after having sent a STATUS ENQUIRY message, on receiving a STATUS message containing a Cause IE with a Cause Value encoded as other than 30, does not send any further STATUS ENQUIRY message(s) until expiry of T322 and remains in the same state.

Selection: IUT supports Sending of a STATUS ENQUIRY message. PICS: A14.

TC032SY subclause 9.3.1 Valid

Ensure that the IUT in state 4, after having sent a STATUS ENQUIRY message, on receiving a STATUS message containing a Cause IE with a Cause Value encoded as other than 30, does not send any further STATUS ENQUIRY message(s) until expiry of T322 and remains in the same state.

TC032EF subclause 9.3.1 Valid

Ensure that the IUT in state 25, after having sent a STATUS ENQUIRY message, on receiving a STATUS message containing a Cause IE with a Cause Value encoded as other than 30, does not send any further STATUS ENQUIRY messages until expiry of T322 and remains in the same state.

SP102 subclause 9.3.1 Valid

Ensure that the IUT in state 1, 2, 3, 4, 7, 8, 9, 10, 11, 19 or 25, after having sent a STATUS ENQUIRY message, on receiving a STATUS message with a Cause IE with a Cause Value encoded as 30, stops timer T322 and remains in the same state.

Selection: IUT supports Sending of a STATUS ENQUIRY message. PICS: A14.

TC032SZ subclause 9.3.1 Valid

Ensure that the IUT in state 3, after having sent a STATUS ENQUIRY message, on receiving a STATUS message with a Cause IE with a Cause Value encoded as 30 remains in the same state.

TC032EG subclause 9.3.1 Valid

Ensure that the IUT in state 25, after having sent a STATUS ENQUIRY message, on receiving a STATUS message with a Cause IE with a Cause Value encoded as 30, stops timer T322 and remains in the same state.

SP103 subclause 9.3.1 Valid

Ensure that the IUT in state 2, 3, 4, 7, 8, 9, 10, 11, 19 or 25, after having sent a STATUS ENQUIRY message, on receiving a DISCONNECT message, stops timer T322, sends a RELEASE message and enters state 19.

Selection: IUT supports Sending of a STATUS ENQUIRY message. PICS: A14.

TC032WA subclause 9.3.1 Valid

Ensure that the IUT in state 7 after having sent a STATUS ENQUIRY message, on receiving a DISCONNECT message, stops timer T322, sends a RELEASE message and enters state 19.

TC032EH subclause 9.3.1 Valid

Ensure that the IUT in state 10, after having sent a STATUS ENQUIRY message, on receiving a DISCONNECT message, stops timer T322, sends a RELEASE message and enters state 19.

SP104 subclause 9.3.1 Valid

Ensure that the IUT in state 1, 2, 3, 4, 7, 8, 9, 10, 11, 19 or 25, after having sent a STATUS ENQUIRY message, on receiving a RELEASE message, stops timer T322, sends a RELEASE COMPLETE message and enters state 0.

Selection: IUT supports Sending of a STATUS ENQUIRY message. PICS: A14.

TC032WB subclause 9.3.1 Valid

Ensure that the IUT in state 2, after having sent a STATUS ENQUIRY message, on receiving a RELEASE message, stops timer T322, sends a RELEASE COMPLETE message and enters state 0.

TC032EI subclause 9.3.1 Valid

Ensure that the IUT in state 10, after having sent a STATUS ENQUIRY message, on receiving a RELEASE message, stops timer T322, sends a RELEASE COMPLETE message and enters state 0.

SP105 subclause 9.3.1 Valid

Ensure that the IUT in state 1, 2, 3, 4, 7, 8, 9, 10, 11, 19 or 25, after having sent a STATUS ENQUIRY message, on receiving a RELEASE COMPLETE message, stops timer T322, and enters state 0.

Selection: IUT supports Sending of a STATUS ENQUIRY message. PICS: A14.

TC032WC subclause 9.3.1 Valid

Ensure that the IUT in state 9, after having sent a STATUS ENQUIRY message, on receiving a RELEASE COMPLETE message, stops timer T322, and enters state 0.

TC032IK subclause 9.3.1 Valid

Ensure that the IUT in state 10, after having sent a STATUS ENQUIRY message, on receiving a RELEASE COMPLETE message, stops timer T322, and enters state 0.

5.3.5 Protocol Control requirements for Layer Management

The TPs in this subclause refer to clause 11.

5.3.5.1 Sending a RESTART

The TPs in this subclause refer to subclause 11.1.1.

SP106 subclause 11.1.1 Valid

Ensure that the IUT in Layer Management state R0, in order to restart channels, sends a RESTART message and enters Layer Management state R1.

TC042TA subclause 11.1.1 Valid

Ensure that the IUT in Layer Management state R0, in order to restart All channels, sends a RESTART message with a Restart Indicator IE with a Class Value encoded as "All Channels" and enters in Layer Management state R1.

Selection: IUT supports initiation of Restart procedure All Channels in the RESTART. PICS: H1.

TC042ZH subclause 11.1.1 Valid

Ensure that the IUT in Layer Management state R0, in order to restart Multiple channels, sends a RESTART message with a Restart Indicator IE with a Class Value encoded as "Indicated Channel" and a Channel Identifier IE with the list of channels to restart and enters in Layer Management state R1.

Selection: IUT supports initiation of Restart procedure Multiple channels in the RESTART. PICS: H2.

TC042ZI subclause 11.1.1 Valid

Ensure that the IUT in Layer Management state R0, in order to restart a single channel, sends a RESTART message with a Restart Indicator IE with a Class Value encoded as "Indicated Channel" and a Channel Identifier IE with the channel number to restart and enters in Layer Management state R1.

Selection: IUT supports initiation of Restart procedure Single channel in the RESTART. PICS: H3.

SP107 subclause 11.1.1 Valid

TC042TB subclause 11.1.1 Valid

Ensure that the IUT in Layer Management state R1, on the first expiry of timer T316 without having received a RESTART ACKNOWLEDGE message, sends a RESTART message and remains in the same state.

SP108 subclause 11.1.1 Valid

TC042TC subclause 11.1.1 Valid

Ensure that the IUT in Layer Management state R1, on receiving a RESTART ACKNOWLEDGE message indicating the same channel(s) as in the RESTART message sent by the IUT, stops timer T316 and enters Layer Management state R0.

SP109 subclause 11.1.1 Valid

TC042TD subclause 11.1.1 Valid

Ensure that the IUT, in Layer Management state R1, on receiving a SETUP message containing a Channel Identification IE with a Channel Number encoded as in the RESTART message sent previously, either sends a CALL PROCEEDING or SETUP ACK message containing a Channel Identification IE with a Channel Number encoded as other than in the RESTART message and enters Call state 9 or 25 respectively, or sends a RELEASE COMPLETE message and enters Call state 0, and remains in Layer Management state R1 for both alternatives.

5.3.5.2 Receipt of RESTART

The TPs in this subclause refer to EN 300 172 [2], subclause 11.1.2.

SP110 subclause 11.1.2 Valid

Ensure that the IUT in Layer Management state R0 with all call references in the Null state and all channels in the idle condition, on receiving a RESTART message containing a Restart Indicator IE and optionally a Channel Identification IE (depending of the channels to restart: Single/Multiple/All), sends a RESTART ACK message containing the same IEs as in the RESTART message, and returns to Layer Management state R0.

TC042TE subclause 11.1.2 Valid

Ensure that the IUT in Layer Management state R0 with all call references in the Null state and all channels in the idle condition, on receiving a RESTART message containing a Restart Indicator IE with a Class Value encoded as "Indicated Channel" and a Channel Identification IE, sends a RESTART ACK message containing a Restart Indicator IE with a Class Value encoded as "Indicated Channel" and a Channel Identification IE with a Channel Number encoded as in the RESTART message, and returns to Layer Management state R0.

TC042TF subclause 11.1.2 Valid

Ensure that the IUT in Layer Management state R0 with all call references in the Null state and all channels in the idle condition, on receiving a RESTART message containing a Restart Indicator IE with a Class Value encoded as "All Channels", sends a RESTART ACK message containing a Restart Indicator IE with a Class Value encoded as "All Channels" and returns to Layer Management state R0.

Selection: IUT supports multirate bearer. PICS: Z4.

TC042ZJ subclause 11.1.2 Valid

Ensure that the IUT in Layer Management state R0 with all call references in the Null state and all channels in the idle condition, on receiving a RESTART message containing a Restart Indicator IE with a Class Value encoded as "Indicated Channel" and a Channel Identification IE with a list of channels to restart, sends a RESTART ACK message containing a Restart Indicator IE with a Class Value encoded as "Indicated Channel" and a Channel Identification IE encoded as in the RESTART message, and returns to Layer Management state R0.

SP112 subclause 11.1.2 Valid

Ensure that the IUT in layer Management state R0 and in Call state 1, 2, 3, 4, 6, 7, 9, 10, 11, 19 or 25 using Channel Number **n**, on receiving a RESTART message containing a Restart Indicator IE with a Class Value encoded as "Indicated Channel" and a Channel Identification IE with a Channel Number encoded as **n**, sends a RESTART ACK message containing a Restart Indicator IE with a Class Value encoded as "Indicated Channel" and a Channel Identification IE with a Channel Number encoded as **n**, enters state 0 for this call and returns to Layer Management state R0.

TC042TG subclause 11.1.2 Valid

Ensure that the IUT in layer Management state R0 and in Call state 10 using Channel Number **n**, on receiving a RESTART message containing a Restart Indicator IE with a Class Value encoded as "Indicated Channel" and a Channel Identification IE with a Channel Number encoded as **n**, sends a RESTART ACK message containing a Restart Indicator IE with a Class Value encoded as "Indicated Channel" and a Channel Identification IE with a Channel Number encoded as **n**, and enters state 0 for this call.

SP113 subclause 11.1.2 Valid

Ensure that the IUT in layer Management state R0 and in Call state 1, 2, 3, 4, 6, 7, 9, 10, 11 19 or 25 using Channel Number **n**, on receiving a RESTART message containing a Restart Indicator IE with a Class Value encoded as "All Channels", sends a RESTART ACK message containing a Restart Indicator IE with a Class Value encoded as "All Channels", enters state 0 for this call and returns to Layer Management state R0.

TC042TH subclause 11.1.2 Valid

Ensure that the IUT in layer Management state R0 and in Call state 10 using Channel Number n, on receiving a RESTART message containing a Restart Indicator IE with a Class Value encoded as "All Channels", sends a RESTART ACK message containing a Restart Indicator IE with a Class Value encoded as "All Channels", enters state 0 for this call.

SP301 subclause 11.1.2 Invalid

Ensure that the IUT in layer Management state R0 with a call in any state, on receiving a RESTART message containing a Restart Indicator IE with a Class Value encoded as "Indicated Channel" and not containing a Channel Identification IE, sends a STATUS message containing a Cause IE with the Cause Value encoded as 96 "mandatory information element is missing" and remains in the same protocol control state.

TC043YD subclauses 11.1.2 and 9.2.6.1 Invalid

Ensure that the IUT in layer Management state R0 and in call state 10, on receiving a RESTART message containing a Restart Indicator IE with a Class Value encoded as "Indicated Channel" and not containing a Channel Identification IE, sends a STATUS message containing a Cause IE with the Cause Value encoded as 96 "mandatory information element is missing" and remains in the same protocol control state.

5.3.5.3 Restart Collision

The TPs in this subclause refer to subclause 11.1.3.

Selection: IUT supports Restart procedure - Restart collision in the RESTART. PICS: H7.

SP114 subclause 11.1.3 Valid

TC042TI subclause 11.1.3 Valid

Ensure that the IUT in Layer Management state R1, on receiving a RESTART message containing a Restart Indicator IE with a Class Value encoded as "Indicated Channel" and a Channel Identification IE with a Channel Number encoded as **n**, sends a RESTART ACK message containing a Restart Indicator IE with a Class Value encoded as "Indicated Channel" and a Channel Identification IE with a Channel Number encoded as **n**, returns to Layer Management state R0 for the incoming RESTART and remains in state R1 for the outgoing RESTART.

SP115 subclause 11.1.3 Valid

TC042TJ subclause 11.1.3 Valid

Ensure that the IUT in Layer Management state R1, on receiving a RESTART message containing a Restart Indicator IE with a Class Value encoded as "All Channels", sends a RESTART ACK message containing a Restart Indicator IE with a Class Value encoded as "All Channels", returns to Layer Management state R0 for the incoming RESTART and remains in state R1 for the outgoing RESTART.

SP116 subclause 11.1.3 Valid

Ensure that the IUT in layer Management state R1 and in Call state 1, 2, 3, 4, 6, 7, 9, 10, 11, 19 or 25 using Channel Number **n**, on receiving a RESTART message containing a Restart Indicator IE with a Class Value encoded as "Indicated Channel" and a Channel Identification IE with a Channel Number encoded as **n**, sends a RESTART ACK message containing a Restart Indicator IE with a Class Value encoded as "Indicated Channel" and a Channel Identification IE with a Channel Number encoded as **n**, enters state 0 for this call and returns to Layer Management state R0 for the incoming RESTART.

TC042TK subclause 11.1.3 Valid

Ensure that the IUT in layer Management state R1 and in Call state 10 using Channel Number **n**, on receiving a RESTART message containing a Restart Indicator IE with a Class Value encoded as "Indicated Channel" and a Channel Identification IE with a Channel Number encoded as **n**, sends a RESTART ACK message containing a Restart Indicator IE with a Class Value encoded as "Indicated Channel" and a Channel Identification IE with a Channel Number encoded as **n**, enters state 0 for this call and returns to Layer Management state R0 for the incoming RESTART.

SP117 subclause 11.1.3 Valid

Ensure that the IUT in layer Management state R1 and in Call state 1, 2, 3, 4, 6, 7, 9, 10, 11, 19 or 25 using Channel Number **n**, on receiving a RESTART message containing a Restart Indicator IE with a Class Value encoded as "All Channels", sends a RESTART ACK message containing a Restart Indicator IE with a Class Value encoded as "All Channels", enters state 0 for this call and returns to Layer Management state R0 for the incoming RESTART (reference EN 300 172 [2], subclause 11.1.3).

TC042TL subclause 11.1.3 Valid

Ensure that the IUT in layer Management state R1 and in Call state 10 using Channel Number **n**, on receiving a RESTART message containing a Restart Indicator IE with a Class Value encoded as "All Channels", sends a RESTART ACK message containing a Restart Indicator IE with a Class Value encoded as "All Channels", enters state 0 for this call and returns to Layer Management state R0 for the incoming RESTART.

SP307 subclause 11.1.3 Valid

Ensure that the IUT in layer Management state R1 after sending a RESTART message applicable to channel **n**, on receiving a RESTART message applicable to channel **n**, sends a RESTART ACK message, and on receipt of a SETUP message containing a Channel identification IE with the preferred/exclusive bit encoded as exclusive and the channel number encoded as **n**, sends a RELEASE COMPLETE message with a Cause IE with cause number 44 (requested circuit/channel not available).

NOTE: If the RESTART message sent by the IUT is for an indicated channel then **n** is that channel; if it is for all channels then **n** can be any channel.

TC042YH subclause 11.1.3 Valid

Ensure that the IUT in layer Management state R1 after sending a RESTART message applicable to channel **n**, on receiving a RESTART message containing a Restart Indicator IE with a Class Value encoded as "All Channels", sends a RESTART ACK message, and on receipt of a SETUP message containing a Channel identification IE with the preferred/exclusive bit encoded as exclusive and the channel number encoded as **n**, sends a RELEASE COMPLETE message with a Cause IE with cause number 44 (requested circuit/channel not available).

TC042YI subclause 11.1.3 Valid

Ensure that the IUT in layer Management state R1 after sending a RESTART message applicable to channel **n**, on receiving a RESTART message containing a Restart Indicator IE with a Class Value encoded as "Indicated channel" and a Channel identification IE with the channel number encoded as **n**, sends a RESTART ACK message, and on receipt of a SETUP message containing a Channel identification IE with the preferred/exclusive bit encoded as exclusive and the channel number encoded as **n**, sends a RELEASE COMPLETE message with a Cause IE with cause number 44 (requested circuit/channel not available).

5.3.6 Protocol Control requirements for handling of protocol error conditions

The TPs in this subclause refer to EN 300 172 [2], subclause 9.2.

5.3.6.1 Protocol discriminator error

The TPs in this subclause refer to subclause 9.2.1.

SP029 subclause 9.2.1 Valid

Ensure that the IUT, on receiving a message containing a Protocol Discriminator IE encoded with a value other than 8, does not send any message in response to the received message and remains in the same state.

TC033IG subclause 9.2.1 Valid

Ensure that the IUT in state 10, on receiving a STATUS ENQUIRY message containing a Protocol Discriminator IE encoded as other than 8, remains in the same state and does not send any message in response to the received message.

5.3.6.2 Message too short

The TPs in this subclause refer to subclause 9.2.2.

SP119 subclause 9.2.2 Invalid

Ensure that the IUT, on receiving a message too short to contain a Message Type IE, does not send any message in response to the received message and remains in the same state.

TC013FO subclause 9.2.2 Invalid

Ensure that the IUT in state 10, on receiving a message too short to contain a Message Type IE, does not send any message in response to the received message and remains in the same state.

5.3.6.3 Call reference error

The TPs in this subclause refer to subclause 9.2.3.

5.3.6.3.1 Invalid call reference format

The TPs in this subclause refer to subclause 9.2.3.1.

SP120 subclause 9.2.3.1 Invalid

Ensure that the IUT, on receiving a message containing a Call Reference IE with bits 5 to 8 of octet 1 encoded as other than '0000', does not send any message in response to the received message and remains in the same state.

TC003FP subclause 9.2.3.1 Invalid

Ensure that the IUT in state 25, on receiving a STATUS message containing a Call Reference IE with bits 5 to 8 of octet 1 encoded as other than '0000' and with the rest of the Call Reference correctly coded, and a Call State IE with a Call State value encoded as 0, does not send any message in response to the received message and remains in the same state.

Selection: IUT supports overlap receiving procedures. PICS: B9.

TC003FQ subclause 9.2.3.1 Invalid

Ensure that the IUT in state 1, on receiving a SETUP ACK message containing a Call Reference IE with bits 5 to 8 of octet 1 encoded as other than '0000', and with the rest of the Call Reference correctly coded, does not send any message in response to the received message and remains in the same state.

SP121 subclause 9.2.3.1 Invalid

Ensure that the IUT, on receiving a message containing a Call Reference IE with bits 1 to 4 of octet 1 encoded as greater than 2, does not send any message in response to the received message and remains in the same state.

TC003FR subclause 9.2.3.1 Invalid

Ensure that the IUT in state 1, on receiving a CALL PROCEEDING message containing a Call Reference IE with bits 1 to 4 of octet 1 encoded as 3, does not send any message in response to the received message and remains in the same state. The Call Reference for the call is encoded in 3 octets.

TC003FS subclause 9.2.3.1 Invalid

Ensure that the IUT in state 25, on receiving an INFORMATION message containing a Call Reference IE with bits 1 to 4 of octet 1 encoded as 3 and a Sending Complete IE, does not send any message in response to the received message and remains in the same state. The Call Reference for the call is encoded in 3 octets.

Selection: IUT supports overlap receiving procedures. PICS: B9.

SP122 subclause 9.2.3.1 Invalid

Ensure that the IUT, on receiving a message containing a Call Reference IE with a Call Reference Value encoded as the Dummy Call Reference, does not send any message in response to the received message.

TC003FT subclause 9.2.3.1 Invalid

Ensure that the IUT in state 0, on receiving a SETUP message containing a Call Reference IE with a Call Reference Value encoded as the Dummy Call Reference, does not send any message in response to the received message.

TC003FU subclause 9.2.3.1 Invalid

Ensure that the IUT in state 10, on receiving a DISCONNECT message containing a Call Reference IE with a Call Reference Value encoded as the Dummy Call Reference, remains in the same state and does not send any message in response to the received message.

5.3.6.3.2 Call Reference procedural errors

The TPs in this subclause refer to subclause 9.2.3.2.

SP123 subclause 9.2.3.2 Inopportune

Ensure that the IUT, on receiving a message other than SETUP, STATUS, RELEASE or RELEASE COMPLETE containing a Call Reference IE with a Call Reference Value encoded as a call reference CR not relating to an active call or a call in progress (i.e. in state 0 for this call reference), sends a RELEASE COMPLETE or RELEASE message containing a Call Reference IE with a Call Reference Value encoded as CR and a Cause IE with a Cause Value encoded as 81.

TC014FV subclause 9.2.3.2 Inopportune

Ensure that the IUT, on receiving a CALL PROCEEDING message containing a Call Reference IE with a Call Reference Value encoded as a call reference CR not relating to an active call or a call in progress (i.e. in state 0 for this call reference), sends a RELEASE COMPLETE or RELEASE message containing a Call Reference IE with a Call Reference Value encoded as CR and a Cause IE with a Cause Value encoded as 81.

TC014FW subclause 9.2.3.2 Inopportune

Ensure that the IUT, on receiving a CONNECT message containing a Call Reference IE with a Call Reference Value encoded as a call reference CR not relating to an active call or a call in progress (i.e. in state 0 for this call reference), sends a RELEASE COMPLETE or RELEASE message containing a Call Reference IE with a Call Reference Value encoded as CR and a Cause IE with a Cause Value encoded as 81.

SP124 subclause 9.2.3.2 Invalid

TC003FX subclause 9.2.3.2 Invalid

Ensure that the IUT without any active calls or calls in progress, on receiving a SETUP message containing a Call Reference IE with a Call Reference Flag encoded as 1, does not send any message in response to the incoming message and remains in the same state.

SP125 subclause 9.2.3.2 Inopportune

TC014FY subclause 9.2.3.2 Inopportune

Ensure that the IUT in state 0, on receiving a RELEASE message containing a Call Reference IE with a Call Reference Value encoded as a call reference CR not relating to an active call or a call in progress, sends a RELEASE COMPLETE message containing a Call Reference IE with a Call Reference Value encoded as CR and a Cause IE with a Cause Value encoded 81, and remains in the same state for this call.

SP126 subclause 9.2.3.2 Inopportune

TC014FZ subclause 9.2.3.2 Inopportune

Ensure that the IUT in state 0, on receiving a RELEASE COMPLETE message containing a Call Reference IE with a Call Reference Value not relating to an active call or a call in progress, does not send any message in response to the incoming message and remains in the same state for this call.

SP127 subclause 9.2.3.2 Inopportune

Ensure that the IUT in state 7, 8, 9, 10, 11, 19, or 25, on receiving a SETUP message containing a Call Reference IE with a Call Reference Value related to an active call or a call in progress, does not send any message in response to the incoming message and remains in the same state for this call.

TC004GA subclause 9.2.3.2 Inopportune

Ensure that the IUT in state 9, on receiving a SETUP message containing a Call Reference IE with a Call Reference Value related to a call in progress, does not send any message in response to the incoming message and remains in the same state for this call.

TC004GB subclause 9.2.3.2 Inopportune

Ensure that the IUT in state 10, on receiving a SETUP message containing a Call Reference IE with a Call Reference Value related to an active call, does not send any message in response to the incoming message and remains in the same state for this call.

SP128 subclause 9.2.3.2 Inopportune

Ensure that the IUT, on receiving a message other than RESTART, RESTART ACK or STATUS containing a Call Reference IE with a Call Reference Value encoded as the Global Call Reference, sends a STATUS message containing a Call Reference IE encoded as the Global Call Reference and a Cause IE with a Cause Value encoded as 81.

TC044GC subclause 9.2.3.2 Inopportune

Ensure that the IUT in state 1, on receiving a SETUP ACK message containing a Call Reference IE with a Call Reference Value encoded as the Global Call Reference, sends a STATUS message containing a Call Reference IE encoded as the Global Call Reference and a Cause IE with a Cause Value encoded as 81.

SP319 subclause 14.3 Invalid

TC003ZC subclause 14.3 Invalid

Ensure that the IUT in state 0 on receiving a SETUP message containing a Call Reference IE with a Call Reference Value of 1 octet, sends any message in response to the incoming message and enters in the corresponding state.

5.3.6.4 Message type or Message sequence errors

The TPs in this subclause refer to subclause 9.2.4.

SP129 subclause 9.2.4 Invalid

Ensure that the IUT in state 1, 2, 3, 4, 7, 8, 9, 10, 11, 19, or 25, on receiving a message containing a Message Type IE other than one of those specified in EN 300 172 [2] and ETS 300 239 [4], either sends a STATUS message containing a Cause IE with a Cause Value encoded as 97 or 98, or sends a STATUS ENQUIRY message, and remains in the same state.

TC003GD subclause 9.2.4 Invalid

Ensure that the IUT in state 3, on receiving a message containing a Message Type IE other than one of those specified in EN 300 172 [2] or ETS 300 239 [4], either sends a STATUS message containing a Cause IE with a Cause Value encoded as 97 or 98, or sends a STATUS ENQUIRY message, and remains in the same state.

TC003GE subclause 9.2.4 Invalid

Ensure that the IUT in state 11, on receiving a message containing a Message Type IE other than one of those specified in EN 300 172 [2] or ETS 300 239 [4], either sends a STATUS message containing a Cause IE with a Cause Value encoded as 97 or 98, or sends a STATUS ENQUIRY message, and remains in the same state.

SP130 subclause 9.2.4 Inopportune

Ensure that the IUT in state 1, 2, 3, 4, 7, 8, 9, 10, 11, 19, or 25, on receiving a message other than RELEASE, RELEASE COMPLETE or SETUP which is unexpected in that state, either sends a STATUS message containing a Cause IE with a Cause Value encoded as 98 or 101, or sends a STATUS ENQUIRY message, and remains in the same state.

TC004GF subclause 9.2.4 Inopportune

Ensure that the IUT in state 2, on receiving an CONNECT ACKNOWLEDGE message which is unexpected in that state, either sends a STATUS message containing a Cause IE with a Cause Value encoded as 98 or 101, or sends a STATUS ENQUIRY message, and remains in the same state.

Selection: IUT supports overlap sending procedures. PICS: B10.

TC004GG subclause 9.2.4 Inopportune

Ensure that the IUT in state 8, on receiving a CALL PROCEEDING message which is unexpected in that state, either sends a STATUS message containing a Cause IE with a Cause Value encoded as 98 or 101, or sends a STATUS ENQUIRY message, and remains in the same state.

SP131 subclause 9.2.4 Inopportune

Ensure that the IUT in state 2, 3, 4, 7, 8, 9, 10, or 25, on receiving a RELEASE message, sends a RELEASE COMPLETE message and enters state 0.

TC014GH subclause 9.2.4 Inopportune

Ensure that the IUT in state 4, on receiving a RELEASE message, sends a RELEASE COMPLETE message and enters state 0.

TC014GI subclause 9.2.4 Inopportune

Ensure that the IUT in state 7, on receiving a RELEASE message, sends a RELEASE COMPLETE message and enters state 0.

TC014XS subclause 9.2.4 Inopportune

Ensure that the IUT in state 25, on receiving a RELEASE message, sends a RELEASE COMPLETE message and enters state 0.

Selection: IUT supports overlap receiving procedures. PICS: B9.

SP132 subclause 9.2.4 Inopportune

Ensure that the IUT in state 2, 3, 4, 7, 8, 9, 10, 11, or 25, on receiving a RELEASE COMPLETE message, enters state 0.

TC014GJ subclause 9.2.4 Inopportune

Ensure that the IUT in state 10, on receiving a RELEASE COMPLETE message, enters state 0.

TC014GK subclause 9.2.4 Inopportune

Ensure that the IUT in state 25, on receiving a RELEASE COMPLETE message, enters state 0.

Selection: IUT supports overlap receiving procedures. PICS: B9.

TC014XT subclause 9.2.4 Inopportune

Ensure that the IUT in state 11, on receiving a RELEASE COMPLETE message, enters state 0.

5.3.6.5 General IE errors

The TPs in this subclause refer to subclause 9.2.5.

5.3.6.5.1 Duplicated IEs

The TPs in this subclause refer to subclause 9.2.5.1.

SP133 subclause 9.2.5.1 Invalid

Ensure that the IUT, on receiving a message containing two or more instances of an IE for which repetition is not permitted, behaves as though only the first had been received.

TC003GL subclause 9.2.5.1 Invalid

Ensure that the IUT in state 0, on receiving a SETUP message containing a first Channel Identification IE with a Channel Number encoded as **n** (known to be busy) and a Preferred/Exclusive field encoded as "Exclusive", and containing a second Channel Identification IE with a Channel Number encoded as **m** (known to be free), sends a RELEASE COMPLETE message containing a Cause IE with a Cause Value encoded as 44.

TC003GM subclause 9.2.5.1 Invalid

Ensure that the IUT in state 1, after having sent a SETUP message containing a Channel Identification IE with a Channel Number encoded as **n**, on receiving a CALL PROCEEDING message containing a first Channel Identification IE with a Channel Number encoded with a non-existent channel number and containing a second Channel Identification IE with a Channel Number encoded as **n**, sends a RELEASE message containing a Cause IE with a Cause Value encoded as 6.

5.3.6.5.2 IEs exceeding maximum length

The TPs in this subclause refer to subclause 9.2.5.2.

SP134 subclauses 9.2.5.2 and 9.2.6.2 Invalid

Ensure that the IUT, on receiving a message, other than SETUP, DISCONNECT, RELEASE or RELEASE COMPLETE containing a mandatory IE with a length greater than the permitted maximum, sends a STATUS message containing a Cause IE with a Cause Value encoded as 100 and remains in the same state.

TC043GN subclauses 9.2.5.2 and 9.2.6.2 Invalid

Ensure that the IUT in state 11, on receiving a RESTART message containing a Restart Indicator IE with a length of 4 octets, sends a STATUS message containing a Cause IE with a Cause Value encoded as 100 and remains in the same state.

SP135 subclauses 9.2.5.2 and 9.2.6.2 Invalid

Ensure that the IUT in state 0, on receiving a SETUP message containing a mandatory IE with a length greater than the permitted maximum, sends a RELEASE COMPLETE message containing a Cause IE with a Cause Value encoded as 100.

TC003GO subclauses 9.2.5.2 and 9.2.6.2 Invalid

Ensure that the IUT in state 0, on receiving a SETUP message containing a Bearer Capability IE with a length of 13, sends a RELEASE COMPLETE message containing a Cause IE with a Cause Value encoded as 100.

SP136 subclauses 9.2.5.2 and 9.2.6.2 Invalid

Ensure that the IUT in state 2, 3, 4, 7, 8, 9, 10, or 25, on receiving a DISCONNECT message containing a Cause IE with a length greater than the permitted maximum, sends a RELEASE message containing a Cause IE with a Cause Value encoded as 100, and enters state 19.

TC013GP subclauses 9.2.5.2 and 9.2.6.2 Invalid

Ensure that the IUT in state 10, on receiving a DISCONNECT message containing a Cause IE with a length of 33 octets, sends a RELEASE message containing a Cause IE with a Cause Value encoded as 100, and enters state 19.

SP137 subclauses 9.2.5.2 and 9.2.7.2 Invalid

Ensure that the IUT in state 1, on receiving a RELEASE message containing a Cause IE exceeding the maximum permitted length, sends a RELEASE COMPLETE message containing a Cause IE with a Cause Value encoded as 100 and enters state 0.

TC013XO subclauses 9.2.5.2 and 9.2.7.2 Invalid

Ensure that the IUT in state 1, on receiving a RELEASE message containing a Cause IE with length 33 octets, sends a RELEASE COMPLETE message containing a Cause IE with a Cause Value encoded as 100 and enters state 0.

SP138 subclauses 9.2.5.2 and 9.2.7.2 Invalid

Ensure that the IUT, in state 1, on receiving a RELEASE COMPLETE message containing a Cause IE exceeding the maximum length, enters state 0.

TC013XP subclauses 9.2.5.2 and 9.2.7.2 Invalid

Ensure that the IUT, in state 1, on receiving a RELEASE COMPLETE message containing a Cause IE with length 33 octets, enters state 0.

5.3.6.6 Mandatory IE errors

The TPs in this subclause refer to subclause 9.2.6.

5.3.6.6.1 Mandatory IEs missing

The TPs in this subclause refer to subclause 9.2.6.1.

SP015 subclauses 9.2.6.1 and 10.1.2 Invalid

Ensure that the IUT in state 1, on receiving a CALL PROCEEDING, SETUP ACKNOWLEDGE, ALERTING or CONNECT message without a Channel Identification Information element (IE), as the first response to the SETUP message, sends a STATUS message containing a Cause IE with a Cause Value encoded as 96, and remains in the same state.

TC003AV subclauses 9.2.6.1 and 10.1.2 Invalid

Ensure that the IUT in state 1, on receiving a CALL PROCEEDING message without a Channel Identification IE, as the first response to the SETUP message, sends a STATUS message, and remains in the same state.

TC003AW subclause 9.2.6.1 and 10.1.2 Invalid

Ensure that the IUT in state 1, on receiving a SETUP ACKNOWLEDGE message without a Channel Identification IE, as the first response to the SETUP message, sends a STATUS message containing a Cause IE with a Cause Value encoded as 96.

TC004AX subclauses 9.2.6.1 and 10.1.2 Inopportune

Ensure that the IUT in state 1, on receiving an ALERTING message without a Channel Identification IE, as the first response to the SETUP message, sends a STATUS message, and remains in the same state.

TC004AY subclause 9.2.6.1 and 10.1.2 Inopportune

Ensure that the IUT in state 1, on receiving a CONNECT message without a Channel Identification IE, as the first response to the SETUP message, sends a STATUS message containing a Cause IE with a Cause Value encoded as 96.

SP139 subclause 9.2.6.1 Invalid

Ensure that the IUT in any state, on receiving a message other than SETUP, DISCONNECT, RELEASE or RELEASE COMPLETE with one or more mandatory IEs missing, sends a STATUS message containing a Cause IE with a Cause Value encoded as 96 and remains in the same state.

TC003GQ subclause 9.2.6.1 Invalid

Ensure that the IUT in state 10, on receiving a PROGRESS message with a Progress Indicator IE missing, sends a STATUS message containing a Cause IE with a Cause Value encoded as 96 and remains in the same state.

SP140 subclause 9.2.6.1 Invalid

Ensure that the IUT in state 0, on receiving a SETUP message with one or more mandatory IEs missing, sends a RELEASE COMPLETE message containing a Cause IE with a Cause Value encoded as 96, and remains in state 0.

TC003GS subclause 9.2.6.1 Invalid

Ensure that the IUT in state 0, on receiving a SETUP message with a Called Party Number IE missing, sends a RELEASE COMPLETE message containing a Cause IE with a Cause Value encoded as 96, and returns to state 0.

SP141 subclause 9.2.6.1 Inopportune

Ensure that the IUT in state 2, 3, 4, 7, 8, 9, 10, or 25, on receiving a RELEASE message with one or more mandatory IEs missing, sends a RELEASE COMPLETE message containing a Cause IE with a Cause Value encoded as 96 and enters state 0.

TC014GT subclause 9.2.6.1 Inopportune

Ensure that the IUT in state 2, on receiving a RELEASE message as the first clearing message with a Cause IE missing, sends a RELEASE COMPLETE message containing a Cause IE with a Cause Value encoded as 96 and enters state 0.

Selection: IUT supports overlap sending procedures. PICS: B10.

TC014GU subclause 9.2.6.1 Inopportune

Ensure that the IUT in state 10, on receiving a RELEASE message as the first clearing message with a Cause IE missing, sends a RELEASE COMPLETE message containing a Cause IE with a Cause Value encoded as 96 and enters state 0.

SP142 subclause 9.2.6.1 Inopportune

Ensure that the IUT in state 2, 3, 4, 7, 8, 9, 10, or 25, on receiving a RELEASE COMPLETE message as the first clearing message with one or more mandatory IEs missing, enters state 0.

TC014GV subclause 9.2.6.1 Inopportune

Ensure that the IUT in state 3, on receiving a RELEASE COMPLETE message as the first clearing message with a Cause IE missing, enters state 0.

TC014GW subclause 9.2.6.1 Inopportune

Ensure that the IUT in state 8, on receiving a RELEASE COMPLETE message as the first clearing message with a Cause IE missing, enters state 0.

SP143 subclause 9.2.6.1 Invalid

Ensure that the IUT in state 2, 3, 4, 7, 8, 9, 10, or 25, on receiving a DISCONNECT message with one or more mandatory IEs missing, sends a RELEASE message containing a Cause IE with a Cause Value encoded as 96 and enters state 19.

TC013GX subclause 9.2.6.1 Invalid

Ensure that the IUT in state 4, on receiving a DISCONNECT message with a Cause IE missing, sends a RELEASE message containing a Cause IE with a Cause Value encoded as 96 and enters state 19.

TC013GY subclause 9.2.6.1 Invalid

Ensure that the IUT in state 25, on receiving a DISCONNECT message with a Cause IE missing, sends a RELEASE message containing a Cause IE with a Cause Value encoded as 96 and enters state 19.

Selection: IUT supports overlap receiving procedures. PICS: B9.

5.3.6.6.2 Mandatory IE content error

The TPs in this subclause refer to EN 300 172 [2], subclause 9.2.6.2.

SP144 subclause 9.2.6.2 Invalid

Ensure that the IUT, on receiving a message, other than SETUP, DISCONNECT, RELEASE or RELEASE COMPLETE containing a mandatory IE encoded with a content error, sends a STATUS message containing a Cause IE with a Cause Value encoded as 100 and remains in the same state.

TC003GZ subclause 9.2.6.1 Invalid

Ensure that the IUT in state 1, on receiving a CALL PROCEEDING message containing a Channel Identification IE encoded with a content error, sends a STATUS message containing a Cause IE with a Cause Value encoded as 100 and remains in the same state.

TC043HA subclause 9.2.6.1 Invalid

Ensure that the IUT in state 19, on receiving a RESTART message containing a Restart Indicator IE encoded with a content error, sends a STATUS message containing a Cause IE with a Cause Value encoded as 100 and remains in the same state.

SP145 subclause 9.2.6.2 Invalid

Ensure that the IUT in state 0, on receiving a SETUP message containing a mandatory IE encoded with a content error, sends a RELEASE COMPLETE message containing a Cause IE with a Cause Value encoded as 100.

TC003HB subclause 9.2.6.1 Invalid

Ensure that the IUT in state 0, on receiving a SETUP message containing a Channel Identification IE encoded with a content error, sends a RELEASE COMPLETE message containing a Cause IE with a Cause Value encoded as 100.

SP146 subclause 9.2.6.2 Invalid

Ensure that the IUT in state 2, 3, 4, 7, 8, 9, 10, or 25, on receiving a DISCONNECT message containing a Cause IE encoded with a content error, sends a RELEASE message containing a Cause IE with a Cause Value encoded as 100 and enters state 19.

TC043HA subclause 9.2.6.1 Invalid

Ensure that the IUT in state 3, on receiving a DISCONNECT message containing a Cause IE encoded with a content error, sends a RELEASE message containing a Cause IE with a Cause Value encoded as 100 and enters state 19.

TC013HD subclause 9.2.6.1 Invalid

Ensure that the IUT in state 8, on receiving a DISCONNECT message containing a Cause IE encoded with a content error, sends a RELEASE message containing a Cause IE with a Cause Value encoded as 100 and enters state 19.

SP147 subclause 9.2.6.2 Invalid

TC013XQ subclause 9.2.6.1 Invalid

Ensure that the IUT in state 1, on receiving a RELEASE message containing a Cause IE encoded with a content error, sends a RELEASE COMPLETE message containing a Cause IE encoded as 100 and enters state 0.

SP256 subclause 9.2.6.2 Invalid

TC013XR subclause 9.2.6.1 Invalid

Ensure that the IUT in state 1, on receiving a RELEASE COMPLETE message containing a Cause IE encoded with a content error, enters state 0.

5.3.6.7 Non-mandatory IE errors

The TPs in this subclause refer to subclause 9.2.7.

5.3.6.7.1 Non-mandatory IE not recognized

The TPs in this subclause refer to subclause 9.2.7.1.

SP148 subclause 9.2.7.1 and 9.2.6.1 Invalid

Ensure that the IUT in any state, on receiving a message other than SETUP, DISCONNECT, RELEASE or RELEASE COMPLETE with one or more IEs of codeset 0 which are unrecognized and coded as "comprehension required", sends a STATUS message containing a Cause IE with a Cause Value encoded as 96 and remains in the same state.

TC003HE subclause 9.2.7.1 and 9.2.6.1 Invalid

Ensure that the IUT in state 4, on receiving a CONNECT message containing an unrecognized IE of codeset 0 coded as "comprehension required", sends a STATUS message containing a Cause IE with a Cause Value encoded as 96 and remains in the same state.

TC003HF subclauses 9.2.7.1 and 9.2.6.1 Invalid

Ensure that the IUT in state 8, on receiving a CONNECT ACK message containing an unrecognized IE of codeset 0 coded as "comprehension required", sends a STATUS message containing a Cause IE with a Cause Value encoded as 96 and remains in the same state.

SP149 subclauses 9.2.7.1 and 9.2.6.1 Invalid

Ensure that the IUT in state 0, on receiving a SETUP message containing one or more IEs of codeset 0 which are unrecognized and coded as "comprehension required", sends a RELEASE COMPLETE message containing a Cause IE with a Cause Value encoded as 96, and returns to state 0.

TC003XX subclauses 9.2.7.1 and 9.2.6.1 Invalid

Ensure that the IUT in state 0, on receiving a SETUP message containing an unrecognized IE of codeset 0 coded as "comprehension required", sends a RELEASE COMPLETE message containing a Cause IE with a Cause Value encoded as 96, and returns to state 0.

SP150 subclauses 9.2.7.1 and 9.2.6.1 Invalid

Ensure that the IUT in state 2, 3, 4, 7, 8, 9, 10, or 25, on receiving a RELEASE message containing one or more IEs of codeset 0 which are unrecognized and coded as "comprehension required", sends a RELEASE COMPLETE message containing a Cause IE with a Cause Value encoded as 96 and enters state 0.

TC013HH subclause 9.2.7.1 and 9.2.6.1 Invalid

Ensure that the IUT in state 3, on receiving a RELEASE message containing an unrecognized IE of codeset 0 coded as "comprehension required", sends a RELEASE COMPLETE message containing a Cause IE with a Cause Value encoded as 96 and enters state 0.

TC013HI subclauses 9.2.7.1 and 9.2.6.1 Invalid

Ensure that the IUT in state 8, on receiving a RELEASE message containing an unrecognized IE of codeset 0 coded as "comprehension required", sends a RELEASE COMPLETE message containing a Cause IE with a Cause Value encoded as 96 and enters state 0.

SP151 subclause 9.2.7.1 and 9.2.6.1 Invalid

Ensure that the IUT in state 2, 3, 4, 7, 8, 9, 10, or 25, on receiving a RELEASE COMPLETE message containing one or more IEs of codeset 0 which are unrecognized and coded as "comprehension required", enters state 0.

TC013HJ subclauses 9.2.7.1 and 9.2.6.1 Invalid

Ensure that the IUT in state 4, on receiving a RELEASE COMPLETE message containing an unrecognized IE of codeset 0 coded as "comprehension required", enters state 0.

TC013HK subclauses 9.2.7.1 and 9.2.6.1 Invalid

Ensure that the IUT in state 10, on receiving a RELEASE COMPLETE message containing an unrecognized IE of codeset 0 coded as "comprehension required", enters state 0.

SP152 subclauses 9.2.7.1 and 9.2.6.1 Invalid

Ensure that the IUT in state 2, 3, 4, 7, 8, 9, 10, or 25, on receiving a DISCONNECT message containing one or more IEs of codeset 0 which are unrecognized and coded as "comprehension required", sends a RELEASE message containing a Cause IE with a Cause Value encoded as 96 and enters state 19.

TC013HL subclauses 9.2.7.1 and 9.2.6.1 Invalid

Ensure that the IUT in state 2, on receiving a DISCONNECT message containing an unrecognized IE of codeset 0 coded as "comprehension required", sends a RELEASE message containing a Cause IE with a Cause Value encoded as 96 and enters state 19.

Selection: IUT supports overlap sending procedures. PICS: B10.

TC013HM subclauses 9.2.7.1 and 9.2.6.1 Invalid

Ensure that the IUT in state 10, on receiving a DISCONNECT message containing an unrecognized IE of codeset 0 coded as "comprehension required", sends a RELEASE message containing a Cause IE with a Cause Value encoded as 96 and enters state 19.

SP153 subclause 9.2.7.1 Invalid

Ensure that the IUT in state 2, 3, 4, 7, 8, 9, 10, or 25, on receiving a DISCONNECT message containing one or more IEs of codeset 0 which are unrecognized and coded as "comprehension not required", sends a RELEASE message containing a Cause IE with a Cause Value encoded as 99 and enters state 19.

TC013HN subclause 9.2.7.1 Invalid

Ensure that the IUT in state 3, on receiving a DISCONNECT message containing one or more IEs with an unrecognized IE of codeset 0 coded as "comprehension not required", sends a RELEASE message containing a Cause IE with a Cause Value encoded as 99 and enters state 19.

TC013HO subclause 9.2.7.1 Invalid

Ensure that the IUT in state 10, on receiving a DISCONNECT message containing an unrecognized IE of codeset 0 coded as "comprehension not required", sends a RELEASE message containing a Cause IE with a Cause Value encoded as 99 and enters state 19.

SP154 subclause 9.2.7.1 Invalid

Ensure that the IUT in state 2, 3, 4, 7, 8, 9, 10, or 25, on receiving a RELEASE message containing one or more IEs of codeset 0 which are unrecognized and coded as "comprehension not required", sends a RELEASE COMPLETE message containing a Cause IE with a Cause Value encoded as 99 and enters state 19.

TC013HP subclause 9.2.7.1 Invalid

Ensure that the IUT in state 4, on receiving a RELEASE message containing an unrecognized IE of codeset 0 coded as "comprehension not required", sends a RELEASE COMPLETE message containing a Cause IE with Cause Value encoded as 99 and enters state 0.

TC013HQ subclause 9.2.7.1 Invalid

Ensure that the IUT in state 25, on receiving a RELEASE message containing an unrecognized IE of codeset 0 coded as "comprehension not required", sends a RELEASE COMPLETE message containing a Cause IE with Cause Value encoded as 99 and enters state 0.

Selection: IUT supports overlap receiving procedures. PICS: B9.

SP155 subclause 9.2.7.1 Invalid

Ensure that the IUT in state 2, 3, 4, 7, 8, 9, 10, or 25, on receiving a RELEASE COMPLETE message containing one or more IEs of codeset 0 which are unrecognized and coded as "comprehension not required", enters state 0.

TC013HR subclause 9.2.7.1 Invalid

Ensure that the IUT in state 2, on receiving a RELEASE COMPLETE message containing an unrecognized IE of codeset 0 coded as "comprehension not required", enters state 0.

Selection: IUT supports overlap sending procedures. PICS: B10.

TC013HS subclause 9.2.7.1 Invalid

Ensure that the IUT in state 8, on receiving a RELEASE COMPLETE message containing an unrecognized IE of codeset 0 coded as "comprehension not required", enters state 0.

SP156 subclause 9.2.7.1 Invalid

Ensure that the IUT in any state, on receiving a message other than DISCONNECT, RELEASE or RELEASE COMPLETE with one or more IEs of codeset 0 which are unrecognized and coded as "comprehension not required", performs the appropriate action for the received message (ignoring the unrecognized IE) and optionally sends a STATUS message containing a Cause IE with a Cause Value encoded as 99.

TC003HT subclause 9.2.7.1 Invalid

Ensure that the IUT in state 1, on receiving a SETUP ACK message containing an unrecognized IE of codeset 0 coded as "comprehension not required", enters state 2 and optionally sends a STATUS message containing a Cause IE with a Cause Value encoded as 99.

TC003HUV subclause 9.2.7.1 Invalid

Ensure that the IUT in state 25, on receiving an INFORMATION message containing an unrecognized IE of codeset 0 coded as "comprehension not required" and containing a Sending Complete IE, sends a CALL PROCEEDING message and optionally sends a STATUS message containing a Cause IE with a Cause Value encoded as 99.

Selection: IUT supports overlap receiving procedures. PICS: B9.

5.3.6.7.2 Non-mandatory IE content error

The TPs in this subclause refer to subclause 9.2.7.2.

SP157 subclause 9.2.7.2 Invalid

Ensure that the IUT in any state, on receiving a message other than DISCONNECT, RELEASE or RELEASE COMPLETE with one or more non-mandatory IEs with invalid contents, performs the appropriate action for the received message (ignoring the invalid IE) and optionally sends a STATUS message containing a Cause IE with a Cause Value encoded as 100.

TC003HV subclause 9.2.7.2 Invalid

Ensure that the IUT in state 3, on receiving an ALERTING message containing a Progress Indicator IE with invalid content, enters state 4, ignoring the invalid IE, and optionally sends a STATUS message containing a Cause IE with a Cause Value encoded as 100.

TC003HW subclause 9.2.7.2 Invalid

Ensure that the IUT in state 0, on receiving a SETUP message containing a Sending Complete IE and a Progress Indicator IE with invalid content, sends a CALL PROCEEDING message, ignoring the invalid IE, and optionally sends a STATUS message containing a Cause IE with a Cause Value encoded as 100.

5.3.6.8 Signalling Carriage Mechanism reset

The TPs in this subclause refer to subclause 9.2.8.

SP162 subclause 9.2.8 Valid

TC002UU subclause 9.2.8 Valid

Ensure that the IUT in state 2 or 25, on receiving a DL_ESTABLISH_INDICATION primitive, sends a DISCONNECT message containing a Cause IE with a Cause Value encoded as 41.

NOTE: This STP is referenced in 'Untestable TPs ' section in the associated ATS specification document.

SP163 subclause 9.2.8 Valid

TC002UV subclause 9.2.8 Valid

Ensure that the IUT in state 11, 12 or 19, on receiving DL_ESTABLISH_INDICATION primitive, does not take any special action.

NOTE: This STP is referenced in 'Untestable TPs' section in the associated ATS specification document.

SP164 subclause 9.2.8 Valid

TC002UW subclause 9.2.8 Valid

Ensure that the IUT in state 1, 3, 4, 6, 7, 8, 9 and 10, on receiving DL_ESTABLISH_INDICATION primitive optionally sends a STATUS or STATUS ENQUIRY message and remains in the same state.

NOTE: This STP is referenced in 'Untestable TPs' section in the associated ATS specification document.

5.3.6.9 Signalling Carriage Mechanism failure

The TPs in this subclause refer to subclause 9.2.9.

SP158 subclause 9.2.9 Valid

Ensure that the IUT in any state except 10, on receiving a DL_RELEASE_INDICATION primitive from the SCM, enters in state 0.

TC004IA subclause 9.2.9 Valid

Ensure that the IUT in state 3, on receiving a DL_RELEASE_INDICATION primitive from the SCM, enters in state 0.

TC004IB subclause 9.2.9 Valid

Ensure that the IUT in state 8, on receiving a DL_RELEASE_INDICATION primitive from the SCM, enters in state 0.

TC004HX subclause 9.2.9 Valid

Ensure that the IUT in state 2, on receiving a DL_RELEASE_INDICATION primitive from the SCM, enters in state 0.

Selection: IUT supports overlap sending procedures. PICS: B10.

TC004HY subclause 9.2.9 Valid

Ensure that the IUT in state 25, on receiving a DL_RELEASE_INDICATION primitive from the SCM, enters in state 0.

Selection: IUT supports overlap receiving procedures. PICS: B9.

SP159 subclause 9.2.9 Valid

TC004US subclause 9.2.9 Valid

Ensure that the IUT in state 10 on receiving a DL_RELEASE_INDICATION primitive from the SCM, starts T309.

NOTE: This STP is referenced in 'Untestable TPs' section in the associated ATS specification document.

SP160 subclause 9.2.9 Valid

Ensure that the IUT in state 10, after SCM malfunction, on receiving a DL_ESTABLISH_CONFIRMATION primitive from the SCM, either sends a STATUS message containing a Cause IE, or sends a STATUS ENQUIRY message, and stops T309.

TC004IC subclause 9.2.9 Valid

Ensure that the IUT in state 10, after SCM malfunction, on receiving a DL_ESTABLISH_CONFIRMATION primitive from the SCM, either sends a STATUS message containing a Cause IE, or sends a STATUS ENQUIRY message.

SP161 subclause 9.2.9 Valid

TC004UT subclause 9.2.9 Valid

Ensure that the IUT in state 10, on expiry of timer T309, enters state 0.

NOTE: This STP is referenced in 'Untestable TPs' section in the associated ATS specification document.

SP300 subclause 9.2.9 Valid

Ensure that the IUT in any state, on receiving a DL-RELEASE-INDICATION primitive from the SCM, requests re-establishment by issuing a DL-ESTABLISH-REQUEST primitive.

TC004YA subclause 9.2.9 Valid

Ensure that the IUT in state 1, on receiving a DL-RELEASE-INDICATION primitive from the SCM, requests re-establishment by issuing a DL-ESTABLISH-REQUEST primitive.

TC004YB subclause 9.2.9 Valid

Ensure that the IUT in state 10, on receiving a DL-RELEASE-INDICATION primitive from the SCM, requests re-establishment by issuing a DL-ESTABLISH-REQUEST primitive.

TC004YC subclause 9.2.9 Valid

Ensure that the IUT in state 11, on receiving a DL-RELEASE-INDICATION primitive from the SCM, requests re-establishment by issuing a DL-ESTABLISH-REQUEST primitive.

5.3.7 Originating PINX Call Control requirements

The TPs in this subclause refer to EN 300 172 [2] subclauses 10.5.1 and, ZC.2.3.1 and EN 301 048 [1] subclause 6.4.1.

Selection: IUT is capable of functioning as an originating PINX. PICS: B1.

SP165 subclause 10.5.1c Valid

Ensure that the IUT in state 0,without the Calling/Connected Line Identification Restriction supplementary service invoked, in order to initiate a call, sends a SETUP message containing a Calling Party Number IE with a Presentation Indicator value, if present, encoded as "presentation allowed", and enters state 1.

TC102AN subclause 10.5.1c Valid

Ensure that the IUT in state 0, in order to initiate a call, sends a SETUP message containing a Calling Party Number IE.

TC102AO subclause 10.5.1c Valid

Ensure that the IUT in state 0,without the Calling/Connected Line Identification Restriction supplementary service invoked, in order to initiate a call, sends a SETUP message containing a Calling Party Number IE with a Presentation Indicator value, if present, encoded as "presentation allowed".

SP166 subclause 10.5.1d Valid

TC102AP subclause 10.5.1d Valid

Ensure that the IUT in state 0, in order to initiate a call, sends a SETUP message containing a Calling Party Subaddress IE.

Selection: IUT supports inclusion of the Calling party subaddress IE in SETUP. PICS: J15.

SP167 subclause 10.5.1e Valid

TC102AQ subclause 10.5.1e Valid

Ensure that the IUT in state 0, in order to initiate a call, sends a SETUP message containing a Called Party Subaddress IE.

Selection: IUT supports inclusion of the Called party subaddress IE in SETUP. PICS: J16.

SP168 subclause 10.5.1f Valid

TC102AR subclause 10.5.1f Valid

Ensure that the IUT in state 0, in order to initiate a call, sends a SETUP message containing a Low Layer Compatibility IE.

Selection: IUT supports inclusion of the Low layer compatibility IE in SETUP. PICS: J17.

SP169 subclause 10.5.1g Valid

TC102AS subclause 10.5.1g Valid

Ensure that the IUT in state 0, in order to initiate a call, sends a SETUP message containing a High Layer Compatibility IE.

Selection: IUT supports inclusion of the High layer compatibility IE in SETUP. PICS: J18.

SP170 EN 301 048 [1] V6.4.1 Valid

TC102AT EN 301 048 [1] 6.4.1 Valid

Ensure that the IUT in state 0, in order to initiate a call, sends a SETUP message containing a Transit Counter IE with a Transit Count value encoded as 0.

Selection: IUT supports ANF-TC in association with basic call as an originating PINX. ANF-TC PICS: A1.

SP171 subclause ZC.2.3.1 Valid

TC102AU subclause ZC.2.3.1 Valid

Ensure that the IUT in state 0, in order to initiate a call, sends a SETUP message containing a Party Category IE.

Selection: IUT supports inclusion of the Party category IE in SETUP. PICS: N7.

NOTE: The following subclauses in EN 300 172 [2] concerning the specific call control requirements for Originating PINX do not generate any TP.

- 10.5.1 Transmission of SETUP.
- b) Progress Indicator.
- 10.5.2 Agreement of Information channel.

- 10.5.3 Receipt of Progress Indicators.
- 10.5.4 Receipt of ALERTING message.
- 10.5.5 Receipt of CONNECT message.
- 10.5.6 Call clearing initiated by the Originating PINX.
- 10.5.7 Receipt of an indication of Call Clearing.

5.3.8 Terminating PINX Call Control requirements

The TPs in this subclause refer to EN 300 172 [2] subclause 10.6 and ZC.2.3.2 and EN 301 048 [1] subclause 6.4.2.

Selection: IUT is capable of functioning as a terminating PINX. PICS: B4.

5.3.8.1 Call Establishment

The TPs in this subclause refer to EN 300 172 [2], subclause 10.6.1 to 10.6.4 and ZC.2.3.2 and EN 301 048 [1] subclause 6.4.2.

SP302 subclause 10.6 Valid

TC202JB subclause 10.6 Valid

Ensure that the IUT in state 0, on receiving a SETUP message containing a Called Party Number IE with a number related to a terminal directly attached to the IUT, sends a CALL PROCEEDING or SETUP ACK message and enters state 9 or 25 respectively.

SP172 EN 301 048 [1] 6.4.2 Valid

TC202JC EN 301 048 [1] 6.4.2 Valid

Ensure that the IUT in state 0, on receiving a SETUP message containing a Transit Counter IE with a Transit Count value encoded as 31 (the maximum number allowed) and containing a Called Party Number IE with a number related to a terminal directly attached to the IUT, sends a CALL PROCEEDING or SETUP ACK message.

Selection: IUT supports ANF-TC in association with basic call as an Terminating PINX. ANF-TC PICS: A3.

SP173 subclause ZC.2.3.2 Valid

TC202JT subclause ZC.2.3.2 Valid

Ensure that the IUT in state 9, in order to indicate the category of called party, sends an ALERTING message containing a Party Category IE with a Party Category value encoded as stated in the PIXIT.

Selection: IUT supports inclusion of the Party category IE in ALERTING. PICS: N8.

SP174 subclause 10.6.4 Valid

Ensure that the IUT in state 7 or 9, in order to indicate that the call has been answered, without Calling/Connected Line Identification Restriction supplementary service being invoked, sends a CONNECT message containing a Connected Number IE with the Presentation Indicator, if present, encoded as "presentation allowed".

TC202KE subclause 10.6.4 Valid

Ensure that the IUT in state 7, in order to indicate that the call has been answered, without Calling/Connected Line Identification Restriction supplementary service being invoked, sends a CONNECT message containing a Connected Number IE with the Presentation Indicator, if present, encoded as "presentation allowed".

TC202XJ subclause 10.6.4 Valid

Ensure that the IUT in state 7, in order to indicate that the call has been answered, sends a CONNECT message containing a Connected Number IE.

TC202XK subclause 10.6.4 Valid

Ensure that the IUT in state 9, in order to indicate that the call has been answered, sends a CONNECT message containing a Connected Number IE.

SP175 subclause 10.6.4 Valid

Ensure that the IUT in state 7 or 9, in order to indicate that the call has been answered, sends a CONNECT message containing a Connected Subaddress IE.

Selection: IUT supports inclusion of the Connected subaddress IE in CONNECT. PICS: J9.

TC202KG subclause 10.6.4 Valid

Ensure that the IUT in state 7, in order to indicate that the call has been answered, sends a CONNECT message containing a Connected Subaddress IE.

Selection: IUT supports inclusion of the Connected subaddress IE in CONNECT. PICS: J9.

TC202KH subclause 10.6.4 Valid

Ensure that the IUT in state 9, in order to indicate that the call has been answered, sends a CONNECT message containing a Connected Subaddress IE.

Selection: IUT supports inclusion of the Connected subaddress IE in CONNECT. PICS: J9.

SP176 subclause 10.6.4 Valid

Ensure that the IUT in state 7 or 9, in order to indicate that the call has been answered, sends a CONNECT message containing a Low Layer Compatibility IE.

Selection: IUT supports inclusion of the Low layer compatibility IE in SETUP. PICS: J7.

TC202KI subclause 10.6.4 Valid

Ensure that the IUT in state 9, in order to indicate that the call has been answered, sends a CONNECT message containing a Low Layer Compatibility IE.

Selection: IUT supports inclusion of the Low layer compatibility IE in SETUP. PICS: J7.

TC202KJ subclause 10.6.4 Valid

Ensure that the IUT in state 7, in order to indicate that the call has been answered, sends a CONNECT message containing a Low Layer Compatibility IE.

Selection: IUT supports inclusion of the Low layer compatibility IE in SETUP. PICS: J7.

SP177 subclause ZC.2.3.2 Valid

Ensure that the IUT in state 7 or 9, in order to indicate that the call has been answered, sends a CONNECT message containing a Party Category IE.

Selection: IUT supports inclusion of the Party category IE in CONNECT. PICS: N9.

TC202KK subclause ZC.2.3.2 Valid

Ensure that the IUT in state 7, in order to indicate that the call has been answered, sends a CONNECT message containing a Party Category IE.

Selection: IUT supports inclusion of the Party category IE in CONNECT. PICS: N9.

TC202KL subclause ZC.2.3.2 Valid

Ensure that the IUT in state 9, in order to indicate that the call has been answered, sends a CONNECT message containing a Party Category IE.

Selection: IUT supports inclusion of the Party category IE in CONNECT. PICS: N9.

5.3.8.2 Call Clearing initiated by the Terminating PINX

The TPs in this subclause refer to EN 300 172 [2], subclause 10.6.5.

SP178 subclause 10.6.5 Valid

Ensure that the IUT in state 7,9 or 25, after having sent a PROGRESS message containing a Progress Indicator IE with a Progress Description value encoded as CCITT 8 and a Cause IE, on expiry of a timer as stated in the PIXIT, sends a DISCONNECT message and enters state 11.

Selection: IUT supports inclusion of the Cause IE in PROGRESS. PICS: J10.

TC212KU subclause 10.6.5 Valid

Ensure that the IUT in state 7, after having sent a PROGRESS message containing a Progress Indicator IE with a Progress Description value encoded as CCITT 8 and a Cause IE to indicate that tones or announcements associated with call clearing are being applied, on expiry of a timer as stated in the PIXIT, sends a DISCONNECT message and enters state 11.

Selection: IUT supports inclusion of the Cause IE in PROGRESS. PICS: J10.

TC212KW subclause 10.6.5 Valid

Ensure that the IUT in state 9, after having sent a PROGRESS message containing a Progress Indicator IE with a Progress Description value encoded as CCITT 8 and a Cause IE to indicate that tones or announcements associated with call clearing are being applied, on expiry of a timer as stated in the PIXIT, sends a DISCONNECT message and enters state 11.

Selection: IUT supports inclusion of the Cause IE in PROGRESS. PICS: J10.

TC212KX subclause 10.6.5 Valid

Ensure that the IUT in state 25, after having sent a PROGRESS message containing a Progress Indicator IE with a Progress Description value encoded as CCITT 8 and a Cause IE to indicate that tones or announcements associated with call clearing are being applied, on expiry of a timer as stated in the PIXIT, sends a DISCONNECT message and enters state 11.

Selection: IUT supports inclusion of the Cause IE in PROGRESS. PICS: J10.

Selection: IUT supports overlap receiving procedures. PICS: B9.

Selection: Overlap receiving procedures are to be tested (see PICS B9 note 1).

NOTE: The following subclauses in EN 300 172 [2] concerning the specific call control requirements for Terminating PINX do not generate any TP.

- 10.6.1 Receiving SETUP.
- a) Progress Indicator.
- b) Low Layer Compatibility, High Layer Compatibility, Called Party Subaddress.
- c) Calling Party Number, Calling Party Subaddress.
- 10.6.6 Receiving an Indication of Call Clearing.

5.3.9 Incoming Gateway PINX Call Control requirements

The TPs in this subclause refer to EN 300 172 [2], subclauses 10.7, ZB.2.3.4, ZC.5 and ZD.2.4.1.

The TPs in this subclause are only applicable to an IUT if it is declared in the PICS that is capable of functioning as an Incoming Gateway PINX.

5.3.9.1 Call Establishment

The TPs in this subclause refer to EN 300 172 [2], subclause 10.7.1 to 10.7.6 and ZC.5.

SP308 subclause 10.7.1 Valid

TC502UA subclause 10.7 Valid

Ensure that the IUT in state 0, in order to relay a call, sends a SETUP message, and enters state 1.

SP179 subclause 10.7.1a Valid

TC502UB subclause 10.7.1a Valid

Ensure that the IUT in state 0, in order to relay a call, sends a SETUP message containing a Sending Complete IE.

Selection: IUT supports inclusion of Sending Complete in the SETUP message. PICS: B7 OR J12.

SP180 subclause 10.7.1c Valid

TC502UC subclause 10.7.1c Valid

Ensure that the IUT in state 0, in order to relay a call, sends a SETUP message containing a Calling Party Number IE with one of the following combinations:

1) a number present and a Presentation Indicator value encoded as "presentation restricted";
2) a number present and a Presentation Indicator value encoded as "presentation allowed";
3) a number present and octet 3a omitted;
4) a number omitted and a Presentation Indicator value encoded as "presentation restricted";
5) a number omitted and a Presentation Indicator value encoded as "number not available due to interworking".

Selection: IUT supports inclusion of the Calling party number IE in SETUP. PICS: J14.

SP181 subclause 10.7.1d Valid

TC502UD subclause 10.7.1d Valid

Ensure that the IUT in state 0, in order to relay a call, sends a SETUP message containing a Calling Party Subaddress IE.

Selection: IUT supports inclusion of the Calling party subaddress IE in SETUP. PICS: J15.

SP182 subclause 10.7.1e Valid

TC502UE subclause 10.7.1e Valid

Ensure that the IUT in state 0, in order to relay a call, sends a SETUP message containing a Called Party Subaddress IE.

Selection: IUT supports inclusion of the Called party subaddress IE in SETUP. PICS: J16.

SP183 subclause 10.7.f Valid

TC502UF subclause 10.7.1f Valid

Ensure that the IUT in state 0, in order to relay a call, sends a SETUP message containing a Low Layer Compatibility IE.

Selection: IUT supports inclusion of the Low layer compatibility IE in SETUP. PICS: J17.

SP184 subclause 10.7.1g Valid

TC502UG subclause 10.7.1g Valid

Ensure that the IUT in state 0, in order to relay a call, sends a SETUP message containing a High Layer Compatibility IE.

Selection: IUT supports inclusion of the High layer compatibility IE in SETUP. PICS: J18.

SP185 EN 301 048 [1] 6.4.4 Valid

TC502UH EN 301 048 [1] 6.4.4 Valid

Ensure that the IUT in state 0, in order to relay a call, sends a SETUP message containing a Transit Counter IE with a Transit Count value.

Selection: IUT supports ANF-TC in association with basic call as an Incoming gateway PINX. ANF-TC PICS: A7.

SP186 subclause ZC.2.4.1 Valid

TC502UI subclause ZC.2.4.1 Valid

Ensure that the IUT in state 0, in order to relay a call, sends a SETUP message containing a Party Category IE.

Selection: IUT supports inclusion of the Party category IE in SETUP. PICS: N7.

SP187 subclauses 10.7.2, ZB.5.1, ZB.5.2 Valid

TC502UJ subclauses 10.7.2, ZB.5.1, ZB.5.2 Valid

Ensure that the IUT in state 0, in order to relay a call, sends a SETUP message containing zero to three Progress Indicator IE(s) with Progress Description values encoded as follows:

- if any of Progress descriptions CCITT 1, CCITT 3 or ISO/IEC 16 are present then they are in one of the following combinations (1), (1,16), (3,16), (16);
- not more than one of progress descriptions ISO/IEC 17, ISO/IEC 18 or ISO/IEC 19 is present; and
- no other progress description is present;
- and enters state 1.

NOTE: The following subclauses in EN 300 172 [2], concerning the specific call control requirements for Incoming Gateway PINX, do not generate any TP.

- 8.9.1 Transmission of SETUP message;
- b) Progress Indicator (cf. 8.9.2);
- 8.9.3 Agreement of the Information channel;
- 8.9.4 Receiving Progress Indicators;
- 8.9.5 Receiving ALERTING message;
- 8.9.6 Receiving CONNECT message;
- 8.9.7 Call Clearing initiated by the Incoming Gateway PINX;
- 8.9.8 Receiving an indication of Call Clearing.

5.3.10 Outgoing Gateway PINX Call Control requirements

Selection: IUT is capable of functioning as an outgoing gateway PINX. PICS: B5.

The TPs in this subclause refer to EN 300 172 [2], subclause 10.8 and ZC.6.

5.3.10.1 Call Establishment

The TPs in this subclause refer to EN 300 172 [2], subclauses 10.8. and ZB.6 and EN 301 048 [1] subclause 6.4.5.

SP188 EN 301 048 [1] 6.4.5 Valid

TC402VA EN 301 048 [1] 6.4.5 Valid

Ensure that the IUT in state 0, on receiving a SETUP message containing a Transit Counter IE with a Transit Count value encoded as 31 (the maximum number allowed) and containing a Called Party Number IE with a number which the IUT will route to another network which does not support transit counter functionality, sends a CALL PROCEEDING or SETUP ACK message and enters state 9 or 25 respectively.

Selection: IUT supports ANF-TC in association with basic call as an Outgoing gateway PINX. ANF-TC PICS: A9.

Selection: IUT supports interworking with a network not supporting transit counter functionality.

SP189 subclause 10.8.3, ZB.6 Valid

Ensure that the IUT in state 9 or 25, after having sent a CALL PROCEEDING or SETUP ACK message, sends a PROGRESS or ALERTING or CONNECT message, or a combination of them, containing zero or more Progress Indicator IE(s), with no more than three Progress Indicator IEs in any one message, with Progress Description values encoded as follows:

- CCITT 1 may be present;
- ISO/IEC 16 may be present;
- one or more of CCITT 2, 4 and 8 may be present if ISO/IEC 16 is present;
- one of ISO/IEC 17, 18 or 19 may be present; and
- no other progress description is present.

TC402VB subclause 10.8.3, ZB.6 Valid

Ensure that the IUT in state 9, after having sent a CALL PROCEEDING message, sends a PROGRESS or ALERTING or CONNECT message, or a combination of them, containing zero or more Progress Indicator IE(s) with Progress Description values encoded as follows:

- CCITT 1 may be present;
- ISO/IEC 16 may be present;
- one or more of CCITT 2, 4 and 8 may be present if ISO/IEC 16 is present;
- one of ISO/IEC 17, 18 or 19 may be present; and
- no other progress description is present.

TC402EA subclause 10.8.3, ZB.6 Valid

Ensure that the IUT in state 25, after having sent a SETUP ACK message, sends a PROGRESS or ALERTING or CONNECT message, or a combination of them, containing zero or more Progress Indicator IE(s) with Progress Description values encoded as follows:

- CCITT 1 may be present;
- ISO/IEC 16 may be present;
- one or more of CCITT 2, 4 and 8 may be present if ISO/IEC 16 is present;
- one of ISO/IEC 17, 18 or 19 may be present; and

- no other progress description is present.

Selection: IUT supports overlap receiving procedures. PICS: B9.

Selection: Overlap receiving procedures are to be tested (see PICS B9 note 1).

SP190 subclause 10.8.4 Valid

Ensure that the IUT in state 9, in order to indicate that the user is alerting, sends an ALERTING message and enters state 7.

TC402VC subclause 10.8.4 Valid

Ensure that the IUT in state 9, in order to indicate that the user is alerting, sends an ALERTING message.

SP191 subclause ZC.2.4.2 Valid

TC402VD subclause ZC.2.4.2 Valid

Ensure that the IUT in state 9, in order to indicate the category of the called user, sends an ALERTING message containing a Party Category IE with a Party Category value encoded as stated in the PIXIT.

Selection: IUT supports inclusion of the Party category IE in ALERTING. PICS: N8.

NOTE: The following subclauses in the EN 300 172 [2] concerning the specific call control requirements for Outgoing Gateway PINX do not generate any TP.

- 10.8.1 Receipt of SETUP message.
- a) Progress Indicator.
- b) Low Layer Compatibility, High Layer Compatibility, Calling Party Subaddress, Called Party Subaddress.
- c) Calling Party Number.

5.3.11 Call Control requirements for a Transit PINX

The TPs in this subclause refer to EN 300 172 [2], subclause 10.4.

Selection: IUT is capable of functioning as a transit PINX. PICS: B3.

NOTE: All the Transit TPs take place where the IUT is relaying a call from the interface X to the interface Y.

5.3.11.1 Call Establishment

The TPs in this subclause refer to EN 300 172 [2], subclauses 10.4.1 to 10.4.9 and ZB.4 and EN 301 048 [1] subclause 6.4.3.

SP303 subclause 10.4.1 Valid

Ensure that the IUT in transit state TCC_Idle, on receiving a SETUP message on interface X containing a Called Party Number IE with sufficient address information to route the call on interface Y, sends a CALL PROCEEDING or SETUP ACK message on interface X and sends a SETUP message on interface Y.

TC302LA subclause 10.4.1 Valid

Ensure that the IUT in transit state TCC_Idle, on receiving a SETUP message on interface X containing a Called Party Number IE with sufficient address information to route the call on interface Y, sends a SETUP message on interface Y.

SP192 EN 301 048 [1] 6.4.3.1 Valid

Ensure that the IUT in transit state TCC_Idle, on receiving a SETUP message on interface X containing a Called Party Number IE with sufficient address information to route the call on interface Y and a Transit Counter IE with a Transit Count value encoded as 0, sends a CALL PROCEEDING or SETUP ACK message on interface X and sends a SETUP message on interface Y containing a Transit Counter IE with a Transit Count value encoded as 1.

Selection: IUT supports ANF-TC in association with basic call as a Transit PINX. ANF-TC PICS: A5.

TC302LB EN 301 048 [1] 6.4.3.1 Valid

Ensure that the IUT in transit state TCC_Idle, on receiving a SETUP message on interface X containing a Called Party Number IE with sufficient address information to route the call on interface Y and a Transit Counter IE with a Transit Count value encoded as 0, sends a SETUP message on interface Y containing a Transit Counter IE with a Transit Count value encoded as 1.

Selection: IUT supports ANF-TC in association with basic call as a Transit PINX. ANF-TC PICS: A5.

SP193 EN 301 048 [1] 6.4.3.2 Valid

TC302LC EN 301 048 [1] 6.4.3.2 Valid

Ensure that the IUT in transit state TCC_Idle, on receiving a SETUP message on interface X containing a Called Party Number IE with sufficient address information to route the call on interface Y and a Transit Counter IE with a Transit Count value encoded as equal to the acceptable limit, either sends a RELEASE COMPLETE message on interface X, and returns to state 0 for the call on interface X, or sends a CALL PROCEEDING message followed by a DISCONNECT message on interface X and enters state 11 for the call on interface X, or sends a SETUP ACK message followed by a DISCONNECT message on interface X and enters state 11 for the call on interface X.

Selection: IUT supports ANF-TC in association with basic call as a Transit PINX. ANF-TC PICS: A5.

SP194 EN 301 048 [1] 6.4.3.1 Valid

Ensure that the IUT in transit state TCC_Idle, on receiving a SETUP message on interface X containing a Called Party Number IE with sufficient address information to route the call to interface Y and not containing a Transit Counter IE, sends a CALL PROCEEDING or SETUP ACK message on interface X and sends a SETUP message on interface Y optionally containing a Transit Counter IE with a Transit Count value encoded with a value not less than 1.

Selection: IUT supports ANF-TC in association with basic call as a Transit PINX. ANF-TC PICS: A5.

TC302LD EN 301 048 [1] 6.4.3.1 Valid

Ensure that the IUT in transit state TCC_Idle, on receiving a SETUP message on interface X containing a Called Party Number IE with sufficient address information to route the call on interface Y and not containing a Transit Counter IE, sends a SETUP message on interface Y optionally containing a Transit Counter IE with a Transit Count value encoded as with a value not less than 1.

Selection: IUT supports ANF-TC in association with basic call as a Transit PINX. ANF-TC PICS: A5.

SP195 subclause 10.4.2 Valid

Ensure that the IUT in transit state TCC_AwaitDigits, in state 25 for the call on interface X, on receiving an INFORMATION message on interface X containing a Called Party Number IE with sufficient address information to route the call on interface Y, but not to determine that the number is complete, sends a SETUP message on interface Y and enters state 1 for the call on interface Y.

TC302LE subclause 10.4.2 Valid

Ensure that the IUT in transit state TCC_AwaitDigits, in state 25 for the call on interface X, on receiving an INFORMATION message on interface X containing a Called Party Number IE with sufficient address information to route the call on interface Y, but not to determine that the number is complete, sends a SETUP message on interface Y.

Selection: Overlap receiving procedures are to be tested (see PICS B9 note 1).

SP196 subclause 10.4.2 Valid

Ensure that the IUT in transit state TCC_AwaitDigits, in state 25 for the call on interface X, on receiving an INFORMATION message on interface X containing a Called Party Number IE with sufficient address information to route the call on interface Y, and to determine that the number is complete, sends a SETUP message on interface Y, sends a CALL PROCEEDING message on interface X, enters state 9 for the call on interface X and enters state 1 for the call on interface Y.

TC302LF subclause 10.4.2 Valid

Ensure that the IUT in transit state TCC_AwaitDigits, in state 25 for the call on interface X, on receiving an INFORMATION message on interface X containing a Called Party Number IE with sufficient address information to route the call on interface Y, and to determine that the number is complete, sends a SETUP message on interface Y, and sends a CALL PROCEEDING message on interface X.

Selection: Overlap receiving procedures are to be tested (see PICS B9 note 1).

SP197 subclause 10.4.3 Valid

Ensure that the IUT in transit state TCC_AwaitAdditionalDigits, in state 25 for the call on interface X, and in state 1 for the call on interface Y, after having received a SETUP message on interface X containing a Called Party Number IE with sufficient address information to route the call on interface Y but insufficient to determine that the number is complete, on receiving an INFORMATION message on interface X containing a Called Party Number IE with insufficient address information to determine that the number is complete, remains in the same states for the calls on interface X and Y.

TC302LH subclause 10.4.3 Valid

Ensure that the IUT in transit state TCC_AwaitAdditionalDigits, in state 25 for the call on interface X, and in state 1 for the call on interface Y, after having received a SETUP message on interface X containing a Called Party Number IE with sufficient address information to route the call on interface Y but insufficient to determine that the number is complete, on receiving an INFORMATION message on interface X containing a Called Party Number IE with insufficient address information to determine that the number is complete, remains in the same states for the calls on interface X and Y.

Selection: Overlap receiving procedures are to be tested (see PICS B9 note 1).

SP198 subclause 10.4.3 Valid

Ensure that the IUT in transit state TCC_AwaitAdditionalDigits, in state 25 for the call on interface X, after having received a SETUP message on interface X containing a Called Party Number IE with sufficient address information to route the call on interface Y, on receiving an INFORMATION message on interface X containing a Called Party Number IE with sufficient address information to determine that the number is complete, sends a CALL PROCEEDING message on interface X, enters state 9 for the call on interface X and remains in state 1 for the call on interface Y.

TC302LI subclause 10.4.3 Valid

Ensure that the IUT in transit state TCC_AwaitAdditionalDigits, in state 25 for the call on interface X, after having received a SETUP message on interface X containing a Called Party Number IE with sufficient address information to route the call on interface Y but insufficient to determine that the number is complete, on receiving an INFORMATION message on interface X containing a Called Party Number IE with sufficient address information to determine that the number is complete, sends a CALL PROCEEDING message on interface X and remains in state 1 for the call on interface Y.

Selection: Overlap receiving procedures are to be tested (see PICS B9 note 1).

SP199 subclause 10.4.3 Valid

Ensure that the IUT in transit state TCC_AwaitAdditionalDigits, in state 25 for the call on interface X, after having received a SETUP message on interface X containing a Called Party Number IE with sufficient address information to route the call on interface Y, on receiving a SETUP ACKNOWLEDGE message on interface Y containing a Channel Identification IE accepting the channel identified in the SETUP message, enters state 2 for the call on interface Y and remains in state 25 for the call on interface X.

Selection: IUT supports overlap sending procedures. PICS: B10.

TC302LJ subclause 10.4.3 Valid

Ensure that the IUT in transit state TCC_AwaitAdditionalDigits, in state 25 for the call on interface X, after having received a SETUP message on interface X containing a Called Party Number IE with sufficient address information to route the call on interface Y but insufficient to determine that the number is complete, on receiving a SETUP ACKNOWLEDGE message on interface Y containing a Channel Identification IE accepting the channel identified in the SETUP message, enters state 2 for the call on interface Y and remains in state 25 for the call on interface X.

Selection: IUT supports overlap sending procedures. PICS: B10.

Selection: Overlap receiving procedures are to be tested (see PICS B9 note 1).

SP200 subclause 10.4.3 Valid

Ensure that the IUT in transit state TCC_AwaitAdditionalDigits after having received a SETUP message on interface X containing a Called Party Number IE with sufficient address information to route the call on interface Y, followed by an INFORMATION message containing a Called Party Number IE with insufficient information to determine that the number is complete, on receiving a SETUP ACKNOWLEDGE message on interface Y containing a Channel Identification IE accepting the channel identified in the SETUP message, sends an INFORMATION message on interface Y containing the same Called Party Number IE as in the INFORMATION message received on interface X and enters state 2 for the call on interface Y and remains in state 25 for the call on interface X.

Selection: IUT supports overlap sending procedures. PICS: B10.

TC302LK subclause 10.4.3 Valid

Ensure that the IUT in transit state TCC_AwaitAdditionalDigits after having received a SETUP message on interface X containing a Called Party Number IE with sufficient address information to route the call on interface Y, followed by an INFORMATION message containing a Called Party Number IE with insufficient information to determine that the number is complete, on receiving a SETUP ACKNOWLEDGE message on interface Y containing a Channel Identification IE accepting the channel identified in the SETUP message, sends an INFORMATION message on interface Y.

Selection: IUT supports overlap sending procedures. PICS: B10.

Selection: Overlap receiving procedures are to be tested (see PICS B9 note 1).

SP201 subclause 10.4.3 Valid

Ensure that the IUT in transit state TCC_AwaitAdditionalDigits, after having received a SETUP message on interface X containing a Called Party Number IE with sufficient address information to route the call on interface Y, followed by an INFORMATION message containing a Called Party Number IE with insufficient information to determine that the number is complete, on receiving a CALL PROCEEDING message on interface Y containing a Channel Identification IE accepting the channel identified in the SETUP message, does not send any INFORMATION messages on interface Y and enters state 3 for the call on interface Y.

TC302LL subclause 10.4.3 Valid

Ensure that the IUT in transit state TCC_AwaitAdditionalDigits, after having received a SETUP message on interface X containing a Called Party Number IE with sufficient address information to route the call on interface Y, followed by an INFORMATION message containing a Called Party Number IE with insufficient information to determine that the number is complete, on receiving a CALL PROCEEDING message on interface Y containing a Channel Identification IE accepting the channel identified in the SETUP message, does not send any INFORMATION messages on interface Y.

Selection: Overlap receiving procedures are to be tested (see PICS B9 note 1).

SP202 subclause 10.4.3 Valid

Ensure that the IUT in transit state TCC_AwaitAdditionalDigits, after having received a SETUP message on interface X containing a Called Party Number IE with sufficient address information to route the call on interface Y, on receiving an ALERTING message on interface Y containing a Channel Identification IE accepting the channel identified in the SETUP message, sends an ALERTING message on interface X, enters state 4 for the call on interface Y and enters state 7 for the call on interface X.

TC302LM subclause 10.4.3 Valid

Ensure that the IUT in transit state TCC_AwaitAdditionalDigits, after having received a SETUP message on interface X containing a Called Party Number IE with sufficient address information to route the call on interface Y, on receiving an ALERTING message on interface Y containing a Channel Identification IE accepting the channel identified in the SETUP message, sends an ALERTING message on interface X.

Selection: Overlap receiving procedures are to be tested (see PICS B9 note 1).

SP203 subclause 10.4.3 Valid

Ensure that the IUT in transit state TCC_AwaitAdditionalDigits, after having received a SETUP message on interface X containing a Called Party Number IE with sufficient address information to route the call on interface Y, on receiving a CONNECT message containing a Channel Identification IE accepting the channel identified in the SETUP message sent on interface Y, sends a CONNECT message on interface X, remains in state 8 or enters state 10 for the call on interface X, and enters state 10 for the call on interface Y.

TC302RL subclause 10.4.3 Valid

Ensure that the IUT in transit state TCC_AwaitAdditionalDigits, after having received a SETUP message on interface X containing a Called Party Number IE with sufficient address information to route the call on interface Y, on receiving a CONNECT message containing a Channel Identification IE accepting the channel identified in the SETUP message, sends a CONNECT message on interface X.

Selection: Overlap receiving procedures are to be tested (see PICS B9 note 1).

NOTE 1: A test case associated with this test purpose should allow for the IUT sending a CONNECT ACKNOWLEDGE on interface Y in response to the CONNECT message received.

SP204 subclause 10.4.4 Valid

Ensure that the IUT in transit state TCC_Overlap, on receiving an INFORMATION message on interface X containing a Called Party Number IE with insufficient address information to determine that the number is complete, sends an INFORMATION message on interface Y containing a Called Party Number IE encoded as in the incoming INFORMATION message and remains in the same states.

Selection: IUT supports overlap sending procedures. PICS: B10.

TC302RM subclause 10.4.4 Valid

Ensure that the IUT in transit state TCC_Overlap, on receiving an INFORMATION message on interface X containing a Called Party Number IE with insufficient address information to determine that the number is complete, sends an INFORMATION message on interface Y containing a Called Party Number IE.

Selection: IUT supports overlap sending procedures. PICS: B10.

Selection: Overlap receiving procedures are to be tested (see PICS B9 note 1).

SP205 subclause 10.4.4 Valid

Ensure that the IUT in transit state TCC_Overlap, on receiving a CALL PROCEEDING message on interface Y, sends a CALL PROCEEDING message on interface X, enters state 9 for the call on interface X, and enters state 3 for the call on interface Y.

Selection: IUT supports overlap sending procedures. PICS: B10.

TC302LN subclause 10.4.4 Valid

Ensure that the IUT in transit state TCC_Overlap, on receiving a CALL PROCEEDING message on interface Y, ends a CALL PROCEEDING message on interface X.

Selection: IUT supports overlap sending procedures. PICS: B10.

Selection: Overlap receiving procedures are to be tested (see PICS B9 note 1).

SP206 subclause 10.4.1 Valid

Ensure that the IUT in transit state TCC_Overlap, on receiving an INFORMATION message on interface X containing a Sending Complete IE and a Called Party Number IE with sufficient address information to determine that the number is complete, sends a CALL PROCEEDING message on interface X, sends an INFORMATION message containing a Called Party Number IE encoded as that in the incoming INFORMATION message on interface Y, enters state 9 for the call on interface X and remains in state 2 for the call on interface Y.

Selection: IUT supports overlap sending procedures. PICS: B10.

TC302LP subclause 10.4.1 Valid

Ensure that the IUT in transit state TCC_Overlap, on receiving an INFORMATION message on interface X containing a Sending Complete IE and a Called Party Number IE with sufficient address information to complete the called number, sends a CALL PROCEEDING message on interface X, and sends an INFORMATION message containing a Called Party Number IE.

Selection: IUT supports overlap sending procedures. PICS: B10.

Selection: Overlap receiving procedures are to be tested (see PICS B9 note 1).

SP207 subclause 10.4.4 Valid

Ensure that the IUT in transit state TCC_Overlap, on receiving an INFORMATION message on interface X containing a Called Party Number IE with sufficient address information to determine that the number is complete and not containing a Sending Complete IE, sends a CALL PROCEEDING message on interface X, sends an INFORMATION message containing a Called Party Number IE encoded as that in the incoming INFORMATION message on interface Y, enters state 9 for the call on interface X and remains in state 2 for the call on interface Y.

Selection: IUT supports overlap sending procedures. PICS: B10.

TC302LG subclause 10.4.4 Valid

Ensure that the IUT in transit state TCC_Overlap, on receiving an INFORMATION message on interface X containing a Called Party Number IE with sufficient address information to determine that the number is complete and not containing a Sending Complete IE, sends a CALL PROCEEDING message on interface X, and sends an INFORMATION message containing a Called Party Number.

Selection: IUT supports overlap sending procedures. PICS: B10.

Selection: Overlap receiving procedures are to be tested (see PICS B9 note 1).

SP208 subclauses 10.4.4, 10.4.11.2, ZB.4 Valid

Ensure that the IUT in transit state TCC_Overlap, on receiving a PROGRESS message on interface Y, sends a PROGRESS message on interface X containing the same Progress Indicator IE(s) as in the incoming PROGRESS message and remains in the same.

Selection: IUT supports overlap sending procedures. PICS: B10.

TC302LQ subclauses 10.4.4, 10.4.11.2, ZB.4 Valid

Ensure that the IUT in transit state TCC_Overlap, on receiving a PROGRESS message on interface Y, sends a PROGRESS message on interface X containing the same Progress Indicator IE(s) as in the incoming PROGRESS message on interface Y.

Selection: IUT supports overlap sending procedures. PICS: B10.

Selection: Overlap receiving procedures are to be tested (see PICS B9 note 1).

SP209 subclause 10.4.4 Valid

Ensure that the IUT in transit state TCC_Overlap, on receiving an ALERTING message on interface Y, sends an ALERTING message on interface X, enters state 7 for the call on interface X, and enters state 4 for the call on interface Y.

Selection: IUT supports overlap sending procedures. PICS: B10.

TC302LR subclause 10.4.4 Valid

Ensure that the IUT in transit state TCC_Overlap, on receiving an ALERTING message on interface Y, sends an ALERTING message on interface X.

Selection: IUT supports overlap sending procedures. PICS: B10.

Selection: Overlap receiving procedures are to be tested (see PICS B9 note 1).

SP210 subclause 10.4.4 Valid

Ensure that the IUT in transit state TCC_Overlap, on receiving a CONNECT message on interface Y, sends a CONNECT message on interface X, enters state 8 or 10 for the call on interface X, and enters state 10 for the call on interface Y.

Selection: IUT supports overlap sending procedures. PICS: B10.

TC302LS subclause 10.4.4 Valid

Ensure that the IUT in transit state TCC_Overlap, on receiving a CONNECT message on interface Y, sends a CONNECT message on interface X.

NOTE 2: A test case associated with this test purpose should allow for the IUT sending a CONNECT ACKNOWLEDGE on interface Y in response to the CONNECT message received.

Selection: IUT supports overlap sending procedures. PICS: B10.

Selection: Overlap receiving procedures are to be tested (see PICS B9 note 1).

SP211 subclause 10.4.6 Valid

Ensure that the IUT in transit state TCC_IncomingCallProceeding, on receiving a SETUP ACKNOWLEDGE message on interface Y containing a Channel Identification IE accepting the channel identified in the SETUP message, enters state 2 for the call on interface Y and remains in state 9 for the call on interface X.

Selection: IUT supports overlap sending procedures. PICS: B10.

TC302LT subclause 10.4.6 Valid

Ensure that the IUT in transit state TCC_IncomingCallProceeding, on receiving a SETUP ACKNOWLEDGE message on interface Y containing a Channel Identification IE accepting the channel identified in the SETUP message, enters state 2 for the call on interface Y.

Selection: IUT supports overlap sending procedures. PICS: B10.

SP212 subclause 10.4.6 Valid

Ensure that the IUT in transit state TCC_IncomingCallProceeding, on receiving a CALL PROCEEDING message on interface Y containing a Channel Identification IE accepting the channel identified in the SETUP message, enters state 3 for the call on interface Y and remains in state 9 for the call on interface X.

TC302LU subclause 10.4.6 Valid

Ensure that the IUT in transit state TCC_IncomingCallProceeding, on receiving a CALL PROCEEDING message on interface Y containing a Channel Identification IE accepting the channel identified in the SETUP message, enters state 3 for the call on interface Y.

SP213 subclause 10.4.6 Valid

Ensure that the IUT in transit state TCC_IncomingCallProceeding, on receiving an ALERTING message on interface Y containing a Channel Identification IE accepting the channel identified in the SETUP message, sends an ALERTING message on interface X, enters state 4 for the call on interface Y, and enters state 7 for the call on interface X.

TC302LV subclause 10.4.6 Valid

Ensure that the IUT in transit state TCC_IncomingCallProceeding, on receiving an ALERTING message on interface Y containing a Channel Identification IE accepting the channel identified in the SETUP message, sends an ALERTING message on interface X.

SP214 subclause 10.4.6 Valid

TC302LW subclause 10.4.6 Valid

Ensure that the IUT in transit state TCC_IncomingCallProceeding, on receiving a CONNECT message on interface Y containing a Channel Identification IE accepting the channel identified in the SETUP message, sends a CONNECT message on interface X, enters state 10 for the call on interface Y and enters state 8 or 10 for the call on interface X.

NOTE 3: A test case associated with this test purpose should allow for the IUT sending a CONNECT ACKNOWLEDGE on interface Y in response to the CONNECT message received.

SP215 subclauses 10.4.7, 10.4.11.2, ZB.4 Valid

Ensure that the IUT in transit state TCC_TransitCallProceeding, in state 2 or 3 for the call on interface Y, on receiving a PROGRESS message on interface Y, sends a PROGRESS message on interface X containing Progress Indicator IEs encoded as in the incoming PROGRESS message on interface Y and remains in the same states.

TC302LX subclauses 10.4.7, 10.4.11.2, ZB.4 Valid

Ensure that the IUT in transit state TCC_TransitCallProceeding, in state 2 for the call on interface Y, on receiving a PROGRESS message on interface Y, sends a PROGRESS message on interface X containing Progress Indicator IEs encoded as in the incoming PROGRESS message on interface Y.

Selection: IUT supports overlap sending procedures. PICS: B10.

TC302LY subclauses 10.4.7, 10.4.11.2, ZB.4 Valid

Ensure that the IUT in transit state TCC_TransitCallProceeding, in state 3 for the call on interface Y, on receiving a PROGRESS message on interface Y, sends a PROGRESS message on interface X containing Progress Indicator IEs encoded as in the incoming PROGRESS message on interface Y.

SP216 subclause 10.4.7 Valid

TC302LZ subclause 10.4.7 Valid

Ensure that the IUT in transit state TCC_TransitCallProceeding, in state 2 for the call on interface Y, on receiving a CALL PROCEEDING message on interface Y, remains in state 9 for the call on interface X and enters state 3 for the call on interface Y.

Selection: IUT supports overlap sending procedures. PICS: B10.

SP217 subclause 10.4.7 Valid

Ensure that the IUT in transit state TCC_TransitCallProceeding, in state 2 or 3 for the call on interface Y, on receiving an INFORMATION message on interface X, remains in the same state for the call on interface Y, and does not send any INFORMATION message on interface Y.

TC302MA subclause 10.4.7 Valid

Ensure that the IUT in transit state TCC_TransitCallProceeding, in state 2 for the call on interface Y, on receiving an INFORMATION message on interface X, remains in the same state for the call on interface Y, and does not send any INFORMATION message on interface Y.

Selection: IUT supports overlap sending procedures. PICS: B10.

TC302MB subclause 10.4.7 Valid

Ensure that the IUT in transit state TCC_TransitCallProceeding, in state 3 for the call on interface Y, on receiving an INFORMATION message on interface X, remains in the same state for the call on interface Y, and does not send any INFORMATION message on interface Y.

SP218 subclause 10.4.7 Valid

Ensure that the IUT in transit state TCC_TransitCallProceeding, in state 2 or 3, for the call on interface Y, on receiving an ALERTING message on interface Y, sends an ALERTING message on interface X, enters state 7 on for the call on interface X and enters state 4 for the call on interface.

TC302MC subclause 10.4.7 Valid

Ensure that the IUT in transit state TCC_TransitCallProceeding, in state 2 for the call on interface Y, on receiving an ALERTING message on interface Y, sends an ALERTING message on interface X.

Selection: IUT supports overlap sending procedures. PICS: B10.

TC302MD subclause 10.4.7 Valid

Ensure that the IUT in transit state TCC_TransitCallProceeding, in state 3 for the call on interface Y, on receiving an ALERTING message on interface Y, sends an ALERTING message on interface X.

SP219 subclause 10.4.7 Valid

Ensure that the IUT in transit state TCC_TransitCallProceeding, in state 2 or 3 for the call on interface Y, on receiving a CONNECT message on interface Y, sends a CONNECT message on interface X, enters state 8 or 10 for the call on interface X and state 10 for the call on interface Y.

TC302ME subclause 10.4.7 Valid

Ensure that the IUT in transit state TCC_TransitCallProceeding, in state 2 for the call on interface Y, on receiving a CONNECT message on interface Y, sends a CONNECT message on interface X.

Selection: IUT supports overlap sending procedures. PICS: B10.

TC302MF subclause 10.4.7 Valid

Ensure that the IUT in transit state TCC_TransitCallProceeding, in state 3 for the call on interface Y, on receiving a CONNECT message on interface Y, sends a CONNECT message on interface X.

NOTE 4: A test case associated with this test purpose should allow for the IUT sending a CONNECT ACKNOWLEDGE on interface Y in response to the CONNECT message received.

SP220 subclauses 10.4.8, 10.4.11.2, ZB.4 Valid

Ensure that the IUT in transit state TCC_CallAlerting, on receiving a PROGRESS message on interface Y, sends a PROGRESS message on interface X containing Progress Indicator IEs encoded as in the incoming PROGRESS message on interface Y and remains in the same states.

TC302MG subclauses 10.4.8, 10.4.11.2, ZB.4 Valid

Ensure that the IUT in transit state TCC_CallAlerting, on receiving a PROGRESS message on interface Y, sends a PROGRESS message on interface X containing Progress Indicator IEs encoded as in the incoming PROGRESS message on interface Y.

SP221 subclause 10.4.8 Valid

Ensure that the IUT in transit state TCC_CallAlerting, on receiving a CONNECT message on interface Y, sends a CONNECT message on interface X, enters state 8 or 10 for the call on interface X and state 10 for the call on interface Y.

TC302MH subclause 10.4.8 Valid

Ensure that the IUT in transit state TCC_CallAlerting, on receiving a CONNECT message on interface Y, sends a CONNECT message on interface X.

NOTE 5: A test case associated with this test purpose should allow for the IUT sending a CONNECT ACKNOWLEDGE on interface Y in response to the CONNECT message received.

SP222 subclauses 10.4.9, 10.4.11.2, ZB.4 Valid

Ensure that the IUT in transit state TCC_CallActive, on receiving a PROGRESS message on interface Y, either sends a PROGRESS message on interface X containing Progress Indicator IEs encoded as in the incoming PROGRESS message on interface Y or discards the message and remains in the same states.

TC302MJ subclauses 10.4.9, 10.4.11.2, ZB.4 Valid

Ensure that the IUT in transit state TCC_CallActive, in state 10 for the call on interface X, on receiving a PROGRESS message on interface Y, either sends a PROGRESS message on interface X containing Progress Indicator IEs encoded as in the incoming PROGRESS message on interface Y or discards the message.

SP223 subclauses 10.4.9, 10.4.11.2, ZB.4 Valid

Ensure that the IUT in transit state TCC_CallActive, in state 10 for the call on interface X, on receiving a PROGRESS message on interface X, either sends a PROGRESS message on interface Y containing Progress Indicator IEs encoded as in the incoming PROGRESS message on interface X or discards the message and remains in the same states.

TC302ML subclauses 10.4.9, 10.4.11.2, ZB.4 Valid

Ensure that the IUT in transit state TCC_CallActive, in state 10 for the call on interface X, on receiving a PROGRESS message on interface X, either sends a PROGRESS message on interface Y containing Progress Indicator IEs encoded as in the incoming PROGRESS message on interface X or discards the message.

5.3.11.2 Call Clearing

The TPs in this subclause refer to EN 300 172 [2], subclause 10.4.10.

5.3.11.2.1 Call clearing not initiated by the transit PINX

The TPs in this subclause refer to EN 300 172 [2], subclause 10.4.10.1.

(i) Clearing initiated by preceding PINX

SP224 subclause 10.4.10.1 Valid

Ensure that the IUT in transit state TCC_AwaitDigits, on receiving a DISCONNECT message on interface X, sends a RELEASE message on interface X and enters state 19 for the call on interface X.

NOTE 1: No final test purpose has been derived because this STP covers no requirements beyond protocol control requirements covered by TC012CR derived from SP060.

SP225 subclause 10.4.10.1 Valid

Ensure that the IUT in transit state TCC_AwaitDigits, on receiving a RELEASE message on interface X, sends a RELEASE COMPLETE message on interface X and enters state 0 for the call on interface X.

NOTE 2: No final test purpose has been derived because this STP covers no requirements beyond protocol control requirements covered by TC014XS derived from SP131.

SP226 subclause 10.4.10.1 Valid

Ensure that the IUT in transit state TCC_AwaitDigits, on receiving a RELEASE COMPLETE message on interface X, enters state 0 for the call on interface X.

NOTE 3: No final test purpose has been derived because this STP covers no requirements beyond protocol control requirements covered by TC014GK derived from SP132.

SP227 subclause 10.4.10.1 Valid

Ensure that the IUT in transit state TCC_AwaitAdditionalDigits or TCC_IncomingCallProceeding, on receiving a DISCONNECT message on interface X, sends a RELEASE message on interface X, sends a DISCONNECT or RELEASE message on interface Y, enters state 19 for the call on interface X and enters state 11 or 19 for the call on interface Y.

TC312NB subclause 10.4.10.1 Valid

Ensure that the IUT in transit state TCC_AwaitAdditionalDigits, on receiving a DISCONNECT message on interface X, sends a DISCONNECT or RELEASE message on interface Y.

Selection: Overlap receiving procedures are to be tested (see PICS B9 note 1).

TC312NC subclause 10.4.10.1 Valid

Ensure that the IUT in transit state TCC_IncomingCallProceeding, on receiving a DISCONNECT message on interface X, sends a DISCONNECT or RELEASE message on interface Y.

SP228 subclause 10.4.10.1 Valid

Ensure that the IUT in transit state TCC_AwaitAdditionalDigits or TCC_IncomingCallProceeding, on receiving a RELEASE message on interface X, sends a RELEASE COMPLETE message on interface X, sends a DISCONNECT or RELEASE message on interface Y, enters state 0 for the call on interface X and enters state 11 or 19 for the call on interface Y.

TC312ND subclause 10.4.10.1 Valid

Ensure that the IUT in transit state TCC_AwaitAdditionalDigits, on receiving a RELEASE message on interface X, sends a DISCONNECT or RELEASE message on interface Y.

Selection: Overlap receiving procedures are to be tested (see PICS B9 note 1).

TC312NE subclause 10.4.10.1 Valid

Ensure that the IUT in transit state TCC_IncomingCallProceeding, on receiving a RELEASE message on interface X, sends a DISCONNECT or RELEASE message on interface Y.

SP229 subclause 10.4.10.1 Valid

Ensure that the IUT in transit state TCC_AwaitAdditionalDigits or TCC_IncomingCallProceeding, on receiving a RELEASE COMPLETE message on interface X, sends a DISCONNECT or RELEASE message on interface Y, enters state 0 for the call on interface X and enters state 11 or 19 for the call on interface Y.

TC312NF subclause 10.4.10.1 Valid

Ensure that the IUT in transit state TCC_AwaitAdditionalDigits, on receiving a RELEASE COMPLETE message on interface X, sends a DISCONNECT or RELEASE message on interface Y.

Selection: Overlap receiving procedures are to be tested (see PICS B9 note 1).

TC312NG subclause 10.4.10.1 Valid

Ensure that the IUT in transit state TCC_IncomingCallProceeding, on receiving a RELEASE COMPLETE message on interface X, sends a DISCONNECT or RELEASE message on interface Y.

SP230 subclause 10.4.10.1 Valid

Ensure that the IUT in transit state TCC_Overlap, TCC_TransitCallProceeding, TCC_CallAlerting or TCC_CallActive, on receiving a DISCONNECT message on interface X, sends a RELEASE message on interface X, sends a DISCONNECT message on interface Y, enters state 19 for the call on interface X and enters state 11 for the call on interface Y.

TC312NH subclause 10.4.10.1 Valid

Ensure that the IUT in transit state TCC_Overlap, on receiving a DISCONNECT message on interface X, sends a DISCONNECT message on interface Y.

Selection: IUT supports overlap sending procedures. PICS: B10.

Selection: Overlap receiving procedures are to be tested (see PICS B9 note 1).

TC312NI subclause 10.4.10.1 Valid

Ensure that the IUT in transit state TCC_TransitCallProceeding, on receiving a DISCONNECT message on interface X, sends a DISCONNECT message on interface Y.

TC312NJ subclause 10.4.10.1 Valid

Ensure that the IUT in transit state TCC_CallAlerting, on receiving a DISCONNECT message on interface X, sends a DISCONNECT message on interface Y.

TC312NK subclause 10.4.10.1 Valid

Ensure that the IUT in transit state TCC_CallActive, on receiving a DISCONNECT message on interface X, sends a DISCONNECT message on interface Y.

SP231 subclause 10.4.10.1 Valid

Ensure that the IUT in transit state TCC_Overlap, TCC_TransitCallProceeding, TCC_CallAlerting or TCC_CallActive, on receiving a RELEASE message on interface X, sends a RELEASE COMPLETE message on interface X, sends a DISCONNECT message on interface Y, enters state 0 for the call on interface X and enters state 11 for the call on interface Y.

TC312NL subclause 10.4.10.1 Valid

Ensure that the IUT in transit state TCC_Overlap, on receiving a RELEASE message on interface X, sends a DISCONNECT message on interface Y.

Selection: IUT supports overlap sending procedures. PICS: B10.

Selection: Overlap receiving procedures are to be tested (see PICS B9 note 1).

TC312NM subclause 10.4.10.1 Valid

Ensure that the IUT in transit state TCC_Transit Call Proceeding, on receiving a RELEASE message on interface X, sends a DISCONNECT message on interface Y.

TC312NN subclause 10.4.10.1 Valid

Ensure that the IUT in transit state TCC_CallAlerting, on receiving a RELEASE message on interface X, sends a DISCONNECT message on interface Y.

TC312NO subclause 10.4.10.1 Valid

Ensure that the IUT in transit state TCC_CallActive, on receiving a RELEASE message on interface X, sends a DISCONNECT message on interface Y.

SP232 subclause 10.4.10.1 Valid

Ensure that the IUT in transit state TCC_Overlap, TCC_TransitCallProceeding, TCC_CallAlerting or TCC_CallActive, on receiving a RELEASE COMPLETE message on interface X, sends a DISCONNECT message on interface Y, enters state 0 for the call on interface X and enters state 11 for the call on interface Y.

TC312NP subclause 10.4.10.1 Valid

Ensure that the IUT in transit state TCC_Overlap, on receiving a RELEASE COMPLETE message on interface X, sends a DISCONNECT message on interface Y.

Selection: IUT supports overlap sending procedures. PICS: B10.

Selection: Overlap receiving procedures are to be tested (see PICS B9 note 1).

TC312NQ subclause 10.4.10.1 Valid

Ensure that the IUT in transit state TCC_TransitCallProceeding, on receiving a RELEASE COMPLETE message on interface X, sends a DISCONNECT message on interface Y

TC312NR subclause 10.4.10.1 Valid

Ensure that the IUT in transit state TCC_CallAlerting, on receiving a RELEASE COMPLETE message on interface X, sends a DISCONNECT message on interface Y.

TC312NS subclause 10.4.10.1 Valid

Ensure that the IUT in transit state TCC_CallActive, on receiving a RELEASE COMPLETE message on interface X, sends a DISCONNECT message on interface Y.

SP233 subclause 10.4.10.1 Valid

Ensure that the IUT in transit state TCC_AwaitOutgoingRelease, on receiving a RELEASE message on interface Y, sends a RELEASE COMPLETE message on interface Y and enters state 0 for the call on interface Y.

NOTE 4: No final test purpose has been derived because this super TP is covered by TC012CS derived from SP061.

SP234 subclause 10.4.10.1 Valid

Ensure that the IUT in transit state TCC_AwaitOutgoingRelease, on receiving a RELEASE COMPLETE message on interface Y, enters state 0 for the call on interface Y.

NOTE 5: No final test purpose has been derived because this STP covers no requirements beyond protocol control requirements covered by TC004XT derived from SP132.

ii) Clearing initiated by subsequent PINX.

SP235 subclause 10.4.10.1 Valid

Ensure that the IUT in transit state TCC_CallAlerting or TCC_CallActive, on receiving a DISCONNECT message on interface Y, sends a DISCONNECT message on interface X, sends a RELEASE message on interface Y, enters state 11 for the call on interface X and enters state 19 for the call on interface Y.

TC312NV subclause 10.4.10.1 Valid

Ensure that the IUT in transit state TCC_CallAlerting, on receiving a DISCONNECT message on interface Y, sends a DISCONNECT message on interface X.

TC312NW subclause 10.4.10.1 Valid

Ensure that the IUT in transit state TCC_CallActive, on receiving a DISCONNECT message on interface Y, sends a DISCONNECT message on interface X.

SP236 subclause 10.4.10.1 Valid

Ensure that the IUT in transit state TCC_CallAlerting or TCC_CallActive, on receiving a RELEASE message on interface Y, sends a DISCONNECT message on interface X, sends a RELEASE COMPLETE message on interface Y, enters state 11 for the call on interface X and enters state 0 for the call on interface Y.

TC312NX subclause 10.4.10.1 Valid

Ensure that the IUT in transit state TCC_CallAlerting, on receiving a RELEASE message on interface Y, sends a DISCONNECT message on interface X.

TC312NY subclause 10.4.10.1 Valid

Ensure that the IUT in transit state TCC_CallActive, on receiving a RELEASE message on interface Y, sends a DISCONNECT message on interface X.

SP237 subclause 10.4.10.1 Valid

Ensure that the IUT in transit state TCC_CallAlerting or TCC_CallActive, on receiving a RELEASE COMPLETE message on interface Y, sends a DISCONNECT message on interface X, enters state 11 for the call on interface X and enters state 0 for the call on interface Y.

TC312NZ subclause 10.4.10.1 Valid

Ensure that the IUT in transit state TCC_CallAlerting, on receiving a RELEASE COMPLETE message on interface Y, sends a DISCONNECT message on interface.

TC312OA subclause 10.4.10.1 Valid

Ensure that the IUT in transit state TCC_CallActive, on receiving a RELEASE COMPLETE message on interface Y, sends a DISCONNECT message on interface X.

SP238 subclause 10.4.10.1 Valid

Ensure that the IUT in transit state TCC_AwaitIncomingRelease, on receiving a RELEASE message on interface X, sends a RELEASE COMPLETE message on interface X and enters state 0 for the call on interface X.

NOTE 6: No final test purpose has been derived because this STP covers no requirements beyond protocol control requirements covered by TC012CS derived from SP061.

5.3.11.2.2 Call Clearing initiated by the Transit PINX

The TPs in this subclause refer to EN 300 172 [2], subclause 10.4.10.2.

SP324 subclause 10.4.10.2 Valid

Ensure that the IUT in transit state TCC_Overlap, TCC_IncomingCallProceeding, TCC_TransitCallProceeding, TCC_CallAlerting or TCC_CallActive, in order abort the call, without the use of tones and announcements, sends a DISCONNECT message on interface X, sends a DISCONNECT message on interface Y and enters state 11 for interface X and for interface Y.

TC302ZK subclause 10.4.10.2 Valid

Ensure that the IUT in transit state TCC_CallActive, in order abort the call, without the use of tones and announcements, sends a DISCONNECT message on interface X, sends a DISCONNECT message on interface Y and enters state 11 for interface X and for interface Y.

SP239 subclause 10.4.10.2 Valid

Ensure that the IUT in transit state TCC_AwaitDigits, TCC_AwaitAdditionalDigits, TCC_Overlap, TCC_IncomingCallProceeding, TCC_TransitCallProceeding, TCC_CallAlerting or TCC_CallActive, in order to indicate that in-band tones or announcements associated with call clearing are being applied on interface X, sends a PROGRESS message on interface X containing a Progress Indicator IE with the Progress Description value encoded as CCITT 8 and containing a Cause IE, and remains in the same state for the call on interface X. The behaviour on interface Y is not tested.

TC302PY subclause 10.4.10.2 Valid

Ensure that the IUT in transit state TCC_AwaitDigits, in order to indicate that in-band tones or announcements associated with call clearing are being applied on interface X, sends a PROGRESS message on interface X containing a Progress Indicator IE with the Progress Description value encoded as CCITT 8 and containing a Cause IE. The behaviour on interface Y is not tested.

Selection: Overlap receiving procedures are to be tested (see PICS B9 note 1).

TC302PZ subclause 10.4.10.2 Valid

Ensure that the IUT in transit state TCC_AwaitAdditionalDigits, in order to indicate that in-band tones or announcements associated with call clearing are being applied on interface X, sends a PROGRESS message on interface X containing a Progress Indicator IE with the Progress Description value encoded as CCITT 8 and containing a Cause IE. The behaviour on interface Y is not tested.

Selection: Overlap receiving procedures are to be tested (see PICS B9 note 1).

TC302QA subclause 10.4.10.2 Valid

Ensure that the IUT in transit state TCC_Overlap, in order to indicate that in-band tones or announcements associated with call clearing are being applied on interface X, sends a PROGRESS message on interface X containing a Progress Indicator IE with the Progress Description value encoded as CCITT 8 and containing a Cause IE. The behaviour on interface Y is not tested.

Selection: IUT supports overlap sending procedures. PICS: B10.

Selection: Overlap receiving procedures are to be tested (see PICS B9 note 1).

TC302QB subclause 10.4.10.2 Valid

Ensure that the IUT in transit state TCC_IncomingCallProceeding, in order to indicate that in-band tones or announcements associated with call clearing are being applied on interface X, sends a PROGRESS message on interface X containing a Progress Indicator IE with the Progress Description value encoded as CCITT 8 and containing a Cause IE. The behaviour on interface Y is not tested.

TC302QC subclause 10.4.10.2 Valid

Ensure that the IUT in transit state TCC_TransitCallProceeding, in order to indicate that in-band tones or announcements associated with call clearing are being applied on interface X, sends a PROGRESS message on interface X containing a Progress Indicator IE with the Progress Description value encoded as CCITT 8 and containing a Cause IE. The behaviour on interface Y is not tested.

TC302QD subclause 10.4.10.2 Valid

Ensure that the IUT in transit state TCC_CallAlerting, in order to indicate that in-band tones or announcements associated with call clearing are being applied on interface X, sends a PROGRESS message on interface X containing a Progress Indicator IE with the Progress Description value encoded as CCITT 8 and containing a Cause IE. The behaviour on interface Y is not tested.

TC302QE subclause 10.4.10.2 Valid

Ensure that the IUT in transit state TCC_CallActive in order to indicate that in-band tones or announcements associated with call clearing are being applied on interface X, sends a PROGRESS message on interface X containing a Progress Indicator IE with the Progress Description value encoded as CCITT 8 and containing a Cause IE. The behaviour on interface Y is not tested.

Selection: IUT sends PROGRESS to indicate tones and announcements in state TCC_CallActive.

SP240 subclause 10.4.10.2 Valid

Ensure that the IUT, in transit state TCC_AwaitIncomingDisconnect, after having sent a PROGRESS message on interface X containing a Progress Indicator IE with a Progress Description value encoded as CCITT 8 to indicate that an in-band tone or announcement associated with call clearing is being applied, when the tone or announcement is complete

or has been applied for sufficient time (i.e. on expiry of a timer provided in the PIXIT), sends a DISCONNECT message on interface X and enters state 11 for the call on interface X. The behaviour on interface Y is not tested.

TC312OC subclause 10.4.10.2 Valid

Ensure that the IUT, in transit state TCC_AwaitIncomingDisconnect, after having sent a PROGRESS message on interface X containing a Progress Indicator IE with a Progress Description value encoded as CCITT 8 to indicate that an in-band tone or announcement associated with call clearing is being applied, when the tone or announcement is complete or has been applied for sufficient time (i.e. on expiry of a timer provided in PIXIT), sends a DISCONNECT message on interface X, and enters state 11 for the call on interface X. The behaviour on interface Y is not tested.

5.3.11.3 Handling of Basic Call IEs at a Transit PINX

The TPs in this subclause refer to EN 300 172 [2], subclause 10.4.11.

SP241 subclause 10.4.11.2 Valid

Ensure that the IUT in transit state TCC_Idle, on receiving a SETUP message on interface X containing a Called Party Number IE encoded with sufficient address information to route the call on interface Y, sends a SETUP message on interface Y containing a Called Party Number IE, sends a CALL PROCEEDING or SETUP ACKNOWLEDGE message on interface X, enters state 9 or 25 respectively for the call on interface X, and enters state 1 for the call on interface Y.

TC302QI subclause 10.4.11.2 Valid

Ensure that the IUT in transit state TCC_Idle, on receiving a SETUP message on interface X containing a Called Party Number IE encoded with sufficient address information to route the call on interface Y, sends a SETUP message on interface Y containing a Called Party Number IE.

SP242 subclause 10.4.11.2 Valid

Ensure that the IUT in transit state TCC_Idle, on receiving a SETUP message on interface X containing a Called Party Number IE encoded with sufficient address information to route the call on interface Y and a Called Party Subaddress IE, sends a SETUP message on interface Y containing a Called Party Subaddress IE encoded as in the incoming SETUP message on interface X, sends a CALL PROCEEDING or SETUP ACKNOWLEDGE message on interface X, enters state 9 or 25 respectively for the call on interface X, and enters state 1 for the call on interface Y.

TC302QJ subclause 10.4.11.2 Valid

Ensure that the IUT in transit state TCC_Idle, on receiving a SETUP message on interface X containing a Called Party Number IE encoded with sufficient address information to route the call on interface Y and a Called Party Subaddress IE, sends a SETUP message on interface Y containing a Called Party Subaddress IE encoded as in the incoming SETUP message on interface X.

SP243 subclause 10.4.11.2 Valid

Ensure that the IUT in transit state TCC_Idle, on receiving a SETUP message on interface X containing a Called Party Number IE encoded with sufficient address information to route the call on interface Y and a High Layer Compatibility IE, sends a SETUP message on interface Y containing a High Layer Compatibility IE encoded as in the incoming SETUP message on interface X, sends a CALL PROCEEDING or SETUP ACKNOWLEDGE message on interface X, enters state 9 or 25 respectively for the call on interface X, and enters state 1 for the call on interface Y.

TC302QK subclause 10.4.11.2 Valid

Ensure that the IUT in transit state TCC_Idle, on receiving a SETUP message on interface X containing a Called Party Number IE encoded with sufficient address information to route the call on interface Y and a High Layer Compatibility IE, sends a SETUP message on interface Y containing a High Layer Compatibility IE encoded as in the incoming SETUP message on interface X.

SP244 subclause 10.4.11.2 Valid

Ensure that the IUT in transit state TCC_Idle, on receiving a SETUP message on interface X containing a Called Party Number IE encoded with sufficient address information to route the call on interface Y and a Low Layer Compatibility IE, sends a SETUP message on interface Y containing a Low Layer Compatibility IE encoded as in the incoming SETUP message on interface X, sends a CALL PROCEEDING or SETUP ACKNOWLEDGE message on interface X, enters state 9 or 25 respectively for the call on interface X, and enters state 1 for the call on interface Y.

TC302QL subclause 10.4.11.2 Valid

Ensure that the IUT in transit state TCC_Idle, on receiving a SETUP message on interface X containing a Called Party Number IE encoded with sufficient address information to route the call on interface Y and a Low Layer Compatibility IE, sends a SETUP message on interface Y containing a Low Layer Compatibility IE encoded as in the incoming SETUP message on interface X.

SP245 subclause 10.4.11.2, ZC.2.3.3 Valid

Ensure that the IUT in transit state TCC_Idle, on receiving a SETUP message on interface X containing a Called Party Number IE encoded with sufficient address information to route the call on interface Y and a Party Category IE, sends a SETUP message on interface Y containing a Party Category IE encoded as in the incoming SETUP message on interface X, sends a CALL PROCEEDING or SETUP ACKNOWLEDGE message on interface X, enters state 9 or 25 respectively for the call on interface X, and enters state 1 for the call on interface Y.

Selection: IUT supports inclusion of the Party category IE in SETUP. PICS: N7.

TC302OM subclause 10.4.11.2, ZC.2.3.3 Valid

Ensure that the IUT in transit state TCC_Idle, on receiving a SETUP message on interface X containing a Called Party Number IE encoded with sufficient address information to route the call on interface Y and a Party Category IE, sends a SETUP message on interface Y containing a Party Category IE encoded as in the incoming SETUP message on interface X.

Selection: IUT supports inclusion of the Party category IE in SETUP. PICS: N7.

SP246 subclause 10.4.11.2 Valid

Ensure that the IUT in transit state TCC_Idle, on receiving a SETUP message on interface X containing a Called Party Number IE encoded with sufficient address information to route the call on interface Y and a Calling Party Number IE, sends a SETUP message on interface Y containing a Calling Party Number IE, sends a CALL PROCEEDING or SETUP ACKNOWLEDGE message on interface X, enters state 9 or 25 respectively for the call on interface X, and enters state 1 for the call on interface Y.

TC302ON subclause 10.4.11.2 Valid

Ensure that the IUT in transit state TCC_Idle, on receiving a SETUP message on interface X containing a Called Party Number IE encoded with sufficient address information to route the call on interface Y and a Calling Party Number IE, sends a SETUP message on interface Y containing a Calling Party Number IE.

SP247 subclause 10.4.11.2 Valid

Ensure that the IUT in transit state TCC_Idle, on receiving a SETUP message on interface X containing a Called Party Number IE encoded with sufficient address information to route the call on interface Y and a Calling Party Subaddress IE, sends a SETUP message on interface Y containing a Calling Party Subaddress IE encoded as in the incoming SETUP message on interface X, sends a CALL PROCEEDING or SETUP ACKNOWLEDGE message on interface X, enters state 9 or 25 respectively for the call on interface X, and enters state 1 for the call on interface Y.

TC302OO subclause 10.4.11.2 Valid

Ensure that the IUT in transit state TCC_Idle, on receiving a SETUP message on interface X containing a Called Party Number IE encoded with sufficient address information to route the call on interface Y and a Calling Party Subaddress IE, sends a SETUP message on interface Y containing a Calling Party Subaddress IE encoded as in the incoming SETUP message on interface X.

SP248 subclause 10.4.11.2, ZB.4 Valid

Ensure that the IUT in transit state TCC_Idle, on receiving a SETUP message on interface X containing a Called Party Number IE encoded with sufficient address information to route the call on interface Y and a Progress Indicator IE, sends a SETUP message on interface Y containing a Progress Indicator IE, sends a CALL PROCEEDING or SETUP ACKNOWLEDGE message on interface X, enters state 9 or 25 respectively for the call on interface X, and enters state 1 for the call on interface Y.

TC302OP subclause 10.4.11.2, ZB.4 Valid

Ensure that the IUT in transit state TCC_Idle, on receiving a SETUP message on interface X containing a Called Party Number IE encoded with sufficient address information to route the call on interface Y and a Progress Indicator IE, sends a SETUP message on interface Y containing a Progress Indicator IE.

SP249 subclause 10.4.11.2 Valid

Ensure that the IUT in transit state TCC_Overlap, TCC_TransitCallProceeding, TCC_CallActive or TCC_CallAlerting, on receiving a PROGRESS message on interface X containing a Cause IE, sends a PROGRESS message on interface Y containing a Cause IE encoded as in the incoming PROGRESS message on interface X, and remains in the same state for both interfaces.

TC302OS subclause 10.4.11.2 Valid

Ensure that the IUT in transit state TCC_CallActive, on receiving a PROGRESS message on interface X containing a Cause IE, sends a PROGRESS message on interface Y containing a Cause IE encoded as in the incoming PROGRESS message on interface X.

SP250 subclause 10.4.11.2, ZB.4 Valid

Ensure that the IUT in transit state TCC_Overlap, TCC_TransitCallProceeding or TCC_CallAlerting, on receiving a PROGRESS message on interface Y containing a Cause IE, sends a PROGRESS message on interface X containing a Cause IE, and remains in the same state for both interfaces.

TC302OU subclause 10.4.11.2 Valid

Ensure that the IUT in transit state TCC_Overlap, on receiving a PROGRESS message on interface Y containing a Cause IE, sends a PROGRESS message on interface X containing a Cause IE.

Selection: IUT supports overlap sending procedures. PICS: B10.

Selection: Overlap receiving procedures are to be tested (see PICS B9 note 1).

TC302OV subclause 10.4.11.2 Valid

Ensure that the IUT in transit state TCC_TransitCallProceeding, on receiving a PROGRESS message on interface Y containing a Cause IE, sends a PROGRESS message on interface X containing a Cause IE.

TC302OX subclause 10.4.11.2 Valid

Ensure that the IUT in transit state TCC_CallAlerting, on receiving a PROGRESS message on interface Y containing a Cause IE, sends a PROGRESS message on interface X containing a Cause IE.

SP309 subclause 10.4.11.2 Valid

Ensure that the IUT in transit state TCC_CallActive, on receiving a PROGRESS message on interface Y containing a Cause IE, either sends a PROGRESS message on interface X containing a Cause IE or sends no message on interface X and remains in the same state for both interfaces.

TC302OW subclause 10.4.11.2 Valid

Ensure that the IUT in transit state TCC_CallActive, on receiving a PROGRESS message on interface Y containing a Cause IE, either sends a PROGRESS message on interface X containing a Cause IE or sends no message on interface X.

SP251 subclause 10.4.11.2 Valid

Ensure that the IUT in transit state TCC_AwaitAdditionalDigits, TCC_Overlap, TCC_IncomingCallProceeding, TCC_TransitCallProceeding or TCC_CallAlerting, on receiving a CONNECT message on interface Y containing a Connected Number IE, sends a CONNECT message on interface X containing a Connected Number IE, sends a CONNECT ACK message on interface Y, enters state 8 or 10 for the call on interface X and enters state 10 for the call on interface Y.

TC302OY subclause 10.4.11.2 Valid

Ensure that the IUT in transit state TCC_AwaitAdditionalDigits, on receiving a CONNECT message on interface Y containing a Connected Number IE, sends a CONNECT message on interface X containing a Connected Number IE.

Selection: Overlap receiving procedures are to be tested (see PICS B9 note 1).

TC302OZ subclause 10.4.11.2 Valid

Ensure that the IUT in transit state TCC_Overlap, on receiving a CONNECT message on interface Y containing a Connected Number IE, sends a CONNECT message on interface X containing a Connected Number IE.

Selection: IUT supports overlap sending procedures. PICS: B10.

Selection: Overlap receiving procedures are to be tested (see PICS B9 note 1).

TC302PA subclause 10.4.11.2 Valid

Ensure that the IUT in transit state TCC_IncomingCallProceeding, on receiving a CONNECT message on interface Y containing a Connected Number IE, sends a CONNECT message on interface X containing a Connected Number IE.

TC302PB subclause 10.4.11.2 Valid

Ensure that the IUT in transit state TCC_TransitCallProceeding, on receiving a CONNECT message on interface Y containing a Connected Number IE, sends a CONNECT message on interface X containing a Connected Number IE.

TC302PC subclause 10.4.11.2 Valid

Ensure that the IUT in transit state TCC_CallAlerting, on receiving a CONNECT message on interface Y containing a Connected Number IE, sends a CONNECT message on interface X containing a Connected Number IE.

SP252 subclause 10.4.11.2 Valid

Ensure that the IUT in transit state TCC_AwaitAdditionalDigits, TCC_Overlap, TCC_IncomingCallProceeding, TCC_TransitCallProceeding or TCC_CallAlerting, on receiving a CONNECT message on interface Y containing a Progress Indicator IE, sends a CONNECT message on interface X containing a Progress Indicator, sends a CONNECT ACK message on interface Y, enters state 8 or 10 for the call on interface X, and enters state 10 for the call on interface Y.

TC302PD subclause 10.4.11.2, ZB.4 Valid

Ensure that the IUT in transit state TCC_AwaitAdditionalDigits, on receiving a CONNECT message on interface Y containing a Progress Indicator IE, sends a CONNECT message on interface X containing a Progress Indicator.

Selection: Overlap receiving procedures are to be tested (see PICS B9 note 1).

TC302PE subclause 10.4.11.2, ZB.4 Valid

Ensure that the IUT in transit state TCC_Overlap, on receiving a CONNECT message on interface Y containing a Progress Indicator IE, sends a CONNECT message on interface X containing a Progress Indicator IE.

Selection: Overlap receiving procedures are to be tested (see PICS B9 note 1).

TC302PF subclause 10.4.11.2, ZB.4 Valid

Ensure that the IUT in transit state TCC_IncomingCallProceeding, on receiving a CONNECT message on interface Y containing a Progress Indicator IE, sends a CONNECT message on interface X containing a Progress Indicator IE.

TC302PG subclause 10.4.11.2, ZB.4 Valid

Ensure that the IUT in transit state TCC_TransitCallProceeding, on receiving a CONNECT message on interface Y containing a Progress Indicator IE, sends a CONNECT message on interface X containing a Progress Indicator.

TC302PH subclause 10.4.11.2, ZB.4 Valid

Ensure that the IUT in transit state TCC_CallAlerting, on receiving a CONNECT message on interface Y containing a Progress Indicator IE, sends a CONNECT message on interface X containing a Progress Indicator.

SP253 subclause 10.4.11.2, ZC.2.3.3 Valid

Ensure that the IUT in transit state TCC_AwaitAdditionalDigits, TCC_Overlap, TCC_IncomingCallProceeding, TCC_TransitCallProceeding or TCC_CallAlerting, on receiving a CONNECT message on interface Y containing a Party Category IE, sends a CONNECT message on interface X containing a Party Category IE encoded as in the incoming CONNECT message on interface Y, sends a CONNECT ACK message on interface Y, enters state 8 or 10 for the call on interface X, and enters state 10 for the call on interface Y.

Selection: IUT supports inclusion of the Party category IE in CONNECT. PICS: N9.

TC302PI subclause 10.4.11.2, ZC.2.3.3 Valid

Ensure that the IUT in transit state TCC_AwaitAdditionalDigits, on receiving a CONNECT message on interface Y containing a Party Category IE, sends a CONNECT message on interface X containing a Party Category IE encoded as in the incoming CONNECT message on interface Y.

Selection: IUT supports inclusion of the Party category IE in CONNECT. PICS: N9.

Selection: Overlap receiving procedures are to be tested (see PICS B9 note 1).

TC302PJ subclause 10.4.11.2, ZC.2.3.3 Valid

Ensure that the IUT in transit state TCC_Overlap, on receiving a CONNECT message on interface Y containing a Party Category IE, sends a CONNECT message on interface X containing a Party Category IE encoded as in the incoming CONNECT message on interface Y.

Selection: IUT supports overlap sending procedures. PICS: B10.

Selection: IUT supports inclusion of the Party category IE in CONNECT. PICS: N9.

Selection: Overlap receiving procedures are to be tested (see PICS B9 note 1).

TC302PK subclause 10.4.11.2, ZC.2.3.3 Valid

Ensure that the IUT in transit state TCC_IncomingCallProceeding, on receiving a CONNECT message on interface Y containing a Party Category IE, sends a CONNECT message on interface X containing a Party Category IE encoded as in the incoming CONNECT message on interface Y.

Selection: IUT supports inclusion of the Party category IE in CONNECT. PICS: N9.

TC302PL subclause 10.4.11.2, ZC.2.3.3 Valid

Ensure that the IUT in transit state TCC_TransitCallProceeding, on receiving a CONNECT message on interface Y containing a Party Category IE, sends a CONNECT message on interface X containing a Party Category IE encoded as in the incoming CONNECT message on interface Y.

Selection: IUT supports inclusion of the Party category IE in CONNECT. PICS: N9.

TC302PM subclause 10.4.11.2, ZC.2.3.3 Valid

Ensure that the IUT in transit state TCC_CallAlerting, on receiving a CONNECT message on interface Y containing a Party Category IE, sends a CONNECT message on interface X containing a Party Category IE encoded as in the incoming CONNECT message on interface Y.

Selection: IUT supports inclusion of the Party category IE in CONNECT. PICS: N9.

SP255 subclause 10.4.11.2 Valid

Ensure that the IUT in transit state TCC_AwaitAdditionalDigits, TCC_Overlap, TCC_IncomingCallProceeding, TCC_TransitCallProceeding or TCC_CallAlerting, on receiving a CONNECT message on interface Y containing a Connected Subaddress IE, sends a CONNECT message on interface X containing a Connected Subaddress IE encoded as in the incoming CONNECT message on interface Y, sends a CONNECT ACK message on interface Y, enters state 8 or 10 for the call on interface X, and enters state 10 for the call on interface Y.

TC302PS subclause 10.4.11.2 Valid

Ensure that the IUT in transit state TCC_AwaitAdditionalDigits, on receiving a CONNECT message on interface Y containing a Connected Subaddress IE, sends a CONNECT message on interface X containing a Connected Subaddress IE encoded as in the incoming CONNECT message on interface Y.

Selection: Overlap receiving procedures are to be tested (see PICS B9 note 1).

TC302PT subclause 10.4.11.2 Valid

Ensure that the IUT in transit state TCC_Overlap, on receiving a CONNECT message on interface Y containing a Connected Subaddress IE, sends a CONNECT message on interface X containing a Connected Subaddress IE encoded as in the incoming CONNECT message on interface Y.

Selection: IUT supports overlap sending procedures. PICS: B10.

Selection: Overlap receiving procedures are to be tested (see PICS B9 note 1).

TC302PU subclause 10.4.11.2 Valid

Ensure that the IUT in transit state TCC_IncomingCallProceeding, on receiving a CONNECT message on interface Y containing a Connected Subaddress IE, sends a CONNECT message on interface X containing a Connected Subaddress IE encoded as in the incoming CONNECT message on interface Y.

TC302PV subclause 10.4.11.2 Valid

Ensure that the IUT in transit state TCC_TransitCallProceeding, on receiving a CONNECT message on interface Y containing a Connected Subaddress IE, sends a CONNECT message on interface X containing a Connected Subaddress IE encoded as in the incoming CONNECT message on interface Y.

TC302PW subclause 10.4.11.2 Valid

Ensure that the IUT in transit state TCC_CallAlerting, on receiving a CONNECT message on interface Y containing a Connected Subaddress IE, sends a CONNECT message on interface X containing a Connected Subaddress IE encoded as in the incoming CONNECT message on interface Y.

NOTE: The following sections in EN 300 172 [2] concerning the specific call control requirements for Transit PINX do not generate any TP.

- 10.4.3) Transit state TCC_AwaitAdditionalDigits.
- T302 expiry - Possible implementation dependant action.
- 10.4.5) Channel through connection procedures.
- 10.4.10.1.ii) Call Clearing not Initiated by the Transit PINX.
- RELEASE COMPLETE received from subsequent PINX not testable due to unspecified behaviour.

5.3.12 Protocol Control requirements for the use of the Signalling Carriage Mechanism

The TPs in this subclause refer to EN 300 172 [2], subclause 9.1.

SP004 subclause 9.1.1 Valid

Ensure that the IUT, in order to initiate a call after its initialization, sends a DL_ESTABLISH_REQUEST primitive before sending any PSS1 message.

TC002XG subclause 9.1.1 Valid

Ensure that the IUT, in order to initiate a call after its initialization (when the SCM is not already established), sends a DL_ESTABLISH_REQUEST primitive before sending any PSS1 message.

SP005 subclause 9.1.2, ZA.3 Valid

TC002UQ subclause 9.1.1, ZA.3 Valid

Ensure that the Maximum Message Size generated by the IUT is as stated in the PICS.

NOTE 1: This STP is referenced in 'Untestable TPs' section in the associated ATS specification document.

SP006 subclause 9.1.2, ZA.3 Valid

TC002UR subclause 9.1.1, ZA.3 Valid

Ensure that the Maximum Message Size received by the IUT is as stated in the PICS.

NOTE 2: This STP is referenced in 'Untestable TPs' section in the associated ATS specification document.

5.3.13 Verification of state

5.3.13.1 Protocol Control State

Where a TP specifies that the IUT enters or remains in a specified protocol control state this is verified as follows:

- ensure that the IUT, on receiving a STATUS ENQUIRY message containing a Call Reference IE encoded with the appropriate call reference flag and value for the relevant call, sends the appropriate response for the expected state (specified in the TP);
- for all states a STATUS message containing a Call State IE encoded with the expected state and a Cause IE with a cause value encoded as 30 is acceptable;
- for state 0 a RELEASE or RELEASE COMPLETE message containing a Cause IE with a cause value encoded as 81 is also acceptable;
- if the expected state is state 2 and an INFORMATION message is received this shall be ignored (reference EN 300 172 [2], subclauses 9.3.1 and 9.2.3.2).

5.3.13.2 Layer Management State

Where a TP specifies that the IUT enters, or remains in a specified Layer Management state this is verified as follows:

Ensure that the IUT, on receiving a STATUS ENQUIRY message, containing a Call Reference IE encoded with the global call reference, sends a STATUS message with a Call State IE with a Call State value encoded as the expected Layer Management state (specified in the TP) and a Cause IE encoded with cause 81 (reference EN 300 172 [2], subclause 9.2.3.2).

5.4 Distribution of TPs over Test Suite Structure

Table 3, 4 and 5 give the distribution of the "final" TPs over the different levels of the TSS.

Table 3: Distribution of TPs over the TSS level 2

TSS 2nd level	Number of "final" derived TPs
Protocol Control	294
Call Control for Originating	8
Call Control for Terminating	15
Call Control for Transit	103
Call Control for Outgoing Gateway	5
Call Control for Incoming Gateway	10

Table 4: Distribution of TPs over the TSS level 3

TSS 5th level	Number of "final" derived TPs
Call Establishment	257
Call Clearing	88
Message Segmentation	31
Status Procedures	38
Layer management	21

Table 5: Distribution of TPs over the TSS level 4

TSS 3rd level	Number of "final" derived TPs
Valid Behaviour	334
Invalid Behaviour	62
Inopportune Behaviour	39

6 Compliance

An ATS which complies with this TSS&TP specification shall:

a) consist of a set of test cases corresponding to the set or to a subset of the TPs specified in clause 5;

b) use a TSS which is an appropriate subset of the whole of the TSS specified in clause 4;

c) use the same naming conventions for the test groups and test cases;

d) maintain the relationship specified in clause 5 between the test groups and TPs and the entries in the PICS proforma to be used for test case deselection;

e) comply with ISO/IEC 9646-2 [8].

In the case of a) or b) above, a subset shall be used only where a particular Abstract Test Method (ATM) makes some TPs untestable. All testable TPs from clause 6 shall be included in a compliant ATS.

7 Requirements for a comprehensive testing service

As a minimum the Remote test method, as specified in ISO/IEC 9646-2 [8], shall be used by any organization claiming to provide a comprehensive testing service for equipment claiming conformance to EN 300 172 [2].

Annex A (informative): Backward compatibility

A.1 Introduction

Although the present document is a TSS&TP specification for EN 300 172 [2] (V1.4.1) and certain parts of EN 301 048 [1] some or all of the test purposes can also be used for testing PINXs implemented according to other QSIG/PSS1 standards.

A.2 ETS 300 172

A.2.1 ETS 300 172 editions 1 and 2

No provision has been made for testing PINXs implemented according to ETS 300 172 [3] edition 1 (1992) or edition 2 (1994). Many TPs would also be applicable to these versions although it is likely that some test cases derived from them would be unsuitable due to differences in the protocol unconnected with the test purpose.

A.2.2 ETS 300 172 edition 3

ETS 300 172 [3] edition 3 does not contain the Multirate bearer capability and related functionality. This is optional in EN 300 172 [2] and therefore the test purposes for this can be deselected using the normal mechanisms.

ETS 300 172 [3] edition 3 contains the transit counter functionality which is not in EN 300 172 [2]. Test purposes for this functionality have been retained and can be used to test to ETS 300 172 [3] Edition 3 as well as to EN 301 048 [1].

Additionally there are a number of minor protocol differences, where ETS 300 172 [3] edition 3 is stricter; in these cases no special provision has been made - any affected TPs can be used without modification, although the IUT would not be tested thoroughly in these areas.

A.3 ISO/IEC 11572

A.3.1 ISO/IEC 11572 edition 1

No specific provision has been made for testing PINXs implemented according to ISO/IEC 11572 [9] edition 1. Due to the similarity to ETS 300 172 [3] edition 3 it is likely that many TPs could be used for testing to this version.

A.3.2 ISO/IEC 11572 edition 2 and amendments 1 and 2

ISO/IEC 11572 [9] edition 2 with amendments 1 and 2 and defect report 1 is technically equivalent to EN 300 172 [2] with the exception of the Party category functionality, the Unrestricted digital with tones and announcements (UDT&A) bearer and some minor differences in coding of certain IEs (due to differences between ITU-T Recommendation Q.931 [12] and EN 300 403-1 [5]).

The use of the Party Category functionality and the UDT&A bearer are optional and therefore the test cases relating to them can be deselected using the normal mechanism. The differences in coding have no impact on any TPs.

NOTE 1: There are no TPs to test that Party Category and UDT&A are not implemented if that is claimed.

NOTE 2: An ATS derived from this TSS&TP can make allowance for the possibility that an IUT could send IEs encoded according to either EN 300 172 [2] or ISO/IEC 11572 [9] where they differ.

No special provision has been made for testing implementations implemented according to ISO/IEC 11572 [9] without the amendments, however with some minor exceptions this TSS&TP could be used to do so. Amendment 1 adds the segmentation functionality, which is optional, the TPs for this can be deselected using the normal mechanisms. Amendment 2 adds additional progress descriptions which are mandatory; there are a small number of TPs explicitly testing these which would need to be excluded to test an implementation not supporting this functionality.

A.4 ECMA-143

A.4.1 ECMA-143 editions 1 and 2

No provision has been made for testing PINXs implemented according to ECMA-143 [13] edition 1 (1991) or edition 2 (1992). Many TPs would also be applicable to these versions although it is likely that some test cases derived from them would be unsuitable due to differences in the protocol unconnected with the test purpose.

A.4.2 ECMA-143 edition 3

This is technically equivalent to EN 300 172 [2] except for some minor differences in coding of certain IEs which do not affect any TPs and therefore no special provision is necessary.

NOTE: An ATS derived from this TSS&TP can make allowance for the possibility that an IUT could send IEs encoded according to either EN 300 172 [2] or ECMA-143 [13] where they differ.

A.5 ISO/IEC 15056 edition 1 and ECMA-225 edition 2

These are technically equivalent to EN 301 048 [1] and therefore no special provision is necessary.

Bibliography

The following material, though not specifically referenced in the body of the present document (or not publicly available), gives supporting information.

- ETS 300 406: "Methods for Testing and Specification (MTS); Protocol and profile conformance testing specifications; Standardization methodology".

Index

History

Document history			
Edition 1	February 1998	Publication as ETS 300 805-1	
V1.2.1	August 1999	Public Enquiry	PE 9955: 1999-08-18 to 1999-12-17
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