

Draft **EN 302 092-3** V1.1.1 (1999-07)

---

*European Standard (Telecommunications series)*

**Broadband Integrated Services Digital Network (B-ISDN) and  
Broadband Private Integrated Services Network (B-PISN);  
Digital Subscriber Signalling System No. two (DSS2),  
Broadband Inter-Exchange Signalling (B-QSIG),  
and Signalling System No. 7 (SS7);  
Call control specification in a separated call  
and bearer control environment;  
Part 3: Test Suite Structure and Test Purposes (TSS&TP)  
specification**

---



---

**Reference**

DEN/SPS-05154-3 (jdcroico.PDF)

---

**Keywords**

Bearer, B-ISDN, B-ISUP, B-QSIG, broadband, DSS2, ISDN, ISUP, QSIG, SS7, TSS&TP, user

**ETSI**

---

**Postal address**

F-06921 Sophia Antipolis Cedex - FRANCE

---

**Office address**

650 Route des Lucioles - Sophia Antipolis  
Valbonne - FRANCE  
Tel.: +33 4 92 94 42 00 Fax: +33 4 93 65 47 16  
Siret N° 348 623 562 00017 - NAF 742 C  
Association à but non lucratif enregistrée à la  
Sous-Préfecture de Grasse (06) N° 7803/88

---

**Internet**

secretariat@etsi.fr  
Individual copies of this ETSI deliverable  
can be downloaded from  
<http://www.etsi.org>  
If you find errors in the present document, send your  
comment to: editor@etsi.fr

---

**Copyright Notification**

---

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

© European Telecommunications Standards Institute 1999.  
All rights reserved.

# Contents

|  |    |
|--|----|
| Intellectual Property Rights .....                       | 4  |
| Foreword .....   | 4  |
| 1 Scope.....   | 5  |
| 2 References .....                                       | 5  |
| 3 Definitions and abbreviations .....                    | 6  |
| 3.1 Definitions .....                                    | 6  |
| 3.2 Abbreviations.....                                   | 6  |
| 4 Test Suite Structure (TSS).....                        | 7  |
| 5 Test Purposes (TP) .....                               | 8  |
| 5.1 Introduction .....                                   | 8  |
| 5.1.1 TP naming convention .....                         | 8  |
| 5.1.2 Source of TP definition .....                      | 8  |
| 5.1.3 TP Structure .....                                 | 8  |
| 5.1.4 Test strategy .....                                | 9  |
| 5.1.5 Test of call states.....                           | 9  |
| 5.2 TPs for the call control (CC) entity.....            | 9  |
| 5.2.1 Call Establishment.....                            | 9  |
| 5.2.1.1 Preceding CC entity.....                         | 9  |
| 5.2.1.1.1 Valid .....                                    | 9  |
| 5.2.1.1.2 Invalid.....                                   | 9  |
| 5.2.1.1.3 Inopportune.....                               | 12 |
| 5.2.1.2 Succeeding CC entity .....                       | 12 |
| 5.2.1.2.1 Valid .....                                    | 12 |
| 5.2.1.2.2 Invalid.....                                   | 17 |
| 5.2.2 Call Status Change .....                           | 19 |
| 5.2.2.1 Initiating CC entity .....                       | 19 |
| 5.2.2.1.1 Valid .....                                    | 19 |
| 5.2.2.2 Receiving CC entity.....                         | 20 |
| 5.2.2.2.1 Invalid.....                                   | 20 |
| 5.2.3 Call Clearing .....                                | 21 |
| 5.2.3.1 CC entity that initiates call clearing.....      | 21 |
| 5.2.3.1.1 Valid .....                                    | 21 |
| 5.2.3.1.2 Invalid.....                                   | 22 |
| 5.2.3.2 CC entity that responds to call clearing .....   | 22 |
| 5.2.3.2.1 Valid .....                                    | 22 |
| 5.2.3.2.2 Invalid.....                                   | 23 |
| 6 Compliance .....                                       | 24 |
| 7 Requirements for a comprehensive testing service ..... | 24 |
| Bibliography .....                                       | 25 |
| History.....   | 26 |

## Intellectual Property Rights

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

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

## Foreword

This European Standard (Telecommunications series) has been produced by ETSI Technical Committee Services Protocol for Advanced Networks (SPAN), and is now submitted for the Public Enquiry phase of the ETSI standards Two-step Approval Procedure.

The present document is part 3 of a multi-part EN covering the Broadband Integrated Services Digital Network (B-ISDN) and Broadband Private Integrated Services Network (B-PISN); Digital Subscriber Signalling System No. 2 (DSS2), Broadband Inter-Exchange Signalling (B-QSIG), and Signalling System No. 7 (SS7); Call control specification in a separated call and bearer control environment, as described below:

Part 1: "Protocol specification";

Part 2: "Protocol Implementation Conformance Statement (PICS) proforma specification";

**Part 3: "Test Suite Structure and Test Purposes (TSS&TP) specification";**

Part 4: "Abstract Test Suite (ATS) and partial Protocol Implementation eXtra Information for Testing (PIXIT) proforma specification".

| <b>Proposed national transposition dates</b>   |                                 |
|--|---------------------------------|
| 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 is applicable to the Call Control protocol at the  $Q_B$ ,  $S_B$ ,  $T_B$  and co-incident  $S_B/T_B$  reference points within, between and at the access to Broadband Private Integrated Services Networks and within, between and at the access to public Broadband Integrated Services Digital Networks.

The present document provides the Test Suite Structure and Test Purposes (TSS&TP) for the Call Control protocol as specified in EN 302 092-1 [1].

A further part of the present document specifies the Abstract Test Suite (ATS) and partial Protocol Implementation eXtra Information for Testing (PIXIT) proforma based on the present document.

---

# 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] EN 302 092-1 (V1.1): "Broadband Integrated Services Digital Network (B-ISDN) and Broadband Private Integrated Services Network (B-PISN); Digital Subscriber Signalling System No. two (DSS2), Broadband Inter-Exchange Signalling (B-QSIG), and Signalling System No.7 (SS7); Call control specification in a separated call and bearer control environment; Part 1: Protocol specification".
- [2] EN 302 092-2 (V1.1): "Broadband Integrated Services Digital Network (B-ISDN) and Broadband Private Integrated Services Network (B-PISN); Digital Subscriber Signalling System No. two (DSS2), Broadband Inter-Exchange Signalling (B-QSIG), and Signalling System No.7 (SS7); Call control specification in a separated call and bearer control environment; Part 2: Protocol Implementation Conformance Statement (PICS) proforma specification".
- [3] ISO/IEC 9646-1 (1994): "Information technology; Open Systems Interconnection; Conformance testing methodology and framework; Part 1: General concepts".
- [4] ISO/IEC 9646-2 (1994): "Information technology; Open Systems Interconnection; Conformance testing methodology and framework; Part 2: Abstract Test Suite specification".
- [5] ETS 300 406: "Methods for Testing and Specification (MTS); Protocol and profile conformance testing specifications; Standardization methodology".

## 3 Definitions and abbreviations

### 3.1 Definitions

For the purposes of the present document, the following terms and definitions apply in addition to the definitions in EN 302 092-1[1]:

**Abstract test case:** refer to ISO/IEC 9646-1 [3].

**Abstract Test Method (ATM):** refer to ISO/IEC 9646-1 [3].

**Abstract Test Suite (ATS):** refer to ISO/IEC 9646-1 [3].

**Implementation Under Test (IUT):** refer to ISO/IEC 9646-1 [3].

**Lower tester:** refer to ISO/IEC 9646-1 [3].

**Protocol Implementation Conformance Statement (PICS):** refer to ISO/IEC 9646-1 [3].

**PICS proforma:** refer to ISO/IEC 9646-1 [3].

**Protocol Implementation eXtra Information for Testing (PIXIT):** refer to ISO/IEC 9646-1 [3].

**PIXIT proforma:** refer to ISO/IEC 9646-1 [3].

**Test Purpose (TP):** refer to ISO/IEC 9646-1 [3].

### 3.2 Abbreviations

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

|        |   |
|--------|---|
| APDU   | Application Protocol Data Unit                        |
| ATM    | Abstract Test Method                                  |
| ATS    | Abstract Test Suite                                   |
| DSS2   | Digital Subscriber Signalling System No. two          |
| B-ISDN | Broadband Integrated Services Digital Network         |
| B-PISN | Broadband Private Integrated Services Network         |
| B-QSIG | Broadband Inter-Exchange Signalling System            |
| CC     | Call Control  |
| CC0    | Call Idle state                                       |
| CC1    | Call Initiated state                                  |
| CC2    | Outgoing Call Proceeding state                        |
| CC3    | Call Ready state                                      |
| CC4    | Call Present state                                    |
| CC5    | Incoming Call Proceeding state                        |
| CC6    | Await Call Completion state                           |
| CC7    | Call Active state                                     |
| CC8    | Call Release Request state                            |
| CC9    | Call Release Indication state                         |
| IUT    | Implementation Under Test                             |
| PICS   | Protocol Implementation Conformance Statement         |
| PIXIT  | Protocol Implementation eXtra Information for Testing |
| TP     | Test Purpose  |
| TSS    | Test Suite Structure                                  |

## 4 Test Suite Structure (TSS)

The test suite structure is a tree. Three test group levels are defined. The TSS is depicted in figure 1. The levels are the following:

**1<sup>st</sup> level:** the name representing the base specification (EN 302 092-1 [1]): DSS2\_CC.

**2<sup>nd</sup> level:** the phases of the base specification:

- Call Establishment (CE);
- Call Status Change (SC);
- Call Clearing (CL).

**3<sup>rd</sup> level:** initiator or responder:

- Initiator (I);
- Responder (R).

**4<sup>th</sup> level:** the nature of the test:

- Valid (V);
- Invalid (IV);
- Inopportune (IO).

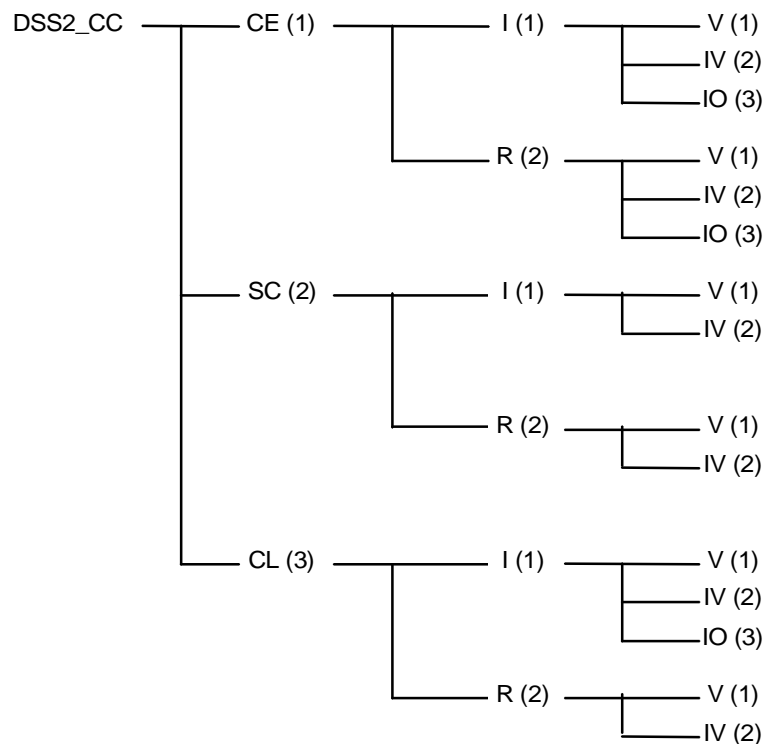


Figure 1: Test suite structure

## 5 Test Purposes (TP)

### 5.1 Introduction

For each test requirement a TP is defined.

#### 5.1.1 TP naming convention

Tps are numbered, starting at 01, within each group. Groups are organized according to the TSS. Additional references are added to identify the actual test suite (see table 1).

**Table 1: TP identifier naming convention scheme**

|             |  |   |
|-------------|--|---|
| Identifier: | <b>&lt;suite_id&gt;_&lt;group&gt;_&lt;nn&gt;</b> |   |
| <suite_id>  | = layer + type of IUT:                           | "L3CC" for Layer 3 Call Control Protocol  |
| <group>     | = group number (3 digits):                       | 1 <sup>st</sup> digit 1 Call establishment; 2 Call Status Change; 3 Call clearing |
|             |  | 2 <sup>nd</sup> digit 1 Initiator; 2 Responder                                    |
|             |  | 3 <sup>rd</sup> digit 1 Valid; 2 Invalid; 3 Inopportune                           |
| <nn>        | = sequential number:                             | (01-99)   |

#### 5.1.2 Source of TP definition

The Tps are based on EN 302 092-1 [1].

#### 5.1.3 TP Structure

Each TP has been written in a manner which is consistent with all other Tps. The intention of this is to make the Tps more readable and checkable. A particular structure has been used and this is illustrated in table 2. This table should be read in conjunction with any TP, i.e. use a TP as an example to fully understand the table.

**Table 2: Structure of a single TP**

| TP part        | Text  | Example  |
|----------------|---|--|
| Header         | <Identifier> <i>tab</i><br><paragraph number in base EN> <i>tab</i>   | see table 1<br>subclause 0.0.0   |
| Stimulus       | Ensure that the IUT in the<br><call control state><br><trigger> <i>see below for message structure</i><br><i>or</i> <goal>          | CC1, CC2, etc.<br>receiving a XXXX message<br>to request a ...                                 |
| Reaction       | <action><br><conditions><br><i>if the action is sending</i><br><i>see below for message structure</i><br><next action>, <i>etc.</i> | sends, saves, does, etc.<br>using ???, ...   |
| APDU structure | <APDU type><br>APDU containing a<br><field name><br>encoded as <i>or</i> including<br><coding of field a>, <coding of field b>      | callEstablish invoke, callRelease<br>returnResult....<br><br>callSegmentId, callDescription... |
| NOTE:          | Text in italics will not appear in Tps and text between <> is filled in for each TP and may differ from one TP to the next.         |  |



## 5.1.4 Test strategy

As the base standard EN 302 092-1 [1] contains no explicit requirements for testing, the TPs were generated as a result of an analysis of the base standard and the PICS specification EN 302 092-2 [2]. The criteria applied include the following:

- only the requirements from the point of view of the  $Q_B$ ,  $S_B$ ,  $T_B$  and co-incident  $S_B/T_B$  reference points are considered;
- whether or not a test case can be built from the TP is not considered.

The TPs are only based on conformance requirements related to the externally observable behaviour of the IUT, and are limited to conceivable situations to which a real implementation is likely to be faced (ETS 300 406 [5]).

## 5.1.5 Test of call states

It is not possible to test the final call states because no procedures are defined for this.

## 5.2 TPs for the call control (CC) entity

All PICS items referred to in this subclause are as specified in EN 302 092-2 [2] unless indicated otherwise by another numbered reference.

Unless specified:

- the APDUs indicated are valid and contain at least the mandatory fields and possibly optional ones;
- the fields indicated are valid and contain at least the mandatory contents and possibly optional ones.

### 5.2.1 Call Establishment

#### 5.2.1.1 Preceding CC entity

##### 5.2.1.1.1 Valid

##### **CC\_111\_01** subclause 9.1.1

Ensure that the IUT in state CC0, is able to send a callEstablish invoke APDU towards the succeeding CC entity containing the parameter callSegmentId with the succeedingSideCallSegId set to the Null value and the bearerEstablishmentAddress containing the number of the terminal or network node connected to the preceding CC entity.

**Selection:** Support signalling procedures for call establishment request when acting as a preceding CC entity, PICS: MC1.

##### **CC\_111\_02** subclause 9.4.1

Ensure that the IUT in state CC3, is able to send a callComplete invoke APDU.

**Selection:** Support signalling procedures for call acceptance when acting as a preceding CC entity. PICS: MC9.

##### 5.2.1.1.2 Invalid

##### **CC\_112\_01** subclause 9.8.5.3

Ensure that the IUT in state CC7, on receipt of a reject APDU that is correlated to a callComplete invoke APDU, sends a callRelease invoke APDU with the releaseCause containing the parameter causeValue with the value temporaryFailure.

**Selection:** Support exceptional procedures on receipt of reject APDUs. PICS: SC9.

**CC\_112\_02**      **subclause 9.8.6**

Ensure that the IUT in state CC2, on receipt of a callEstablish return result APDU with an unrecognized parameter and parameterActionIndicator set to clearCallAndItsInformationModel, sends a callRelease invoke APDU.

**Selection:** Support procedures for the handling of unrecognized parameters within CC-Operations. PICS: SC10.

**CC\_112\_03**      **subclause 9.8.6**

Ensure that the IUT in state CC2, on receipt of a callEstablish return result APDU with an unrecognized parameter and parameterActionIndicator set to discardApuAndReject, sends a reject APDU.

**Selection:** Support procedures for the handling of unrecognized parameters within CC-Operations. PICS: SC10.

**CC\_112\_04**      **subclause 9.8.6**

Ensure that the IUT in state CC2, on receipt of a callEstablish return result APDU with an unrecognized parameter and parameterActionIndicator set to discardApuNoReject, does not send a reject APDU.

**Selection:** Support procedures for the handling of unrecognized parameters within CC-Operations. PICS: SC10.

**CC\_112\_05**      **subclause 9.8.6**

Ensure that the IUT in state CC2, on receipt of a callEstablish return result APDU with an unrecognized parameter and parameterActionIndicator set to discardParameterAndPassApuToApplication, does not respond.

**Selection:** Support procedures for the handling of unrecognized parameters within CC-Operations. PICS: SC10.

**CC\_112\_06**      **subclause 9.8.6**

Ensure that the IUT in state CC2, on receipt of a callEstablish return result APDU with an unrecognized parameter and parameterActionIndicator set to ignoreParameterAndPassApuToApplication, does not respond.

**Selection:** Support procedures for the handling of unrecognized parameters within CC-Operations. PICS: SC10.

**CC\_112\_07**      **subclause 9.8.6**

Ensure that the IUT in state CC1, on receipt of a callProceeding invoke APDU with an unrecognized parameter and parameterActionIndicator set to clearCallAndItsInformationModel, sends a callRelease invoke APDU.

**Selection:** Support procedures for the handling of unrecognized parameters within CC-Operations. PICS: SC10.

**CC\_112\_08**      **subclause 9.8.6**

Ensure that the IUT in state CC1, on receipt of a callProceeding invoke APDU with an unrecognized parameter and parameterActionIndicator set to discardApuAndReject, sends a reject APDU.

**Selection:** Support procedures for the handling of unrecognized parameters within CC-Operations. PICS: SC10.

**CC\_112\_09**      **subclause 9.8.6**

Ensure that the IUT in state CC1, on receipt of a callProceeding invoke APDU with an unrecognized parameter and parameterActionIndicator set to discardApuNoReject, does not send a reject APDU.

**Selection:** Support procedures for the handling of unrecognized parameters within CC-Operations. PICS: SC10.

**CC\_112\_10**      **subclause 9.8.6**

Ensure that the IUT in state CC1, on receipt of a callProceeding invoke APDU with an unrecognized parameter and parameterActionIndicator set to discardParameterAndPassApuToApplication, **does not respond**.

**Selection:** Support procedures for the handling of unrecognized parameters within CC-Operations. PICS: SC10.

**CC\_112\_11**      **subclause 9.8.6**

Ensure that the IUT in state CC1, on receipt of a callProceeding invoke APDU with an unrecognized parameter and parameterActionIndicator set to ignoreParameterAndPassA pduToApplication, does not respond.

**Selection:** Support procedures for the handling of unrecognized parameters within CC-Operations. PICS: SC10.

**CC\_112\_12**      **subclause 9.8.6**

Ensure that the IUT in state CC7, on receipt of a callStatus invoke APDU with an unrecognized parameter and parameterActionIndicator set to clearCallAndItsInformationModel, sends a callRelease invoke APDU.

**Selection:** Support procedures for the handling of unrecognized parameters within CC-Operations. PICS: SC10.

**CC\_112\_13**      **subclause 9.8.6**

Ensure that the IUT in state CC7, on receipt of a callStatus invoke APDU with an unrecognized parameter and parameterActionIndicator set to discardA pduAndReject, sends a reject APDU.

**Selection:** Support procedures for the handling of unrecognized parameters within CC-Operations. PICS: SC10.

**CC\_112\_14**      **subclause 9.8.6**

Ensure that the IUT in state CC7, on receipt of a callStatus invoke APDU with an unrecognized parameter and parameterActionIndicator set to discardA pduNoReject, does not send a reject APDU.

**Selection:** Support procedures for the handling of unrecognized parameters within CC-Operations. PICS: SC10.

**CC\_112\_15**      **subclause 9.8.6**

Ensure that the IUT in state CC7, on receipt of a callStatus invoke APDU with an unrecognized parameter and parameterActionIndicator set to discardParameterAndPassA pduToApplication, does not respond.

**Selection:** Support procedures for the handling of unrecognized parameters within CC-Operations. PICS: SC10.

**CC\_112\_16**      **subclause 9.8.6**

Ensure that the IUT in state CC7, on receipt of a callStatus invoke APDU with an unrecognized parameter and parameterActionIndicator set to ignoreParameterAndPassA pduToApplication, does not respond.

**Selection:** Support procedures for the handling of unrecognized parameters within CC-Operations. PICS: SC10.

**CC\_112\_17**      **subclause 9.8.6**

Ensure that the IUT in state CC1, on receipt of a callEstablish return error APDU with an unrecognized parameter and parameterActionIndicator set to clearCallAndItsInformationModel, sends a callRelease invoke APDU.

**Selection:** Support procedures for the handling of unrecognized parameters within CC-Operations. PICS: SC10.

**CC\_112\_18**      **subclause 9.8.6.1**

Ensure that the IUT in state CC1, on receipt of a callEstablish return error APDU with an unrecognized parameter and parameterActionIndicator set to discardA pduAndReject, sends a reject APDU.

**Selection:** Support procedures for the handling of unrecognized parameters within CC-Operations. PICS: SC10.

**CC\_112\_19**      **subclause 9.8.6**

Ensure that the IUT in state CC1, on receipt of a callEstablish return error APDU with an unrecognized parameter and parameterActionIndicator set to discardA pduNoReject, does not send a reject APDU.

**Selection:** Support procedures for the handling of unrecognized parameters within CC-Operations. PICS: SC10.

**CC\_112\_20**      **subclause 9.8.6**

Ensure that the IUT in state CC1, on receipt of a callEstablish return error APDU with an unrecognized parameter and parameterActionIndicator set to discardParameterAndPassApduToApplication, does not respond.

**Selection:** Support procedures for the handling of unrecognized parameters within CC-Operations. PICS: SC10.

**CC\_112\_21**      **subclause 9.8.6**

Ensure that the IUT in state CC1, on receipt of a callEstablish return error APDU with an unrecognized parameter and parameterActionIndicator set to ignoreParameterAndPassApduToApplication, does not respond.

**Selection:** Support procedures for the handling of unrecognized parameters within CC-Operations. PICS: SC9.

## 5.2.1.1.3      Inopportune

**CC\_113\_01**      **subclause 9.8.4**

Ensure that the IUT in CC1 on receipt of a callProceeding invoke APDU after a callEstablish return result APDU containing the same CallSegmentId, ignores this callProceeding invoke APDU.

**Selection:** Support exceptional procedures on receipt of APDUs out of sequence when acting as a preceding CC entity. PICS: SC8.

**CC\_113\_02**      **subclause 9.8.1.1**

Ensure that the IUT in state CC2, on expiry of timer T710, sends a callRelease invoke APDU with the releaseCause containing the parameter causeValue with the value recoveryOnTimerExpiry.

**Selection:** Support exceptional procedures on timer expiry when acting as a preceding CC entity. PICS: SC3.

## 5.2.1.2      Succeeding CC entity

## 5.2.1.2.1      Valid

**CC\_121\_01**      **subclause 9.2.2**

Ensure that the IUT in CC4, is able to send callProceeding invoke APDU containing a precedingSideCallSegId including the value received in the callEstablish invoke APDU.

**Selection:** Support signalling procedures for call proceeding when acting as a succeeding CC entity, PICS: MC6.

**CC\_121\_02**      **subclause 9.3.2**

Ensure that the IUT in CC4, and the stored value of "Await complete indicator" is TRUE is able to send callEstablish return result APDU.

**Selection:** Support signalling procedures for completion of call establishment when acting as a succeeding CC entity, PICS: MC10.

**CC\_121\_03**      **subclause 9.3.2**

Ensure that the IUT in CC5, and the stored value of "Await complete indicator" is TRUE is able to send callEstablish return result APDU.

**Selection:** Support signalling procedures for completion of call establishment when acting as a succeeding CC entity, PICS: MC10.

**CC\_121\_04**      **subclause 9.3.2**

Ensure that the IUT in CC4, and the stored value of "Await complete indicator" is FALSE is able to send callEstablish return result APDU.

**Selection:** Support signalling procedures for call acceptance when acting as a succeeding CC entity, PICS: MC8.

**CC\_121\_05**      **subclause 9.3.2**

Ensure that the IUT in CC5, and the stored value of "Await complete indicator" is FALSE is able to send callEstablish return result APDU.

**Selection:** Support signalling procedures for call acceptance when acting as a succeeding CC entity, PICS: MC8.

**CC\_121\_06**      **subclause 9.6.2**

Ensure that the IUT in CC4 in order to report a negative result for the establishment of the call because the received call description was not accepted by the CC signalling service user, is able to send callEstablish return error APDU containing callDescriptionNotAccepted error value, optionally containing an alternative call description.

**Selection 1:** Support signalling procedures for call establishment failure when acting as a succeeding CC entity, PICS: SC2.

**Selection 2:** Support inclusion of an alternative callDescription in callEstablish return error, PICS: P2.

**CC\_121\_07**      **subclause 9.6.2**

Ensure that the IUT in CC5 in order to report a negative result for the establishment of the call because the received call description was not accepted by the CC signalling service user, is able to send callEstablish return error APDU containing callDescriptionNotAccepted error value, optionally containing an alternative call description.

**Selection 1:** Support signalling procedures for call establishment failure when acting as a succeeding CC entity, PICS: SC2.

**Selection 2:** Support inclusion of an alternative callDescription in callEstablish return error, PICS: P2.

**CC\_121\_08**      **subclause 9.6.2**

Ensure that the IUT in CC4 in order to report a negative result for the establishment of the call because the called user is busy, is able to send callEstablish return error APDU containing userBusy error value, optionally containing an alternative call description.

**Selection 1:** Support signalling procedures for call establishment failure when acting as a succeeding CC entity, PICS: SC2.

**Selection 2:** Support inclusion of an alternative callDescription in callEstablish return error, PICS: P2.

**CC\_121\_9**      **subclause 9.6.2**

Ensure that the IUT in CC5 in order to report a negative result for the establishment of the call because the called user is busy, is able to send callEstablish return error APDU containing userBusy error value, optionally containing an alternative call description.

**Selection 1:** Support signalling procedures for call establishment failure when acting as a succeeding CC entity, PICS: SC2.

**Selection 2:** Support inclusion of an alternative callDescription in callEstablish return error, PICS: P2.

**CC\_121\_10**      **subclause 9.6.2**

Ensure that the IUT in CC4 in order to report a negative result for the establishment of the call because the received call description containing an unallocated number, is able to send callEstablish return error APDU containing unallocatedNumber error value.

**Selection:** Support signalling procedures for call establishment failure when acting as a succeeding CC entity, PICS: SC2.

**CC\_121\_11**      **subclause 9.6.2**

Ensure that the IUT in CC5 in order to report a negative result for the establishment of the call because the received call description containing an unallocated number, is able to send callEstablish return error APDU containing unallocatedNumber error value.

**Selection:** Support signalling procedures for call establishment failure when acting as a succeeding CC entity, PICS: SC2.

**CC\_121\_12**      **subclause 9.6.2**

Ensure that the IUT in CC4 in order to report a negative result for the establishment of the call because the called user did not respond, is able to send callEstablish return error APDU containing noUserResponding error value.

**Selection:** Support signalling procedures for call establishment failure when acting as a succeeding CC entity, PICS: SC2.

**CC\_121\_13**      **subclause 9.6.2**

Ensure that the IUT in CC5 in order to report a negative result for the establishment of the call because the called user did not respond, is able to send callEstablish return error APDU containing noUserResponding error value.

**Selection:** Support signalling procedures for call establishment failure when acting as a succeeding CC entity, PICS: SC2.

**CC\_121\_14**      **subclause 9.6.2**

Ensure that the IUT in CC4 in order to report a negative result for the establishment of the call no answer from the called user, is able to send callEstablish return error APDU containing noAnswerFromUser error value.

**Selection:** Support signalling procedures for call establishment failure when acting as a succeeding CC entity, PICS: SC2.

**CC\_121\_15**      **subclause 9.6.2**

Ensure that the IUT in CC5 in order to report a negative result for the establishment of the call no answer from the called user, is able to send callEstablish return error APDU containing noAnswerFromUser error value.

**Selection:** Support signalling procedures for call establishment failure when acting as a succeeding CC entity, PICS: SC2.

**CC\_121\_16**      **subclause 9.6.2**

Ensure that the IUT in CC4 in order to report a negative result for the establishment of the call because the called user rejected the call, is able to send callEstablish return error APDU containing callRejected error value.

**Selection:** Support signalling procedures for call establishment failure when acting as a succeeding CC entity, PICS: SC2.

**CC\_121\_17**      **subclause 9.6.2**

Ensure that the IUT in CC5 in order to report a negative result for the establishment of the call because the called user rejected the call, is able to send callEstablish return error APDU containing callRejected error value.

**Selection:** Support signalling procedures for call establishment failure when acting as a succeeding CC entity, PICS: SC2.

**CC\_121\_18**      **subclause 9.6.2**

Ensure that the IUT in CC4 in order to report a negative result for the establishment of the call because the called user's equipment is out of order, is able to send callEstablish return error APDU containing destinationOutOfOrder error value.

**Selection:** Support signalling procedures for call establishment failure when acting as a succeeding CC entity, PICS: SC2.

**CC\_121\_19**      **subclause 9.6.2**

Ensure that the IUT in CC5 in order to report a negative result for the establishment of the call because the called user's equipment is out of order, is able to send callEstablish return error APDU containing destinationOutOfOrder error value.

**Selection:** Support signalling procedures for call establishment failure when acting as a succeeding CC entity, PICS: SC2.

**CC\_121\_20**      **subclause 9.6.2**

Ensure that the IUT in CC4 in order to report a negative result for the establishment of the call because an address contained in the received call description was incomplete, is able to send callEstablish return error APDU containing addressIncomplete error value.

**Selection:** Support signalling procedures for call establishment failure when acting as a succeeding CC entity, PICS: SC2.

**CC\_121\_21**      **subclause 9.6.2**

Ensure that the IUT in CC5 in order to report a negative result for the establishment of the call because an address contained in the received call description was incomplete, is able to send callEstablish return error APDU containing addressIncomplete error value.

**Selection:** Support signalling procedures for call establishment failure when acting as a succeeding CC entity, PICS: SC2.

**CC\_121\_22**      **subclause 9.6.2**

Ensure that the IUT in CC4 in order to report a negative result for the establishment of the call because an equipment in the network is out of order, is able to send callEstablish return error APDU containing networkOutOfOrder error value.

**Selection:** Support signalling procedures for call establishment failure when acting as a succeeding CC entity, PICS: SC2.

**CC\_121\_23**      **subclause 9.6.2**

Ensure that the IUT in CC5 in order to report a negative result for the establishment of the call because an equipment in the network is out of order, is able to send callEstablish return error APDU containing networkOutOfOrder error value.

**Selection:** Support signalling procedures for call establishment failure when acting as a succeeding CC entity, PICS: SC2.

**CC\_121\_24**      **subclause 9.6.2**

Ensure that the IUT in CC4 in order to report a negative result for the establishment of the call because a temporary failure has occurred, is able to send callEstablish return error APDU containing temporaryFailure error value.

**Selection:** Support signalling procedures for call establishment failure when acting as a succeeding CC entity, PICS: SC2.

**CC\_121\_25**      **subclause 9.6.2**

Ensure that the IUT in CC5 in order to report a negative result for the establishment of the call because a temporary failure has occurred, is able to send callEstablish return error APDU containing temporaryFailure error value.

**Selection:** Support signalling procedures for call establishment failure when acting as a succeeding CC entity, PICS: SC2.

**CC\_121\_26**      **subclause 9.6.2**

Ensure that the IUT in CC4 in order to report a negative result for the establishment of the call because the called user is not reachable, is able to send callEstablish return error APDU containing userNotReachable error value.

**Selection:** Support signalling procedures for call establishment failure when acting as a succeeding CC entity, PICS: SC2.

**CC\_121\_27**      **subclause 9.6.2**

Ensure that the IUT in CC5 in order to report a negative result for the establishment of the call because the called user is not reachable, is able to send callEstablish return error APDU containing userNotReachable error value.

**Selection:** Support signalling procedures for call establishment failure when acting as a succeeding CC entity, PICS: SC2.

**CC\_121\_28**      **subclause 9.6.2**

Ensure that the IUT in CC4 in order to report a negative result for the establishment of the call and the Error is first generated in a user's terminal, is able to send callEstablish return error APDU containing the Location parameter value coded as 'user'.

**Selection:** Support signalling procedures for call establishment failure when acting as a succeeding CC entity, PICS: SC2.

**CC\_121\_29**      **subclause 9.6.2**

Ensure that the IUT in CC5 in order to report a negative result for the establishment of the call and the Error is first generated in a user's terminal, is able to send callEstablish return error APDU containing the Location parameter value coded as 'user'.

**Selection:** Support signalling procedures for call establishment failure when acting as a succeeding CC entity, PICS: SC2.

**CC\_121\_30**      **subclause 9.6.2**

Ensure that the IUT in CC4 in order to report a negative result for the establishment of the call and the Error is first generated in a network node, is able to send callEstablish return error APDU containing the Location parameter value coded as 'networkLocalCallSegment'.

**Selection:** Support signalling procedures for call establishment failure when acting as a succeeding CC entity, PICS: SC2.

**CC\_121\_31**      **subclause 9.6.2**

Ensure that the IUT in CC5 in order to report a negative result for the establishment of the call and the Error is first generated in a network node, is able to send callEstablish return error APDU containing the Location parameter value coded as 'networkLocalCallSegment'.

**Selection:** Support signalling procedures for call establishment failure when acting as a succeeding CC entity, PICS: SC2.

**CC\_121\_32**      **subclause 9.6.2**

Ensure that the IUT in CC4 in order to report a negative result for the establishment of the call and the Error is passed on by a CC entity to another call segment, is able to send callEstablish return error APDU containing the Location parameter value coded as 'networkNonLocalCallSegment'.

**Selection:** Support signalling procedures for call establishment failure when acting as a succeeding CC entity, PICS: SC2.

**CC\_121\_33**      **subclause 9.6.2**

Ensure that the IUT in CC5 in order to report a negative result for the establishment of the call and the Error is passed on by a CC entity to another call segment, is able to send callEstablish return error APDU containing the Location parameter value coded as 'networkNonLocalCallSegment'.

**Selection:** Support signalling procedures for call establishment failure when acting as a succeeding CC entity, PICS: SC2.



5.2.1.2.2 Invalid

**CC\_122\_01** subclause 9.8.2

Ensure that the IUT in CC6 on receipt of a callComplete invoke APDU containing unknown CallSegmentId, ignores this APDU.

**Selection:** Support exceptional procedures on receipt of APDUs with unknown Call Segment Id when acting as a succeeding CC entity, PICS: SC6.

**CC\_122\_02** subclause 9.8.3

Ensure that the IUT in CC4 on receipt of a callEstablish invoke APDU containing a CallSegmentId which is already in use, ignores this APDU.

**Selection:** Support exceptional procedures on receipt of APDUs with duplicated Call Segment Id when acting as a succeeding CC entity, PICS: SC7.

**CC\_122\_03** subclause 9.8.3

Ensure that the IUT in CC5 on receipt of a callEstablish invoke APDU containing a CallSegmentId which is already in use, ignores this APDU.

**Selection:** Support exceptional procedures on receipt of APDUs with duplicated Call Segment Id when acting as a succeeding CC entity, PICS: SC7.

**CC\_122\_04** subclause 9.8.3

Ensure that the IUT in CC6 on receipt of a callEstablish invoke APDU containing a CallSegmentId which is already in use, ignores this APDU.

**Selection:** Support exceptional procedures on receipt of APDUs with duplicated Call Segment Id when acting as a succeeding CC entity, PICS: SC7.

**CC\_122\_05** subclause 9.8.3

Ensure that the IUT in CC7 on receipt of a callEstablish invoke APDU containing a CallSegmentId which is already in use, ignores this APDU.

**Selection:** Support exceptional procedures on receipt of APDUs with duplicated Call Segment Id when acting as a succeeding CC entity, PICS: SC7.

**CC\_122\_06** subclause 9.8.5.7

Ensure that the IUT in CC0 on receipt of a reject APDU that is correlated to a callEstablish return error APDU, takes no action.

**Selection:** Support exceptional procedures on receipt of reject APDUs, PICS: SC9.

**CC\_122\_07** subclause 9.8.6

Ensure that the IUT in state CC0, on receipt of a callEstablish invoke APDU with an unrecognized parameter and parameterActionIndicator set to clearCallAndItsInformationModel, sends a callRelease invoke APDU.

**Selection:** Support procedures for the handling of unrecognized parameters within CC-Operations. PICS: SC10.

**CC\_122\_08** subclause 9.8.6

Ensure that the IUT in state CC0, on receipt of a callEstablish invoke APDU with an unrecognized parameter and parameterActionIndicator set to discardA pduAndReject, sends a reject APDU.

**Selection:** Support procedures for the handling of unrecognized parameters within CC-Operations. PICS: SC10.

**CC\_122\_09**      **subclause 9.8.6**

Ensure that the IUT in state CC0, on receipt of a callEstablish invoke APDU with an unrecognized parameter and parameterActionIndicator set to discardApuNoReject, does not send a reject APDU.

**Selection:** Support procedures for the handling of unrecognized parameters within CC-Operations. PICS: SC10.

**CC\_122\_10**      **subclause 9.8.6**

Ensure that the IUT in state CC0, on receipt of a callEstablish invoke APDU with an unrecognized parameter and parameterActionIndicator set to discardParameterAndPassApuToApplication, does not respond.

**Selection:** Support procedures for the handling of unrecognized parameters within CC-Operations. PICS: SC10.

**CC\_122\_11**      **subclause 9.8.6**

Ensure that the IUT in state CC0, on receipt of a callEstablish invoke APDU with an unrecognized parameter and parameterActionIndicator set to ignoreParameterAndPassApuToApplication, does not respond.

**Selection:** Support procedures for the handling of unrecognized parameters within CC-Operations. PICS: SC10.

**CC\_122\_12**      **subclause 9.8.6**

Ensure that the IUT in state CC6, on receipt of a callComplete invoke APDU with an unrecognized parameter and parameterActionIndicator set to clearCallAndItsInformationModel, sends a callRelease invoke APDU.

**Selection:** Support procedures for the handling of unrecognized parameters within CC-Operations. PICS: SC10.

**CC\_122\_13**      **subclause 9.8.6**

Ensure that the IUT in state CC6, on receipt of a callComplete invoke APDU with an unrecognized parameter and parameterActionIndicator set to discardApuAndReject, sends a reject APDU.

**Selection:** Support procedures for the handling of unrecognized parameters within CC-Operations. PICS: SC10.

**CC\_122\_14**      **subclause 9.8.6**

Ensure that the IUT in state CC6, on receipt of a callComplete invoke APDU with an unrecognized parameter and parameterActionIndicator set to discardApuNoReject, does not send a reject APDU.

**Selection:** Support procedures for the handling of unrecognized parameters within CC-Operations. PICS: SC10.

**CC\_122\_15**      **subclause 9.8.6**

Ensure that the IUT in state CC6, on receipt of a callComplete invoke APDU with an unrecognized parameter and parameterActionIndicator set to discardParameterAndPassApuToApplication, does not respond.

**Selection:** Support procedures for the handling of unrecognized parameters within CC-Operations. PICS: SC10.

**CC\_122\_16**      **subclause 9.8.6**

Ensure that the IUT in state CC6, on receipt of a callComplete invoke APDU with an unrecognized parameter and parameterActionIndicator set to ignoreParameterAndPassApuToApplication, does not respond.

**Selection:** Support procedures for the handling of unrecognized parameters within CC-Operations. PICS: SC10.

## 5.2.2 Call Status Change

### 5.2.2.1 Initiating CC entity

**Selection:** Support signalling procedures for call status change report when acting as an initiating CC entity, PICS: MC11.

#### 5.2.2.1.1 Valid

##### CC\_211\_01 subclause 9.5.1

Ensure that the IUT in state CC6, is able to send a callStatus invoke APDU with the element callChangedParameter containing the modifiedNetworkRelevantPart with operation set to "deleteObject", with an objectReference but not containing the modifiedArgument.

**Selection:** Support three message sequence for call establishment PICS: MC4. An object specified in the original Call description is deleted.

##### CC\_211\_02 subclause 9.5.1

Ensure that the IUT in state CC6, is able to send a callStatus invoke APDU with the element callChangedParameter containing the modifiedNetworkRelevantPart with operation set to "modifyAttributes".

**Selection:** Support three message sequence for call establishment PICS: MC4. An object specified in the original Call description is modified.

##### CC\_211\_03 subclause 9.5.1

Ensure that the IUT in state CC7, is able to send a callStatus invoke APDU with the element callChangedParameter containing the modifiedNetworkRelevantPart with operation set to "deleteObject", with an objectReference but not containing the modifiedArgument.

**Selection:** Support signalling procedures for call acceptance when acting as a preceding CC entity. PICS: MC11. An object specified in the original Call description is deleted.

##### CC\_211\_04 subclause 9.5.1

Ensure that the IUT in state CC7, is able to send a callStatus invoke APDU with the element callChangedParameter containing the modifiedNetworkRelevantPart with operation set to "modifyAttributes".

**Selection:** Support signalling procedures for call acceptance when acting as a preceding CC entity. PICS: MC11. An object specified in the original Call description is deleted.

##### CC\_211\_05 subclause 9.5.1

Ensure that the IUT in state CC6, is able to send a callStatus invoke APDU with the element callChangedParameter containing the modifiedEndToEndRelevantPart with operation set to "deleteObject", with an objectReference but not containing the modifiedArgument.

**Selection:** Support three message sequence for call establishment PICS: MC4. Support inclusion of modified end-to-end relevant part within callChangedParameter. PICS: P4. An object specified in the original Call description is deleted

##### CC\_211\_06 subclause 9.5.1

Ensure that the IUT in state CC6, is able to send a callStatus invoke APDU with the element callChangedParameter containing the modifiedEndToEndRelevantPart with operation set to "modifyAttributes".

**Selection:** Support three message sequence for call establishment PICS: MC4. Support inclusion of modified end-to-end relevant part within callChangedParameter. PICS: P4. An object specified in the original Call description is deleted.

**CC\_211\_07**      **subclause 9.5.1**

Ensure that the IUT in state CC7, is able to send a callStatus invoke APDU with the element callChangedParameter containing the modifiedEndToEndRelevantPart with operation set to "deleteObject", with an objectReference but not containing the modifiedArgument.

**Selection:** Support inclusion of modified end-to-end relevant part within callChangedParameter. PICS: P4. An object specified in the original Call description is deleted.

**CC\_211\_08**      **subclause 9.5.1**

Ensure that the IUT in state CC7, is able to send a callStatus invoke APDU with the element callChangedParameter containing the modifiedEndToEndRelevantPart with operation set to "modifyAttributes".

**Selection:** Support inclusion of modified end-to-end relevant part within callChangedParameter. PICS: P4. An object specified in the original Call description is deleted.

**5.2.2.2**      **Receiving CC entity**

**Selection:** Support signalling procedures for call status change report when acting as a receiving CC entity, PICS: MC12.

**5.2.2.2.1**      **Invalid****CC\_222\_01**      **subclause 9.8.6**

Ensure that the IUT in state CC7, on receipt of a callStatus invoke APDU with an unrecognized parameter and parameterActionIndicator set to clearCallAndItsInformationModel, sends a callRelease invoke APDU.

**Selection:** Support procedures for the handling of unrecognized parameters within CC-Operations, PICS: SC10.

**CC\_222\_02**      **subclause 9.8.6**

Ensure that the IUT in state CC7, on receipt of a callStatus invoke APDU with an unrecognized parameter and parameterActionIndicator set to discardA pduAndReject, sends a reject APDU.

**Selection:** Support procedures for the handling of unrecognized parameters within CC-Operations, PICS: SC10.

**CC\_222\_03**      **subclause 9.8.6**

Ensure that the IUT in state CC7, on receipt of a callStatus invoke APDU with an unrecognized parameter and parameterActionIndicator set to discardA pduNoReject, does not send a reject APDU.

**Selection:** Support procedures for the handling of unrecognized parameters within CC-Operations, PICS: SC10.

**CC\_222\_04**      **subclause 9.8.6**

Ensure that the IUT in state CC7, on receipt of a callStatus invoke APDU with an unrecognized parameter and parameterActionIndicator set to discardParameterAndPassA pduToApplication, does not respond.

**Selection:** Support procedures for the handling of unrecognized parameters within CC-Operations, PICS: SC10.

**CC\_222\_05**      **subclause 9.8.6**

Ensure that the IUT in state CC7, on receipt of a callStatus invoke APDU with an unrecognized parameter and parameterActionIndicator set to ignoreParameterAndPassA pduToApplication, does not respond.

**Selection:** Support procedures for the handling of unrecognized parameters within CC-Operations, PICS: SC10.

## 5.2.3 Call Clearing

**Selection:** Support signalling procedures for call clearing, PICS: MC13.

### 5.2.3.1 CC entity that initiates call clearing

#### 5.2.3.1.1 Valid

##### CC\_311\_01 subclause 9.7.1

Ensure that the IUT in state CC2, is able to send a callRelease invoke APDU with the releaseCause containing the parameter causeValue with the value "normalCallClearing".

**Selection:** The IUT is able to send a cause value of "normalCallClearing".

##### CC\_311\_02 subclause 9.7.1

Ensure that the IUT in state CC3, is able to send a callRelease invoke APDU with the releaseCause containing the parameter causeValue with the value "normalCallClearing".

**Selection:** The IUT is able to send a cause value of "normalCallClearing".

##### CC\_311\_03 subclause 9.7.1

Ensure that the IUT in state CC4, is able to send a callRelease invoke APDU with the releaseCause containing the parameter causeValue with the value "normalCallClearing".

**Selection:** The IUT is able to send a cause value of "normalCallClearing".

##### CC\_311\_04 subclause 9.7.1

Ensure that the IUT in state CC5, is able to send a callRelease invoke APDU with the releaseCause containing the parameter causeValue with the value "normalCallClearing".

**Selection:** The IUT is able to send a cause value of "normalCallClearing".

##### CC\_311\_05 subclause 9.7.1

Ensure that the IUT in state CC6, is able to send a callRelease invoke APDU with the releaseCause containing the parameter causeValue with the value "normalCallClearing".

**Selection:** The IUT is able to send a cause value of "normalCallClearing".

##### CC\_311\_06 subclause 9.7.1

Ensure that the IUT in state CC7, is able to send a callRelease invoke APDU with the releaseCause containing the parameter causeValue with the value "normalCallClearing".

**Selection:** The IUT is able to send a cause value of "normalCallClearing".

##### CC\_311\_07 subclause 9.7.1

Ensure that the IUT in state CC3, is able to send a callRelease invoke APDU with the releaseCause containing the parameter causeValue with the value "callDescriptionNotAccepted".

**Selection:** The IUT is able to send a cause value of "callDescriptionNotAccepted".

##### CC\_311\_08 subclause 9.7.1

Ensure that the IUT in state CC4, is able to send a callRelease invoke APDU with the releaseCause containing the parameter causeValue with the value "callDescriptionNotAccepted".

**Selection:** The IUT is able to send a cause value of "callDescriptionNotAccepted".

**CC\_311\_09**      **subclause 9.7.1**

Ensure that the IUT in state CC5, is able to send a callRelease invoke APDU with the releaseCause containing the parameter causeValue with the value "callDescriptionNotAccepted".

**Selection:** The IUT is able to send a cause value of "callDescriptionNotAccepted".

**CC\_311\_10**      **subclause 9.7.1**

Ensure that the IUT in state CC2, is able to send a callRelease invoke APDU with the releaseCause containing the parameter causeValue with the value "temporaryFailure".

**Selection:** The IUT is able to send a cause value of "temporaryFailure".

**CC\_311\_11**      **subclause 9.7.1**

Ensure that the IUT in state CC3, is able to send a callRelease invoke APDU with the releaseCause containing the parameter causeValue with the value "temporaryFailure".

**Selection:** The IUT is able to send a cause value of "temporaryFailure".

**CC\_311\_12**      **subclause 9.7.1**

Ensure that the IUT in state CC4, is able to send a callRelease invoke APDU with the releaseCause containing the parameter causeValue with the value "temporaryFailure".

**Selection:** The IUT is able to send a cause value of "temporaryFailure".

**CC\_311\_13**      **subclause 9.7.1**

Ensure that the IUT in state CC5, is able to send a callRelease invoke APDU with the releaseCause containing the parameter causeValue with the value "temporaryFailure".

**Selection:** The IUT is able to send a cause value of "temporaryFailure".

**CC\_311\_14**      **subclause 9.7.1**

Ensure that the IUT in state CC6, is able to send a callRelease invoke APDU with the releaseCause containing the parameter causeValue with the value "temporaryFailure".

**Selection:** The IUT is able to send a cause value of "temporaryFailure".

**CC\_311\_15**      **subclause 9.7.1**

Ensure that the IUT in state CC7, is able to send a callRelease invoke APDU with the releaseCause containing the parameter causeValue with the value "temporaryFailure".

**Selection:** The IUT is able to send a cause value of "temporaryFailure".

**5.2.3.1.2**      **Invalid****CC\_312\_01**      **subclause 9.8.3**

Ensure that the IUT in CC8 on receipt of a callEstablish invoke APDU containing a CallSegmentId which is already in use, ignores this APDU.

**Selection:** Support exceptional procedures on receipt of APDUs with duplicated Call Segment Id when acting as a succeeding CC entity, PICS: SC7.

**5.2.3.2**      **CC entity that responds to call clearing****5.2.3.2.1**      **Valid**

**Selection:** Support signalling procedures for call clearing, PICS: MC13.

**CC\_321\_01**      **subclause 9.7.2**

Ensure that the IUT in CC2 on receipt of a callRelease invoke APDU, is able to send a callRelease return result APDU.

**CC\_321\_02**      **subclause 9.7.2**

Ensure that the IUT in CC3 on receipt of a callRelease invoke APDU, is able to send a callRelease return result APDU.

**CC\_321\_03**      **subclause 9.7.2**

Ensure that the IUT in CC4 on receipt of a callRelease invoke APDU, is able to send a callRelease return result APDU.

**CC\_321\_04**      **subclause 9.7.2**

Ensure that the IUT in CC5 on receipt of a callRelease invoke APDU, is able to send a callRelease return result APDU.

**CC\_321\_05**      **subclause 9.7.2**

Ensure that the IUT in CC6 on receipt of a callRelease invoke APDU, is able to send a callRelease return result APDU.

**CC\_321\_06**      **subclause 9.7.2**

Ensure that the IUT in CC7 on receipt of a callRelease invoke APDU, is able to send a callRelease return result APDU.

**5.2.3.2.2**      **Invalid****CC\_322\_01**      **subclause 9.8.2**

Ensure that the IUT in CC7 on receipt of a callRelease invoke APDU containing unknown CallSegmentId, ignores this APDU.

**Selection:** Support exceptional procedures on receipt of APDUs with unknown Call Segment Id when acting as a succeeding CC entity, PICS: SC6.

**CC\_322\_02**      **subclause 9.8.3**

Ensure that the IUT in CC9 on receipt of a callEstablish invoke APDU containing a CallSegmentId which is already in use, ignores this APDU.

**Selection:** Support exceptional procedures on receipt of APDUs with duplicated Call Segment Id when acting as a succeeding CC entity, PICS: SC7.

**CC\_322\_03**      **subclause 9.8.5.8**

Ensure that the IUT in CC0 on receipt of a reject APDU that is correlated to a callRelease return result APDU, takes no action.

**Selection:** Support exceptional procedures on receipt of reject APDUs, PICS: SC9.

**CC\_322\_04**      **subclause 9.8.6**

Ensure that the IUT in state CC7, on receipt of a callRelease invoke APDU with an unrecognized parameter and parameterActionIndicator set to clearCallAndItsInformationModel, sends a callRelease invoke APDU.

**Selection:** Support procedures for the handling of unrecognized parameters within CC-Operations, PICS: SC10.

**CC\_322\_05**      **subclause 9.8.6.1**

Ensure that the IUT in state CC7, on receipt of a callRelease invoke APDU with an unrecognized parameter and parameterActionIndicator set to discardAduAndReject, sends a reject APDU.

**Selection:** Support procedures for the handling of unrecognized parameters within CC-Operations, PICS: SC10.

**CC\_322\_06**      **subclause 9.8.6**

Ensure that the IUT in state CC7, on receipt of a callRelease invoke APDU with an unrecognized parameter and parameterActionIndicator set to discardApduNoReject, does not send a reject APDU.

**Selection:** Support procedures for the handling of unrecognized parameters within CC-Operations, PICS: SC10.

**CC\_322\_07**      **subclause 9.8.6**

Ensure that the IUT in state CC7, on receipt of a callRelease invoke APDU with an unrecognized parameter and parameterActionIndicator set to discardParameterAndPassApduToApplication, does not respond.

**Selection:** Support procedures for the handling of unrecognized parameters within CC-Operations, PICS: SC10.

**CC\_322\_08**      **subclause 9.8.6**

Ensure that the IUT in state CC7, on receipt of a callRelease invoke APDU with an unrecognized parameter and parameterActionIndicator set to ignoreParameterAndPassApduToApplication, does not respond.

**Selection:** Support procedures for the handling of unrecognized parameters within CC-Operations, PICS: SC10.

---

## 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 [4].

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 [4], shall be used by any organization claiming to provide a comprehensive testing service for network equipment claiming conformance to EN 302 092-1 [1].



---

## Bibliography

The following material, though not specifically referenced in the body of the present document (or not publicly available), gives supporting information.

- ISO/IEC 9646-3 (1998): "Information technology; Open Systems Interconnection; Conformance testing methodology and framework; Part 3: The Tree and Tabular Combined Notation (TTCN)".
- ITU-T Recommendation I.413 (1993): "B-ISDN user-network interface".
- ETS 300 796-1: "Broadband Integrated Services Digital Network (B-ISDN); Digital Subscriber Signalling System No. 2 (DSS2) protocol; Generic functional protocol; Core aspects; Part 1: Protocol specification [ITU-T Recommendation Q.2932.1 (1996), modified]".
- ETS 300 239: "Private Integrated Services Network (PISN); Inter-exchange signalling protocol; Generic functional protocol for the support of supplementary services [ISO/IEC 11582 (1995), modified]".

---

## History

| <b>Document history</b> |           |  |
|-------------------------|-----------|--|
| V1.1.1                  | July 1999 | Public Enquiry PE 9949: 1999-07-07 to 1999-11-05 |
|                         |           |  |
|                         |           |  |
|                         |           |  |
|                         |           |  |