

Draft **EN 300 236** V1.2.1 (1997-08)

European Standard (Telecommunications series)

**Terminal Equipment (TE);
Syntax-based videotex protocol;
Terminal conformance testing**



European Telecommunications Standards Institute

Reference

REN/MTA-001011bis (26o00ioo.PDF)

Keywords

Access, terminal, testing, videotex

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Intellectual Property Rights

ETSI has not been informed of the existence of any Intellectual Property Right (IPR) which could be, or could become essential to the present document. However, pursuant to the ETSI Interim IPR Policy, no investigation, including IPR searches, has been carried out. No guarantee can be given as to the existence of any IPRs which are, or may be, or may become, essential to the present document.

Foreword

This European Standard (Telecommunications series) was produced by ETSI Technical Committee Terminal Equipment (TE) as an Interim European Telecommunication Standard (I-ETS 300 236 Edition 1). At its final meeting TC-TE decided that the I-ETS should be converted to full standard status. Although responsibility formally lies with ETSI Project Multimedia Terminals and Applications (MTA), the present text has been prepared by the ETSI Secretariat based on the published I-ETS with only minor editorial corrections. The present document is now submitted for the ETSI standards One-step Approval Procedure (OAP).

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 Abstract Test Suite (ATS) defined by the present document complies with the international standards on conformance testing (ISO 9646-1 [4], ISO 9646-2 [5], ISO 9646-3 [6] and ISO 9646-5 [7]). Results of the joint EWOS/ETSI Project Team No.5 on Open Systems Interconnection (OSI) conformance testing in Europe are also taken into account.

NOTE 1: As defined by ISO 9646, in case of any discrepancy between a base standard and a test suite, the base standard takes precedence above the test suite.

The ATS defined by the present document is applicable to Videotex terminals which make use of the Syntax-based Videotex (SBV) protocol as defined by ETS 300 223 [2] or ETS 300 079 [3].

NOTE 2: The present document does not apply in totality to ETS 300 079 [3] based terminals. As a matter of fact, some services are tested in the present document, which are only defined in ETS 300 223 [2], and not in ETS 300 079 [3]. These services are: SBV_Reset_TC, SBV_End_Immediate, SBV_Remote_Echo. When applying the present document to ETS 300 079 [3] based terminals, the test cases in question should be de-selected.

NOTE 3: At the time of producing the present document, ETS 300 079 [3] contains both the SBV protocol definition and the use of that protocol over an Integrated Services Digital Network (ISDN) DTE/DTE connection. In case of an ETS 300 079 [3] based terminal, tests for layers other than layer 7 are out side the scope of this ETS.

The chosen test method for this ATS ensures that all SBV terminals can be tested without any additional requirement other than those resulting from the protocol standard itself.

NOTE 4: The scope of testing is currently restricted to protocol testing where protocol is understood in the way described in ISO 7498 [16]. Extension of the scope might require other test methods. (See also subclause 5.1 and annex K (informative)).

Test cases are fully specified for those situations in which an SBV terminal acts as a Terminal Function (TF) (see subclause 6.2 of ETS 300 223 [2] or ETS 300 079 [3]).

NOTE 5: This situation, in which the SBV terminal acts as a Terminal Function, covers the following cases: when the communication is established by the terminal itself (without having the `reverse_role_assignment` parameter present in the Establish PDU), or when the terminal is called by an SBV service or another SBV terminal with this parameter present.

For those situations in which an SBV terminal behaves like an Access Function (AF) (see subclause 6.2 of ETS 300 223 [2] or ETS 300 079 [3]), only the test purposes are given by the present document.

NOTE 6: This situation occurs when a called SBV terminal accepts an incoming Establish request, on which the `reverse_role_assignment` parameter is not present. This is generally used in case of terminal-to-terminal communication.

NOTE 7: The present document provides only for an empty place-holder for a test case selection table. Completion of this table is left open for the possible transition of the present document to an ETS. As a consequence, and for an interim period, de-selection of those test cases related to optional elements of the base standard needs to be done by other means. It should not be understood that all the test cases are applicable in all cases; a de-selection process is implied.

2 Normative references

References may be made to:

- a) specific versions of publications (identified by date of publication, edition number, version number, etc.), in which case, subsequent revisions to the referenced document do not apply; or
- b) all versions up to and including the identified version (identified by "up to and including" before the version identity); or

- c) all versions subsequent to and including the identified version (identified by "onwards" following the version identity); or
- d) publications without mention of a specific version, in which case 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] ETS 300 222: "Terminal Equipment (TE); Framework of Videotex terminal protocols".
- [2] ETS 300 223: "Terminal Equipment (TE); Syntax-based Videotex, Common end-to-end protocols".
- [3] ETS 300 079: "Integrated Services Digital Network (ISDN); Syntax-based Videotex, End-to-end protocols, circuit mode DTE - DTE".
- [4] ISO 9646-1: "OSI Conformance Testing Methodology and Framework, Part 1: General Concepts".
- [5] ISO 9646-2: "OSI Conformance Testing Methodology and Framework, Part 2: Abstract Test Suite Specification".
- [6] ISO 9646-3: "OSI Conformance Testing Methodology and Framework, Part 3: Tree and Tabular Combined Notation (TTCN)".
- [7] ISO 9646-5: "OSI Conformance Testing Methodology and Framework, Part 5: Requirements on Test Laboratories and Clients for the Conformance Assessment Process".
- [8] CCITT Recommendation X.3 (1992): "Packet assembly disassembly facility (PAD) in a public data network".
- [9] CCITT Recommendation X.29 (1992): "Procedures for the exchange of control information and user data between a packet assembly/disassembly (PAD) facility and a packet mode DTE or another PAD".
- [10] Reserved.
- [11] Reserved.
- [12] Reserved.
- [13] ETS 300 075: "Terminal Equipment (TE); Videotex processable data".
- [14] ETS 300 076: "Terminal Equipment (TE); Videotex, Terminal Facility Identifier (TFI)".
- [15] ETS 300 102-1 (1990): "Integrated Services Digital Network (ISDN); User-network interface layer 3, Specifications for basic call control".
- [16] ISO 7498: "Information processing systems - Open Systems Interconnection - Basic Reference Model".
- [17] ISO/IEC 8208 (1990): "Information technology - Data communications - X.25 Packet Level Protocol for Data Terminal Equipment".
- [18] ISO/TR 8509: "Information processing systems - Open Systems Interconnection - Service conventions".

3 Definitions

For the purposes of the present document, the following definitions apply.

abstract test suite: See ISO 9646-1 [4].

access function: See ETS 300 223 [2] or ETS 300 079 [3].

application layer: See OSI Reference Model, ISO 7498 [16].

basic coding structure: See ETS 300 223 [2] or ETS 300 079 [3].

bearer independent service access point: See ETS 300 223 [2].

called BIS user: See ETS 300 223 [2].

calling BIS user: See ETS 300 223 [2].

confirmation: See Service Conventions Standard, ISO/TR 8509 [18].

dialogue data unit: See ETS 300 075 [13].

executable test suite: See ISO 9646-1 [4].

extended coding structure: See ETS 300 223 [2] or ETS 300 079 [3], respectively.

in-band: See ETS 300 223 [2].

indication: See Service Conventions Standard, ISO/TR 8509 [18].

implementation under test: See ISO 9646-1 [4].

logical channel: See ETS 300 223 [2] or ETS 300 079 [3].

lower tester: See ISO 9646-1 [4].

network connection: See OSI Reference Model, ISO 7498 [16].

network layer: See OSI Reference Model, ISO 7498 [16].

network service: See OSI Reference Model, ISO 7498 [16].

out-band: See ETS 300 223 [2].

point of control and observation: See ISO 9646-1 [4].

protocol implementation conformance statement: See ISO 9646-1 [4].

protocol implementation extra information for testing: See ISO 9646-1 [4].

primitive: See Service Conventions Standard, ISO/TR 8509 [18].

request: See Service Conventions Standard, ISO/TR 8509 [18].

response: See Service Conventions Standard, ISO/TR 8509 [18].

system under test: See ISO 9646-1 [4].

telematic command: See ETS 300 223 [2] or ETS 300 079 [3].

terminal function: See ETS 300 223 [2] or ETS 300 079 [3].

tree and tabular combined notation: See ISO 9646-3 [6].

4 Abbreviations

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

AF	Access Function
AS	Application Selection
ASP	Abstract Service Primitive
ATS	Abstract Test Suite
BCS	Basic Coding Structure
BI	Inopportune Behaviour
BIC	Basic Interconnection Test (for the purposes of annex E)
BIS	Bearer Independent Service
BIT	Basic Interconnection Test
BO	Invalid Behaviour
BV	Valid Behaviour
CA	Capability
CCITT	International Telegraph and Telephone Consultative Committee
CCM	Communication Channel Management
CMP	Channel Management Procedure
DDU	Dialogue Data Unit
DFK	Definable Function Key
ESC	Escape Services
ETS	Executable Test Suite
ETSI	European Telecommunications Standards Institute
EV	Encoding Variation
FFC	Free Format Coding
IB	In-Band
I-ETS	Interim European Telecommunication Standard
INCONC	Inconclusive
ISDN	Integrated Services Digital Network
ISO	International Organization for Standardization
IUT	Implementation Under Test
KE	Kernel
LT	Lower Tester
MCC	Multiple Channel Co-ordination
MSB	Most Significant Bit
OB	Out-of-Band
OSI	Open Systems Interconnection
PC	Parameter Combination
PCO	Point of Control and Observation
PDU	Protocol Data Unit
PICS	Protocol Implementation Conformance Statement
PIXIT	Protocol Implementation eXtra Information for Testing
PSPDN	Public Switched Telephone Network
PSTN	Packet Switched Public Data Network
PV	Parameter Variation
SAP	Service Access Point
SBV	Syntax-based Videotex
SE	State Event
SUT	System Under Test
TC	Telematic Command
TF	Terminal Function
TFI	Terminal Facility Identifier
TI	Timing/Timer Variation
TPD	Transparent Processable Data
TTCN	Tree and Tabular Combined Notation
UI	User-to-User Information

5 Test suite overview

5.1 Test suite structure

The test suite structure complies, in general, with ISO 9646-2 [5] and takes into account the recommendations expressed by EWOS/ETSI PT5.

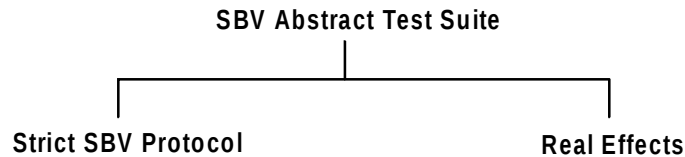
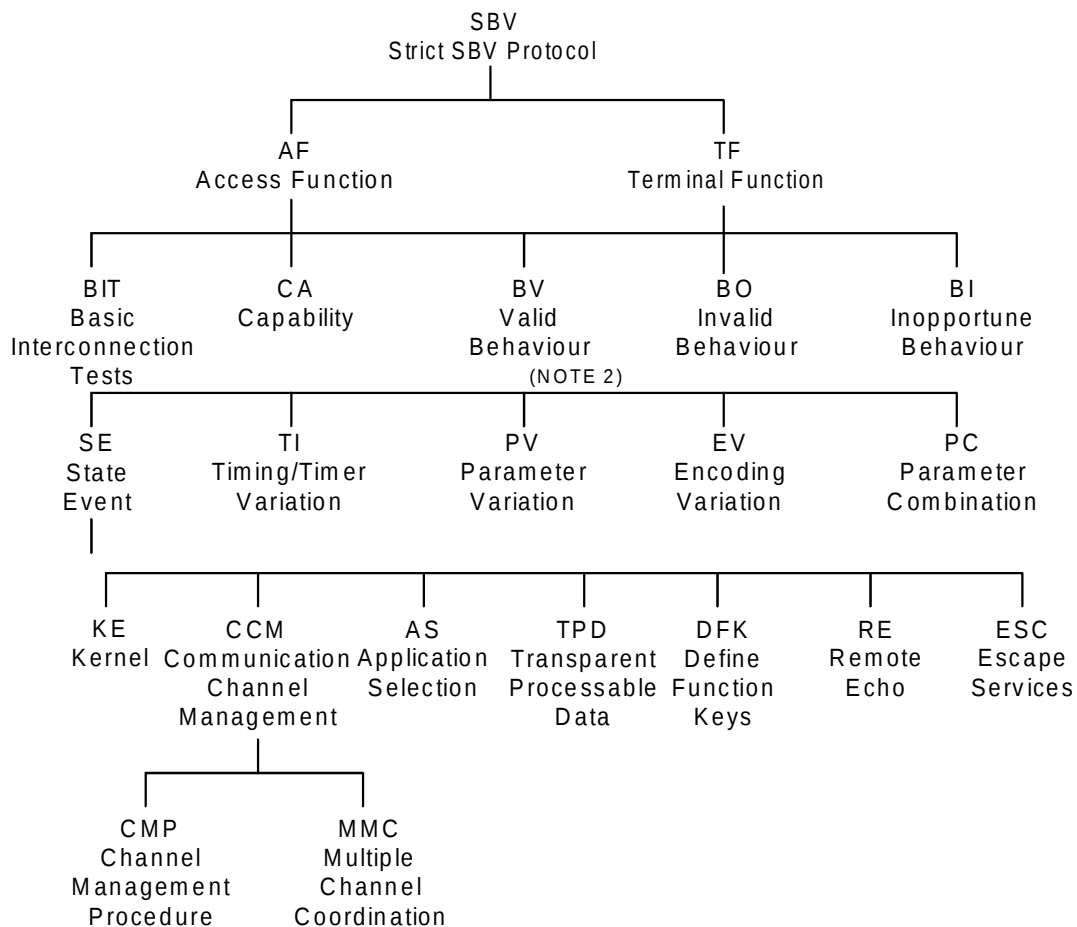


Figure 1: SBV ATS Structure

The **SBV Abstract Test Suite** is hierarchically structured. At the highest level, the ATS consists of two test groups: **Strict SBV protocol** and **Real Effects** (see figure 1) which are treated separately below.

NOTE 1: A justification for the real effect test group can be found in annex J (informative).

The test group **Strict SBV protocol** (SBV) contains all test cases related to the SBV protocol. Figure 2 shows the general structure of this test group.



NOTE 1: Some of the branches below may be empty depending on the conformance requirements of the base standard(s).

NOTE 2: The lowest level Test Group may be structured in Test Groups as well. These Groups are not shown here.

Figure 2: SBV ATS Structure, Strict SBV protocol

The **Strict SBV protocol** (SBV) test group comprises two test groups, one for **Access Function** (AF) related test cases and the other for **Terminal Function** (TF) related test cases. Both, the AF and the TF test group comprises the following test groups: **Basic Interconnection** (BIT), **Capability** (CA), **Valid Behaviour** (BV), **Invalid Behaviour** (BO) and **Inopportune Behaviour** (BI).

The test groups **Basic Interconnection Tests** (BIT) and **Capability** (CA) have no additional structure.

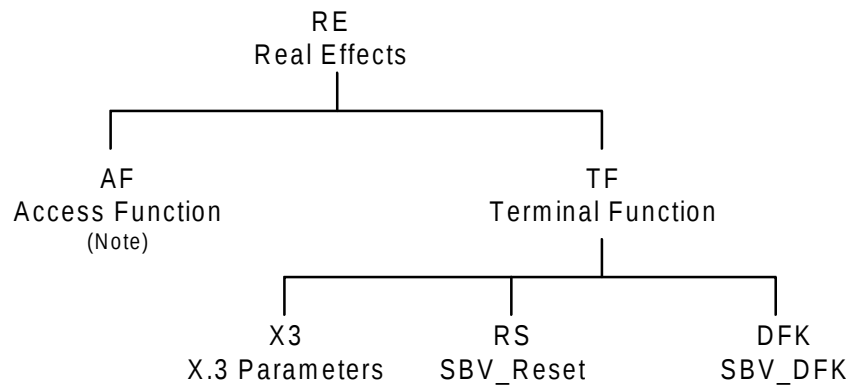
Each of the test groups **Valid Behaviour** (BV), **Invalid Behaviour** (BO) and **Inopportune Behaviour** (BI) comprises the following test groups: **State Event** (SE), **Timing/Timer Variation** (TI), **Parameter Variation** (PV), **Encoding Variation** (EV) and **Parameter Combination** (PC).

NOTE 2: Depending on the conformance requirements, some of these test groups may have no contents; for instance there is no other timing requirement than one related to BI.

Following the structure of the SBV protocol definition, each of these test groups is additionally structured into the test groups: **Kernel** (KE), **Communication Channel Management** (CCM), **Application Selection** (AS), **Transparent Processable Data** (TPD), **Define Function Keys** (DFK), **Remote Echo** (RE) and **Escape Services** (ESC).

Out of these test groups only **Communication Channel Management** (CCM) is additionally structured comprising the two test groups **Channel Management Procedure** (CMP) and **Multiple Channel Co-ordination** (MCC).

The test group **Real Effects** (RE) contains all test cases not related to the SBV protocol. Figure 3 shows the general structure of this test group.



NOTE: May be empty. This has to be studied carefully. As the real effect test group is currently out of scope (see below), these studies have to be made later on.

Figure 3: SBV ATS Structure, Real Effects

NOTE 3: For reasons given in annex J conformance requirements of the base standard(s) are currently just identified here. However, there is no test case in this test group, yet. It may occur that the structure will change in this test group in a future version, e.g. for reasons caused by the test method to be applied in the area of real effect testing.

The test group **Real Effects** (RE) comprises two test groups, one for **Access Function** (AF) related test cases and another one for **Terminal Function** (TF) related test cases.

The **Terminal Function** (TF) test group comprises the test groups: **X.3 Parameters** (X3), **SBV_Reset** (RS) and **SBV_DFK** (DFK).

NOTE 4: For the **CCITT Recommendation X.3 [8] Parameters** (X.3) test group some tests can be found in a CTS-2 document (see annex K (informative)).

From the above structure, it is possible to uniquely identify a test group with, for example, SBV/TF/BV/SE/KE.

The test cases in each group are numbered with a single integer starting from 1.

5.2 Test purposes

The test purposes of this ATS are given in conjunction with the TTCN tables in the test step library (see clause 9) on a case by case basis.

NOTE: To allow an easy overview, the test purposes of this ATS are repeated in annex E (informative).

5.3 Method of conformance testing

For test cases contained in the Strict SBV protocol (SBV) test group, the single layer Remote Test applies, as defined by ISO 9646-2 [5], subclause 12.4.5.

NOTE: It is currently an open issue which test method might be used in case of the Real Effects (RE) test group. For more information see the note in annex J (informative).

5.3.1 SBV protocol Data Unit (PDU)

This subclause is given to clarify some aspects of the SBV PDU definition given by the protocol standard(s). This clarification is caused by some conformance testing requirements which are not in the scope of the base standard(s).

Within the present document, an SBV PDU is an abstract view of the SBV protocol event/action using the Bearer Independent Service (BIS) service, together with the information exchanged between two peer SBV protocol entities.

This information exchanged between peer entities is comprised of a set of parameters: the PDU parameters.

Amongst all the parameters related to a given SBV service, the SBV PDU parameters are those that are conveyed by lower layers (1 to 3), and the semantics of which do not concern the lower layers.

The PDU parameters can be identified from the tables of subclause 8.3 of ETS 300 223 [2] by the following rule: if a parameter is mapped onto the BIS-User-Data parameter of a BIS service primitive, then it is an SBV PDU parameter.

NOTE: The BIS-User-Data parameter of a BIS service primitive is another abstraction defining the information transparently conveyed by the lower layers (see below).

EXAMPLE 1: For the SBV_Establish service, the OB_Called_Address parameter is used to identify the called BI-SAP (Service Access Point) of the peer layer 3. Thus, it is not a SBV PDU parameter. In contrast, OB_Application_Address parameter is conveyed by layer 3 but its semantics only concern SBV protocol. Therefore, it is an SBV PDU parameter.

This view, making use of both abstractions that are the SBV PDU and the BIS-user-data, allows notations in which the SBV PDU is put in the "BIS-user-data" part of a BIS service primitive (see Abstract Service Primitive (ASP) Constraints Declarations part).

Physically, neither an SBV PDU nor a BIS-User-Data field can be considered as a contiguous block of data or set of parameters (it is the case, however, for Telematic Commands, for VTX-Data Transfer services, and for X3/X29 messages).

EXAMPLE 2: For an SBV_Establish service, some parameters will be put e.g. in the UUI part of a SETUP message, others will be put e.g. in the Call User Data field of a Call request, depending on the type of network.

A SBV PDU can even be empty, if no parameter is present.

5.3.2 Use of Bearer Independent Service (BIS)

For the use in this ATS, the events/actions related to the SBV protocol behaviour are defined in the TTCN Declarations part.

According to the standard to which they apply, these events/actions can be defined in two different manners:

- using Bearer-Independent Service (BIS): ETS 300 223 [2] manner;

- using layer 3 Packet definitions: ETS 300 079 [3] manner.

In order to avoid duplication of work, the present definition uses only the BIS (Bearer Independent Service) as defined in ETS 300 223 [2], clause 11.

Annex H (normative) to the present document defines the correspondence between the definitions given in the TTCN Declarations part and ETS 300 079 [3]. This allows the application of the main part of the ATS given in the present document to all SBV equipment, regardless which protocol standard is used. The tests written for the protocol elements: SBV_Reset_TC, SBV_End_Immediate, SBV_Remote_Echo shall be systematically de-selected when testing an ETS 300 079 [3] based terminal.

6 Declarations

6.1 Test Suite Parameters Declaration

Table 1: Test Suite Parameters related to IUT as a Terminal Function

Test Suite Parameters			
Name	Type	PICS/PIXIT Reference	Comments
Tsp_TF_CO_Req_OB_C_Addr	OCTETSTRING	PIXIT : 9/1	Note 1
Tsp_TF_CO_Req_OB_C_Sub	OCTETSTRING	PIXIT : 9/2	Note 1
Tsp_TF_CO_OB_Appl_Addr	OCTETSTRING	PIXIT : 9/3	Note 1
Tsp_TF_CO_OB_Appl_Sel	OCTETSTRING	PIXIT : 9/4	Note 1
Tsp_TF_CO_OB_Appl_Data	OCTETSTRING	PIXIT : 9/5	Note 1
Tsp_TF_CO_Req_OB_User_Data	OCTETSTRING	PIXIT : 9/6	Note 1; note 2
Tsp_TF_CO_Req_IB_C_Addr	OCTETSTRING	PIXIT : 9/7	Note 1
Tsp_TF_CO_IB_Appl_Addr	OCTETSTRING	PIXIT : 9/8	Note 1
Tsp_TF_CO_IB_Appl_Sel	OCTETSTRING	PIXIT : 9/9	Note 1
Tsp_TF_CO_IB_Appl_Data	OCTETSTRING	PIXIT : 9/10	Note 1
Tsp_TF_CO_IB_User_Data	OCTETSTRING	PIXIT : 9/11	Note 1; note 2
Tsp_TF_CO_Pack_Size	INTEGER 1..7	PIXIT : 9/12	Note 1
Tsp_TF_CO_Win_Size	INTEGER 1..7	PIXIT : 9/13	Note 1
Tsp_TF_CO_Ref1	OCTETSTRING	PIXIT : 9/14	Note 1
Tsp_TF_TFI_Enq	OCTETSTRING	PIXIT : 10/1	TFI parameter acceptable by the IUT
Tsp_TF_X3_Parameter	OCTET	PIXIT : 11/1	One X3 parameter supported by the IUT
Tsp_TF_X3_Param_Value	OCTET	PIXIT : 11/2	One value acceptable for the Tsp_TF_X3_Parameter
Tsp_TF_Function_Key_ID	OCTET	PIXIT : 12/1	Identification of one function key supported by the IUT
Tsp_TF_Function_Key_ID_NS	OCTET	PIXIT : 12/4	Identification of one function key NOT supported by the IUT
Tsp_TF_Vis_Name	OCTETSTRING	PIXIT : 12/2	One possible User Visible Name for Funct. key Tsp_TF_Function_Key_ID
Tsp_TF_DFK_Code_Seq	OCTETSTRING	PIXIT : 12/3	One possible Code Sequence for Funct. key Tsp_TF_Function_Key_ID
Tsp_TF_Est_OB_Appl_Addr	OCTETSTRING	PIXIT : 17/1	Note 3
Tsp_TF_Est_OB_Appl_Sel	OCTETSTRING	PIXIT : 17/2	Note 3
Tsp_TF_Est_OB_Appl_Data	OCTETSTRING	PIXIT : 17/3	Note 3
Tsp_TF_Est_OB_User_Data	OCTETSTRING	PIXIT : 17/4	Note 2; note 3
Tsp_TF_Est_IB_Addr	OCTETSTRING	PIXIT : 17/5	Note 3; note 4
Tsp_TF_Est_IB_Appl_Ad	OCTETSTRING	PIXIT : 17/6	Note 3
Tsp_TF_Est_IB_Appl_Sel	OCTETSTRING	PIXIT : 17/7	Note 3
Tsp_TF_Est_IB_Appl_Dat	OCTETSTRING	PIXIT : 17/8	Note 3
Tsp_TF_Est_IB_User_Dat	OCTETSTRING	PIXIT : 17/9	Note 3
Tsp_TF_Est_Ref1	OCTETSTRING	PIXIT : 17/10	Note 3; note 5
Tsp_TF_Est_Ref2	OCTETSTRING	PIXIT : 17/10	Note 3; note 5

(continued)

Table 1 (concluded): Test Suite Parameters related to IUT as a Terminal Function**Comments:**

NOTE 1: These parameters are to be carried by a SBV_Channel_Open request PDU sent by the Lower Tester to the IUT. They are defined as being acceptable by the IUT.

NOTE 2: These strings shall be encoded according to the Free Format requirement (ETS 300 079 [3], subclause 9.4.3; ETS 300 223 [2], subclause 9.3.1) i.e. the Most Significant Bit (MSB) of their first octet shall be 0.

NOTE 3: These parameters are to be carried by a SBV_ESTABLISH request sent by the IUT to the Lower Tester. The values given shall be the ones expected by the Lower Tester on the received PDUs.

NOTE 4: This parameter is relevant if In-Band addressing only is not used.

NOTE 5: These are two references of channels that can be opened with the IUT.

Table 2: Test Suite Parameters related to IUT as an Access Function

Test Suite Parameters			
Name	Type	PICS/PIXIT Reference	Comments
Tsp_AF_IUT_OB_Addr	OCTETSTRING	PIXIT: 2/1	IUT Out-of-Band address (if any)
Tsp_AF_IUT_OB_Sub	OCTETSTRING	PIXIT: 2/2	IUT Out-of-Band subaddr. (if any)
Tsp_AF_IUT_IB_Addr	OCTETSTRING	PIXIT: 2/3	IUT InBand Address (if any)
Tsp_AF_LT_OB_Addr	OCTETSTRING	PIXIT: 3/1	Lower Tester Out-of-Band address (if any)
Tsp_AF_LT_OB_Sub	OCTETSTRING	PIXIT: 3/2	Lower Tester Out-of-Band subaddr. (if any)
Tsp_AF_LT_IB_Addr	OCTETSTRING	PIXIT: 3/3	Lower Tester InBand Address (if any)
Tsp_AF_Est_OB_Appl_Addr	OCTETSTRING	PIXIT: 4/1	Note 1
Tsp_AF_Est_OB_Appl_Sel	OCTETSTRING	PIXIT: 4/2	Note 1
Tsp_AF_Est_OB_Appl_Data	OCTETSTRING	PIXIT: 4/3	Note 1
Tsp_AF_Est_OB_User_Data	OCTETSTRING	PIXIT: 4/4	Note 1; note 2
Tsp_AF_Est_IB_Addr	OCTETSTRING	PIXIT: 4/5	Note 1; note 3
Tsp_AF_Est_IB_Appl_Addr	OCTETSTRING	PIXIT: 4/6	Note 1
Tsp_AF_Est_IB_Appl_Sel	OCTETSTRING	PIXIT: 4/7	Note 1
Tsp_AF_Est_IB_Appl_Data	OCTETSTRING	PIXIT: 4/8	Note 1
Tsp_AF_Est_IB_User_Data	OCTETSTRING	PIXIT: 4/9	Note 1; note 2
Tsp_AF_Est_Ref1	OCTETSTRING	PIXIT: 4/10	Note 1; note 4
Tsp_AF_Est_Ref2	OCTETSTRING	PIXIT: 4/10	Note 1; note 4
Tsp_AF_TFI_Ack	OCTETSTRING	PIXIT: 5/1	TFI parameter acceptable by the IUT
Tsp_AF_BA_IB_Appl_Addr	OCTETSTRING	PIXIT: 6/1	Note 5
Tsp_AF_BA_IB_Appl_Sel	OCTETSTRING	PIXIT: 6/2	Note 5
Tsp_AF_BA_IB_Appl_Data	OCTETSTRING	PIXIT: 6/3	Note 5
Tsp_AF_BA_IB_User_Data	OCTETSTRING	PIXIT: 6/4	Note 5; note 2
Tsp_AF_CO_Req_OB_C_Addr	OCTETSTRING	PIXIT: 16/1	Note 6
Tsp_AF_CO_Req_OB_C_Sub	OCTETSTRING	PIXIT: 16/2	Note 6
Tsp_AF_CO_OB_Appl_Addr	OCTETSTRING	PIXIT: 16/3	Note 6
Tsp_AF_CO_OB_Appl_Sel	OCTETSTRING	PIXIT: 16/4	Note 6
Tsp_AF_CO_OB_Appl_Data	OCTETSTRING	PIXIT: 16/5	Note 6
Tsp_AF_CO_Req_OB_User_Data	OCTETSTRING	PIXIT: 16/6	Note 6; note 2
Tsp_AF_CO_Req_IB_C_Addr	OCTETSTRING	PIXIT: 16/7	Note 6
Tsp_AF_CO_IB_Appl_Addr	OCTETSTRING	PIXIT: 16/8	Note 6
Tsp_AF_CO_IB_Appl_Sel	OCTETSTRING	PIXIT: 16/9	Note 6
Tsp_AF_CO_IB_Appl_Data	OCTETSTRING	PIXIT: 16/10	Note 6
Tsp_AF_CO_IB_User_Data	OCTETSTRING	PIXIT: 16/11	Note 6; note 2
Tsp_AF_CO_Pack_Size	INTEGER 1..7	PIXIT: 16/12	Note 6
Tsp_AF_CO_Win_Size	INTEGER 1..7	PIXIT: 16/13	Note 6
Tsp_AF_CO_Ref1	OCTETSTRING	PIXIT: 16/14	Note 6
Tsp_AF_CO_Ind_OB_Cause	OCTETSTRING	PIXIT: 7/1	Note 7
Tsp_AF_CO_Ind_IB_Cause	OCTETSTRING	PIXIT: 7/2	Note 7
Tsp_AF_CO_Ind_IB_Diagnostic	OCTETSTRING	PIXIT: 7/3	Note 7
Tsp_AF_CE_Ind_OB_Cause	OCTETSTRING	PIXIT: 8/1	Note 8
Tsp_AF_CE_Ind_IB_Cause	OCTETSTRING	PIXIT: 8/2	Note 8
Tsp_AF_CE_Ind_IB_Diagnostic	OCTETSTRING	PIXIT: 8/3	Note 8

(continued)

Table 2 (concluded): Test Suite Parameters related to IUT as an Access Function

Comments:
NOTE 1: These parameters are to be carried by a SBV_Establish PDU sent by the Lower Tester to the IUT. They are defined as being acceptable by the IUT.
NOTE 2: These strings shall be encoded according to the free format requirement (ETS 300 079 [3], subclause 9.4.3; ETS 300 223 [2], subclause 9.3.1) i.e. the MSB of their first octet shall be 0.
NOTE 3: This parameter is relevant if In-Band addressing is not used only.
NOTE 4: These are two references of channels that can be opened with the IUT.
NOTE 5: These parameters are to be carried by a SBV_Begin_Application PDU sent by the Lower Tester to the IUT. As a matter of fact, the semantics of these parameters are out of scope of the SBV standards, and one can admit the case of an allowable value carried by a SBV_Establish PDU having to be excluded on a SBV_Begin_Application, and vice-versa.
NOTE 6: These parameters are to be carried by a SBV_CHANNEL_OPEN request sent by the IUT to the Lower Tester. The values given shall be the ones expected by the Lower Tester on the received PDUs.
NOTE 7: These parameters are to be carried by a SBV_CHANNEL_OPEN response sent by the Lower Tester to the IUT.
NOTE 8: These parameters are to be carried by a SBV_CHANNEL_ERROR request sent by the Lower Tester to the IUT.

Table 3: Test Suite Parameters related to IUT of any Function

Test Suite Parameters			
Name	Type	PICS/PIXIT Reference	Comments
Tsp_Reset_mapped_on_TC	BOOLEAN	PICS: 8/2	TRUE if Reset is mapped on BIS_N_Q_DATA
Tsp_DDU_FB_Mode_receive	OCTETSTRING	PIXIT: 14/1	Acceptable by the IUT
Tsp_Esc_Service_ID_receive	OCTETSTRING	PIXIT: 15/1	Acceptable by the IUT
Tsp_Esc_Data_receive	OCTETSTRING	PIXIT: 15/2	String acceptable by the IUT
Tsp_Vtx_Data_String_receive	OCTETSTRING	PIXIT: 13/1	String acceptable by the IUT
Tsp_DDU_FB_Mode_send	OCTETSTRING	PIXIT: 20/1	Expected from the IUT
Tsp_Esc_Service_ID_send	OCTETSTRING	PIXIT: 21/1	Expected from the IUT
Tsp_Esc_Data_send	OCTETSTRING	PIXIT: 21/2	String expected from the IUT
Tsp_Vtx_Data_String_send	OCTETSTRING	PIXIT: 19/1	String expected from the IUT
Comments:			

Table 4: Test Suite Parameters related to Timers

Test Suite Parameters			
Name	Type	PICS/PIXIT Reference	Comments
Tsp_CS_Timer	INTEGER	PIXIT: 22/1	Duration of timer CS_Timer.
Tsp_NCS_Timer	INTEGER	PIXIT: 22/2	Duration of timer NCS_Timer.
Tsp_Oper_Timer	INTEGER	PIXIT: 22/3	Duration of timer Oper_Timer.
Tsp_Wait_Timer	INTEGER	PIXIT: 22/4	Duration of timer Wait_Timer.
Tsp_Error_Timer	INTEGER	PIXIT: 22/5	Duration of timer Error_Timer.
Tsp_CH_Timer	INTEGER	PIXIT: 22/6	Duration of timer CH_Timer.
Tsp_Wait_Release_Timer	INTEGER	PIXIT: 22/7	Duration of timer Wait_Release.
Comments:			
The timers are declared separately, in table 56.			

6.2 Test case De-Selection

NOTE: This is a place-holder for an empty test case selection table. The completion of this table is left for the possible transition from the present document to an ETS. As a consequence, and for an interim period, de-selection of those test cases related to optional elements of the bases standard must be done by other means.

6.3 Test case Variables Declaration

None.

6.4 Test Suite Constants Declaration

None.

6.5 Test Suite Variables Declaration

None.

6.6 Point Control and Observations (PCOs) declaration

Table 5: PCOs

PCO Declarations			
PCO Name	PCO Type	Role	Comments
L1	BI-SAP	LT	Main Bearer-Independent-Service service access point at the lower tester.
L2	BI-SAP	LT	Secondary Bearer-Independent-Service service access point at the lower tester.
Detailed Comments: As the testing method is remote, the only PCOs defined are Lower Tester PCOs. The default PCO is L1 (! means L1!; ? means L1?). The "Secondary" PCO L2 is defined when 2 instances of SBV protocol machines are to coexist: for instance when a slave channel is opened. In this case, the new instance of protocol machine uses a new SAP which corresponds to the PCO L2.			

6.7 PDUs declaration

According to ISO 9646-3 [6], Structured Types should be defined for every parameter encoded according to the Basic Coding Structure (BCS) or to the Extended Coding Structure (ECS). Instead, and for simplification, xx - BCS and xx - ECS abbreviations are used. Their meaning is brought to attention in the tables which make use of them.

6.7.1 PDU Type declaration

Table 6

PDU Type Definition		
PDU Name	:	EST_REQ (SBV_ESTABLISH request)
PCO Type	:	BI-SAP
Comments	:	
PDU Field Information		
Field Name	Type	Comments
Header:	-	NOTE 1
Parameters:		NOTE 2
OB_Application_Address	09/08 - ECS	ETS 300 079 [3] subclauses 9.3.2 & 9.4.4
OB_Application_Selection	10/08 - ECS	ETS 300 079 [3] subclauses 9.3.2 & 9.4.4
OB_Application_Data	11/08 - ECS	ETS 300 079 [3] subclauses 9.3.2 & 9.4.4
OB_User_Data	FFC	ETS 300 079 [3] subclause 9.4.3
IB_Application_Address	09 - BCS	ETS 300 079 [3] subclauses 9.3.1 & 9.4.4
IB_Application_Selection	10 - BCS	ETS 300 079 [3] subclauses 9.3.1 & 9.4.4
IB_Application_Data	11 - BCS	ETS 300 079 [3] subclauses 9.3.1 & 9.4.4
IB_User_Data	FFC	ETS 300 079 [3] subclause 9.4.3
Reference	12 - BCS	ETS 300 079 [3] subclause 9.4.4
Reverse_Role_Assignment	14 - BCS (void)	ETS 300 079 [3] subclause 9.4.4
IB_Called_Address		note 3
Detailed Comments: xx - ECS means Extended Coding Structure (ETS 300 079 [3], subclause 9.3.2), with xx code value. xx - BCS means Basic Coding Structure (ETS 300 079 [3], subclause 9.3.1), with xx code value. FFC means Free Format Coding (ETS 300 079 [3], 9.4.3). NOTE 1: A SBV_ESTABLISH request PDU is an abstract view of an event/action (defined by a BIS service primitive) and an associated set of parameters. It is not a contiguous block of data and therefore the concept of header does not apply. NOTE 2: A SBV_ESTABLISH request PDU may be void i.e. have no parameters. NOTE 3: IB_Called_Address is a PDU parameter only when In-Band addressing is NOT used (e.g. DTE/DTE circuit mode), because in this case, this parameter is used to convey application layer information. When In-Band addressing is used, this parameter is not here. IB_Called address coding is defined in ISO/IEC 8208 [17].		

Table 7

PDU Type Definition		
PDU Name	:	EST_RESP (SBV_ESTABLISH response)
PCO Type	:	BI-SAP
Comments	:	
PDU Field Information		
Field Name	Type	Comments
Header:	-	NOTE 1
Parameters:	-	NOTE 2
Result	13 - BCS (integer)	ETS 300 079 [3] subclause 9.4.4
Detailed Comments:		
xx - BCS means Basic Coding Structure (ETS 300 079 [3], subclause 9.3.1), with xx code value.		
NOTE 1: A SBV_ESTABLISH response PDU is an abstract view of an event/action (defined by a BIS service primitive) and an associated set of parameters. It is not a contiguous block of data and therefore the concept of header does not apply.		
NOTE 2: A SBV_ESTABLISH response PDU may be void i.e. have no parameters.		

Table 8

PDU Type Definition		
PDU Name	:	REL_REQ (SBV_RELEASE request)
PCO Type	:	BI-SAP
Comments	:	
PDU Field Information		
Field Name	Type	Comments
Header:	-	NOTE 1
Parameters:	-	NOTE 2
Result	13 - BCS (integer)	ETS 300 079 [3] subclause 9.4.4
Detailed Comments:		
xx - BCS means Basic Coding Structure (ETS 300 079 [3], subclause 9.3.1), with xx code value.		
NOTE 1: A SBV_RELEASE request PDU is an abstract view of an event/action (defined by a BIS service primitive) and an associated set of parameters. It is not a contiguous block of data and therefore the concept of header does not apply.		
NOTE 2: A SBV_RELEASE request PDU may be void i.e. have no parameters.		
NOTE 3: The service primitive parameters OB_Cause, IB_Cause, and IB_Diagnostic are not SBV (layer 7) PDU parameters, but a mapping of the layer 3 service primitive parameters onto the SBV service primitive parameters.		

Table 9

PDU Type Definition		
PDU Name	:	RES_REQ (SBV_RESET request)
PCO Type	:	BI-SAP
Comments	:	This is the RESET PDU to be carried by a BIS-N-RESET SERVICE see ETS 300 223 [2], subclause 8.3.3.
PDU Field Information		
Field Name	Type	Comments
Header:	-	NOTE 1
Parameters:	-	NOTE 2
Detailed Comments: NOTE 1: A SBV_RESET request PDU is an abstract view of an event/action (defined by a BIS service primitive) and an associated set of parameters. It is not a contiguous block of data and therefore the concept of header does not apply. NOTE 2: The SBV_RESET request PDU has no parameters.		

Table 10

PDU Type Definition		
PDU Name	:	RES_RESP (SBV_RESET response)
PCO Type	:	BI-SAP
Comments	:	This is the RESET PDU to be carried by a BIS-N-RESET SERVICE see ETS 300 223 [2], subclause 8.3.3.
PDU Field Information		
Field Name	Type	Comments
Header:	-	NOTE 1
Parameters:	-	NOTE 2
Detailed Comments: NOTE 1: A SBV_RESET response PDU is an abstract view of an event/action (defined by a BIS service primitive) and an associated set of parameters. It is not a contiguous block of data and therefore the concept of header does not apply. NOTE 2: The SBV_RESET response PDU has no parameters.		

Table 11

PDU Type Definition		
PDU Name	:	RES_TC_REQ (SBV_RESET_TC request)
PCO Type	:	BI-SAP
Comments	:	This is the RESET Telematic Command to be carried by a BIS-N-Q-DATA. see ETS 300 223 [2], subclause 8.3.3.
PDU Field Information		
Field Name	Type	Comments
Header:		
Telematic VTX Header	04/00	CCITT Recommendation X.29 [9] ETS 300 079 [3], subclause 9.2 ETS 300 223 [2], subclause 9.1 Length of TCM
SBV TC Header	09/14	
Reset TC Code	00/11	
TC Length	OCTET	
Parameters:	-	NOTE
Detailed Comments:		
NOTE: The SBV_RESET_TC request PDU has no parameters.		

Table 12

PDU Type Definition		
PDU Name	:	RES_TC_RESP (SBV_RESET_TC response)
PCO Type	:	BI-SAP
Comments	:	This is the RESET Telematic Command to be carried by a BIS-N-Q-DATA. see ETS 300 223 [2], subclause 8.3.3.
PDU Field Information		
Field Name	Type	Comments
Header:		
Telematic VTX Header	04/00	CCITT Recommendation X.29 [9] ETS 300 079 [3], subclause 9.2
SBV TC Header	09/14	
Reset		
TC Code	00/11	ETS 300 223 [2], subclause 9.1 Length of TCM
TC Length	OCTET	
Parameters:		
Result	13 - BCS (integer)	ETS 300 223 [2], subclause 9.3.1.
Detailed Comments:		

Table 13

PDU Type Definition		
PDU Name	:	DATA_REQ (SBV_VTX_DATA request)
PCO Type	:	BI-SAP
Comments	:	
PDU Field Information		
Field Name	Type	Comments
Header:	-	NOTE
Parameters:		
VTX_Data	-	Coding is a matter of syntax.
Detailed Comments:		
NOTE: A SBV_VTX_DATA request PDU is an event/action (defined by a BIS service primitive) and an associated block of data. It always makes exclusive use of the same BIS service primitive, and therefore no header is needed.		

Table 14

PDU Type Definition		
PDU Name	:	SP_REQ (SBV_SET_PARAM request)
PCO Type	:	BI-SAP
Comments	:	
PDU Field Information		
Field Name	Type	Comments
Header:		
X.29 Message Header	00/02	CCITT Recommendation X.29 [9] Table 2
Parameters:		
X3_Parameter_List	X3_Param_List_Struct	NOTE
Detailed Comments:		
NOTE: X3_Parameter_List parameter is substructured according to CCITT Recommendation X.29 [9] and CCITT Recommendation X.3 [8]. The TTCN X3_Param_List_Struct parameter is defined in the Structured Type Declarations.		

Table 15

PDU Type Definition		
PDU Name	:	RP_REQ (SBV_READ_PARAM request)
PCO Type	:	BI-SAP
Comments	:	
PDU Field Information		
Field Name	Type	Comments
Header:		
X.29 Message Header	00/04	CCITT Recommendation X.29 [9] Table 2
Parameters:		
X3_Parameter_List	X3_Param_List_Struct	NOTE
Detailed Comments:		
NOTE: X3_Parameter_List parameter is substructured according to CCITT Recommendation X.29 [9] and CCITT Recommendation X.3 [8]. The TTCN X3_Param_List_Struct parameter is defined in the Structured Type Declarations.		

Table 16

PDU Type Definition		
PDU Name	:	SRP_REQ (SBV_SET_READ_PARAM request)
PCO Type	:	BI-SAP
Comments	:	
PDU Field Information		
Field Name	Type	Comments
Header:		
X.29 Message Header	00/05	CCITT Recommendation X.29 [9] Table 2
Parameters:		
X3_Parameter_List	X3_Param_List_Struct	NOTE
Detailed Comments:		
NOTE: X3_Parameter_List parameter is substructured according to CCITT Recommendation X.29 [9] and CCITT Recommendation X.3 [8]. The TTCN X3_Param_List_Struct parameter is defined in the Structured Type Declarations.		

Table 17

PDU Type Definition		
PDU Name	:	PI_REQ (SBV_PARAM_IND request)
PCO Type	:	BI-SAP
Comments	:	
PDU Field Information		
Field Name	Type	Comments
Header:		
X.29 Message Header	00/00	CCITT Recommendation X.29 [9] Table 2
Parameters:		
X3_Parameter_List	X3_Param_List_Struct	NOTE
Detailed Comments:		
NOTE: X3_Parameter_List parameter is substructured according to CCITT Recommendation X.29 [9] and CCITT Recommendation X.3 [8]. The TTCN X3_Param_List_Struct parameter is defined in the Structured Type Declarations.		

Table 18

PDU Type Definition		
PDU Name	:	TFI_REQ (SBV_TFI request)
PCO Type	:	BI-SAP
Comments	:	
PDU Field Information		
Field Name	Type	Comments
Header:		
Telematic VTX Header	04/00	CCITT Recommendation X.29 [9] ETS 300 079 [3], subclause 9.2 ETS 300 079 [3], table 40 Length of TCM
SBV TC Header	09/14	
TFI TC Code	00/05	
TC Length	OCTET	
Parameters:		
TFI_Enq	OCTET STRING	ETS 300 076 [14] matter
Detailed Comments:		

Table 19

PDU Type Definition		
PDU Name	:	TFI_RESP (SBV_TFI response)
PCO Type	:	BI-SAP
Comments	:	
PDU Field Information		
Field Name	Type	Comments
Header:		
Telematic VTX Header	04/00	CCITT Recommendation X.29 [9]
SBV TC Header	09/14	ETS 300 079 [3], subclause 9.2
TFI TC Code	00/05	ETS 300 079 [3], table 40
TC Length	OCTET	Length of TCM
Parameters:		
TFI_Ack	OCTET STRING	ETS 300 076 [14] matter
Detailed Comments:		

Table 20

PDU Type Definition		
PDU Name	:	TCER_REQ (SBV_TC_ERROR request)
PCO Type	:	BI-SAP
Comments	:	
PDU Field Information		
Field Name	Type	Comments
Header:		
Telematic VTX Header	04/00	CCITT Recommendation X.29 [9]
SBV TC Header	09/14	ETS 300 079 [3], subclause 9.2
TC_ERROR TC Code	00/01	ETS 300 079 [3], table 40
TC Length	OCTET	Length of TCM
Parameters:		NOTE 1
Error_Code ETS 300 079 [3]	Error_Code_Struct	NOTE 2; subclauses 9.4.5.1 & 9.4.4
Detailed Comments:		
xx - ECS means Extended Coding Structure (ETS 300 079 [3], subclause 9.3.2), with xx code value. NOTE 1: The service primitive parameter Error_Location is not a SBV PDU parameter. NOTE 2: Error_Code parameter is an Extended Coding Structure Octet Sequence, which is substructured according to ETS 300 079 [3], subclause 9.4.5.1. The TTCN Error_Code_Struct parameter is defined in the Structured Type Declarations.		

Table 21

PDU Type Definition		
PDU Name	:	CO_REQ (SBV_CHANNEL_OPEN request)
PCO Type	:	BI-SAP
Comments	:	
PDU Field Information		
Field Name	Type	Comments
Header:		
Telematic VTX Header	04/00	CCITT Recommendation X.29 [9]
SBV TC Header	09/14	ETS 300 079 [3], subclause 9.2
Channel Open TC Code	00/02	ETS 300 079 [3], table 40
TC Length	OCTET	Length of TCM
Parameters:		
Req_OB_Called_Address	08/12 - ECS	ETS 300 079 [3] subclause 9.4.4
Req_OB_Called_Subaddress	08/13 - ECS	ETS 300 079 [3] subclause 9.4.4
OB_Application_Address	09/08 - ECS	ETS 300 079 [3] subclauses 9.3.2 & 9.4.4
OB_Application_Selection	10/08 - ECS	ETS 300 079 [3] subclauses 9.3.2 & 9.4.4
OB_Application_Data	11/08 - ECS	ETS 300 079 [3] subclauses 9.3.2 & 9.4.4
Req_OB_User_Data	08/06 - ECS	ETS 300 079 [3] subclause 9.4.4
Req_IB_Called_Address	08/04 - ECS	ETS 300 079 [3] subclause 9.4.4
IB_Application_Address	09 - BCS	ETS 300 079 [3] subclauses 9.3.1 & 9.4.4
IB_Application_Selection	10 - BCS	ETS 300 079 [3] subclauses 9.3.1 & 9.4.4
IB_Application_Data	11 - BCS	ETS 300 079 [3] subclauses 9.3.1 & 9.4.4
Req_IB_User_Data	08/07 - ECS	ETS 300 079 [3] subclause 9.4.4
Packet_Size	13/01 - ECS (integer)	ETS 300 079 [3] subclause 9.4.4
Window_Size	13/02 - ECS (integer)	ETS 300 079 [3] subclause 9.4.4
Reference	12 - BCS	ETS 300 079 [3] subclause 9.4.4
Detailed Comments:		
xx - ECS means Extended Coding Structure (ETS 300 079 [3], subclause 9.3.2), with xx code value.		
xx - BCS means Basic Coding Structure (ETS 300 079 [3], subclause 9.3.1), with xx code value.		

Table 22

PDU Type Definition		
PDU Name	:	CO_RESP (SBV_CHANNEL_OPEN response)
PCO Type	:	BI-SAP
Comments	:	
PDU Field Information		
Field Name	Type	Comments
Header:		
Telematic VTX Header	04/00	CCITT Recommendation X.29 [9]
SBV TC Header	09/14	ETS 300 079 [3], subclause 9.2
Channel Open TC Code	00/02	ETS 300 079 [3], table 40
TC Length	OCTET	Length of TCM
Parameters:		
Ind_OB_Cause	08/11 - ECS	ETS 300 079 [3] subclause 9.4.4
Ind_IB_Cause	08/03 - ECS	ETS 300 079 [3] subclause 9.4.4
Ind_IB_Diagnostic	08/05 - ECS	ETS 300 079 [3] subclause 9.4.4
Result	13 - BCS (integer)	ETS 300 079 [3] subclause 9.4.4
Detailed Comments:		
xx - ECS means Extended Coding Structure (ETS 300 079 [3], subclause 9.3.2), with xx code value.		
xx - BCS means Basic Coding Structure (ETS 300 079 [3], subclause 9.3.1), with xx code value.		

Table 23

PDU Type Definition		
PDU Name	:	CC_REQ (SBV_CHANNEL_CLOSE request)
PCO Type	:	BI-SAP
Comments	:	
PDU Field Information		
Field Name	Type	Comments
Header:		
Telematic VTX Header	04/00	CCITT Recommendation X.29 [9]
SBV TC Header	09/14	ETS 300 079 [3], subclause 9.2
Channel Close TC Code	00/03	ETS 300 079 [3], table 40
TC Length	OCTET	Length of TCM
Parameters:		
Reference	12 - BCS	ETS 300 079 [3] subclause 9.4.4
Detailed Comments:		
xx - BCS means Basic Coding Structure (ETS 300 079 [3], subclause 9.3.1), with xx code value.		

Table 24

PDU Type Definition		
PDU Name	:	CC_RESP (SBV_CHANNEL_CLOSE response)
PCO Type	:	BI-SAP
Comments	:	
PDU Field Information		
Field Name	Type	Comments
Header:		
Telematic VTX Header	04/00	CCITT Recommendation X.29 [9]
SBV TC Header	09/14	ETS 300 079 [3], subclause 9.2
Channel Close TC Code	00/03	ETS 300 079 [3], table 40
TC Length	OCTET	Length of TCM
Parameters:		
Result	13 - BCS (integer)	ETS 300 079 [3] subclause 9.4.4
Detailed Comments:		
xx - BCS means Basic Coding Structure (ETS 300 079 [3], subclause 9.3.1), with xx code value.		

Table 25

PDU Type Definition		
PDU Name	:	CE_REQ (SBV_CHANNEL_ERROR request)
PCO Type	:	BI-SAP
Comments	:	
PDU Field Information		
Field Name	Type	Comments
Header:		
Telematic VTX Header	04/00	CCITT Recommendation X.29 [9]
SBV TC Header	09/14	ETS 300 079 [3], subclause 9.2
Channel_Error TC Code	00/04	ETS 300 079 [3], table 40
TC Length	OCTET	Length of TCM
Parameters:		
Reference	12 - BCS	ETS 300 079 [3] subclause 9.4.4
Ind_OB_Cause	08/11 - ECS	ETS 300 079 [3] subclause 9.4.4
Ind_IB_Cause	08/03 - ECS	ETS 300 079 [3] subclause 9.4.4
Ind_IB_Diagnostic	08/05 - ECS	ETS 300 079 [3] subclause 9.4.4
Detailed Comments:		
xx - ECS means Extended Coding Structure (ETS 300 079 [3], subclause 9.3.2), with xx code value.		
xx - BCS means Basic Coding Structure (ETS 300 079 [3], subclause 9.3.1), with xx code value.		

Table 26

PDU Type Definition		
PDU Name	:	BA_REQ (SBV_BEGIN_APPLICATION request)
PCO Type	:	BI-SAP
Comments	:	
PDU Field Information		
Field Name	Type	Comments
Header:		
Telematic VTX Header	04/00	CCITT Recommendation X.29 [9]
SBV TC Header	09/14	ETS 300 079 [3], subclause 9.2
Begin Appli. TC Code	00/06	ETS 300 079 [3], table 40
TC Length	OCTET	Length of TCM
Parameters:		
IB_Application_Address	09 - BCS	ETS 300 079 [3] subclauses 9.3.1 & 9.4.4
IB_Application_Selection	10 - BCS	ETS 300 079 [3] subclauses 9.3.1 & 9.4.4
IB_Application_Data	11 - BCS	ETS 300 079 [3] subclauses 9.3.1 & 9.4.4
IB_User_Data	FFC	ETS 300 079 [3] subclause 9.4.3
Detailed Comments:		
xx - BCS means Basic Coding Structure (ETS 300 079 [3], subclause 9.3.1), with xx code value.		
FFC means Free Format Coding (ETS 300 079 [3], subclause 9.4.3).		

Table 27

PDU Type Definition		
PDU Name	:	BA_RESP (SBV_BEGIN_APPLICATION response)
PCO Type	:	BI-SAP
Comments	:	
PDU Field Information		
Field Name	Type	Comments
Header:		
Telematic VTX Header	04/00	CCITT Recommendation X.29 [9]
SBV TC Header	09/14	ETS 300 079 [3], subclause 9.2
Begin Appli. TC Code	00/06	ETS 300 079 [3], table 40
TC Length	OCTET	Length of TCM
Parameters:		
Result	13 - BCS (integer)	ETS 300 079 [3] subclause 9.4.4
Detailed Comments:		
xx - BCS means Basic Coding Structure (ETS 300 079 [3], subclause 9.3.1), with xx code value.		

Table 28

PDU Type Definition		
PDU Name	:	EA_REQ (SBV_END_APPLICATION request)
PCO Type	:	BI-SAP
Comments	:	
PDU Field Information		
Field Name	Type	Comments
Header:		
Telematic VTX Header	04/00	CCITT Recommendation X.29 [9]
SBV TC Header	09/14	ETS 300 079 [3], subclause 9.2
End Appli. TC Code	00/07	ETS 300 079 [3], table 40
TC Length	OCTET	Length of TCM
Parameters:	-	NOTE
Detailed Comments:		
NOTE: SBV_END_APPLICATION request PDU has no parameters.		

Table 29

PDU Type Definition		
PDU Name	:	EI_REQ (SBV_END_IMMEDIATE request)
PCO Type	:	BI-SAP
Comments	:	
PDU Field Information		
Field Name	Type	Comments
Header:		
SBV_End_Immed. constant	08/00	ETS 300 223 [2], subclause 8.3.9.3
Parameters:	-	NOTE
Detailed Comments:		
NOTE: SBV_END_IMMEDIATE request PDU has no parameters.		

Table 30

PDU Type Definition		
PDU Name	:	TPDB_REQ (SBV_TPD_BEGIN request)
PCO Type	:	BI-SAP
Comments	:	
PDU Field Information		
Field Name	Type	Comments
Header:		
Telematic VTX Header	04/00	CCITT Recommendation X.29 [9]
SBV TC Header	09/14	ETS 300 079 [3], subclause 9.2
TPD Begin TC Code	00/08	ETS 300 079 [3], table 40
TC Length	OCTET	Length of TCM
Parameters:	-	NOTE
Detailed Comments:		
NOTE: SBV_TPD_BEGIN request PDU has no parameters.		

Table 31

PDU Type Definition		
PDU Name	:	TPDB_RESP (SBV_TPD_BEGIN response)
PCO Type	:	BI-SAP
Comments	:	
PDU Field Information		
Field Name	Type	Comments
Header:		
Telematic VTX Header	04/00	CCITT Recommendation X.29 [9]
SBV TC Header	09/14	ETS 300 079 [3], subclause 9.2
TPD Begin TC Code	00/08	ETS 300 079 [3], table 40
TC Length	OCTET	Length of TCM
Parameters:		
Result	13 - BCS (integer)	ETS 300 079 [3] subclause 9.4.4
DDU_Fall_Back_Mode	12/02 - ECS (string)	ETS 300 079 [3] subclause 9.4.4
Detailed Comments:		
xx - ECS means Extended Coding Structure (ETS 300 079 [3], subclause 9.3.2), with xx code value.		
xx - BCS means Basic Coding Structure (ETS 300 079 [3], subclause 9.3.1), with xx code value.		

Table 32

PDU Type Definition		
PDU Name	:	TPDE_REQ (SBV_TPD_END request)
PCO Type	:	BI-SAP
Comments	:	
PDU Field Information		
Field Name	Type	Comments
Header:		
Telematic VTX Header	04/00	CCITT Recommendation X.29 [9]
SBV TC Header	09/14	ETS 300 079 [3], subclause 9.2
TPD End TC Code	00/09	ETS 300 079 [3], table 40
TC Length	OCTET	Length of TCM
Parameters:	-	NOTE
Detailed Comments:		
NOTE: SBV_TPD_END request PDU has no parameters.		

Table 33

PDU Type Definition		
PDU Name	:	DFK_REQ (SBV_DFK request)
PCO Type	:	BI-SAP
Comments	:	
PDU Field Information		
Field Name	Type	Comments
Header:		
Telematic VTX Header	04/00	CCITT Recommendation X.29 [9]
SBV TC Header	09/14	ETS 300 079 [3], subclause 9.2
DFK TC Code	00/10	ETS 300 079 [3], table 40
TC Length	OCTET	Length of TCM
Parameters:		
Function_Keys	Function_Keys_Struct	NOTE
Reset_Keys	14/02 - ECS (void)	ETS 300 079 [3] subclause 9.4.4
Detailed Comments:		
xx - ECS means Extended Coding Structure (ETS 300 079 [3], subclause 9.3.2), with xx code value.		
NOTE: Function_Keys parameter is an Extended Coding Structure Octet Sequence, which is substructured according to ETS 300 079 [3], subclause 9.4.5.3. The TTCN Function_Keys_Struct parameter is defined in the Structured Type Declarations.		

Table 34

PDU Type Definition		
PDU Name	:	RE_REQ (SBV_REMOTE_ECHO request)
PCO Type	:	BI-SAP
Comments	:	
PDU Field Information		
Field Name	Type	Comments
Header:		
Telematic VTX Header	04/00	CCITT Recommendation X.29 [9] ETS 300 079 [3], subclause 9.2 ETS 300 223 [2], subclause 9.1. Length of TCM
SBV TC Header	09/14	
Remote Echo TC Code	00/12	
TC Length	OCTET	
Parameters:		
Echo	13/03 - ECS	ETS 300 223 [2], subclause 9.3.1.
Detailed Comments:		

Table 35

PDU Type Definition		
PDU Name	:	ESC_REQ (SBV_ESCAPE request)
PCO Type	:	BI-SAP
Comments	:	
PDU Field Information		
Field Name	Type	Comments
Header:		
Telematic VTX Header	04/00	CCITT Recommendation X.29 [9] ETS 300 079 [3], subclause 9.2 ETS 300 079 [3], subclause 9.2
SBV TC Header	09/14	
Service_ID	OCTET between 08/00 and 11/14	
TC Length	OCTET	Length of TCM
Parameters:		
Data		not standardized.
Detailed Comments:		

6.7.2 Structured Type Declaration

Table 36

Structured Type Definition		
TYPE Name	:	Error_Code_Struct
Comments	:	ETS 300 079 [3] subclause 9.4.5.1; ETS 300 223 [2] subclause 9.3.3.1
Element Name	Type	Comments
Length	OCTET	Length of TCM
ECS_Header_Code	15/15	
ECS_Type	08/01	= Error Code
ECS_Length	OCTET	
Error_Code_Value	OCTET	00/00 or 00/01
Received_TC_Code	OCTET	
Erroneous_Param_Code	OCTET	NOTE
Detailed Comments:		
NOTE: This parameter is present if the Error_Code_Value parameter has the value 00/01 ("TC Erroneous"). This parameter may occur several times.		

Table 37

Structured Type Definition		
TYPE Name	:	X3_Param_List_Struct
Comments	:	CCITT Recommendation X.29 [9]; CCITT Recommendation X.3 [8]
Element Name	Type	Comments
Param_Reference	OCTET	ETS 300 079 [3] subclause 10.2.3;
Param_Value	OCTET	ETS 300 223 [2] subclause 10.2
		ETS 300 079 [3] subclause 10.2.3;
		ETS 300 223 [2] subclause 10.2
Detailed Comments:		
This sequence of two parameters may occur several times.		

Table 38

Structured Type Definition		
TYPE Name	:	Function_Keys_Struct
Comments	:	ETS 300 079 [3] subclause 9.4.5.3; ETS 300 223 [2] subclause 9.3.3.3
Element Name	Type	Comments
ECS_Header_Code	15/15	
ECS_Type	14/01	= Function Keys
ECS_Length	OCTET	
Definition	Function_Key_Definition	NOTE
Detailed Comments:		
NOTE: This parameter is defined in the Structured Type Declarations. This parameter may occur several times.		

Table 39

Structured Type Definition		
TYPE Name : Function_Key_Definition		
Comments : ETS 300 079 [3] subclause 9.4.5.3; ETS 300 223 [2] subclause 9.3.3.3		
Element Name	Type	Comments
Function_Key_Header_Code	06/00	
Function_Key_Length	OCTET	
Identification	FK_Identification	NOTE
User_Visible_Name	FK_User_Visible_Name	NOTE
Code_Sequence	FK_Code_Sequence	NOTE
Do_Not_Forward	FK_Do_Not_Forward	NOTE - Optional
Detailed Comments:		
NOTE: This parameter is defined in the Structured Type Declarations.		

Table 40

Structured Type Definition		
TYPE Name : FK_Identification		
Comments : ETS 300 079 [3] subclause 9.4.5.3; ETS 300 223 [2] subclause 9.3.3.3		
Element Name	Type	Comments
Identification_Header_Code	06/01	
Identification_Length	00/01	
Identification_Value	OCTET	Length is 1 octet
Detailed Comments:		

Table 41

Structured Type Definition		
TYPE Name : FK_User_Visible_Name		
Comments : ETS 300 079 [3] subclause 9.4.5.3; ETS 300 223 [2] subclause 9.3.3.3		
Element Name	Type	Comments
User_V_Name_Header_Code	06/02	
User_V_Name_Length	OCTET	
User_V_Name_Value	OCTETSTRING	
Detailed Comments:		

Table 42

Structured Type Definition		
TYPE Name : FK_Code_Sequence		
Comments : ETS 300 079 [3] subclause 9.4.5.3; ETS 300 223 [2] subclause 9.3.3.3		
Element Name	Type	Comments
Code_Seq_Header_Code	06/03	
Code_Seq_Length	OCTET	
Code_Seq_Value	OCTETSTRING	
Detailed Comments:		

Table 43

Structured Type Definition		
TYPE Name : FK_Do_Not_Forward		
Comments : ETS 300 079 [3] subclause 9.4.5.3; ETS 300 223 [2] subclause 9.3.3.3		
Element Name	Type	Comments
Do_Not_Fwd_Header_Code	06/04	
Do_Not_Fwd_Length	00/00	
Detailed Comments:		

6.8 ASPs Declaration

Table 44

ASP Type Definition		
ASP Names	:	BIS-N-CONNECT request BIS-N-CONNECT indication
PCO Type	:	BI-SAP
Comments	:	BIS-N-CONNECT request is used to test an Access Function BIS-N-CONNECT indication is used to test a Terminal Function
Service Parameter Information		
Parameter Name	Parameter Type	Comments
Called_Address	OB_Called_Address (ETS 300 102-1 [15]) IB_Called_Address (ISO/IEC 8208 [17])	NOTE 1; NOTE 2
Calling_Address	OB_Calling_Address (ETS 300 102-1 [15]) IB_Calling_Address (ISO/IEC 8208 [17])	NOTE 3
BIS-User-Data	OCTETSTRING	NOTE 4
Detailed Comments: NOTE 1: The Called_Address parameter is used to identify the called BI-SAP. It can comprise two elements, OB_Called_Address and IB_Called_Address. The OB_Called_Address parameter only appears here if Out-of-Band addressing is used. When Out-of-Band addressing is not used (e.g. PSDN or ISDN circuit mode X31 case B), there is no OB_Called_Address parameter. The IB_Called_Address parameter only appears here if In-Band addressing is used (thus IB_Called address participates in identifying the called BI-SAP). When In-Band addressing is not used (e.g. DTE/DTE circuit mode), there is no IB_Called_Address parameter on the BIS service primitive. Note that there may be one on the SBV PDU, but it is then considered as a PDU parameter. NOTE 2: The references are given to define the coding. NOTE 3: Calling Address is not used by SBV. NOTE 4: The BIS-user-data abstract parameter may comprise more than one physical part, mapped onto more than one underlying protocol element field, depending on the environment. For instance, in the case of an ISDN, some part may be mapped onto the UUI part of a SETUP message, other part may be mapped onto the Call User Data field of an CCITT Recommendation X.25 CALL REQUEST. The BIS-user-data abstract parameter is not necessarily a contiguous block of data.		

Table 45

ASP Type Definition		
ASP Name	:	BIS-N-CONNECT response BIS-N-CONNECT confirm
PCO Type	:	BI-SAP
Comments	:	BIS-N-CONNECT response is used to test a Terminal Function BIS-N-CONNECT confirm is used to test an Access Function
Service Parameter Information		
Parameter Name	Type	Comments
Responding Address	OCTETSTRING	Not used for SBV
BIS-User-Data		
Detailed Comments:		

Table 46

ASP Type Definition		
ASP Name	:	BIS-N-DISCONNECT request
PCO Type	:	BI-SAP
Comments	:	
Service Parameter Information		
Parameter Name	Type	Comments
Reason	"unspecified", or an X.25 diagnostic, or a Q.931 cause	NOTE 1 ISO/IEC 8208 [17] CCITT Recommendation Q.931
Responding Address		
BIS-User-Data	OCTETSTRING	NOTE 2
Detailed Comments:		
NOTE 1: The references are given to define the coding.		
NOTE 2: Responding Address is not used by SBV.		

Table 47

ASP Type Definition		
ASP Name	:	BIS-N-DISCONNECT indication
PCO Type	:	BI-SAP
Comments	:	
Service Parameter Information		
Parameter Name	Type	Comments
Originator	"local", or an X.25 cause, or "ISDN", or "PSTN"	ISO/IEC 8208 [17]
Reason	"unspecified", or an X.25 diagnostic, or a Q.931 cause	ISO/IEC 8208 [17] CCITT Recommendation Q.931
Responding_Address		NOTE
BIS-User-Data	OCTETSTRING	
Detailed Comments:		
NOTE: Responding Address is not used by SBV.		

Table 48

ASP Type Definition		
ASP Name	:	BIS-N-DATA request BIS-N-DATA indication
PCO Type	:	BI-SAP
Comments	:	
Service Parameter Information		
Parameter Name	Type	Comments
BIS-User-Data	OCTETSTRING	
Detailed Comments:		

Table 49

ASP Type Definition		
ASP Name	:	BIS-N-Q-DATA request BIS-N-Q-DATA indication
PCO Type	:	BI-SAP
Comments	:	
Service Parameter Information		
Parameter Name	Type	Comments
BIS-User-Data	OCTETSTRING	
Detailed Comments:		

Table 50

ASP Type Definition		
ASP Name	:	BIS-N-RESET request
PCO Type	:	BI-SAP
Comments	:	
Service Parameter Information		
Parameter Name	Type	Comments
Reason	an X.25 diagnostic	ISO/IEC 8208 [17]
Detailed Comments:		

Table 51

ASP Type Definition		
ASP Name	:	BIS-N-RESET indication
PCO Type	:	BI-SAP
Comments	:	
Service Parameter Information		
Parameter Name	Type	Comments
Originator	an X.25 cause	ISO/IEC 8208 [17]
Reason	an X.25 diagnostic	ISO/IEC 8208 [17]
Detailed Comments:		

Table 52

ASP Type Definition		
ASP Name	:	BIS-N-RESET response BIS-N-RESET confirmation
PCO Type	:	BI-SAP
Comments	:	These service primitives have no parameters.
Service Parameter Information		
Parameter Name	Type	Comments
Detailed Comments:		

Table 53

ASP Type Definition		
ASP Name	:	BIS-N-INTERRUPT request BIS-N-INTERRUPT indication
PCO Type	:	BI-SAP
Comments	:	
Service Parameter Information		
Parameter Name	Type	Comments
BIS-Interrupt-User-Data	OCTETSTRING	see ETS 300 223 [2], subclauses 11.5.2 and 11.11.1
Detailed Comments:		

6.9 Alias Declaration

NOTE: According to the definition of SBV PDUs given in the PDU declaration part, **all the PDU fields are mapped onto the BIS-User-Data field** of an underlying BI-S service primitive. This abstract view applies even in the case where the PDU fields are **physically** conveyed on different layer 3 PDU fields (for instance In-Band and Out-of-Band).

For simplification reasons, the same aliases have been used for PDUs sent to the IUT and for PDUs received from the IUT.

Table 54 represents the aliases **for the PDUs being sent from the tester to the IUT**. They correspond to the TTCN statements starting with an exclamation mark (!).

Table 54

Alias Declaration		
Alias Name	Expansion	Comments
Est_req	BIS-N-CONNECT request	Used to send a SBV_ESTABLISH request
Est_resp	BIS-N-CONNECT response	Used to send a SBV_ESTABLISH response
Rel_req	BIS-N-DISCONNECT request	Used to send a SBV_RELEASE request
Res_req	BIS-N-RESET request	Used to send a SBV_RESET request (x.25)
Res_resp	BIS-N-RESET response	Used to send a SBV_RESET response (x.25)
Res_TC_req	BIS-N-Q-DATA request	Used to send a SBV_RESET_TC request (T.C.)
Res_TC_resp	BIS-N-Q-DATA request	Used to send a SBV_RESET_TC response (T.C.)
Data_req	BIS-N-DATA request	Used to send a SBV_DATA request
SP_req	BIS-N-Q-DATA request	Used to send a SBV_SET_PARAM request
RP_req	BIS-N-Q-DATA request	Used to send a SBV_READ_PARAM request
SRP_req	BIS-N-Q-DATA request	Used to send a SBV_SET_READ_PARAM request
PI_req	BIS-N-Q-DATA request	Used to send a SBV_PARAM_IND request
TFI_req	BIS-N-Q-DATA request	Used to send a SBV_TFI request
TFI_resp	BIS-N-Q-DATA request	Used to send a SBV_TFI response
TCER_req	BIS-N-Q-DATA request	Used to send a SBV_TC_ERROR request
CO_req	BIS-N-Q-DATA request	Used to send a SBV_CHANNEL_OPEN request
CO_resp	BIS-N-Q-DATA request	Used to send a SBV_CHANNEL_OPEN response
CC_req	BIS-N-Q-DATA request	Used to send a SBV_CHANNEL_CLOSE request
CE_req	BIS-N-Q-DATA request	Used to send a SBV_CHANNEL_ERROR request
BA_req	BIS-N-Q-DATA request	Used to send a SBV_BEGIN_APPLICATION request
BA_resp	BIS-N-Q-DATA request	Used to send a SBV_BEGIN_APPLICATION response
EA_req	BIS-N-Q-DATA request	Used to send a SBV_END_APPLICATION request
TPDB_req	BIS-N-Q-DATA request	Used to send a SBV_TPD_BEGIN request
TPDB_resp	BIS-N-Q-DATA request	Used to send a SBV_TPD_BEGIN response
TPDE_req	BIS-N-Q-DATA request	Used to send a SBV_TPD_END request
DFK_req	BIS-N-Q-DATA request	Used to send a SBV_DFK request
RE_req	BIS-N-Q-DATA request	Used to send a SBV_REMOTE_ECHO request
ESC_req	BIS-N-Q-DATA request	Used to send a SBV_ESCAPE request
EI_req	BIS-N-INTERRUPT request	Used to send a SBV_END_IMMEDIATE request
Detailed Comments:		

Table 55 represents the aliases **for the PDUs being received from the IUT**. They correspond to the TTCN statements starting with a question mark (?).

Table 55

Alias Declaration		
Alias Name	Expansion	Comments
Est_req	BIS-N-CONNECT indication	Used to receive a SBV_ESTABLISH request
Est_resp	BIS-N-CONNECT confirm	Used to receive a SBV_ESTABLISH response
Rel_req	BIS-N-DISCONNECT indication	Used to receive a SBV_RELEASE request
Res_req	BIS-N-RESET indication	Used to receive a SBV_RESET request (x.25)
Res_resp	BIS-N-RESET confirm	Used to receive a SBV_RESET response (x.25)
Res_TC_req	BIS-N-Q-DATA indication	Used to receive a SBV_RESET_TC request (T.C.)
Res_TC_resp	BIS-N-Q-DATA indication	Used to receive a SBV_RESET_TC response (T.C.)
Data_req	BIS-N-DATA indication	Used to receive a SBV_DATA request
SP_req	BIS-N-Q-DATA indication	Used to receive a SBV_SET_PARAM request
RP_req	BIS-N-Q-DATA indication	Used to receive a SBV_READ_PARAM request
SRP_req	BIS-N-Q-DATA indication	Used to receive a SBV_SET_READ_PARAM request
PI_req	BIS-N-Q-DATA indication	Used to receive a SBV_PARAMD request
TFI_req	BIS-N-Q-DATA indication	Used to receive a SBV_TFI request
TFI_resp	BIS-N-Q-DATA indication	Used to receive a SBV_TFI response
TCER_req	BIS-N-Q-DATA indication	Used to receive a SBV_TC_ERROR request
CO_req	BIS-N-Q-DATA indication	Used to receive a SBV_CHANNEL_OPEN request
CO_resp	BIS-N-Q-DATA indication	Used to receive a CHANNEL_OPEN response
CC_req	BIS-N-Q-DATA indication	Used to receive a SBV_CHANNEL_CLOSE request
CE_req	BIS-N-Q-DATA indication	Used to receive a SBV_CHANNEL_ERROR request
BA_req	BIS-N-Q-DATA indication	Used to receive a SBV_BEGIN_APPLICATION request
BA_resp	BIS-N-Q-DATA indication	Used to receive a SBV_BEGIN_APPLICATION response
EA_req	BIS-N-Q-DATA indication	Used to receive a SBV_END_APPLICATION request
TPDB_req	BIS-N-Q-DATA indication	Used to receive a SBV_TPD_BEGIN request
TPDB_resp	BIS-N-Q-DATA indication	Used to receive a SBV_TPD_BEGIN response
TPDE_req	BIS-N-Q-DATA indication	Used to receive a SBV_TPD_END request
DFK_req	BIS-N-Q-DATA indication	Used to receive a SBV_DFK request
RE_req	BIS-N-Q-DATA indication	Used to receive a SBV_REMOTE_ECHO request
ESC_req	BIS-N-Q-DATA indication	Used to receive a SBV_ESCAPE request
EI_req	BIS-N-INTERRUPT indication	Used to receive a SBV_END_IMMEDIATE request
Detailed Comments:		

6.10 Timers Declaration

Table 56: Timers

Timer Declarations			
Timer Name	Duration	Unit	Comments
CS_Timer	Tsp_CS_Timer	sec	Timer used to await a response from a Confirmed Service.
NCS_Timer	Tsp_NCS_Timer	sec	Timer used to await a reaction from IUT, related to Non-Confirmed services (X3 parameter manipulation services).
Oper_Timer	Tsp_Oper_Timer	sec	Timer used to await an action from a human operator. A message will require an event to be triggered on the SUT.
Wait_Timer	Tsp_Wait_Timer	sec	Timer used to check that nothing happens for a certain period of time. This timer should expire before anything is received from the IUT.
Error_Timer	Tsp_Error_Timer	sec	"Error-detection" Timer, used to await a TC_ERROR PDU from the IUT.
CH_Timer	Tsp_Channel_Timer	sec	"Channel-Management" Timer, used to await a SBV_Channel_Error PDU on the master channel.
Wait_Release_Timer	Tsp_Wait_Release_Timer	sec	Timer used to await a release from the IUT after a confirmed service stayed without a response.
Detailed Comments:			
All the Timer Duration values are Test Suite Parameters from PIXIT. The PIXIT references are given with the Test Suite Parameters in table 4.			

NOTE: Timers introduced here are not defined by the base standard itself. Their values are, sometimes, only implicitly associated to conformance requirement of the base standard (this is the case of CS_Timer). To describe test cases in TTCN it is necessary to have these timers identified and supplied with a defined value. This value is an implementation dependent extra information and therefore taken from PIXIT.

6.11 User Type Definitions

None.

6.12 User Operator Definitions

None.

7 Constraint Declarations

7.1 Constraints declaration

Three types of constraints are defined in this subclause:

- ASP Constraints;
- PDU Constraints;
- Structured Type Constraints.

NOTE: The headers (of PDUs) are present in the Constraints part as well as in the PDU Declaration part. This is useful when defining invalid constraints. The header in the Constraints part may be different from the one defined in the PDU Declaration part

The LENGTH keyword is a simplification of the definitions. It means an octet containing the proper length, computed according to the applicable definition.

7.1.1 ASP Constraints declaration

Table 57

ASP Constraint Declaration		
Constraint Name	:	CON_req_0(SBV_PDU_Constraint:EST_REQ)
ASP Type	:	BIS-N-CONNECT request
Derivation Path	:	
Comments	:	
Parameter Name	Parameter value	Comments
Called_Address	Tsp_AF_IUT_OB_Addr Tsp_AF_IUT_OB_Sub Tsp_AF_IUT_IB_Addr	in OB_Called_Address in OB_Called_Address in IB_Called_Address
Calling_Address	Tsp_AF_LT_OB_Addr Tsp_AF_LT_OB_Sub Tsp_AF_LT_IB_Addr	in OB_Calling_Address in OB_Calling_Address in IB_Calling_Address
BIS-User-Data	SBV_PDU_Constraint	
Detailed Comments:		

Table 58

ASP Constraint Declaration		
Constraint Name	:	CON_ind_0(SBV_PDU_Constraint:EST_REQ)
ASP Type	:	BIS-N-CONNECT indication
Derivation Path	:	
Comments	:	
Parameter Name	Parameter value	Comments
Called_Address	?	Any valid value
Calling_Address	?	Any valid value
BIS-User-Data	SBV_PDU_Constraint	
Detailed Comments:		

Table 59

ASP Constraint Declaration		
Constraint Name	: CON_res_0(SBV_PDU_Constraint:EST_RESP)	
ASP Type	: BIS-N-CONNECT response	
Derivation Path	:	
Comments	:	
Parameter Name	Parameter value	Comments
Responding_Address	-	Not used for SBV
BIS-User-Data	SBV_PDU_Constraint	
Detailed Comments:		

Table 60

ASP Constraint Declaration		
Constraint Name	: CON_con_0(SBV_PDU_Constraint:EST_RESP)	
ASP Type	: BIS-N-CONNECT confirm	
Derivation Path	:	
Comments	:	
Parameter Name	Parameter value	Comments
Responding_Address	?	Not used for SBV
BIS-User-Data	SBV_PDU_Constraint	
Detailed Comments:		

Table 61

ASP Constraint Declaration		
Constraint Name	: DIS_req_0(SBV_PDU_Constraint:REL_REQ)	
ASP Type	: BIS-N-DISCONNECT request	
Derivation Path	:	
Comments	:	
Parameter Name	Parameter value	Comments
Reason	"unspecified"	to be checked
Responding_Address	-	Not used for SBV
BIS-User-Data	SBV_PDU_Constraint	
Detailed Comments:		

Table 62

ASP Constraint Declaration		
Constraint Name	: DIS_req_ob(SBV_PDU_Constraint:REL_REQ)	
ASP Type	: BIS-N-DISCONNECT request	
Derivation Path	:	
Comments	This constraint is used on an ISDN network, and shall cause an Out-of-Band disconnection . This is a normative statement, though it cannot be specified in terms of parameters because the BIS description technique does not reflect the underlying IB/OB aspects. The way this is implemented is system-dependent.	
Parameter Name	Parameter value	Comments
Reason	"unspecified"	to be checked
Responding_Address	-	Not used for SBV
BIS-User-Data	SBV_PDU_Constraint	
Detailed Comments:		

Table 63

ASP Constraint Declaration		
Constraint Name	: DIS_req_ib(SBV_PDU_Constraint:REL_REQ)	
ASP Type	: BIS-N-DISCONNECT request	
Derivation Path	:	
Comments	: This constraint shall cause an In-Band disconnection . This is a normative statement, though it cannot be specified in terms of parameters because the BIS description technique does not reflect the underlying IB/OB aspects. The way this is implemented is system-dependent.	
Parameter Name	Parameter value	Comments
Reason	"unspecified"	to be checked
Responding_Address	-	Not used for SBV
BIS-User-Data	SBV_PDU_Constraint	
Detailed Comments:		

Table 64

ASP Constraint Declaration		
Constraint Name	: DIS_ind_0(SBV_PDU_Constraint:REL_REQ)	
ASP Type	: BIS-N-DISCONNECT indication	
Derivation Path	:	
Comments	:	
Parameter Name	Parameter value	Comments
Originator	?	any valid value
Reason	?	
Responding_Address	*	not used for SBV
BIS-User-Data	SBV_PDU_Constraint	
Detailed Comments:		

Table 65

ASP Constraint Declaration		
Constraint Name	: DAT_req_0(SBV_PDU_Constraint:DATA_REQ)	
ASP Type	: BIS-N-DATA request	
Derivation Path	:	
Comments	:	
Parameter Name	Parameter value	Comments
BIS-User-Data	SBV_PDU_Constraint	
Detailed Comments:		

Table 66

ASP Constraint Declaration		
Constraint Name	: DAT_ind_0(SBV_PDU_Constraint:DATA_REQ)	
ASP Type	: BIS-N-DATA indication	
Derivation Path	:	
Comments	:	
Parameter Name	Parameter value	Comments
BIS-User-Data	SBV_PDU_Constraint	
Detailed Comments:		

Table 67

ASP Constraint Declaration		
Constraint Name	:	QDAT_req_0(SBV_PDU_Constraint:TC_OR_X3)
ASP Type	:	BIS-N-Q-DATA request
Derivation Path	:	
Comments	:	
Parameter Name	Parameter value	Comments
BIS-User-Data	SBV_PDU_Constraint	
Detailed Comments:		
The type TC_OR_X3 is a generic type of SBV PDUs. It can be defined by the following ASN1 statement:		
<pre>TC_OR_X3 ::= CHOICE { SP_REQ, RP_REQ, SRP_REQ, PI_REQ, TFI_REQ, TFI_RESP, TCER_REQ, CO_REQ, CO_RESP, CC_REQ, CC_RESP, CE_REQ, BA_REQ, BA_RES, EA_REQ, TPDB_REQ, TPDB_RESP, TPDE_REQ, DFK_REQ, ESC_REQ, RES_TC_REQ }</pre>		

Table 68

ASP Constraint Declaration		
Constraint Name	:	QDAT_ind_0(SBV_PDU_Constraint:TC_OR_X3)
ASP Type	:	BIS-N-Q-DATA indication
Derivation Path	:	
Comments	:	
Parameter Name	Parameter value	Comments
BIS-User-Data	SBV_PDU_Constraint	
Detailed Comments:		
The type TC_OR_X3 is a generic type of SBV PDUs. It can be defined by the following ASN1 statement:		
<pre>TC_OR_X3 ::= CHOICE { SP_REQ, RP_REQ, SRP_REQ, PI_REQ, TFI_REQ, TFI_RESP, TCER_REQ, CO_REQ, CO_RESP, CC_REQ, CC_RESP, CE_REQ, BA_REQ, BA_RES, EA_REQ, TPDB_REQ, TPDB_RESP, TPDE_REQ, DFK_REQ, ESC_REQ, RES_TC_REQ }</pre>		

Table 69

ASP Constraint Declaration		
Constraint Name	:	RES_req_0(SBV_PDU_Constraint:RES_REQ)
ASP Type	:	BIS-N-RESET request
Derivation Path	:	
Comments	:	
Parameter Name	Parameter value	Comments
Reason	0	Not used by SBV protocol; Default value acceptable by the IUT.
Detailed Comments:		

Table 70

ASP Constraint Declaration		
Constraint Name	:	RES_ind_0(SBV_PDU_Constraint:RES_REQ)
ASP Type	:	BIS-N-RESET indication
Derivation Path	:	
Comments	:	
Parameter Name	Parameter value	Comments
Originator	?	Any valid value
Reason	?	Any valid value
Detailed Comments:		

Table 71

ASP Constraint Declaration		
Constraint Name	:	RES_res_0(SBV_PDU_Constraint:RES_REQ)
ASP Type	:	BIS-N-RESET response
Derivation Path	:	
Comments	:	
Parameter Name	Parameter value	Comments
Detailed Comments: BIS-N-RESET response has no parameters.		

Table 72

ASP Constraint Declaration		
Constraint Name	:	RES_con_0(SBV_PDU_Constraint:RES_REQ)
ASP Type	:	BIS-N-RESET confirmation
Derivation Path	:	
Comments	:	
Parameter Name	Parameter value	Comments
Detailed Comments: BIS-N-RESET confirmation has no parameters.		

Table 73

ASP Constraint Declaration		
Constraint Name	:	INT_req_0(SBV_PDU_Constraint:EI_REQ)
ASP Type	:	BIS-N-INTERRUPT request
Derivation Path	:	
Comments	:	
Parameter Name	Parameter value	Comments
BIS-Interrupt-User-Data	SBV_PDU_Constraint	
Detailed Comments:		

Table 74

ASP Constraint Declaration		
Constraint Name	:	INT_ind_0(SBV_PDU_Constraint:EI_REQ)
ASP Type	:	BIS-N-INTERRUPT indication
Derivation Path	:	
Comments	:	
Parameter Name	Parameter value	Comments
BIS-Interrupt-User-Data	SBV_PDU_Constraint	
Detailed Comments:		

7.1.2 PDU Constraints Declaration

NOTE: Some constraints given in this subclause are named with question marks (????). They are not used in this version of the test suite, and are kept here as place holders for possible use in future versions.

Table 75

PDU Constraint Declaration	
Constraint Name	: EST_REQ_valid_o
PDU Type	: EST_REQ
Derivation Path	:
Comments	: (IUT = Access Function) SBV_ESTABLISH request (output) with no parameters.
Field Name	Value
Parameters:	
OB_Application_Address	-
OB_Application_Selection	-
OB_Application_Data	-
OB_User_Data	-
IB_Application_Address	-
IB_Application_Selection	-
IB_Application_Data	-
IB_User_Data	-
Reference	-
Reverse_Role_Assignment	-
IB_Called_Address	-
Detailed Comments: EST_REQ_valid_o is the simplest SBV_ESTABLISH request PDU to be sent to an Access Function. It has no parameters.	

Table 76

PDU Constraint Declaration	
Constraint Name	: EST_REQ_rr_o
PDU Type	: EST_REQ
Derivation Path	:
Comments	: (IUT = Access Function) SBV_ESTABLISH request (output) with Reverse Role Assignment parameter present.
Field Name	Value
Parameters:	
OB_Application_Address	-
OB_Application_Selection	-
OB_Application_Data	-
OB_User_Data	-
IB_Application_Address	-
IB_Application_Selection	-
IB_Application_Data	-
IB_User_Data	-
Reference	-
Reverse_Role_Assignment	14/00
IB_Called_Address	-
Detailed Comments: EST_REQ_valid_o is the simplest SBV_ESTABLISH request PDU to be sent to an Access Function. It has no parameters.	

Table 77

PDU Constraint Declaration	
Constraint Name	: EST_REQ_????_o
PDU Type	: EST_REQ
Derivation Path	:
Comments	: (IUT = Access Function) SBV_ESTABLISH request (output) with all (possible) parameters
Field Name	Value
Parameters:	
OB_Application_Address	Tsp_AF_Est_OB_Appl_Addr
OB_Application_Selection	Tsp_AF_Est_OB_Appl_Sel
OB_Application_Data	Tsp_AF_Est_OB_Appl_Data
OB_User_Data	Tsp_AF_Est_OB_User_Data
IB_Application_Address	Tsp_AF_Est_IB_Appl_Ad
IB_Application_Selection	Tsp_AF_Est_IB_Appl_Sel
IB_Application_Data	Tsp_AF_Est_IB_Appl_Dat
IB_User_Data	Tsp_AF_Est_IB_User_Dat
Reference	Tsp_AF_Est_Ref1
Reverse_Role_Assignment	-
IB_Called_Address	Tsp_AF_Est_IB_Addr
Detailed Comments: EST_REQ_????_o is an SBV_ESTABLISH PDU with all possible parameters stated as supported in the PICS. All parameters mentioned in this table need not necessarily be present on the PDU: if a parameter is stated as supported in the PICS (see: PICS table 61), then it shall be present and have the value given in this table.	
NOTE: IB_Called_Address may be present if In-Band addressing is not used only.	

Table 78

PDU Constraint Declaration	
Constraint Name	: EST_REQ_valid_i
PDU Type	: EST_REQ
Derivation Path	:
Comments	: (IUT = Terminal Function) SBV_ESTABLISH request (input) with any parameters (absent parameters allowed).
Field Name	Value
Parameters:	
OB_Application_Address	*
OB_Application_Selection	*
OB_Application_Data	*
OB_User_Data	*
IB_Application_Address	*
IB_Application_Selection	*
IB_Application_Data	*
IB_User_Data	*
Reference	*
Reverse_Role_Assignment	*
IB_Called_Address	*
Detailed Comments: NOTE: IB_Called_Address may be present if In-Band addressing is not used only.	

Table 79

PDU Constraint Declaration	
Constraint Name	: EST_REQ_obaa_i
PDU Type	: EST_REQ
Derivation Path	:
Comments	: (IUT = Terminal Function) SBV_ESTABLISH request (input) with OB_Application_Address parameter present.
Field Name	Value
Parameters:	
OB_Application_Address	Tsp_TF_Est_OB_Appl_Addr
OB_Application_Selection	*
OB_Application_Data	*
OB_User_Data	*
IB_Application_Address	*
IB_Application_Selection	*
IB_Application_Data	*
IB_User_Data	*
Reference	*
Reverse_Role_Assignment	-
IB_Called_Address	*
Detailed Comments:	

Table 80

PDU Constraint Declaration	
Constraint Name	: EST_REQ_obas_i
PDU Type	: EST_REQ
Derivation Path	:
Comments	: (IUT = Terminal Function) SBV_ESTABLISH request (input) with OB_Application_Selection parameter present.
Field Name	Value
Parameters:	
OB_Application_Address	*
OB_Application_Selection	Tsp_TF_Est_OB_Appl_Sel
OB_Application_Data	*
OB_User_Data	*
IB_Application_Address	*
IB_Application_Selection	*
IB_Application_Data	*
IB_User_Data	*
Reference	*
Reverse_Role_Assignment	-
IB_Called_Address	*
Detailed Comments:	

Table 81

PDU Constraint Declaration	
Constraint Name	: EST_REQ_obad_i
PDU Type	: EST_REQ
Derivation Path	:
Comments	: (IUT = Terminal Function) SBV_ESTABLISH request (input) with OB_Application_Data parameter present.
Field Name	Value
Parameters:	
OB_Application_Address	*
OB_Application_Selection	*
OB_Application_Data	Tsp_TF_Est_OB_Appl_Data
OB_User_Data	*
IB_Application_Address	*
IB_Application_Selection	*
IB_Application_Data	*
IB_User_Data	*
Reference	*
Reverse_Role_Assignment	-
IB_Called_Address	*
Detailed Comments:	

Table 82

PDU Constraint Declaration	
Constraint Name	: EST_REQ_obud_i
PDU Type	: EST_REQ
Derivation Path	:
Comments	: (IUT = Terminal Function) SBV_ESTABLISH request (input) with OB_User_Data parameter present.
Field Name	Value
Parameters:	
OB_Application_Address	*
OB_Application_Selection	*
OB_Application_Data	*
OB_User_Data	Tsp_TF_Est_OB_User_Data
IB_Application_Address	*
IB_Application_Selection	*
IB_Application_Data	*
IB_User_Data	*
Reference	*
Reverse_Role_Assignment	-
IB_Called_Address	*
Detailed Comments:	

Table 83

PDU Constraint Declaration	
Constraint Name	: EST_REQ_ibca_i
PDU Type	: EST_REQ
Derivation Path	:
Comments	: (IUT = Terminal Function) SBV_ESTABLISH request (input) with IB_Called_Address.
Field Name	Value
Parameters:	
OB_Application_Address	*
OB_Application_Selection	*
OB_Application_Data	*
OB_User_Data	*
IB_Application_Address	*
IB_Application_Selection	*
IB_Application_Data	*
IB_User_Data	*
Reference	*
Reverse_Role_Assignment	-
IB_Called_Address	Tsp_TF_Est_IB_Addr
Detailed Comments:	
NOTE: IB_Called_Address may be present if In-Band addressing is not used only.	

Table 84

PDU Constraint Declaration	
Constraint Name	: EST_REQ_ibaa_i
PDU Type	: EST_REQ
Derivation Path	:
Comments	: (IUT = Terminal Function) SBV_ESTABLISH request (input) with IB_Application_Address parameter present.
Field Name	Value
Parameters:	
OB_Application_Address	*
OB_Application_Selection	*
OB_Application_Data	*
OB_User_Data	*
IB_Application_Address	Tsp_TF_Est_IB_Appl_Ad
IB_Application_Selection	*
IB_Application_Data	*
IB_User_Data	*
Reference	*
Reverse_Role_Assignment	-
IB_Called_Address	*
Detailed Comments:	

Table 85

PDU Constraint Declaration	
Constraint Name	: EST_REQ_ibas_i
PDU Type	: EST_REQ
Derivation Path	:
Comments	: (IUT = Terminal Function) SBV_ESTABLISH request (input) with IB_Application_Selection parameter present.
Field Name	Value
Parameters:	
OB_Application_Address	*
OB_Application_Selection	*
OB_Application_Data	*
OB_User_Data	*
IB_Application_Address	*
IB_Application_Selection	Tsp_TF_Est_IB_Appl_Sel
IB_Application_Data	*
IB_User_Data	*
Reference	*
Reverse_Role_Assignment	-
IB_Called_Address	*
Detailed Comments:	

Table 86

PDU Constraint Declaration	
Constraint Name	: EST_REQ_ibad_i
PDU Type	: EST_REQ
Derivation Path	:
Comments	: (IUT = Terminal Function) SBV_ESTABLISH request (input) with IB_Application_Data parameter present.
Field Name	Value
Parameters:	
OB_Application_Address	*
OB_Application_Selection	*
OB_Application_Data	*
OB_User_Data	*
IB_Application_Address	*
IB_Application_Selection	*
IB_Application_Data	Tsp_TF_Est_IB_Appl_Dat
IB_User_Data	*
Reference	*
Reverse_Role_Assignment	-
IB_Called_Address	*
Detailed Comments:	

Table 87

PDU Constraint Declaration	
Constraint Name	: EST_REQ_ibud_i
PDU Type	: EST_REQ
Derivation Path	:
Comments	: (IUT = Terminal Function) SBV_ESTABLISH request (input) with IB_User_Data parameter present.
Field Name	Value
Parameters:	
OB_Application_Address	*
OB_Application_Selection	*
OB_Application_Data	*
OB_User_Data	*
IB_Application_Address	*
IB_Application_Selection	*
IB_Application_Data	*
IB_User_Data	Tsp_TF_Est_IB_User_Dat
Reference	*
Reverse_Role_Assignment	-
IB_Called_Address	*
Detailed Comments:	

Table 88

PDU Constraint Declaration	
Constraint Name	: EST_REQ_ref_i
PDU Type	: EST_REQ
Derivation Path	:
Comments	: (IUT = Terminal Function) SBV_ESTABLISH request (input) with Reference parameter present.
Field Name	Value
Parameters:	
OB_Application_Address	*
OB_Application_Selection	*
OB_Application_Data	*
OB_User_Data	*
IB_Application_Address	*
IB_Application_Selection	*
IB_Application_Data	*
IB_User_Data	*
Reference	Tsp_TF_Est_Ref1
Reverse_Role_Assignment	-
IB_Called_Address	*
Detailed Comments:	

Table 89

PDU Constraint Declaration	
Constraint Name	: EST_REQ_rev_i
PDU Type	: EST_REQ
Derivation Path	:
Comments	: (IUT = Terminal Function) SBV_ESTABLISH request (input) with Reverse Role Assignment parameter present.
Field Name	Value
Parameters:	
OB_Application_Address	*
OB_Application_Selection	*
OB_Application_Data	*
OB_User_Data	*
IB_Application_Address	*
IB_Application_Selection	*
IB_Application_Data	*
IB_User_Data	*
Reference	*
Reverse_Role_Assignment	14/00
IB_Called_Address	*
Detailed Comments:	

Table 90

PDU Constraint Declaration	
Constraint Name	: EST_REQ_c1_i
PDU Type	: EST_REQ
Derivation Path	:
Comments	: (IUT = Terminal Function) SBV_ESTABLISH request (input) with combination of Out_Band parameters
Field Name	Value
Parameters:	
OB_Application_Address	Tsp_TF_Est_OB_Appl_Addr
OB_Application_Selection	Tsp_TF_Est_OB_Appl_Sel
OB_Application_Data	Tsp_TF_Est_OB_Appl_Data
OB_User_Data	*
IB_Application_Address	*
IB_Application_Selection	*
IB_Application_Data	*
IB_User_Data	*
Reference	*
Reverse_Role_Assignment	-
IB_Called_Address	*
Detailed Comments:	
NOTE: IB_Called_Address may be present if In-Band addressing is not used only.	

Table 91

PDU Constraint Declaration	
Constraint Name	: EST_REQ_c2_i
PDU Type	: EST_REQ
Derivation Path	:
Comments	: (IUT = Terminal Function) SBV_ESTABLISH request (input) with combination of In_Band parameters
Field Name	Value
Parameters:	
OB_Application_Address	*
OB_Application_Selection	*
OB_Application_Data	*
OB_User_Data	*
IB_Application_Address	Tsp_TF_Est_IB_Appl_Ad
IB_Application_Selection	Tsp_TF_Est_IB_Appl_Sel
IB_Application_Data	Tsp_TF_Est_IB_Appl_Dat
IB_User_Data	Tsp_TF_Est_IB_User_Dat
Reference	*
Reverse_Role_Assignment	-
IB_Called_Address	Tsp_TF_Est_IB_Addr
Detailed Comments:	
NOTE: IB_Called_Address may be present if In-Band addressing is not used only.	

Table 92

PDU Constraint Declaration	
Constraint Name	: EST_REQ_c3_i
PDU Type	: EST_REQ
Derivation Path	:
Comments	: (IUT = Terminal Function) SBV_ESTABLISH request (input) with combination of Out_Band and In_Band parameters
Field Name	Value
Parameters:	
OB_Application_Address	Tsp_TF_Est_OB_Appl_Addr
OB_Application_Selection	Tsp_TF_Est_OB_Appl_Sel
OB_Application_Data	Tsp_TF_Est_OB_Appl_Data
OB_User_Data	*
IB_Application_Address	Tsp_TF_Est_IB_Appl_Ad
IB_Application_Selection	Tsp_TF_Est_IB_Appl_Sel
IB_Application_Data	Tsp_TF_Est_IB_Appl_Dat
IB_User_Data	Tsp_TF_Est_IB_User_Dat
Reference	*
Reverse_Role_Assignment	-
IB_Called_Address	Tsp_TF_Est_IB_Addr
Detailed Comments:	
NOTE: IB_Called_Address may be present if In-Band addressing is not used only.	

Table 93

PDU Constraint Declaration	
Constraint Name	: EST_REQ_c4_i
PDU Type	: EST_REQ
Derivation Path	:
Comments	: (IUT = Terminal Function) SBV_ESTABLISH request (input) with combination of In_Band parameters
Field Name	Value
Parameters:	
OB_Application_Address	*
OB_Application_Selection	*
OB_Application_Data	*
OB_User_Data	*
IB_Application_Address	Tsp_TF_Est_IB_Appl_Ad
IB_Application_Selection	Tsp_TF_Est_IB_Appl_Sel
IB_Application_Data	Tsp_TF_Est_IB_Appl_Dat
IB_User_Data	Tsp_TF_Est_IB_User_Dat
Reference	*
Reverse_Role_Assignment	-
IB_Called_Address	-
Detailed Comments:	

Table 94

PDU Constraint Declaration	
Constraint Name	: EST_REQ_c5_i
PDU Type	: EST_REQ
Derivation Path	:
Comments	: (IUT = Terminal Function) SBV_ESTABLISH request (input) with combination of Out_Band and Reverse Role Assignment parameters
Field Name	Value
Parameters:	
OB_Application_Address	Tsp_TF_Est_OB_Appl_Addr
OB_Application_Selection	Tsp_TF_Est_OB_Appl_Sel
OB_Application_Data	Tsp_TF_Est_OB_Appl_Data
OB_User_Data	*
IB_Application_Address	*
IB_Application_Selection	*
IB_Application_Data	*
IB_User_Data	*
Reference	*
Reverse_Role_Assignment	14/00
IB_Called_Address	*
Detailed Comments:	
NOTE: IB_Called_Address may be present if In-Band addressing is not used only.	

Table 95

PDU Constraint Declaration	
Constraint Name	: EST_REQ_c6_i
PDU Type	: EST_REQ
Derivation Path	:
Comments	: (IUT = Terminal Function) SBV_ESTABLISH request (input) with combination of In_Band and Reverse Role Assignment parameters
Field Name	Value
Parameters:	
OB_Application_Address	*
OB_Application_Selection	*
OB_Application_Data	*
OB_User_Data	*
IB_Application_Address	Tsp_TF_Est_IB_Appl_Ad
IB_Application_Selection	Tsp_TF_Est_IB_Appl_Sel
IB_Application_Data	Tsp_TF_Est_IB_Appl_Dat
IB_User_Data	Tsp_TF_Est_IB_User_Dat
Reference	*
Reverse_Role_Assignment	14/00
IB_Called_Address	Tsp_TF_Est_IB_Addr
Detailed Comments:	
NOTE: IB_Called_Address may be present if In-Band addressing is not used only.	

Table 96

PDU Constraint Declaration	
Constraint Name	: EST_REQ_c7_i
PDU Type	: EST_REQ
Derivation Path	:
Comments	: (IUT = Terminal Function) SBV_ESTABLISH request (input) with combination of Out_Band, In_Band, and Reverse Role Assignment parameters
Field Name	Value
Parameters:	
OB_Application_Address	Tsp_TF_Est_OB_Appl_Addr
OB_Application_Selection	Tsp_TF_Est_OB_Appl_Sel
OB_Application_Data	Tsp_TF_Est_OB_Appl_Data
OB_User_Data	Tsp_TF_Est_OB_User_Data
IB_Application_Address	Tsp_TF_Est_IB_Appl_Ad
IB_Application_Selection	Tsp_TF_Est_IB_Appl_Sel
IB_Application_Data	Tsp_TF_Est_IB_Appl_Dat
IB_User_Data	Tsp_TF_Est_IB_User_Dat
Reference	*
Reverse_Role_Assignment	14/00
IB_Called_Address	Tsp_TF_Est_IB_Addr
Detailed Comments:	
NOTE: IB_Called_Address may be present if In-Band addressing is not used only.	

Table 97

PDU Constraint Declaration	
Constraint Name	: EST_REQ_c8_i
PDU Type	: EST_REQ
Derivation Path	:
Comments	: (IUT = Terminal Function) SBV_ESTABLISH request (input) with combination of In_Band and Reverse Role Assignment parameters
Field Name	Value
Parameters:	
OB_Application_Address	*
OB_Application_Selection	*
OB_Application_Data	*
OB_User_Data	*
IB_Application_Address	Tsp_TF_Est_IB_Appl_Ad
IB_Application_Selection	Tsp_TF_Est_IB_Appl_Sel
IB_Application_Data	Tsp_TF_Est_IB_Appl_Dat
IB_User_Data	Tsp_TF_Est_IB_User_Dat
Reference	Tsp_TF_Est_Ref1
Reverse_Role_Assignment	14/00
IB_Called_Address	*
Detailed Comments:	

Table 98

PDU Constraint Declaration	
Constraint Name	: EST_REQ_????_i
PDU Type	: EST_REQ
Derivation Path	:
Comments	: (IUT = Terminal Function) SBV_ESTABLISH request (input) with all (possible) parameters
Field Name	Value
Parameters:	
OB_Application_Address	Tsp_TF_Est_OB_Appl_Addr
OB_Application_Selection	Tsp_TF_Est_OB_Appl_Sel
OB_Application_Data	Tsp_TF_Est_OB_Appl_Data
OB_User_Data	Tsp_TF_Est_OB_User_Data
IB_Application_Address	Tsp_TF_Est_IB_Appl_Ad
IB_Application_Selection	Tsp_TF_Est_IB_Appl_Sel
IB_Application_Data	Tsp_TF_Est_IB_Appl_Dat
IB_User_Data	Tsp_TF_Est_IB_User_Dat
Reference	Tsp_TF_Est_Ref1
Reverse_Role_Assignment	-
IB_Called_Address	Tsp_TF_Est_IB_Addr
Detailed Comments:	
EST_REQ_????_i is an SBV_ESTABLISH PDU with all possible parameters stated as supported in the PICS. All parameters mentioned in this table need not necessarily be present on the PDU: if a parameter is stated as supported in the PICS (see PICS table 89), then it shall be present and have the value given in this table.	
NOTE: IB_Called_Address may be present if In-Band addressing is not used only.	

Table 99

PDU Constraint Declaration	
Constraint Name	: EST_RESP_valid_o
PDU Type	: EST_RESP
Derivation Path	:
Comments	: (IUT = Terminal Function) SBV_ESTABLISH response (output) with no parameters.
Field Name	Value
Parameters:	
Result	-
Detailed Comments:	

Table 100

PDU Constraint Declaration	
Constraint Name	: EST_RESP_????_o
PDU Type	: EST_RESP
Derivation Path	:
Comments	: (IUT = Terminal Function) SBV_ESTABLISH response (output) with result parameter present and set to "successful".
Field Name	Value
Parameters:	
Result	13 - BCS (0)
Detailed Comments:	
xx - BCS (yy) means Basic Coding Structure (ETS 300 079 [3], subclause 9.3.1), with xx code value and yy parameter value.	

Table 101

PDU Constraint Declaration	
Constraint Name	: EST_RESP_valid_i
PDU Type	: EST_RESP
Derivation Path	:
Comments	: (IUT = Access Function) SBV_ESTABLISH response (input) with any parameter (absent parameters allowed).
Field Name	Value
Parameters:	
Result	*
Detailed Comments:	

Table 102

PDU Constraint Declaration	
Constraint Name	: EST_RESP_????_i
PDU Type	: EST_RESP
Derivation Path	:
Comments	: (IUT = Access Function) SBV_ESTABLISH response (input) with result parameter present and set to the value "successful".
Field Name	Value
Parameters:	
Result	13 - BCS (0)
Detailed Comments:	
xx - BCS (yy) means Basic Coding Structure (ETS 300 079 [3], subclause 9.3.1), with xx code value and yy parameter value.	

Table 103

PDU Constraint Declaration	
Constraint Name	: REL_REQ_valid_o
PDU Type	: REL_REQ
Derivation Path	:
Comments	: (IUT = Terminal Function OR Access Function) SBV_RELEASE request (output) with no result parameter.
Field Name	Value
Parameters:	
Result	-
Detailed Comments:	

Table 104

PDU Constraint Declaration	
Constraint Name	: REL_REQ_res_o
PDU Type	: REL_REQ
Derivation Path	:
Comments	: (IUT = Terminal Function) SBV_RELEASE request (output) with result parameter present and set to the value "Application Not Available".
Field Name	Value
Parameters:	
Result	13/01 00/02
Detailed Comments:	

Table 105

PDU Constraint Declaration	
Constraint Name	: REL_REQ_valid_i
PDU Type	: REL_REQ
Derivation Path	:
Comments	: (IUT = Terminal Function OR Access Function) SBV_RELEASE request (input) with any result parameter (absent parameters allowed).
Field Name	Value
Parameters:	
Result	*
Detailed Comments:	

Table 106

PDU Constraint Declaration	
Constraint Name	: REL_REQ_res_i
PDU Type	: REL_REQ
Derivation Path	:
Comments	: (IUT = Terminal Function OR Access Function) SBV_RELEASE request (input) with any Result parameter present.
Field Name	Value
Parameters:	
Result	13/01 (00/00 .. 00/05)
Detailed Comments:	
The Result parameter is a basic coded structure on 2 octets (length=1).	
NOTE: The range of allowed values for a Result parameter is expected to be extended in future versions of the base standards.	

Table 107

PDU Constraint Declaration	
Constraint Name	: RES_REQ_valid_o
PDU Type	: RES_REQ
Derivation Path	:
Comments	: (IUT = Terminal Function) SBV_RESET request (output). This PDU has no parameters.
Field Name	Value
Detailed Comments:	

Table 108

PDU Constraint Declaration	
Constraint Name	: RES_REQ_valid_i
PDU Type	: RES_REQ
Derivation Path	:
Comments	: (IUT = Access Function) SBV_RESET request (input). This PDU has no parameters.
Field Name	Value
Detailed Comments:	

Table 109

PDU Constraint Declaration	
Constraint Name	: RES_RESP_valid_o
PDU Type	: RES_RESP
Derivation Path	:
Comments	: (IUT = Terminal Function) SBV_RESET response (output). This PDU has no parameters.
Field Name	Value
Detailed Comments:	

Table 110

PDU Constraint Declaration	
Constraint Name	: RES_RESP_valid_i
PDU Type	: RES_RESP
Derivation Path	:
Comments	: (IUT = Access Function) SBV_RESET response (input). This PDU has no parameters.
Field Name	Value
Detailed Comments:	

Table 111

PDU Constraint Declaration	
Constraint Name	: RES_TC_REQ_valid_o
PDU Type	: RES_TC_REQ
Derivation Path	:
Comments	: (IUT = Terminal Function) SBV_RESET_TC request (output). This PDU has no parameters.
Field Name	Value
Header:	
Telematic VTX Header	04/00
SBV TC Header	09/14
Reset TC Code	00/11
TC Length	LENGTH
Parameters:	-
Detailed Comments:	

Table 112

PDU Constraint Declaration	
Constraint Name	: RES_TC_RESP_valid_i
PDU Type	: RES_TC_RESP
Derivation Path	:
Comments	: (IUT = Access Function) SBV_RESET response (input). Any Result parameter.
Field Name	Value
Header:	
Telematic VTX Header	04/00
SBV TC Header	09/14
Reset TC Code	00/11
TC Length	LENGTH
Parameters:	
Result	13 - BCS (?)
Detailed Comments:	
xx - BCS (?) means Basic Coding Structure (ETS 300 223 [2], subclause 9.3.1), with xx code value and any parameter value.	

Table 113

PDU Constraint Declaration	
Constraint Name	: RES_TC_RESP_pos_i
PDU Type	: RES_TC_RESP
Derivation Path	:
Comments	: (IUT = Access Function) SBV_RESET response (input). Result parameter set to "Successful".
Field Name	Value
Header:	
Telematic VTX Header	04/00
SBV TC Header	09/14
Reset TC Code	00/11
TC Length	LENGTH
Parameters:	
Result	13 - BCS (0)
Detailed Comments:	
xx - BCS (yy) means Basic Coding Structure (ETS 300 223 [2], subclause 9.3.1), with xx code value and yy parameter value.	

Table 114

PDU Constraint Declaration	
Constraint Name	: DATA_REQ_valid_o
PDU Type	: DATA_REQ
Derivation Path	:
Comments	: (IUT = Terminal Function OR Access Function) SBV_VTX_DATA request (output).
Field Name	Value
Parameters:	
VTX_Data	Tsp_VTX_Data_String_receive
Detailed Comments:	

Table 115

PDU Constraint Declaration	
Constraint Name	: DATA_REQ_valid_i
PDU Type	: DATA_REQ
Derivation Path	:
Comments	: (IUT = Terminal Function OR Access Function) SBV_VTX_DATA request (input).
Any data value.	
Field Name	Value
Parameters:	
VTX_Data	*
Detailed Comments:	

Table 116

PDU Constraint Declaration	
Constraint Name	: DATA_REQ_data_i
PDU Type	: DATA_REQ
Derivation Path	:
Comments	: (IUT = Terminal Function OR Access Function) SBV_VTX_DATA request (input).
Contains a string of data expected according to the PIXIT.	
Field Name	Value
Parameters:	
VTX_Data	Tsp_Vtx_Data_String_send
Detailed Comments:	

Table 117

PDU Constraint Declaration	
Constraint Name	: DATA_REQ_tass_i
PDU Type	: DATA_REQ
Derivation Path	:
Comments	: (IUT = Terminal Function OR Access Function) SBV_VTX_DATA request (input). Contains a T_Associate request.
Field Name	Value
Parameters:	
VTX_Data	For further study.
Detailed Comments:	
References: ETS 300 079 [3] subclause 7.3.3.1; ETS 300 223 [2] subclause 7.3.3.1. ETS 300 075 [13].	

Table 118

PDU Constraint Declaration	
Constraint Name	: RES_REQ_valid_i
PDU Type	: DATA_REQ
Derivation Path	:
Comments	: (IUT = Terminal Function OR Access Function) SBV_VTX_DATA request (input).
Field Name	Value
Parameters:	
VTX_Data	?
Detailed Comments: Any data allowed.	

Table 119

PDU Constraint Declaration	
Constraint Name	: SP_REQ_valid_o
PDU Type	: SP_REQ
Derivation Path	:
Comments	: (IUT = Terminal Function) SBV_SET_PARAM request (output).
Field Name	Value
Header:	
X.29 Message Header	00/02
Parameters:	
X3_Parameter_List	X3_TF_Parameter_List_Valid_o
Detailed Comments: X3_TF_Parameter_List_Valid_o is a Structured Type Constraint.	

Table 120

PDU Constraint Declaration	
Constraint Name	: SP_REQ_echo1_o
PDU Type	: SP_REQ
Derivation Path	:
Comments	: (IUT = Terminal Function) SBV_SET_PARAM request (output). Sets echo parameter to value 1 (echo).
Field Name	Value
Header:	
X.29 Message Header	00/02
Parameters:	
X3_Parameter_List	X3_TF_Parameter_List_echo1_o
Detailed Comments: X3_TF_Parameter_List_echo1_o is a Structured Type Constraint.	

Table 121

PDU Constraint Declaration	
Constraint Name	: SP_REQ_e127_o
PDU Type	: SP_REQ
Derivation Path	:
Comments	: (IUT = Terminal Function) SBV_SET_PARAM request (output). Sets echo parameter to non-allowed value of 127.
Field Name	Value
Header:	
X.29 Message Header	00/02
Parameters:	
X3_Parameter_List	X3_TF_Parameter_List_e127_o
Detailed Comments: X3_TF_Parameter_List_e127_o is a Structured Type Constraint.	

Table 122

PDU Constraint Declaration	
Constraint Name	: SP_REQ_np_o
PDU Type	: SP_REQ
Derivation Path	:
Comments	: (IUT = Terminal Function) SBV_SET_PARAM request (output) with no parameters.
Field Name	Value
Header:	
X.29 Message Header	00/02
Parameters:	
X3_Parameter_List	-
Detailed Comments:	

Table 123

PDU Constraint Declaration	
Constraint Name	: SP_REQ_valid_i
PDU Type	: SP_REQ
Derivation Path	:
Comments	: (IUT = Access Function) SBV_SET_PARAM request (input).
Field Name	Value
Header:	
X.29 Message Header	00/02
Parameters:	
X3_Parameter_List	X3_AF_Parameter_List_Valid_i
Detailed Comments:	
X3_AF_Parameter_List_Valid_i is a Structured Type Constraint.	

Table 124

PDU Constraint Declaration	
Constraint Name	: SP_REQ_????_i
PDU Type	: SP_REQ
Derivation Path	:
Comments	: (IUT = Access Function) SBV_SET_PARAM request (input) with any parameters.
Field Name	Value
Header:	
X.29 Message Header	00/02
Parameters:	
X3_Parameter_List	*
Detailed Comments:	

Table 125

PDU Constraint Declaration	
Constraint Name	: RP_REQ_valid_o
PDU Type	: RP_REQ
Derivation Path	:
Comments	: (IUT = Terminal Function) SBV_READ_PARAM request (output).
Field Name	Value
Header:	
X.29 Message Header	00/04
Parameters:	
X3_Parameter_List	X3_TF_Parameter_List_Valid_Read_o
Detailed Comments:	
X3_TF_Parameter_List_Valid_Read_o is a Structured Type Constraint.	

Table 126

PDU Constraint Declaration	
Constraint Name	: RP_REQ_echo_o
PDU Type	: RP_REQ
Derivation Path	:
Comments	: (IUT = Terminal Function) SBV_READ_PARAM request (output).
Field Name	Value
Header:	
X.29 Message Header	00/04
Parameters:	
X3_Parameter_List	X3_TF_Parameter_List_echo_Read_o
Detailed Comments:	
X3_TF_Parameter_List_echo_Read_o is a Structured Type Constraint.	

Table 127

PDU Constraint Declaration	
Constraint Name	: RP_REQ_np_o
PDU Type	: RP_REQ
Derivation Path	:
Comments	: (IUT = Terminal Function) SBV_READ_PARAM request (output) with no parameters.
Field Name	Value
Header:	
X.29 Message Header	00/04
Parameters:	
X3_Parameter_List	-
Detailed Comments:	

Table 128

PDU Constraint Declaration	
Constraint Name	: RP_REQ_valid_i
PDU Type	: RP_REQ
Derivation Path	:
Comments	: (IUT = Access Function) SBV_READ_PARAM request (input).
Field Name	Value
Header:	
X.29 Message Header	00/04
Parameters:	
X3_Parameter_List	X3_AF_Parameter_List_Valid_Read_i
Detailed Comments:	
X3_AF_Parameter_List_Read_Valid_i is a Structured Type Constraint.	

Table 129

PDU Constraint Declaration	
Constraint Name	: RP_REQ_???_i
PDU Type	: RP_REQ
Derivation Path	:
Comments	: (IUT = Access Function) SBV_READ_PARAM request (input) with any parameters.
Field Name	Value
Header:	
X.29 Message Header	00/04
Parameters:	
X3_Parameter_List	*
Detailed Comments:	

Table 130

PDU Constraint Declaration	
Constraint Name	: SRP_REQ_valid_o
PDU Type	: SPRP_REQ
Derivation Path	:
Comments	: (IUT = Terminal Function) SBV_SET_PREAD_PARAM request (output).
Field Name	Value
Header:	
X.29 Message Header	00/05
Parameters:	
X3_Parameter_List	X3_TF_Parameter_List_Valid_o
Detailed Comments:	
X3_TF_Parameter_List_Valid_o is a Structured Type Constraint.	

Table 131

PDU Constraint Declaration	
Constraint Name	: SRP_REQ_echo1_o
PDU Type	: SPRP_REQ
Derivation Path	:
Comments	: (IUT = Terminal Function) SBV_SET_PREAD_PARAM request (output). Sets echo parameter to value 1 (echo).
Field Name	Value
Header:	
X.29 Message Header	00/05
Parameters:	
X3_Parameter_List	X3_TF_Parameter_List_echo1_o
Detailed Comments:	
X3_TF_Parameter_List_echo1_o is a Structured Type Constraint.	

Table 132

PDU Constraint Declaration	
Constraint Name	: SRP_REQ_np_o
PDU Type	: SRP_REQ
Derivation Path	:
Comments	: (IUT = Terminal Function) SBV_SET_READ_PARAM request (output) with no parameters.
Field Name	Value
Header:	
X.29 Message Header	00/04
Parameters:	
X3_Parameter_List	-
Detailed Comments:	

Table 133

PDU Constraint Declaration	
Constraint Name	: SRP_REQ_e127_o
PDU Type	: SRP_REQ
Derivation Path	:
Comments	: (IUT = Terminal Function) SBV_SET_READ_PARAM request (output). Sets echo parameter to non-allowed value of 127.
Field Name	Value
Header:	
X.29 Message Header	00/04
Parameters:	
X3_Parameter_List	X3_TF_Parameter_List_e127_o
Detailed Comments:	

Table 134

PDU Constraint Declaration	
Constraint Name	: SRP_REQ_valid_i
PDU Type	: SPRP_REQ
Derivation Path	:
Comments	: (IUT = Access Function) SBV_SETP_READ_PARAM request (input).
Field Name	Value
Header:	
X.29 Message Header	00/04
Parameters:	
X3_Parameter_List	X3_AF_Parameter_List_Valid_i
Detailed Comments:	
X3_AF_Parameter_List_Valid_o is a Structured Type Constraint.	

Table 135

PDU Constraint Declaration	
Constraint Name	: SRP_REQ_???_i
PDU Type	: SRP_REQ
Derivation Path	:
Comments	: (IUT = Access Function) SBV_SET_READ_PARAM request (input) with any parameters.
Field Name	Value
Header:	
X.29 Message Header	00/05
Parameters:	
X3_Parameter_List	*
Detailed Comments:	

Table 136

PDU Constraint Declaration	
Constraint Name	: PI_REQ_valid_o
PDU Type	: PI_REQ
Derivation Path	:
Comments	: (IUT = Access Function) SBV_PARAM_IND request (output).
Field Name	Value
Header:	
X.29 Message Header	00/00
Parameters:	
X3_Parameter_List	X3_AF_Parameter_List_Valid_o
Detailed Comments:	
X3_AF_Parameter_List_Valid_o is a Structured Type Constraint.	

Table 137

PDU Constraint Declaration	
Constraint Name	: PI_REQ_valid_i
PDU Type	: PI_REQ
Derivation Path	:
Comments	: (IUT = Terminal Function) SBV_PARAM_IND request (input).
Field Name	Value
Header:	
X.29 Message Header	00/00
Parameters:	
X3_Parameter_List	X3_TF_Parameter_List_Valid_i
Detailed Comments:	
X3_TF_Parameter_List_Valid_i is a Structured Type Constraint.	

Table 138

PDU Constraint Declaration	
Constraint Name	: PI_REQ_e127_i
PDU Type	: PI_REQ
Derivation Path	:
Comments	: (IUT = Terminal Function) SBV_PARAM_IND request (input). Expected from IUT after a Set_Param has tried to set echo (2) parameter to invalid value 127.
Field Name	Value
Header:	
X.29 Message Header	00/00
Parameters:	
X3_Parameter_List	X3_TF_Parameter_List_e127_i
Detailed Comments:	
X3_TF_Parameter_List_Valid_i is a Structured Type Constraint.	

Table 139

PDU Constraint Declaration	
Constraint Name	: PI_REQ_any_i
PDU Type	: PI_REQ
Derivation Path	:
Comments	: (IUT = Terminal Function) SBV_PARAM_IND request (input) with any parameters.
Field Name	Value
Header:	
X.29 Message Header	00/00
Parameters:	
X3_Parameter_List	*
Detailed Comments:	

Table 140

PDU Constraint Declaration	
Constraint Name	: TFI_REQ_valid_o
PDU Type	: TFI_REQ
Derivation Path	:
Comments	: (IUT = Terminal Function) SBV_TFI request (output) with parameter having PIXIT value.
Field Name	Value
Header:	
Telematic VTX Header	04/00
SBV TC Header	09/14
TFI TC Code	00/05
TC Length	LENGTH
Parameters:	
TFI_Enq	Tsp_TF_TFI_Enq
Detailed Comments:	

Table 141

PDU Constraint Declaration	
Constraint Name	: TFI_REQ_nenq_o
PDU Type	: TFI_REQ
Derivation Path	:
Comments	: (IUT = Terminal Function) Invalid SBV_TFI request (output) with no TFI_Enq parameter.
Field Name	Value
Header:	
Telematic VTX Header	04/00
SBV TC Header	09/14
TFI TC Code	00/05
TC Length	LENGTH
Parameters:	
TFI_Enq	-
Detailed Comments:	

Table 142

PDU Constraint Declaration	
Constraint Name	: TFI_REQ_eo2_o
PDU Type	: TFI_REQ
Derivation Path	:
Comments	: (IUT = Terminal Function) SBV_TFI request (output) with BAD octet 2 (15/14, instead of 09/14 for a valid SBV TC), and parameter having PIXIT value.
Field Name	Value
Header:	
Telematic VTX Header	04/00
SBV TC Header	15/14
TFI TC Code	00/05
TC Length	LENGTH
Parameters:	
TFI_Enq	Tsp_TF_TFI_Enq
Detailed Comments:	

Table 143

PDU Constraint Declaration	
Constraint Name	: TFI_REQ_eo4_o
PDU Type	: TFI_REQ
Derivation Path	:
Comments	: (IUT = Terminal Function) SBV_TFI request (output) with BAD octet 4 (15/15, instead of 00/00 .. 15/14 for a valid SBV TC), and parameter having PIXIT value.
Field Name	Value
Header:	
Telematic VTX Header	04/00
SBV TC Header	09/14
TFI TC Code	00/05
TC Length	15/15
Parameters:	
TFI_Enq	Tsp_TF_TFI_Enq
Detailed Comments:	

Table 144

PDU Constraint Declaration	
Constraint Name	: TFI_REQ_valid_i
PDU Type	: TFI_REQ
Derivation Path	:
Comments	: (IUT = Access Function) SBV_TFI request (input) with any parameter.
Field Name	Value
Header:	
Telematic VTX Header	04/00
SBV TC Header	09/14
TFI TC Code	00/05
TC Length	LENGTH
Parameters:	
TFI_Enq	?
Detailed Comments:	
Any TFI_Enq parameter can be received from the IUT as an Access Function. Note that its coding is a matter of syntax and is thus out of scope of the present document. The symbol '?' means that the parameter shall be present with any valid value.	

Table 145

PDU Constraint Declaration	
Constraint Name	: TFI_RESP_valid_o
PDU Type	: TFI_RESP
Derivation Path	:
Comments	: (IUT = Access Function) SBV_TFI response (output) with parameter having PIXIT value.
Field Name	Value
Header:	
Telematic VTX Header	04/00
SBV TC Header	09/14
TFI TC Code	00/05
TC Length	LENGTH
Parameters:	
TFI_Ack	Tsp_AF_TFI_Ack
Detailed Comments: The Test Suite Parameter Tsp_AF_TFI_Ack is an octet string containing a TFI_Ack parameter acceptable by the IUT as an Access Function. It is given by the PIXIT. Note that its coding is a matter of syntax and is thus outside the scope of the present document.	

Table 146

PDU Constraint Declaration	
Constraint Name	: TFI_RESP_valid_i
PDU Type	: TFI_RESP
Derivation Path	:
Comments	: (IUT = Terminal Function) SBV_TFI response (input) with any parameter.
Field Name	Value
Header:	
Telematic VTX Header	04/00
SBV TC Header	09/14
TFI TC Code	00/05
TC Length	LENGTH
Parameters:	
TFI_Ack	?
Detailed Comments: Any TFI_Ack parameter can be received from the IUT as a Terminal Function. Note that its coding is a matter of syntax and is thus outside the scope of the present document. The symbol '?' means that the parameter shall be present with any valid value.	

Table 147

PDU Constraint Declaration	
Constraint Name	: TCER_REQ_ns_ba_o
PDU Type	: TCER_REQ
Derivation Path	:
Comments	: (IUT = Terminal Function OR Access Function) SBV_TC_ERROR request (output) with 'TC Not Supported' parameter. The rejected Telematic Command is: SBV_BEGIN_APPLICATION request.
Field Name	Value
Header:	
Telematic VTX Header	04/00
SBV TC Header	09/14
TC_ERROR TC Code	00/01
TC Length	LENGTH
Parameters:	
Error_Code	Error_Code_Struct_Not_Sup_BA_o
Detailed Comments:	

Table 148

PDU Constraint Declaration	
Constraint Name	: TCER_REQ_ns_tpd_o
PDU Type	: TCER_REQ
Derivation Path	:
Comments	: (IUT = Terminal Function OR Access Function) SBV_TC_ERROR request (output) with 'TC Not Supported' parameter. The rejected Telematic Command is: SBV_TPD_BEGIN request.
Field Name	Value
Header:	
Telematic VTX Header	04/00
SBV TC Header	09/14
TC_ERROR TC Code	00/01
TC Length	LENGTH
Parameters:	
Error_Code	Error_Code_Struct_NotSup_TPDB_o
Detailed Comments:	

Table 149

PDU Constraint Declaration	
Constraint Name	: TCER_REQ_Err_TFI_o
PDU Type	: TCER_REQ
Derivation Path	:
Comments	: (IUT = Terminal Function) SBV_TC_ERROR request (output) with 'TC Erroneous' parameter. The rejected Telematic Command is: SBV_TFI response. Its rejected parameter is: TFI_Ack.
Field Name	Value
Header:	
Telematic VTX Header	04/00
SBV TC Header	09/14
TC_ERROR TC Code	00/01
TC Length	LENGTH
Parameters:	
Error_Code	Error_Code_Struct_Erron_TFI_o
Detailed Comments: SBV_TFI was chosen because it is the only Telematic Command service belonging to kernel services. Checking the TFI_Ack parameter is not a matter of Syntax-Based-Videotex protocol. However, this parameter is mandatory, and therefore an error should be reported if it is missing. The "TC_Erroneous" error code is supposed to cover the case of a mandators parameter missing. The problem is how to report that TFI_Ack was missing, since its code is not defined in the base standards, and thus cannot be quoted in the TC_Error PDU. A defect report is to be produced on this subject; for the moment, it is chosen to send a TC_Error PDU stating "TC_Erroneous", with no parameter code.	

Table 150

PDU Constraint Declaration	
Constraint Name	: TCER_REQ_noec_o
PDU Type	: TCER_REQ
Derivation Path	:
Comments	: (IUT = Terminal Function) SBV_TC_ERROR request (output) with no Error_Code parameter (invalid).
Field Name	Value
Header:	
Telematic VTX Header	04/00
SBV TC Header	09/14
TC_ERROR TC Code	00/01
TC Length	LENGTH
Parameters:	
Error_Code	-
Detailed Comments:	

Table 151

PDU Constraint Declaration	
Constraint Name	: TCER_REQ_valid_i
PDU Type	: TCER_REQ
Derivation Path	:
Comments	: (IUT = Terminal Function OR Access Function) SBV_TC_ERROR request (input) with any parameter. The rejected Telematic Command can be anything.
Field Name	Value
Header:	
Telematic VTX Header	04/00
SBV TC Header	09/14
TC_ERROR TC Code	00/01
TC Length	LENGTH
Parameters:	
Error_Code	Error_Code_Struct_Valid_any_i
Detailed Comments:	

Table 152

PDU Constraint Declaration	
Constraint Name	: TCER_REQ_ns_co_i
PDU Type	: TCER_REQ
Derivation Path	:
Comments	: (IUT = Terminal Function OR Access Function) SBV_TC_ERROR request (input) with 'TC Not Supported' parameter. The rejected Telematic Command is: SBV_CHANNEL_OPEN
Field Name	Value
Header:	
Telematic VTX Header	04/00
SBV TC Header	09/14
TC_ERROR TC Code	00/01
TC Length	LENGTH
Parameters:	
Error_Code	Error_Code_Struct_Valid_NS_CO_i
Detailed Comments:	

Table 153

PDU Constraint Declaration	
Constraint Name	: TCER_REQ_ns_cc_i
PDU Type	: TCER_REQ
Derivation Path	:
Comments	: (IUT = Terminal Function OR Access Function) SBV_TC_ERROR request (input) with 'TC Not Supported' parameter. The rejected Telematic Command is: SBV_CHANNEL_CLOSE
Field Name	Value
Header:	
Telematic VTX Header	04/00
SBV TC Header	09/14
TC_ERROR TC Code	00/01
TC Length	LENGTH
Parameters:	
Error_Code	Error_Code_Struct_Valid_NS_CC_i
Detailed Comments:	

Table 154

PDU Constraint Declaration	
Constraint Name	: TCER_REQ_ns_tpd_i
PDU Type	: TCER_REQ
Derivation Path	:
Comments	: (IUT = Terminal Function OR Access Function) SBV_TC_ERROR request (input) with 'TC Not Supported' parameter. The rejected Telematic Command is: SBV_TPD_BEGIN
Field Name	Value
Header:	
Telematic VTX Header	04/00
SBV TC Header	09/14
TC_ERROR TC Code	00/01
TC Length	LENGTH
Parameters:	
Error_Code	Error_Code_Struct_Valid_NS_TPDB_i
Detailed Comments:	

Table 155

PDU Constraint Declaration	
Constraint Name	: TCER_REQ_ns_tpde_i
PDU Type	: TCER_REQ
Derivation Path	:
Comments	: (IUT = Terminal Function OR Access Function) SBV_TC_ERROR request (input) with 'TC Not Supported' parameter. The rejected Telematic Command is: SBV_TPD_END
Field Name	Value
Header:	
Telematic VTX Header	04/00
SBV TC Header	09/14
TC_ERROR TC Code	00/01
TC Length	LENGTH
Parameters:	
Error_Code	Error_Code_Struct_Valid_NS_TPDE_i
Detailed Comments:	

Table 156

PDU Constraint Declaration	
Constraint Name	: TCER_REQ_ns_dfk_i
PDU Type	: TCER_REQ
Derivation Path	:
Comments	: (IUT = Terminal Function OR Access Function) SBV_TC_ERROR request (input) with 'TC Not Supported' parameter. The rejected Telematic Command is: SBV_DFK
Field Name	Value
Header:	
Telematic VTX Header	04/00
SBV TC Header	09/14
TC_ERROR TC Code	00/01
TC Length	LENGTH
Parameters:	
Error_Code	Error_Code_Struct_Valid_NS_DFK_i
Detailed Comments:	

Table 157

PDU Constraint Declaration	
Constraint Name	: TCER_REQ_ns_esc_i
PDU Type	: TCER_REQ
Derivation Path	:
Comments	: (IUT = Terminal Function OR Access Function) SBV_TC_ERROR request (input) with 'TC Not Supported' parameter. The rejected Telematic Command is: SBV_ESCAPE
Field Name	Value
Header:	
Telematic VTX Header	04/00
SBV TC Header	09/14
TC_ERROR TC Code	00/01
TC Length	LENGTH
Parameters:	
Error_Code	Error_Code_Struct_Valid_NS_ESC_i
Detailed Comments:	

Table 158

PDU Constraint Declaration	
Constraint Name	: TCER_REQ_Sem_BA_i
PDU Type	: TCER_REQ
Derivation Path	:
Comments	: (IUT = Terminal Function OR Access Function) SBV_TC_ERROR request (input) with 'TC Semantic Error' parameter. The rejected Telematic Command is: SBV_BEGIN_APPLICATION.
Field Name	Value
Header:	
Telematic VTX Header	04/00
SBV TC Header	09/14
TC_ERROR TC Code	00/01
TC Length	LENGTH
Parameters:	
Error_Code	Error_Code_Struct_Valid_Sem_BA_i
Detailed Comments:	
NOTE: The error code "TC Semantic Error" is expected in future versions of the base standard.	

Table 159

PDU Constraint Declaration	
Constraint Name	: TCER_REQ_Sem_TPDB_i
PDU Type	: TCER_REQ
Derivation Path	:
Comments	: (IUT = Terminal Function OR Access Function) SBV_TC_ERROR request (input) with 'TC Erroneous' parameter. The rejected Telematic Command is: SBV_TPD_BEGIN.
Field Name	Value
Header:	
Telematic VTX Header	04/00
SBV TC Header	09/14
TC_ERROR TC Code	00/01
TC Length	LENGTH
Parameters:	
Error_Code	Error_Code_Struct_Valid_Sem_TPDB_i
Detailed Comments:	
NOTE: The error code "TC Semantic Error" is expected in future versions of the base standard.	

Table 160

PDU Constraint Declaration	
Constraint Name	: TCER_REQ_Erron_DFK_i
PDU Type	: TCER_REQ
Derivation Path	:
Comments	: (IUT = Terminal Function OR Access Function) SBV_TC_ERROR request (input) with 'TC Erroneous' parameter. The rejected Telematic Command is: SBV_DFK. Its rejected parameter is: Function_Keys.
Field Name	Value
Header:	
Telematic VTX Header	04/00
SBV TC Header	09/14
TC_ERROR TC Code	00/01
TC Length	LENGTH
Parameters:	
Error_Code	Error_Code_Struct_Valid_Erron_DFK_i
Detailed Comments:	

Table 161

PDU Constraint Declaration	
Constraint Name	: TCER_REQ_Erron_TPDB_i
PDU Type	: TCER_REQ
Derivation Path	:
Comments	: (IUT = Terminal Function OR Access Function) SBV_TC_ERROR request (input) with 'TC Erroneous' parameter. The rejected Telematic Command is: SBV_TPD_BEGIN (response). Its rejected parameter can be anything (this error is expected when the IUT has received an invalid TPD-BEGIN response with "Successful" result and DDU_Fall_Back-Mode parameter.
Field Name	Value
Header:	
Telematic VTX Header	04/00
SBV TC Header	09/14
TC_ERROR TC Code	00/01
TC Length	LENGTH
Parameters:	
Error_Code	Error_Code_Struct_Valid_Erron_TPDB_i
Detailed Comments:	

Table 162

PDU Constraint Declaration	
Constraint Name	: TCER_REQ_Erron_TFI_i
PDU Type	: TCER_REQ
Derivation Path	:
Comments	: (IUT = Terminal Function OR Access Function) SBV_TC_ERROR request (input) with 'TC Erroneous' parameter. The rejected Telematic Command is: SBV_TFI (request). Its rejected parameter is: TFI_Enq (missing).
Field Name	Value
Header:	
Telematic VTX Header	04/00
SBV TC Header	09/14
TC_ERROR TC Code	00/01
TC Length	LENGTH
Parameters:	
Error_Code	Error_Code_Struct_Valid_Erron_TFI_i
Detailed Comments:	

Table 163

PDU Constraint Declaration	
Constraint Name	: TCER_REQ_Erron_CO_i
PDU Type	: TCER_REQ
Derivation Path	:
Comments	: (IUT = Terminal Function OR Access Function) SBV_TC_ERROR request (input) with 'TC Erroneous' parameter. The rejected Telematic Command is: SBV_CHANNEL_OPEN (request). Its rejected parameter can be anything (this error is expected when the IUT has received an invalid TPD-BEGIN response with no parameter, though the standard specifies that at least one of a list should be present).
Field Name	Value
Header:	
Telematic VTX Header	04/00
SBV TC Header	09/14
TC_ERROR TC Code	00/01
TC Length	LENGTH
Parameters:	
Error_Code	Error_Code_Struct_Valid_Erron_CO_i
Detailed Comments:	

Table 164

PDU Constraint Declaration	
Constraint Name	: TCER_REQ_Erron_CC_i
PDU Type	: TCER_REQ
Derivation Path	:
Comments	: (IUT = Terminal Function OR Access Function) SBV_TC_ERROR request (input) with 'TC Erroneous' parameter. The rejected Telematic Command is: SBV_CHANNEL_CLOSE (request). Its rejected parameter can be anything (this error is expected when the IUT has received an invalid TPD-BEGIN response with no parameter, though the standard specifies that at least one of a list should be present).
Field Name	Value
Header:	
Telematic VTX Header	04/00
SBV TC Header	09/14
TC_ERROR TC Code	00/01
TC Length	LENGTH
Parameters:	
Error_Code	Error_Code_Struct_Valid_Erron_CC_i
Detailed Comments:	

Table 165

PDU Constraint Declaration	
Constraint Name	: TCER_REQ_Erron_BA_i
PDU Type	: TCER_REQ
Derivation Path	:
Comments	: (IUT = Terminal Function OR Access Function) SBV_TC_ERROR request (input) with 'TC Erroneous' parameter. The rejected Telematic Command is: SBV_BEGIN_APPLICATION (request). Its rejected parameter can be anything (this error is expected when the IUT has received an invalid TPD-BEGIN response with no parameter, though the standard specifies that at least one of a list should be present).
Field Name	Value
Header:	
Telematic VTX Header	04/00
SBV TC Header	09/14
TC_ERROR TC Code	00/01
TC Length	LENGTH
Parameters:	
Error_Code	Error_Code_Struct_Valid_Erron_BA_i
Detailed Comments:	

Table 166

PDU Constraint Declaration	
Constraint Name	: TCER_REQ_Erron_BAr_i
PDU Type	: TCER_REQ
Derivation Path	:
Comments	: (IUT = Terminal Function OR Access Function) SBV_TC_ERROR request (input) with 'TC Erroneous' parameter. The rejected Telematic Command is: SBV_BEGIN_APPLICATION (response). Its rejected parameter is Result (missing).
Field Name	Value
Header:	
Telematic VTX Header	04/00
SBV TC Header	09/14
TC_ERROR TC Code	00/01
TC Length	LENGTH
Parameters:	
Error_Code	Error_Code_Struct_Valid_Erron_BAr_i
Detailed Comments:	

Table 167

PDU Constraint Declaration	
Constraint Name	: TCER_REQ_Erron_TPDBr_i
PDU Type	: TCER_REQ
Derivation Path	:
Comments	: (IUT = Terminal Function OR Access Function) SBV_TC_ERROR request (input) with 'TC Erroneous' parameter. The rejected Telematic Command is: SBV_TPD_BEGIN (response). Its rejected parameter is Result (missing).
Field Name	Value
Header:	
Telematic VTX Header	04/00
SBV TC Header	09/14
TC_ERROR TC Code	00/01
TC Length	LENGTH
Parameters:	
Error_Code	Error_Code_Struct_Valid_Erron_TPDBr_i
Detailed Comments:	

Table 168

PDU Constraint Declaration	
Constraint Name	: TCER_REQ_Utce2_i
PDU Type	: TCER_REQ
Derivation Path	:
Comments	: (IUT = Terminal Function OR Access Function) SBV_TC_ERROR request (input) with 'Unknown TC Event' parameter (bad octet 2).
Field Name	Value
Header:	
Telematic VTX Header	04/00
SBV TC Header	09/14
TC_ERROR TC Code	00/01
TC Length	LENGTH
Parameters:	
Error_Code	Error_Code_Struct_Valid_Utce2_i
Detailed Comments:	
NOTE: The error code "Unknown TC Event" is expected in future versions of the base standard.	

Table 169

PDU Constraint Declaration	
Constraint Name	: TCER_REQ_Utce4_i
PDU Type	: TCER_REQ
Derivation Path	:
Comments	: (IUT = Terminal Function OR Access Function) SBV_TC_ERROR request (input) with 'Unknown TC Event' parameter (bad octet 4).
Field Name	Value
Header:	
Telematic VTX Header	04/00
SBV TC Header	09/14
TC_ERROR TC Code	00/01
TC Length	LENGTH
Parameters:	
Error_Code	Error_Code_Struct_Valid_Utce4_i
Detailed Comments:	
NOTE: The error code "Unknown TC Event" is expected in future versions of the base standard.	

Table 170

PDU Constraint Declaration	
Constraint Name	: TCER_REQ_utc_i
PDU Type	: TCER_REQ
Derivation Path	:
Comments	: (IUT = Terminal Function OR Access Function) TC Error Request sent by IUT in response to ITC_o3_error_o (unknown octet 3 -> TC not supported)
Field Name	Value
Header:	
Telematic VTX Header	04/00
SBV TC Header	09/14
TC_ERROR TC Code	00/01
TC Length	LENGTH
Parameters:	
Error_Code	Error_Code_Struct_Valid_utc_i
Detailed Comments:	

Table 171

PDU Constraint Declaration	
Constraint Name	: CO_REQ_slave_o
PDU Type	: CO_REQ
Derivation Path	:
Comments	: (IUT = Terminal Function) SBV_CHANNEL_OPEN request (output) with all necessary parameters.
Field Name	Value
Header:	
Telematic VTX Header	04/00
SBV TC Header	09/14
Channel Open TC Code	00/02
TC Length	LENGTH
Parameters:	
Req_OB_Called_Address	08/12 - ECS (Tsp_TF_CO_Req_OB_C_Addr) NOTE
Req_OB_Called_Subaddress	-
OB_Application_Address	09/08 - ECS (Tsp_TF_CO_OB_Appl_Addr) NOTE
OB_Application_Selection	10/08 - ECS (Tsp_TF_CO_OB_Appl_Sel) NOTE
OB_Application_Data	-
Req_OB_User_Data	08/06 - ECS (Tsp_TF_Req_CO_OB_User_Data) NOTE
Req_IB_Called_Address	08/04 - ECS (Tsp_TF_CO_Req_IB_C_Addr) NOTE
IB_Application_Address	09 - BCS (Tsp_TF_CO_IB_Appl_Addr) NOTE
IB_Application_Selection	10 - BCS (Tsp_TF_CO_IB_Appl_Sel) NOTE
IB_Application_Data	-
Req_IB_User_Data	08/07 - ECS (Tsp_TF_CO_IB_User_Data) NOTE
Packet_Size	-
Window_Size	-
Reference	12 - BCS (Tsp_TF_CO_Ref1)
Detailed Comments: xx - ECS (yy) means Extended Coding Structure (ETS 300 079 [3], subclause 9.3.2), with xx code value and yy parameter value. xx - BCS (yy) means Basic Coding Structure (ETS 300 079 [3], subclause 9.3.1), with xx code value and yy parameter value. CO_REQ_slave_o is designed to be the simplest SBV_CHANNEL_OPEN request PDU sent by the lower tester. NOTE: The base standard specifies that at least one of { Req_OB_Called_Address, OB_Application_Address, OB_Application_Selection, Req_OB_User_Data, Req_IB_Called_Address, IB_Application_Address, IB_Application_Selection, Req_IB_User_Data } shall be present. Amongst these parameters, only the parameters that have to be present according to PICS should appear in this PDU constraint, or, if no parameter is mandatory according to the PICS, one parameter stated as supported in the PICS should be present in this PDU constraint.	

Table 172

PDU Constraint Declaration	
Constraint Name	: CO_REQ_slave2_o
PDU Type	: CO_REQ
Derivation Path	:
Comments	: (IUT = Terminal Function) SBV_CHANNEL_OPEN request (output) with all necessary parameters, and Reference parameter of a second slave channel.
Field Name	Value
Header:	
Telematic VTX Header	04/00
SBV TC Header	09/14
Channel Open TC Code	00/02
TC Length	LENGTH
Parameters:	
Req_OB_Called_Address	08/12 - ECS (Tsp_TF_CO_Req_OB_C_Addr) NOTE
Req_OB_Called_Subaddress	-
OB_Application_Address	09/08 - ECS (Tsp_TF_CO_OB_Appl_Addr) NOTE
OB_Application_Selection	10/08 - ECS (Tsp_TF_CO_OB_Appl_Sel) NOTE
OB_Application_Data	-
Req_OB_User_Data	08/06 - ECS (Tsp_TF_Req_CO_OB_User_Data) NOTE
Req_IB_Called_Address	08/04 - ECS (Tsp_TF_CO_Req_IB_C_Addr) NOTE
IB_Application_Address	09 - BCS (Tsp_TF_CO_IB_Appl_Addr) NOTE
IB_Application_Selection	10 - BCS (Tsp_TF_CO_IB_Appl_Sel) NOTE
IB_Application_Data	-
Req_IB_User_Data	08/07 - ECS (Tsp_TF_CO_IB_User_Data) NOTE
Packet_Size	-
Window_Size	-
Reference	12 - BCS (Tsp_TF_CO_Ref1)
Detailed Comments: xx - ECS (yy) means Extended Coding Structure (ETS 300 079 [3], subclause 9.3.2), with xx code value and yy parameter value. xx - BCS (yy) means Basic Coding Structure (ETS 300 079 [3], subclause 9.3.1), with xx code value and yy parameter value. CO_REQ_slave2_o is designed to be the simplest SBV_CHANNEL_OPEN request PDU sent by the lower tester on PCO L2. NOTE: The base standard specifies that at least one of { Req_OB_Called_Address, OB_Application_Address, OB_Application_Selection, Req_OB_User_Data, Req_IB_Called_Address, IB_Application_Address, IB_Application_Selection, Req_IB_User_Data } shall be present. Amongst these parameters, only the parameters that have to be present according to PICS should appear in this PDU constraint, or, if no parameter is mandatory according to the PICS, one parameter stated as supported in the PICS should be present in this PDU constraint.	

Table 173

PDU Constraint Declaration	
Constraint Name	: CO_REQ_valid_o
PDU Type	: CO_REQ
Derivation Path	:
Comments	: (IUT = Terminal Function) SBV_CHANNEL_OPEN request (output) with all possible parameters.
Field Name	Value
Header:	
Telematic VTX Header	04/00
SBV TC Header	09/14
Channel Open TC Code	00/02
TC Length	LENGTH
Parameters:	
Req_OB_Called_Address	08/12 - ECS (Tsp_TF_CO_Req_OB_C_Addr)
Req_OB_Called_Subaddress	08/13 - ECS (Tsp_TF_CO_Req_OB_C_Sub)
OB_Application_Address	09/08 - ECS (Tsp_TF_CO_OB_Appl_Addr)
OB_Application_Selection	10/08 - ECS (Tsp_TF_CO_OB_Appl_Sel)
OB_Application_Data	11/08 - ECS (Tsp_TF_CO_OB_Appl_Data)
Req_OB_User_Data	08/06 - ECS (Tsp_TF_Req_CO_OB_User_Data)
Req_IB_Called_Address	08/04 - ECS (Tsp_TF_CO_Req_IB_C_Addr)
IB_Application_Address	09 - BCS (Tsp_TF_CO_IB_Appl_Addr)
IB_Application_Selection	10 - BCS (Tsp_TF_CO_IB_Appl_Sel)
IB_Application_Data	11 - BCS (Tsp_TF_CO_IB_Appl_Data)
Req_IB_User_Data	08/07 - ECS (Tsp_TF_CO_IB_User_Data)
Packet_Size	13/01 - ECS (Tsp_TF_CO_Pack_Size)
Window_Size	13/02 - ECS (Tsp_TF_CO_Win_Size)
Reference	12 - BCS (Tsp_TF_CO_Ref1)
Detailed Comments:	
xx - ECS (yy) means Extended Coding Structure (ETS 300 079 [3], subclause 9.3.2), with xx code value and yy parameter value. xx - BCS (yy) means Basic Coding Structure (ETS 300 079 [3], subclause 9.3.1), with xx code value and yy parameter value. CO_REQ_valid_o is an SBV_CHANNEL_OPEN request PDU with all possible parameters stated as supported in the PICS. All parameters mentioned in this table need not necessarily be present on the PDU: if a parameter is stated as supported in the PICS (see PICS table 104), then it shall be present and have the value given in this table.	

Table 174

PDU Constraint Declaration	
Constraint Name	: CO_REQ_obca_o
PDU Type	: CO_REQ
Derivation Path	:
Comments	: (IUT = Terminal Function) SBV_CHANNEL_OPEN request (output) with Req_OB_Called_Address parameter present.
Field Name	Value
Header:	
Telematic VTX Header	04/00
SBV TC Header	09/14
Channel Open TC Code	00/02
TC Length	LENGTH
Parameters:	
Req_OB_Called_Address	08/12 - ECS (Tsp_TF_CO_Req_OB_C_Addr)
Req_OB_Called_Subaddress	-
OB_Application_Address	-
OB_Application_Selection	-
OB_Application_Data	-
Req_OB_User_Data	-
Req_IB_Called_Address	-
IB_Application_Address	-
IB_Application_Selection	-
IB_Application_Data	-
Req_IB_User_Data	-
Packet_Size	-
Window_Size	-
Reference	-
Detailed Comments:	
xx - ECS (yy) means Extended Coding Structure (ETS 300 079 [3], subclause 9.3.2), with xx code value and yy parameter value.	

Table 175

PDU Constraint Declaration	
Constraint Name	: CO_REQ_obcs_o
PDU Type	: CO_REQ
Derivation Path	:
Comments	: (IUT = Terminal Function) SBV_CHANNEL_OPEN request (output) with Req_OB_Called_Subaddress parameter present.
Field Name	Value
Header:	
Telematic VTX Header	04/00
SBV TC Header	09/14
Channel Open TC Code	00/02
TC Length	LENGTH
Parameters:	
Req_OB_Called_Address	NOTE
Req_OB_Called_Subaddress	08/13 - ECS (Tsp_TF_CO_Req_OB_C_Sub)
OB_Application_Address	NOTE
OB_Application_Selection	NOTE
OB_Application_Data	-
Req_OB_User_Data	NOTE
Req_IB_Called_Address	NOTE
IB_Application_Address	NOTE
IB_Application_Selection	NOTE
IB_Application_Data	-
Req_IB_User_Data	NOTE
Packet_Size	-
Window_Size	-
Reference	-
Detailed Comments:	
xx - ECS (yy) means Extended Coding Structure (ETS 300 079 [3], subclause 9.3.2), with xx code value and yy parameter value. NOTE: The base standard specifies that at least one of { Req_OB_Called_Address, OB_Application_Address, OB_Application_Selection, Req_OB_User_Data, Req_IB_Called_Address, IB_Application_Address, IB_Application_Selection, Req_IB_User_Data } shall be present. Amongst these parameters, only the parameters that have to be present according to PICS should appear in this PDU constraint, or, if no parameter is mandatory according to the PICS, one parameter stated as supported in the PICS should be present in this PDU constraint. The value for this (these) parameter(s) should be as given in the constraint CO_REQ_slave_o.	

Table 176

PDU Constraint Declaration	
Constraint Name	: CO_REQ_obaa_o
PDU Type	: CO_REQ
Derivation Path	:
Comments	: (IUT = Terminal Function) SBV_CHANNEL_OPEN request (output) with OB_Application_Address parameter present.
Field Name	Value
Header:	
Telematic VTX Header	04/00
SBV TC Header	09/14
Channel Open TC Code	00/02
TC Length	LENGTH
Parameters:	
Req_OB_Called_Address	-
Req_OB_Called_Subaddress	-
OB_Application_Address	09/08 - ECS (Tsp_TF_CO_OB_Appl_Addr)
OB_Application_Selection	-
OB_Application_Data	-
Req_OB_User_Data	-
Req_IB_Called_Address	-
IB_Application_Address	-
IB_Application_Selection	-
IB_Application_Data	-
Req_IB_User_Data	-
Packet_Size	-
Window_Size	-
Reference	-
Detailed Comments:	
xx - ECS (yy) means Extended Coding Structure (ETS 300 079 [3], subclause 9.3.2), with xx code value and yy parameter value.	

Table 177

PDU Constraint Declaration	
Constraint Name	: CO_REQ_obas_o
PDU Type	: CO_REQ
Derivation Path	:
Comments	: (IUT = Terminal Function) SBV_CHANNEL_OPEN request (output) with OB_Application_Selection parameter present.
Field Name	Value
Header:	
Telematic VTX Header	04/00
SBV TC Header	09/14
Channel Open TC Code	00/02
TC Length	LENGTH
Parameters:	
Req_OB_Called_Address	-
Req_OB_Called_Subaddress	-
OB_Application_Address	-
OB_Application_Selection	10/08 - ECS (Tsp_TF_CO_OB_Appl_Sel)
OB_Application_Data	-
Req_OB_User_Data	-
Req_IB_Called_Address	-
IB_Application_Address	-
IB_Application_Selection	-
IB_Application_Data	-
Req_IB_User_Data	-
Packet_Size	-
Window_Size	-
Reference	-
Detailed Comments:	
xx - ECS (yy) means Extended Coding Structure (ETS 300 079 [3], subclause 9.3.2), with xx code value and yy parameter value.	

Table 178

PDU Constraint Declaration	
Constraint Name	: CO_REQ_obad_o
PDU Type	: CO_REQ
Derivation Path	:
Comments	: (IUT = Terminal Function) SBV_CHANNEL_OPEN request (output) with OB_Application_Data parameter present.
Field Name	Value
Header:	
Telematic VTX Header	04/00
SBV TC Header	09/14
Channel Open TC Code	00/02
TC Length	LENGTH
Parameters:	
Req_OB_Called_Address	NOTE
Req_OB_Called_Subaddress	-
OB_Application_Address	NOTE
OB_Application_Selection	NOTE
OB_Application_Data	11/08 - ECS (Tsp_TF_CO_OB_Appl_Data)
Req_OB_User_Data	NOTE
Req_IB_Called_Address	NOTE
IB_Application_Address	NOTE
IB_Application_Selection	NOTE
IB_Application_Data	-
Req_IB_User_Data	NOTE
Packet_Size	-
Window_Size	-
Reference	-
Detailed Comments:	
xx - ECS (yy) means Extended Coding Structure (ETS 300 079 [3], subclause 9.3.2), with xx code value and yy parameter value. NOTE: The base standard specifies that at least one of { Req_OB_Called_Address, OB_Application_Address, OB_Application_Selection, Req_OB_User_Data, Req_IB_Called_Address, IB_Application_Address, IB_Application_Selection, Req_IB_User_Data } shall be present. Amongst these parameters, only the parameters that have to be present according to PICS should appear in this PDU constraint, or, if no parameter is mandatory according to the PICS, one parameter stated as supported in the PICS should be present in this PDU constraint. The value for this (these) parameter(s) should be as given in the constraint CO_REQ_slave_o.	

Table 179

PDU Constraint Declaration	
Constraint Name	: CO_REQ_robud_o
PDU Type	: CO_REQ
Derivation Path	:
Comments	: (IUT = Terminal Function) SBV_CHANNEL_OPEN request (output) with Req_OB_User_Data parameter present.
Field Name	Value
Header:	
Telematic VTX Header	04/00
SBV TC Header	09/14
Channel Open TC Code	00/02
TC Length	LENGTH
Parameters:	
Req_OB_Called_Address	-
Req_OB_Called_Subaddress	-
OB_Application_Address	-
OB_Application_Selection	-
OB_Application_Data	-
Req_OB_User_Data	08/06 - ECS (Tsp_TF_Req_CO_OB_User_Data)
Req_IB_Called_Address	-
IB_Application_Address	-
IB_Application_Selection	-
IB_Application_Data	-
Req_IB_User_Data	-
Packet_Size	-
Window_Size	-
Reference	-
Detailed Comments:	
xx - ECS (yy) means Extended Coding Structure (ETS 300 079 [3], subclause 9.3.2), with xx code value and yy parameter value.	

Table 180

PDU Constraint Declaration	
Constraint Name	: CO_REQ_ribca_o
PDU Type	: CO_REQ
Derivation Path	:
Comments	: (IUT = Terminal Function) SBV_CHANNEL_OPEN request (output) with Req_IB_Called_Address parameter present.
Field Name	Value
Header:	
Telematic VTX Header	04/00
SBV TC Header	09/14
Channel Open TC Code	00/02
TC Length	LENGTH
Parameters:	
Req_OB_Called_Address	-
Req_OB_Called_Subaddress	-
OB_Application_Address	-
OB_Application_Selection	-
OB_Application_Data	-
Req_OB_User_Data	-
Req_IB_Called_Address	08/04 - ECS (Tsp_TF_CO_Req_IB_C_Addr)
IB_Application_Address	-
IB_Application_Selection	-
IB_Application_Data	-
Req_IB_User_Data	-
Packet_Size	-
Window_Size	-
Reference	-
Detailed Comments:	
xx - ECS (yy) means Extended Coding Structure (ETS 300 079 [3], subclause 9.3.2), with xx code value and yy parameter value.	

Table 181

PDU Constraint Declaration	
Constraint Name	: CO_REQ_ibaa_o
PDU Type	: CO_REQ
Derivation Path	:
Comments	: (IUT = Terminal Function) SBV_CHANNEL_OPEN request (output) with IB_Application_Address parameter present.
Field Name	Value
Header:	
Telematic VTX Header	04/00
SBV TC Header	09/14
Channel Open TC Code	00/02
TC Length	LENGTH
Parameters:	
Req_OB_Called_Address	-
Req_OB_Called_Subaddress	-
OB_Application_Address	-
OB_Application_Selection	-
OB_Application_Data	-
Req_OB_User_Data	-
Req_IB_Called_Address	-
IB_Application_Address	09 - BCS (Tsp_TF_CO_IB_Appl_Addr)
IB_Application_Selection	-
IB_Application_Data	-
Req_IB_User_Data	-
Packet_Size	-
Window_Size	-
Reference	-
Detailed Comments:	
xx - BCS (yy) means Basic Coding Structure (ETS 300 079 [3], subclause 9.3.1), with xx code value and yy parameter value.	

Table 182

PDU Constraint Declaration	
Constraint Name	: CO_REQ_ibas_o
PDU Type	: CO_REQ
Derivation Path	:
Comments	: (IUT = Terminal Function) SBV_CHANNEL_OPEN request (output) with IB_Application_Selection parameter present.
Field Name	Value
Header:	
Telematic VTX Header	04/00
SBV TC Header	09/14
Channel Open TC Code	00/02
TC Length	LENGTH
Parameters:	
Req_OB_Called_Address	-
Req_OB_Called_Subaddress	-
OB_Application_Address	-
OB_Application_Selection	-
OB_Application_Data	-
Req_OB_User_Data	-
Req_IB_Called_Address	-
IB_Application_Address	-
IB_Application_Selection	10 - BCS (Tsp_TF_CO_IB_Appl_Sel)
IB_Application_Data	-
Req_IB_User_Data	-
Packet_Size	-
Window_Size	-
Reference	-
Detailed Comments:	
xx - BCS (yy) means Basic Coding Structure (ETS 300 079 [3], subclause 9.3.1), with xx code value and yy parameter value.	

Table 183

PDU Constraint Declaration	
Constraint Name	: CO_REQ_ibad_o
PDU Type	: CO_REQ
Derivation Path	:
Comments	: (IUT = Terminal Function) SBV_CHANNEL_OPEN request (output) with IB_Application_Data parameter present.
Field Name	Value
Header:	
Telematic VTX Header	04/00
SBV TC Header	09/14
Channel Open TC Code	00/02
TC Length	LENGTH
Parameters:	
Req_OB_Called_Address	NOTE
Req_OB_Called_Subaddress	-
OB_Application_Address	NOTE
OB_Application_Selection	NOTE
OB_Application_Data	-
Req_OB_User_Data	NOTE
Req_IB_Called_Address	NOTE
IB_Application_Address	NOTE
IB_Application_Selection	NOTE
IB_Application_Data	11 - BCS (Tsp_TF_CO_IB_Appl_Data)
Req_IB_User_Data	NOTE
Packet_Size	-
Window_Size	-
Reference	-
Detailed Comments:	
xx - BCS (yy) means Basic Coding Structure (ETS 300 079 [3], subclause 9.3.1), with xx code value and yy parameter value. NOTE: The base standard specifies that at least one of { Req_OB_Called_Address, OB_Application_Address, OB_Application_Selection, Req_OB_User_Data, Req_IB_Called_Address, IB_Application_Address, IB_Application_Selection, Req_IB_User_Data } shall be present. Amongst these parameters, only the parameters that have to be present according to PICS should appear in this PDU constraint, or, if no parameter is mandatory according to the PICS, one parameter stated as supported in the PICS should be present in this PDU constraint. The value for this (these) parameter(s) should be as given in the constraint CO_REQ_slave_o.	

Table 184

PDU Constraint Declaration	
Constraint Name	: CO_REQ_ribud_o
PDU Type	: CO_REQ
Derivation Path	:
Comments	: (IUT = Terminal Function) SBV_CHANNEL_OPEN request (output) with Req_IB_User_Data parameter present.
Field Name	Value
Header:	
Telematic VTX Header	04/00
SBV TC Header	09/14
Channel Open TC Code	00/02
TC Length	LENGTH
Parameters:	
Req_OB_Called_Address	-
Req_OB_Called_Subaddress	-
OB_Application_Address	-
OB_Application_Selection	-
OB_Application_Data	-
Req_OB_User_Data	-
Req_IB_Called_Address	-
IB_Application_Address	-
IB_Application_Selection	-
IB_Application_Data	-
Req_IB_User_Data	08/07 - ECS (Tsp_TF_CO_IB_User_Data)
Packet_Size	-
Window_Size	-
Reference	-
Detailed Comments:	
xx - ECS (yy) means Extended Coding Structure (ETS 300 079 [3], subclause 9.3.2), with xx code value and yy parameter value.	

Table 185

PDU Constraint Declaration	
Constraint Name	: CO_REQ_ps_o
PDU Type	: CO_REQ
Derivation Path	:
Comments	: (IUT = Terminal Function) SBV_CHANNEL_OPEN request (output) with Packet_Size parameter present.
Field Name	Value
Header:	
Telematic VTX Header	04/00
SBV TC Header	09/14
Channel Open TC Code	00/02
TC Length	LENGTH
Parameters:	
Req_OB_Called_Address	NOTE
Req_OB_Called_Subaddress	-
OB_Application_Address	NOTE
OB_Application_Selection	NOTE
OB_Application_Data	-
Req_OB_User_Data	NOTE
Req_IB_Called_Address	NOTE
IB_Application_Address	NOTE
IB_Application_Selection	NOTE
IB_Application_Data	-
Req_IB_User_Data	NOTE
Packet_Size	13/01 - ECS (Tsp_TF_CO_Pack_Size)
Window_Size	-
Reference	-
Detailed Comments:	
xx - ECS (yy) means Extended Coding Structure (ETS 300 079 [3], subclause 9.3.2), with xx code value and yy parameter value. NOTE: The base standard specifies that at least one of { Req_OB_Called_Address, OB_Application_Address, OB_Application_Selection, Req_OB_User_Data, Req_IB_Called_Address, IB_Application_Address, IB_Application_Selection, Req_IB_User_Data } shall be present. Amongst these parameters, only the parameters that have to be present according to PICS should appear in this PDU constraint, or, if no parameter is mandatory according to the PICS, one parameter stated as supported in the PICS should be present in this PDU constraint. The value for this (these) parameter(s) should be as given in the constraint CO_REQ_slave_o.	

Table 186

PDU Constraint Declaration	
Constraint Name	: CO_REQ_ws_o
PDU Type	: CO_REQ
Derivation Path	:
Comments	: (IUT = Terminal Function) SBV_CHANNEL_OPEN request (output) with Window_Size parameter present.
Field Name	Value
Header:	
Telematic VTX Header	04/00
SBV TC Header	09/14
Channel Open TC Code	00/02
TC Length	LENGTH
Parameters:	
Req_OB_Called_Address	NOTE
Req_OB_Called_Subaddress	-
OB_Application_Address	NOTE
OB_Application_Selection	NOTE
OB_Application_Data	-
Req_OB_User_Data	NOTE
Req_IB_Called_Address	NOTE
IB_Application_Address	NOTE
IB_Application_Selection	NOTE
IB_Application_Data	-
Req_IB_User_Data	NOTE
Packet_Size	-
Window_Size	13/02 - ECS (Tsp_TF_CO_Win_Size)
Reference	-
Detailed Comments:	
xx - ECS (yy) means Extended Coding Structure (ETS 300 079 [3], subclause 9.3.2), with xx code value and yy parameter value. NOTE: The base standard specifies that at least one of { Req_OB_Called_Address, OB_Application_Address, OB_Application_Selection, Req_OB_User_Data, Req_IB_Called_Address, IB_Application_Address, IB_Application_Selection, Req_IB_User_Data } shall be present. Amongst these parameters, only the parameters that have to be present according to PICS should appear in this PDU constraint, or, if no parameter is mandatory according to the PICS, one parameter stated as supported in the PICS should be present in this PDU constraint. The value for this (these) parameter(s) should be as given in the constraint CO_REQ_slave_o.	

Table 187

PDU Constraint Declaration	
Constraint Name	: CO_REQ_c1_o
PDU Type	: CO_REQ
Derivation Path	:
Comments	: (IUT = Terminal Function) SBV_CHANNEL_OPEN request (output) with combination of Out_Band parameters.
Field Name	Value
Header:	
Telematic VTX Header	04/00
SBV TC Header	09/14
Channel Open TC Code	00/02
TC Length	LENGTH
Parameters:	
Req_OB_Called_Address	08/12 - ECS (Tsp_TF_CO_Req_OB_C_Addr)
Req_OB_Called_Subaddress	08/13 - ECS (Tsp_TF_CO_Req_OB_C_Sub)
OB_Application_Address	09/08 - ECS (Tsp_TF_CO_OB_Appl_Addr)
OB_Application_Selection	10/08 - ECS (Tsp_TF_CO_OB_Appl_Sel)
OB_Application_Data	11/08 - ECS (Tsp_TF_CO_OB_Appl_Data)
Req_OB_User_Data	-
Req_IB_Called_Address	-
IB_Application_Address	-
IB_Application_Selection	-
IB_Application_Data	-
Req_IB_User_Data	-
Packet_Size	-
Window_Size	-
Reference	12 - BCS (Tsp_TF_CO_Ref1)
Detailed Comments:	
xx - ECS (yy) means Extended Coding Structure (ETS 300 079 [3], subclause 9.3.2), with xx code value and yy parameter value. xx - BCS (yy) means Basic Coding Structure (ETS 300 079 [3], subclause 9.3.1), with xx code value and yy parameter value.	

Table 188

PDU Constraint Declaration	
Constraint Name	: CO_REQ_c2_o
PDU Type	: CO_REQ
Derivation Path	:
Comments	: (IUT = Terminal Function) SBV_CHANNEL_OPEN request (output) with combination of In-Band parameters.
Field Name	Value
Header:	
Telematic VTX Header	04/00
SBV TC Header	09/14
Channel Open TC Code	00/02
TC Length	LENGTH
Parameters:	
Req_OB_Called_Address	-
Req_OB_Called_Subaddress	-
OB_Application_Address	-
OB_Application_Selection	-
OB_Application_Data	-
Req_OB_User_Data	-
Req_IB_Called_Address	08/04 - ECS (Tsp_TF_CO_Req_IB_C_Addr)
IB_Application_Address	09 - BCS (Tsp_TF_CO_IB_Appl_Addr)
IB_Application_Selection	10 - BCS (Tsp_TF_CO_IB_Appl_Sel)
IB_Application_Data	11 - BCS (Tsp_TF_CO_IB_Appl_Data)
Req_IB_User_Data	08/07 - ECS (Tsp_TF_CO_IB_User_Data)
Packet_Size	-
Window_Size	-
Reference	12 - BCS (Tsp_TF_CO_Ref1)
Detailed Comments:	
xx - ECS (yy) means Extended Coding Structure (ETS 300 079 [3], subclause 9.3.2), with xx code value and yy parameter value. xx - BCS (yy) means Basic Coding Structure (ETS 300 079 [3], subclause 9.3.1), with xx code value and yy parameter value.	

Table 189

PDU Constraint Declaration	
Constraint Name	: CO_REQ_c3_o
PDU Type	: CO_REQ
Derivation Path	:
Comments	: (IUT = Terminal Function) SBV_CHANNEL_OPEN request (output) with combination of Out_band and In_Band parameters.
Field Name	Value
Header:	
Telematic VTX Header	04/00
SBV TC Header	09/14
Channel Open TC Code	00/02
TC Length	LENGTH
Parameters:	
Req_OB_Called_Address	08/12 - ECS (Tsp_TF_CO_Req_OB_C_Addr)
Req_OB_Called_Subaddress	08/13 - ECS (Tsp_TF_CO_Req_OB_C_Sub)
OB_Application_Address	09/08 - ECS (Tsp_TF_CO_OB_Appl_Addr)
OB_Application_Selection	10/08 - ECS (Tsp_TF_CO_OB_Appl_Sel)
OB_Application_Data	11/08 - ECS (Tsp_TF_CO_OB_Appl_Data)
Req_OB_User_Data	08/06 - ECS (Tsp_TF_Req_CO_OB_User_Data)
Req_IB_Called_Address	08/04 - ECS (Tsp_TF_CO_Req_IB_C_Addr)
IB_Application_Address	09 - BCS (Tsp_TF_CO_IB_Appl_Addr)
IB_Application_Selection	10 - BCS (Tsp_TF_CO_IB_Appl_Sel)
IB_Application_Data	11 - BCS (Tsp_TF_CO_IB_Appl_Data)
Req_IB_User_Data	08/07 - ECS (Tsp_TF_CO_IB_User_Data)
Packet_Size	-
Window_Size	-
Reference	12 - BCS (Tsp_TF_CO_Ref1)
Detailed Comments:	
xx - ECS (yy) means Extended Coding Structure (ETS 300 079 [3], subclause 9.3.2), with xx code value and yy parameter value. xx - BCS (yy) means Basic Coding Structure (ETS 300 079 [3], subclause 9.3.1), with xx code value and yy parameter value.	

Table 190

PDU Constraint Declaration	
Constraint Name	: CO_REQ_c4_o
PDU Type	: CO_REQ
Derivation Path	:
Comments	: (IUT = Terminal Function) SBV_CHANNEL_OPEN request (output) with Packet Size and Window Size parameters.
Field Name	Value
Header:	
Telematic VTX Header	04/00
SBV TC Header	09/14
Channel Open TC Code	00/02
TC Length	LENGTH
Parameters:	
Req_OB_Called_Address	NOTE
Req_OB_Called_Subaddress	NOTE
OB_Application_Address	NOTE
OB_Application_Selection	NOTE
OB_Application_Data	NOTE
Req_OB_User_Data	NOTE
Req_IB_Called_Address	NOTE
IB_Application_Address	NOTE
IB_Application_Selection	NOTE
IB_Application_Data	NOTE
Req_IB_User_Data	NOTE
Packet_Size	13/01 - ECS (Tsp_TF_CO_Pack_Size)
Window_Size	13/02 - ECS (Tsp_TF_CO_Win_Size)
Reference	12 - BCS (Tsp_TF_CO_Ref1)
Detailed Comments:	
xx - ECS (yy) means Extended Coding Structure (ETS 300 079 [3], subclause 9.3.2), with xx code value and yy parameter value. xx - BCS (yy) means Basic Coding Structure (ETS 300 079 [3], subclause 9.3.1), with xx code value and yy parameter value. NOTE: The base standard specifies that at least one of { Req_OB_Called_Address, OB_Application_Address, OB_Application_Selection, Req_OB_User_Data, Req_IB_Called_Address, IB_Application_Address, IB_Application_Selection, Req_IB_User_Data } shall be present. Amongst these parameters, only the parameters that have to be present according to PICS should appear in this PDU constraint, or, if no parameter is mandatory according to the PICS, one parameter stated as supported in the PICS should be present in this PDU constraint. The value for this (these) parameter(s) should be as given in the constraint CO_REQ_slave_o.	

Table 191

PDU Constraint Declaration	
Constraint Name	: CO_REQ_nop_o
PDU Type	: CO_REQ
Derivation Path	:
Comments	: (IUT = Terminal Function) SBV_CHANNEL_OPEN request (output) with no parameter present from list of "at-least-one-should-be-present" (invalid).
Field Name	Value
Header:	
Telematic VTX Header	04/00
SBV TC Header	09/14
Channel Open TC Code	00/02
TC Length	LENGTH
Parameters:	
Req_OB_Called_Address	-
Req_OB_Called_Subaddress	-
OB_Application_Address	-
OB_Application_Selection	-
OB_Application_Data	-
Req_OB_User_Data	-
Req_IB_Called_Address	-
IB_Application_Address	-
IB_Application_Selection	-
IB_Application_Data	-
Req_IB_User_Data	-
Packet_Size	-
Window_Size	-
Reference	-
Detailed Comments	

Table 192

PDU Constraint Declaration	
Constraint Name	: CO_REQ_valid_i
PDU Type	: CO_REQ
Derivation Path	:
Comments	: (IUT = Access Function) SBV_CHANNEL_OPEN request (input) with all possible parameters.
Field Name	Value
Header:	
Telematic VTX Header	04/00
SBV TC Header	09/14
Channel Open TC Code	00/02
TC Length	LENGTH
Parameters:	
Req_OB_Called_Address	08/12 - ECS (Tsp_AF_CO_Req_OB_C_Addr)
Req_OB_Called_Subaddress	08/13 - ECS (Tsp_AF_CO_Req_OB_C_Sub)
OB_Application_Address	09/08 - ECS (Tsp_AF_CO_OB_Appl_Addr)
OB_Application_Selection	10/08 - ECS (Tsp_AF_CO_OB_Appl_Sel)
OB_Application_Data	11/08 - ECS (Tsp_AF_CO_OB_Appl_Data)
Req_OB_User_Data	08/06 - ECS (Tsp_AF_CO_Req_OB_User_Data)
Req_IB_Called_Address	08/04 - ECS (Tsp_AF_CO_Req_IB_C_Addr)
IB_Application_Address	09 - BCS (Tsp_AF_CO_IB_Appl_Addr)
IB_Application_Selection	10 - BCS (Tsp_AF_CO_IB_Appl_Sel)
IB_Application_Data	11 - BCS (Tsp_AF_CO_IB_Appl_Data)
Req_IB_User_Data	08/07 - ECS (Tsp_AF_CO_IB_User_Data)
Packet_Size	13/01 - ECS (Tsp_AF_CO_Pack_Size)
Window_Size	13/02 - ECS (Tsp_AF_CO_Win_Size)
Reference	12 - BCS (Tsp_AF_CO_Ref1)
Detailed Comments:	
xx - ECS (yy) means Extended Coding Structure (ETS 300 079 [3], subclause 9.3.2), with xx code value and yy parameter value. xx - BCS (yy) means Basic Coding Structure (ETS 300 079 [3], subclause 9.3.1), with xx code value and yy parameter value. CO_REQ_valid_i is an SBV_CHANNEL_OPEN request PDU with all possible parameters stated as supported in the PICS. All parameters mentioned in this table need not necessarily be present on the PDU: if a parameter is stated as supported in the PICS (see PICS table 104), then it shall be present and have the value given in this table.	

Table 193

PDU Constraint Declaration	
Constraint Name	: CO_REQ_???_i
PDU Type	: CO_REQ
Derivation Path	:
Comments	: (IUT = Access Function) SBV_CHANNEL_OPEN request (input) with any parameter.
Field Name	Value
Header:	
Telematic VTX Header	04/00
SBV TC Header	09/14
Channel Open TC Code	00/02
TC Length	LENGTH
Parameters:	
Req_OB_Called_Address	08/12 - ECS (*)
Req_OB_Called_Subaddress	08/13 - ECS (*)
OB_Application_Address	09/08 - ECS (*)
OB_Application_Selection	10/08 - ECS (*)
OB_Application_Data	11/08 - ECS (*)
Req_OB_User_Data	08/06 - ECS (*)
Req_IB_Called_Address	08/04 - ECS (*)
IB_Application_Address	09 - BCS (*)
IB_Application_Selection	10 - BCS (*)
IB_Application_Data	11 - BCS (*)
Req_IB_User_Data	08/07 - ECS (*)
Packet_Size	13/01 - ECS (*)
Window_Size	13/02 - ECS (*)
Reference	12 - BCS (*)
Detailed Comments:	
xx - ECS (*) means Extended Coding Structure (ETS 300 079 [3], subclause 9.3.2), with xx code value and any parameter value (parameter can be absent).	
xx - BCS (*) means Basic Coding Structure (ETS 300 079 [3], subclause 9.3.1), with xx code value and any parameter value (parameter can be absent).	

Table 194

PDU Constraint Declaration	
Constraint Name	: CO_RESP_valid_o
PDU Type	: CO_RESP
Derivation Path	:
Comments	: (IUT = Access Function) SBV_CHANNEL_OPEN response (output) with Result set to "Successful".
Field Name	Value
Header:	
Telematic VTX Header	04/00
SBV TC Header	09/14
Channel Open TC Code	00/02
TC Length	LENGTH
Parameters:	
Ind_OB_Cause	-
Ind_IB_Cause	-
Ind_IB_Diagnostic	-
Result	13 - BCS (00/00)
Detailed Comments:	
xx - BCS (yy) means Basic Coding Structure (ETS 300 079 [3], subclause 9.3.1), with xx code value and yy parameter value.	

Table 195

PDU Constraint Declaration	
Constraint Name	: CO_RESP_????_o
PDU Type	: CO_RESP
Derivation Path	:
Comments	: (IUT = Access Function) SBV_CHANNEL_OPEN response (output) with Result set to "Not Successful", and an Ind_OB_Cause parameter.
Field Name	Value
Header:	
Telematic VTX Header	04/00
SBV TC Header	09/14
Channel Open TC Code	00/02
TC Length	LENGTH
Parameters:	
Ind_OB_Cause	08/11 - ECS (Tsp_AF_CO_Ind_OB_Cause)
Ind_IB_Cause	-
Ind_IB_Diagnostic	-
Result	13 - BCS (00/01)
Detailed Comments:	
xx - ECS (yy) means Extended Coding Structure (ETS 300 079 [3], subclause 9.3.2), with xx code value and yy parameter value.	
xx - BCS (yy) means Basic Coding Structure (ETS 300 079 [3], subclause 9.3.1), with xx code value and yy parameter value.	

Table 196

PDU Constraint Declaration	
Constraint Name	: CO_RESP_???_o
PDU Type	: CO_RESP
Derivation Path	:
Comments	: (IUT = Access Function) SBV_CHANNEL_OPEN response (output) with Result set to "Not Successful", and Ind_IB_Cause and Ind_IB_Diagnostic parameters.
Field Name	Value
Header:	
Telematic VTX Header	04/00
SBV TC Header	09/14
Channel Open TC Code	00/02
TC Length	LENGTH
Parameters:	
Ind_OB_Cause	-
Ind_IB_Cause	08/03 - ECS (Tsp_AF_CO_Ind_IB_Cause)
Ind_IB_Diagnostic	08/05 - ECS (Tsp_AF_CO_Ind_IB_Diagnostic)
Result	13 - BCS (00/01)
Detailed Comments:	
xx - ECS (yy) means Extended Coding Structure (ETS 300 079 [3], subclause 9.3.2), with xx code value and yy parameter value. xx - BCS (yy) means Basic Coding Structure (ETS 300 079 [3], subclause 9.3.1), with xx code value and yy parameter value.	

Table 197

PDU Constraint Declaration	
Constraint Name	: CO_RESP_valid_i
PDU Type	: CO_RESP
Derivation Path	:
Comments	: (IUT = Terminal Function) SBV_CHANNEL_OPEN response (input) with any parameter.
Field Name	Value
Header:	
Telematic VTX Header	04/00
SBV TC Header	09/14
Channel Open TC Code	00/02
TC Length	LENGTH
Parameters:	
Ind_OB_Cause	*
Ind_IB_Cause	*
Ind_IB_Diagnostic	*
Result	13 - BCS (?)
Detailed Comments: xx - BCS (?) means Basic Coding Structure (ETS 300 079 [3], subclause 9.3.1), with xx code value and any parameter value. The matching algorithm shall also ensure that: - If present, Ind_OB_Cause is coded as a valid Extended Coding Structure (ETS 300 079 [3], subclause 9.3.2) with code value 08/11 - If present, Ind_IB_Cause is coded as a valid Extended Coding Structure (ETS 300 079 [3], subclause 9.3.2) with code value 08/03 - If present, Ind_IB_Diagnostic is coded as a valid Extended Coding Structure (ETS 300 079 [3], subclause 9.3.2) with code value 08/05 - If one of them is present, Either Ind_OB_Cause or Ind_IB_Cause/Ind_IB_Diagnostic is present - If Result has the value 00/00 ("Successful"), no Ind_OB_Cause, Ind_IB_Cause or Ind_IB_Diagnostic is present.	

Table 198

PDU Constraint Declaration	
Constraint Name	: CO_RESP_obc_i
PDU Type	: CO_RESP
Derivation Path	:
Comments	: (IUT = Terminal Function) SBV_CHANNEL_OPEN response (input) with Ind_OB_Cause parameter present.
Field Name	Value
Header:	
Telematic VTX Header	04/00
SBV TC Header	09/14
Channel Open TC Code	00/02
TC Length	LENGTH
Parameters:	
Ind_OB_Cause	08/11 - ECS (?)
Ind_IB_Cause	*
Ind_IB_Diagnostic	*
Result	13 - BCS (?)
Detailed Comments:	
xx - BCS (?) means Basic Coding Structure (ETS 300 079 [3], subclause 9.3.1), with xx code value and any parameter value.	
xx - ECS (?) means Extended Coding Structure (ETS 300 079 [3], subclause 9.3.1), with xx code value and any parameter value.	

Table 199

PDU Constraint Declaration	
Constraint Name	: CO_RESP_ibc_i
PDU Type	: CO_RESP
Derivation Path	:
Comments	: (IUT = Terminal Function) SBV_CHANNEL_OPEN response (input) with Ind_IB_Cause parameter present.
Field Name	Value
Header:	
Telematic VTX Header	04/00
SBV TC Header	09/14
Channel Open TC Code	00/02
TC Length	LENGTH
Parameters:	
Ind_OB_Cause	*
Ind_IB_Cause	08/03 - ECS (?)
Ind_IB_Diagnostic	*
Result	13 - BCS (?)
Detailed Comments:	
xx - BCS (?) means Basic Coding Structure (ETS 300 079 [3], subclause 9.3.1), with xx code value and any parameter value. xx - ECS (?) means Extended Coding Structure (ETS 300 079 [3], subclause 9.3.1), with xx code value and any parameter value.	

Table 200

PDU Constraint Declaration	
Constraint Name	: CO_RESP_ibd_i
PDU Type	: CO_RESP
Derivation Path	:
Comments	: (IUT = Terminal Function) SBV_CHANNEL_OPEN response (input) with Ind_IB_Diagnostic parameter.
Field Name	Value
Header:	
Telematic VTX Header	04/00
SBV TC Header	09/14
Channel Open TC Code	00/02
TC Length	LENGTH
Parameters:	
Ind_OB_Cause	*
Ind_IB_Cause	*
Ind_IB_Diagnostic	08/05 - ECS (?)
Result	13 - BCS (?)
Detailed Comments:	
xx - BCS (?) means Basic Coding Structure (ETS 300 079 [3], subclause 9.3.1), with xx code value and any parameter value.	
xx - ECS (?) means Extended Coding Structure (ETS 300 079 [3], subclause 9.3.1), with xx code value and any parameter value.	

Table 201

PDU Constraint Declaration	
Constraint Name	: CO_RESP_ibcd_i
PDU Type	: CO_RESP
Derivation Path	:
Comments	: (IUT = Terminal Function) SBV_CHANNEL_OPEN response (input) with Ind_IB_Cause and Ind_IB_Diagnostic parameters.
Field Name	Value
Header:	
Telematic VTX Header	04/00
SBV TC Header	09/14
Channel Open TC Code	00/02
TC Length	LENGTH
Parameters:	
Ind_OB_Cause	*
Ind_IB_Cause	08/03 - ECS (?)
Ind_IB_Diagnostic	08/05 - ECS (?)
Result	13 - BCS (?)
Detailed Comments:	
xx - BCS (?) means Basic Coding Structure (ETS 300 079 [3], subclause 9.3.1), with xx code value and any parameter value.	
xx - ECS (?) means Extended Coding Structure (ETS 300 079 [3], subclause 9.3.1), with xx code value and any parameter value.	

Table 202

PDU Constraint Declaration	
Constraint Name	: CO_RESP_pos_i
PDU Type	: CO_RESP
Derivation Path	:
Comments	: (IUT = Terminal Function) SBV_CHANNEL_OPEN response (input) with Result set to "Successful".
Field Name	Value
Header:	
Telematic VTX Header	04/00
SBV TC Header	09/14
Channel Open TC Code	00/02
TC Length	LENGTH
Parameters:	
Ind_OB_Cause	-
Ind_IB_Cause	-
Ind_IB_Diagnostic	-
Result	13 - BCS (00/00)
Detailed Comments:	
xx - BCS (yy) means Basic Coding Structure (ETS 300 079 [3], subclause 9.3.1), with xx code value and yy parameter value.	

Table 203

PDU Constraint Declaration	
Constraint Name	: CO_RESP_neg_i
PDU Type	: CO_RESP
Derivation Path	:
Comments	: (IUT = Terminal Function) SBV_CHANNEL_OPEN response (input) with Result set to "Not Successful", and any valid combination of valid cause/diagnostic parameters.
Field Name	Value
Header:	
Telematic VTX Header	04/00
SBV TC Header	09/14
Channel Open TC Code	00/02
TC Length	LENGTH
Parameters:	
Ind_OB_Cause	*
Ind_IB_Cause	*
Ind_IB_Diagnostic	*
Result	13 - BCS (00/01)
Detailed Comments: xx - BCS (yy) means Basic Coding Structure (ETS 300 079 [3], subclause 9.3.1), with xx code value and yy parameter value. The matching algorithm shall also ensure that: - If present, Ind_OB_Cause is coded as a valid Extended Coding Structure (ETS 300 079 [3], subclause 9.3.2) with code value 08/11 - If present, Ind_IB_Cause is coded as a valid Extended Coding Structure (ETS 300 079 [3], subclause 9.3.2) with code value 08/03 - If present, Ind_IB_Diagnostic is coded as a valid Extended Coding Structure (ETS 300 079 [3], subclause 9.3.2) with code value 08/05 - Either Ind_OB_Cause or Ind_IB_Cause/Ind_IB_Diagnostic is present	

Table 204

PDU Constraint Declaration	
Constraint Name	: CO_RESP_???_i
PDU Type	: CO_RESP
Derivation Path	:
Comments	: (IUT = Terminal Function) SBV_CHANNEL_OPEN response (input) with Result set to "Not Successful", and an Ind_OB_Cause parameter.
Field Name	Value
Header:	
Telematic VTX Header	04/00
SBV TC Header	09/14
Channel Open TC Code	00/02
TC Length	LENGTH
Parameters:	
Ind_OB_Cause	08/11 - ECS (?)
Ind_IB_Cause	-
Ind_IB_Diagnostic	-
Result	13 - BCS (00/01)
Detailed Comments:	
xx - ECS (?) means Extended Coding Structure (ETS 300 079 [3], subclause 9.3.2), with xx code value and any parameter value.	
xx - BCS (yy) means Basic Coding Structure (ETS 300 079 [3], subclause 9.3.1), with xx code value and yy parameter value.	

Table 205

PDU Constraint Declaration	
Constraint Name	: CO_RESP_???_i
PDU Type	: CO_RESP
Derivation Path	:
Comments	: (IUT = Terminal Function) SBV_CHANNEL_OPEN response (input) with Result set to "Not Successful", and Ind_IB_Cause and Ind_IB_Diagnostic parameters.
Field Name	Value
Header:	
Telematic VTX Header	04/00
SBV TC Header	09/14
Channel Open TC Code	00/02
TC Length	LENGTH
Parameters:	
Ind_OB_Cause	-
Ind_IB_Cause	08/03 - ECS (?)
Ind_IB_Diagnostic	08/05 - ECS (?)
Result	13 - BCS (00/01)
Detailed Comments:	
xx - ECS (?) means Extended Coding Structure (ETS 300 079 [3], subclause 9.3.2), with xx code value and any parameter value.	
xx - BCS (yy) means Basic Coding Structure (ETS 300 079 [3], subclause 9.3.1), with xx code value and yy parameter value.	

Table 206

PDU Constraint Declaration	
Constraint Name	: CC_REQ_slave_o
PDU Type	: CC_REQ
Derivation Path	:
Comments	: (IUT = Terminal Function) SBV_CHANNEL_CLOSE request (output).
Field Name	Value
Header:	
Telematic VTX Header	04/00
SBV TC Header	09/14
Channel Close TC Code	00/03
TC Length	LENGTH
Parameters:	
Reference	12 - BCS (Tsp_TF_CO_Ref1)
Detailed Comments:	
xx - BCS (yy) means Basic Coding Structure (ETS 300 079 [3], subclause 9.3.1), with xx code value and yy parameter value.	

Table 207

PDU Constraint Declaration	
Constraint Name	: CC_REQ_nrp_o
PDU Type	: CC_REQ
Derivation Path	:
Comments	: (IUT = Terminal Function) SBV_CHANNEL_CLOSE request (output). No Reference parameter (invalid).
Field Name	Value
Header:	
Telematic VTX Header	04/00
SBV TC Header	09/14
Channel Close TC Code	00/03
TC Length	LENGTH
Parameters:	
Reference	-
Detailed Comments:	

Table 208

PDU Constraint Declaration	
Constraint Name	: CC_REQ_valid_i
PDU Type	: CC_REQ
Derivation Path	:
Comments	: (IUT = Access Function) Valid SBV_CHANNEL_CLOSE request (input) with any Reference parameter.
Field Name	Value
Header:	
Telematic VTX Header	04/00
SBV TC Header	09/14
Channel Close TC Code	00/03
TC Length	LENGTH
Parameters:	
Reference	12 - BCS (?)
Detailed Comments:	
xx - BCS (yy) means Basic Coding Structure (ETS 300 079 [3], subclause 9.3.1), with xx code value and yy parameter value.	

Table 209

PDU Constraint Declaration	
Constraint Name	: CC_REQ_slave_i
PDU Type	: CC_REQ
Derivation Path	:
Comments	: (IUT = Access Function) SBV_CHANNEL_CLOSE request (input) with expected
Reference from PIXIT.	
Field Name	Value
Header:	
Telematic VTX Header	04/00
SBV TC Header	09/14
Channel Close TC Code	00/03
TC Length	LENGTH
Parameters:	
Reference	12 - BCS (Tsp_AF_CO_Ref1)
Detailed Comments:	
xx - BCS (yy) means Basic Coding Structure (ETS 300 079 [3], subclause 9.3.1), with xx code value and yy parameter value.	

Table 210

PDU Constraint Declaration	
Constraint Name	: CC_REQ_???_i
PDU Type	: CC_REQ
Derivation Path	:
Comments	: (IUT = Access Function) SBV_CHANNEL_CLOSE request (input) with any
Reference value.	
Field Name	Value
Header:	
Telematic VTX Header	04/00
SBV TC Header	09/14
Channel Close TC Code	00/03
TC Length	LENGTH
Parameters:	
Reference	12 - BCS (?)
Detailed Comments:	
xx - BCS (?) means Basic Coding Structure (ETS 300 079 [3], subclause 9.3.1), with xx code value and any parameter value.	

Table 211

PDU Constraint Declaration	
Constraint Name	: CC_RESP_valid_o
PDU Type	: CC_RESP
Derivation Path	:
Comments	: (IUT = Access Function) SBV_CHANNEL_CLOSE response (output) with Result "Successful".
Field Name	Value
Header:	
Telematic VTX Header	04/00
SBV TC Header	09/14
Channel Close TC Code	00/03
TC Length	LENGTH
Parameters:	
Result	13 - BCS (00/00)
Detailed Comments: xx - BCS (yy) means Basic Coding Structure (ETS 300 079 [3], subclause 9.3.1), with xx code value and yy parameter value.	

Table 212

PDU Constraint Declaration	
Constraint Name	: CC_RESP_????_o
PDU Type	: CC_RESP
Derivation Path	:
Comments	: (IUT = Access Function) SBV_CHANNEL_CLOSE response (output) with Result "Release Not Allowed".
Field Name	Value
Header:	
Telematic VTX Header	04/00
SBV TC Header	09/14
Channel Close TC Code	00/03
TC Length	LENGTH
Parameters:	
Result	13 - BCS (00/04)
Detailed Comments: xx - BCS (yy) means Basic Coding Structure (ETS 300 079 [3], subclause 9.3.1), with xx code value and yy parameter value.	

Table 213

PDU Constraint Declaration	
Constraint Name	: CC_RESP_valid_i
PDU Type	: CC_RESP
Derivation Path	:
Comments	: (IUT = Terminal Function) SBV_CHANNEL_CLOSE response (input) with any result.
Field Name	Value
Header:	
Telematic VTX Header	04/00
SBV TC Header	09/14
Channel Close TC Code	00/03
TC Length	LENGTH
Parameters:	
Result	13 - BCS (?)
Detailed Comments:	
xx - BCS (?) means Basic Coding Structure (ETS 300 079 [3], subclause 9.3.1), with xx code value and any parameter value.	

Table 214

PDU Constraint Declaration	
Constraint Name	: CC_RESP_pos_i
PDU Type	: CC_RESP
Derivation Path	:
Comments	: (IUT = Terminal Function) SBV_CHANNEL_CLOSE response (input) with Result "Successful".
Field Name	Value
Header:	
Telematic VTX Header	04/00
SBV TC Header	09/14
Channel Close TC Code	00/03
TC Length	LENGTH
Parameters:	
Result	13 - BCS (0)
Detailed Comments:	
xx - BCS (yy) means Basic Coding Structure (ETS 300 079 [3], subclause 9.3.1), with xx code value and yy parameter value.	

Table 215

PDU Constraint Declaration	
Constraint Name	: CC_RESP_irp_i
PDU Type	: CC_RESP
Derivation Path	:
Comments	: (IUT = Terminal Function) SBV_CHANNEL_CLOSE response (input) with Result "Illegal Reference Parameter".
Field Name	Value
Header:	
Telematic VTX Header	04/00
SBV TC Header	09/14
Channel Close TC Code	00/03
TC Length	LENGTH
Parameters:	
Result	13 - BCS (00/06)
Detailed Comments:	
xx - BCS (yy) means Basic Coding Structure (ETS 300 079 [3], subclause 9.3.1), with xx code value and yy parameter value.	

Table 216

PDU Constraint Declaration	
Constraint Name	: CC_RESP_rna_i
PDU Type	: CC_RESP
Derivation Path	:
Comments	: (IUT = Terminal Function) SBV_CHANNEL_CLOSE response (input) with Result "Release Not Allowed".
Field Name	Value
Header:	
Telematic VTX Header	04/00
SBV TC Header	09/14
Channel Close TC Code	00/03
TC Length	LENGTH
Parameters:	
Result	13 - BCS (00/04)
Detailed Comments:	
xx - BCS (yy) means Basic Coding Structure (ETS 300 079 [3], subclause 9.3.1), with xx code value and yy parameter value.	

Table 217

PDU Constraint Declaration	
Constraint Name	: CC_RESP_???_i
PDU Type	: CC_RESP
Derivation Path	:
Comments	: (IUT = Terminal Function) SBV_CHANNEL_CLOSE response (input) with Result "Release Not Allowed".
Field Name	Value
Header:	
Telematic VTX Header	04/00
SBV TC Header	09/14
Channel Close TC Code	00/03
TC Length	LENGTH
Parameters:	
Result	13 - BCS (00/04)
Detailed Comments:	
xx - BCS (yy) means Basic Coding Structure (ETS 300 079 [3], subclause 9.3.1), with xx code value and yy parameter value.	

Table 218

PDU Constraint Declaration	
Constraint Name	: CE_REQ_valid_o
PDU Type	: CE_REQ
Derivation Path	:
Comments	: (IUT = Access Function) SBV_CHANNEL_ERROR request (output) with an Ind_OB_Cause parameter.
Field Name	Value
Header:	
Telematic VTX Header	04/00
SBV TC Header	09/14
Channel_Error TC Code	00/04
TC Length	LENGTH
Parameters:	
Reference	12 - BCS (Tsp_TF_CO_Ref1)
Ind_OB_Cause	08/11 - ECS (Tsp_AF_CE_Ind_OB_Cause)
Ind_IB_Cause	-
Ind_IB_Diagnostic	-
Detailed Comments:	
xx - ECS means Extended Coding Structure (ETS 300 079 [3], subclause 9.3.2), with xx code value.	
xx - BCS means Basic Coding Structure (ETS 300 079 [3], subclause 9.3.1), with xx code value.	

Table 219

PDU Constraint Declaration	
Constraint Name	: CE_REQ_????_o
PDU Type	: CE_REQ
Derivation Path	:
Comments	: (IUT = Access Function) SBV_CHANNEL_ERROR request (output) with Ind_IB_Cause and Ind_IB_Diagnostic parameters.
Field Name	Value
Header:	
Telematic VTX Header	04/00
SBV TC Header	09/14
Channel_Error TC Code	00/04
TC Length	LENGTH
Parameters:	
Reference	12 - BCS (Tsp_TF_CO_Ref1)
Ind_OB_Cause	-
Ind_IB_Cause	08/03 - ECS (Tsp_AF_CE_Ind_IB_Cause)
Ind_IB_Diagnostic	08/05 - ECS (Tsp_AF_CE_Ind_IB_Diagnostic)
Detailed Comments:	
xx - ECS means Extended Coding Structure (ETS 300 079 [3], subclause 9.3.2), with xx code value.	
xx - BCS means Basic Coding Structure (ETS 300 079 [3], subclause 9.3.1), with xx code value.	

Table 220

PDU Constraint Declaration	
Constraint Name	: CE_REQ_valid_i
PDU Type	: CC_RESP
Derivation Path	:
Comments	: (IUT = Terminal Function) SBV_CHANNEL_ERROR request (input) with any parameter.
Field Name	Value
Header:	
Telematic VTX Header	04/00
SBV TC Header	09/14
Channel_Error TC Code	00/04
TC Length	LENGTH
Parameters:	
Reference	12 - BCS (?)
Ind_OB_Cause	*
Ind_IB_Cause	*
Ind_IB_Diagnostic	*
Detailed Comments:	
xx - BCS means Basic Coding Structure (ETS 300 079 [3], subclause 9.3.1), with xx code value. The matching algorithm shall also ensure that: - If present, Ind_OB_Cause is coded as a valid Extended Coding Structure (ETS 300 079 [3], subclause 9.3.2) with code value 08/11 - If present, Ind_IB_Cause is coded as a valid Extended Coding Structure (ETS 300 079 [3], subclause 9.3.2) with code value 08/03 - If present, Ind_IB_Diagnostic is coded as a valid Extended Coding Structure (ETS 300 079 [3], subclause 9.3.2) with code value 08/05 - Either Ind_OB_Cause or Ind_IB_Cause/Ind_IB_Diagnostic is present	

Table 221

PDU Constraint Declaration	
Constraint Name	: CE_REQ_ref_i
PDU Type	: CC_RESP
Derivation Path	:
Comments	: (IUT = Terminal Function) SBV_CHANNEL_ERROR request (input) with proper Reference parameter.
Field Name	Value
Header:	
Telematic VTX Header	04/00
SBV TC Header	09/14
Channel_Error TC Code	00/04
TC Length	LENGTH
Parameters:	
Reference	12 - BCS (Tsp_TF_CO_Ref1)
Ind_OB_Cause	*
Ind_IB_Cause	*
Ind_IB_Diagnostic	*
Detailed Comments:	
xx - BCS means Basic Coding Structure (ETS 300 079 [3], subclause 9.3.1), with xx code value.	
The matching algorithm shall also ensure that:	
- If present, Ind_OB_Cause is coded as a valid Extended Coding Structure (ETS 300 079 [3], subclause 9.3.2) with code value 08/11	
- If present, Ind_IB_Cause is coded as a valid Extended Coding Structure (ETS 300 079 [3], subclause 9.3.2) with code value 08/03	
- If present, Ind_IB_Diagnostic is coded as a valid Extended Coding Structure (ETS 300 079 [3], subclause 9.3.2) with code value 08/05	
- Either Ind_OB_Cause or Ind_IB_Cause/Ind_IB_Diagnostic is present	

Table 222

PDU Constraint Declaration	
Constraint Name	: CE_REQ_obc_i
PDU Type	: CC_RESP
Derivation Path	:
Comments	: (IUT = Terminal Function) SBV_CHANNEL_ERROR request (input) with an Ind_OB_Cause parameter.
Field Name	Value
Header:	
Telematic VTX Header	04/00
SBV TC Header	09/14
Channel_Error TC Code	00/04
TC Length	LENGTH
Parameters:	
Reference	12 - BCS (?)
Ind_OB_Cause	08/11 - ECS (?)
Ind_IB_Cause	-
Ind_IB_Diagnostic	-
Detailed Comments:	
xx - ECS (?) means Extended Coding Structure (ETS 300 079 [3], subclause 9.3.2), with xx code value and any parameter value.	
xx - BCS (?) means Basic Coding Structure (ETS 300 079 [3], subclause 9.3.1), with xx code value and any parameter value.	

Table 223

PDU Constraint Declaration	
Constraint Name	: CE_REQ_ibc_i
PDU Type	: CC_RESP
Derivation Path	:
Comments	: (IUT = Terminal Function) SBV_CHANNEL_ERROR request (input) with Ind_IB_Cause parameter.
Field Name	Value
Header:	
Telematic VTX Header	04/00
SBV TC Header	09/14
Channel_Error TC Code	00/04
TC Length	LENGTH
Parameters:	
Reference	12 - BCS (?)
Ind_OB_Cause	-
Ind_IB_Cause	08/03 - ECS (?)
Ind_IB_Diagnostic	*
Detailed Comments:	
xx - ECS (?) means Extended Coding Structure (ETS 300 079 [3], subclause 9.3.2), with xx code value and any parameter value. xx - BCS (?) means Basic Coding Structure (ETS 300 079 [3], subclause 9.3.1), with xx code value and any parameter value. - If present, Ind_IB_Diagnostic is coded as a valid Extended Coding Structure (ETS 300 079 [3], subclause 9.3.2) with code value 08/05	

Table 224

PDU Constraint Declaration	
Constraint Name	: CE_REQ_ibd_i
PDU Type	: CC_RESP
Derivation Path	:
Comments	: (IUT = Terminal Function) SBV_CHANNEL_ERROR request (input) with Ind_IB_Cause and Ind_IB_Diagnostic parameters.
Field Name	Value
Header:	
Telematic VTX Header	04/00
SBV TC Header	09/14
Channel_Error TC Code	00/04
TC Length	LENGTH
Parameters:	
Reference	12 - BCS (?)
Ind_OB_Cause	-
Ind_IB_Cause	*
Ind_IB_Diagnostic	08/05 - ECS (?)
Detailed Comments:	
xx - ECS (?) means Extended Coding Structure (ETS 300 079 [3], subclause 9.3.2), with xx code value and any parameter value. xx - BCS (?) means Basic Coding Structure (ETS 300 079 [3], subclause 9.3.1), with xx code value and any parameter value. - If present, Ind_IB_Cause is coded as a valid Extended Coding Structure (CCITT Recommendation X.29 [9], subclause 9.3.2) with code value 08/03	

Table 225

PDU Constraint Declaration	
Constraint Name	: CE_REQ_c1_i
PDU Type	: CC_RESP
Derivation Path	:
Comments	: (IUT = Terminal Function) SBV_CHANNEL_ERROR request (input) with Ind_OB_Cause parameter and NO Ind_IB_Cause and Ind_IB_Diagnostic parameters.
Field Name	Value
Header:	
Telematic VTX Header	04/00
SBV TC Header	09/14
Channel_Error TC Code	00/04
TC Length	LENGTH
Parameters:	
Reference	12 - BCS (?)
Ind_OB_Cause	08/11 - ECS (?)
Ind_IB_Cause	-
Ind_IB_Diagnostic	-
Detailed Comments:	
xx - ECS (?) means Extended Coding Structure (ETS 300 079 [3], subclause 9.3.2), with xx code value and any parameter value.	
xx - BCS (?) means Basic Coding Structure (ETS 300 079 [3], subclause 9.3.1), with xx code value and any parameter value.	

Table 226

PDU Constraint Declaration	
Constraint Name	: CE_REQ_c2_i
PDU Type	: CC_RESP
Derivation Path	:
Comments	: (IUT = Terminal Function) SBV_CHANNEL_ERROR request (input) with Ind_IB_Cause and Ind_IB_Diagnostic parameters and NO Ind_OB_Cause parameter.
Field Name	Value
Header:	
Telematic VTX Header	04/00
SBV TC Header	09/14
Channel_Error TC Code	00/04
TC Length	LENGTH
Parameters:	
Reference	12 - BCS (?)
Ind_OB_Cause	-
Ind_IB_Cause	08/03 - ECS (?)
Ind_IB_Diagnostic	08/05 - ECS (?)
Detailed Comments:	
xx - ECS (?) means Extended Coding Structure (ETS 300 079 [3], subclause 9.3.2), with xx code value and any parameter value. xx - BCS (?) means Basic Coding Structure (ETS 300 079 [3], subclause 9.3.1), with xx code value and any parameter value.	

Table 227

PDU Constraint Declaration	
Constraint Name	: BA_REQ_valid_o
PDU Type	: BA_REQ
Derivation Path	:
Comments	: (IUT = Access Function) SBV_BEGIN_APPLICATION request (output) with IB_Application_Address parameter.
Field Name	Value
Header:	
Telematic VTX Header	04/00
SBV TC Header	09/14
Begin Appl. TC Code	00/06
TC Length	LENGTH
Parameters:	
IB_Application_Address	09 - BCS (Tsp_AF_BA_IB_Appl_Addr)
IB_Application_Selection	-
IB_Application_Data	-
IB_User_Data	-
Detailed Comments:	
xx - BCS (yy) means Basic Coding Structure (ETS 300 079 [3], subclause 9.3.1), with xx code value and yy parameter value.	

Table 228

PDU Constraint Declaration	
Constraint Name	: BA_REQ_????_o
PDU Type	: BA_REQ
Derivation Path	:
Comments	: (IUT = Access Function) SBV_BEGIN_APPLICATION request (output) with IB_Application_Selection parameter.
Field Name	Value
Header:	
Telematic VTX Header	04/00
SBV TC Header	09/14
Begin Appl. TC Code	00/06
TC Length	LENGTH
Parameters:	
IB_Application_Address	-
IB_Application_Selection	10 - BCS (Tsp_AF_BA_IB_Appl_Sel)
IB_Application_Data	-
IB_User_Data	-
Detailed Comments:	
xx - BCS (yy) means Basic Coding Structure (ETS 300 079 [3], subclause 9.3.1), with xx code value and yy parameter value.	

Table 229

PDU Constraint Declaration	
Constraint Name	: BA_REQ_???_o
PDU Type	: BA_REQ
Derivation Path	:
Comments	: (IUT = Access Function) SBV_BEGIN_APPLICATION request (output) with IB_User_Data parameter.
Field Name	Value
Header:	
Telematic VTX Header	04/00
SBV TC Header	09/14
Begin Appli. TC Code	00/06
TC Length	LENGTH
Parameters:	
IB_Application_Address	-
IB_Application_Selection	-
IB_Application_Data	-
IB_User_Data	Tsp_AF_BA_IB_User_Data
Detailed Comments:	

Table 230

PDU Constraint Declaration	
Constraint Name	: BA_REQ_????_o
PDU Type	: BA_REQ
Derivation Path	:
Comments	: (IUT = Access Function) SBV_BEGIN_APPLICATION request (output) with all parameters.
Field Name	Value
Header:	
Telematic VTX Header	04/00
SBV TC Header	09/14
Begin Appl. TC Code	00/06
TC Length	LENGTH
Parameters:	
IB_Application_Address	09 - BCS (Tsp_AF_BA_IB_Appl_Addr)
IB_Application_Selection	10 - BCS (Tsp_AF_BA_IB_Appl_Sel)
IB_Application_Data	11 - BCS (Tsp_AF_BA_IB_Appl_Data)
IB_User_Data	Tsp_AF_BA_IB_User_Data
Detailed Comments:	
BA_REQ_????_o is an SBV_BEGIN_APPLICATION PDU with all possible parameters stated as supported in the PICS. All parameters mentioned in this table need not necessarily be present on the PDU: if a parameter is stated as supported in the PICS (see PICS table 81), then it shall be present and have the value given in this table. xx - BCS (yy) means Basic Coding Structure (ETS 300 079 [3], subclause 9.3.1), with xx code value and yy parameter value.	

Table 231

PDU Constraint Declaration	
Constraint Name	: BA_REQ_nop_o
PDU Type	: BA_REQ
Derivation Path	:
Comments	: (IUT = Access Function) SBV_BEGIN_APPLICATION request (output) with no parameters from list "at-least-one-should-be-present" (invalid).
Field Name	Value
Header:	
Telematic VTX Header	04/00
SBV TC Header	09/14
Begin Appl. TC Code	00/06
TC Length	LENGTH
Parameters:	
IB_Application_Address	-
IB_Application_Selection	-
IB_Application_Data	-
IB_User_Data	-
Detailed Comments:	
BA_REQ_????_o is an SBV_BEGIN_APPLICATION PDU with all possible parameters stated as supported in the PICS. All parameters mentioned in this table need not necessarily be present on the PDU: if a parameter is stated as supported in the PICS (see PICS table 81), then it shall be present and have the value given in this table. xx - BCS (yy) means Basic Coding Structure (ETS 300 079 [3], subclause 9.3.1), with xx code value and yy parameter value.	

Table 232

PDU Constraint Declaration	
Constraint Name	: BA_REQ_valid_i
PDU Type	: BA_REQ
Derivation Path	:
Comments	: (IUT = Terminal Function) SBV_BEGIN_APPLICATION request (input) with any parameters.
Field Name	Value
Header:	
Telematic VTX Header	04/00
SBV TC Header	09/14
Begin Appli. TC Code	00/06
TC Length	LENGTH
Parameters:	
IB_Application_Address	*
IB_Application_Selection	*
IB_Application_Data	*
IB_User_Data	*
Detailed Comments:	
The matching algorithm shall also ensure that:	
- If present, IB_Application_Address is coded as a valid Basic Coding Structure (ETS 300 079 [3], subclause 9.3.1) with code value 9 - If present, IB_Application_Selection is coded as a valid Basic Coding Structure (ETS 300 079 [3], subclause 9.3.1) with code value 10 - If present, IB_Application_Data is coded as a valid Basic Coding Structure (ETS 300 079 [3], subclause 9.3.1) with code value 11 - If present, IB_User_Data is coded in a valid Free Format, i.e. having the MSB of the first octet set to 0 (ETS 300 079 [3], subclause 9.4.3) - At least one of IB_Application_Address, IB_Application_Selection, IB_User_Data is present	

Table 233

PDU Constraint Declaration	
Constraint Name	: BA_REQ_c1_i
PDU Type	: BA_REQ
Derivation Path	:
Comments	: (IUT = Terminal Function) SBV_BEGIN_APPLICATION request (input) with combination of parameters.
Field Name	Value
Header:	
Telematic VTX Header	04/00
SBV TC Header	09/14
Begin Appl. TC Code	00/06
TC Length	LENGTH
Parameters:	
IB_Application_Address	09 - BCS (Tsp_AF_BA_IB_Appl_Addr)
IB_Application_Selection	10 - BCS (Tsp_AF_BA_IB_Appl_Sel)
IB_Application_Data	11 - BCS (Tsp_AF_BA_IB_Appl_Data)
IB_User_Data	Tsp_AF_BA_IB_User_Data
Detailed Comments:	
BA_REQ_????_i is an SBV_BEGIN_APPLICATION request PDU with all possible parameters stated as supported in the PICS. All parameters mentioned in this table need not necessarily be present on the PDU: if a parameter is stated as supported in the PICS (see PICS table 109), then it shall be present and have the value given in this table. xx - BCS (yy) means Basic Coding Structure (ETS 300 079 [3], subclause 9.3.1), with xx code value and yy parameter value.	

Table 234

PDU Constraint Declaration	
Constraint Name	: BA_REQ_ibaa_i
PDU Type	: BA_REQ
Derivation Path	:
Comments	: (IUT = Terminal Function) SBV_BEGIN_APPLICATION request (input) with IB_Application_Address parameter present.
Field Name	Value
Header:	
Telematic VTX Header	04/00
SBV TC Header	09/14
Begin Appl. TC Code	00/06
TC Length	LENGTH
Parameters:	
IB_Application_Address	09 - BCS (Tsp_AF_BA_IB_Appl_Addr)
IB_Application_Selection	*
IB_Application_Data	*
IB_User_Data	*
Detailed Comments:	
xx - BCS (yy) means Basic Coding Structure (ETS 300 079 [3], subclause 9.3.1), with xx code value and yy parameter value. The matching algorithm shall also ensure that: - If present, IB_Application_Selection is coded as a valid Basic Coding Structure (ETS 300 079 [3], subclause 9.3.1) with code value 10 - If present, IB_Application_Data is coded as a valid Basic Coding Structure (ETS 300 079 [3], subclause 9.3.1) with code value 11 - If present, IB_User_Data is coded in a valid Free Format, i.e. having the MSB of the first octet set to 0 (ETS 300 079 [3], subclause 9.4.3)	

Table 235

PDU Constraint Declaration	
Constraint Name	: BA_REQ_ibas_i
PDU Type	: BA_REQ
Derivation Path	:
Comments	: (IUT = Terminal Function) SBV_BEGIN_APPLICATION request (input) with IB_Application_Selection parameter present.
Field Name	Value
Header:	
Telematic VTX Header	04/00
SBV TC Header	09/14
Begin Appl. TC Code	00/06
TC Length	LENGTH
Parameters:	
IB_Application_Address	*
IB_Application_Selection	10 - BCS (Tsp_AF_BA_IB_Appl_Sel)
IB_Application_Data	*
IB_User_Data	*
Detailed Comments:	
xx - BCS (yy) means Basic Coding Structure (ETS 300 079 [3], subclause 9.3.1), with xx code value and yy parameter value. The matching algorithm shall also ensure that: - If present, IB_Application_Address is coded as a valid Basic Coding Structure (ETS 300 079 [3], subclause 9.3.1) with code value 9 - If present, IB_Application_Data is coded as a valid Basic Coding Structure (ETS 300 079 [3], subclause 9.3.1) with code value 11 - If present, IB_User_Data is coded in a valid Free Format, i.e. having the MSB of the first octet set to 0 (ETS 300 079 [3], subclause 9.4.3)	

Table 236

PDU Constraint Declaration	
Constraint Name	: BA_REQ_ibad_i
PDU Type	: BA_REQ
Derivation Path	:
Comments	: (IUT = Terminal Function) SBV_BEGIN_APPLICATION request (input) with IB_Application_Data parameter present.
Field Name	Value
Header:	
Telematic VTX Header	04/00
SBV TC Header	09/14
Begin Appl. TC Code	00/06
TC Length	LENGTH
Parameters:	
IB_Application_Address	*
IB_Application_Selection	*
IB_Application_Data	11 - BCS (Tsp_AF_BA_IB_Appl_Data)
IB_User_Data	*
Detailed Comments:	
xx - BCS (yy) means Basic Coding Structure (ETS 300 079 [3], subclause 9.3.1), with xx code value and yy parameter value. The matching algorithm shall also ensure that: - If present, IB_Application_Address is coded as a valid Basic Coding Structure (ETS 300 079 [3], subclause 9.3.1) with code value 9 - If present, IB_Application_Selection is coded as a valid Basic Coding Structure (ETS 300 079 [3], subclause 9.3.1) with code value 10 - If present, IB_User_Data is coded in a valid Free Format, i.e. having the MSB of the first octet set to 0 (ETS 300 079 [3], subclause 9.4.3) - At least one of IB_Application_Address, IB_Application_Selection, IB_User_Data is present	

Table 237

PDU Constraint Declaration	
Constraint Name	: BA_REQ_ibud_i
PDU Type	: BA_REQ
Derivation Path	:
Comments	: (IUT = Terminal Function) SBV_BEGIN_APPLICATION request (input) with IB_User_Data parameter present.
Field Name	Value
Header:	
Telematic VTX Header	04/00
SBV TC Header	09/14
Begin Appli. TC Code	00/06
TC Length	LENGTH
Parameters:	
IB_Application_Address	*
IB_Application_Selection	*
IB_Application_Data	*
IB_User_Data	Tsp_AF_BA_IB_User_Data
Detailed Comments:	
xx - BCS (yy) means Basic Coding Structure (ETS 300 079 [3], subclause 9.3.1), with xx code value and yy parameter value. The matching algorithm shall also ensure that: - If present, IB_Application_Address is coded as a valid Basic Coding Structure (ETS 300 079 [3], subclause 9.3.1) with code value 9 - If present, IB_Application_Selection is coded as a valid Basic Coding Structure (ETS 300 079 [3], subclause 9.3.1) with code value 10 - If present, IB_Application_Data is coded as a valid Basic Coding Structure (ETS 300 079 [3], subclause 9.3.1) with code value 11	

Table 238

PDU Constraint Declaration	
Constraint Name	: BA_RESP_valid_o
PDU Type	: BA_RESP
Derivation Path	:
Comments	: (IUT = Terminal Function) SBV_BEGIN_APPLICATION response (output) with Result parameter set to "Successful".
Field Name	Value
Header:	
Telematic VTX Header	04/00
SBV TC Header	09/14
Begin Appli. TC Code	00/06
TC Length	LENGTH
Parameters:	
Result	13 - BCS (0)
Detailed Comments:	
xx - BCS (yy) means Basic Coding Structure (ETS 300 079 [3], subclause 9.3.1), with xx code value and yy parameter value.	

Table 239

PDU Constraint Declaration	
Constraint Name	: BA_RESP_????_o
PDU Type	: BA_RESP
Derivation Path	:
Comments	: (IUT = Terminal Function) SBV_BEGIN_APPLICATION response (output) with Result parameter set to "Application Not Available".
Field Name	Value
Header:	
Telematic VTX Header	04/00
SBV TC Header	09/14
Begin Appli. TC Code	00/06
TC Length	LENGTH
Parameters:	
Result	13 - BCS (2)
Detailed Comments:	
xx - BCS (yy) means Basic Coding Structure (ETS 300 079 [3], subclause 9.3.1), with xx code value and yy parameter value.	

Table 240

PDU Constraint Declaration	
Constraint Name	: BA_RESP_eng_o
PDU Type	: BA_RESP
Derivation Path	:
Comments	: (IUT = Terminal Function) SBV_BEGIN_APPLICATION response (output) with Result parameter set to "Application Already Engaged".
Field Name	Value
Header:	
Telematic VTX Header	04/00
SBV TC Header	09/14
Begin Appli. TC Code	00/06
TC Length	LENGTH
Parameters:	
Result	13 - BCS (3)
Detailed Comments:	
xx - BCS (yy) means Basic Coding Structure (ETS 300 079 [3], subclause 9.3.1), with xx code value and yy parameter value.	

Table 241

PDU Constraint Declaration	
Constraint Name	: BA_RESP_nr_o
PDU Type	: BA_RESP
Derivation Path	:
Comments	: (IUT = Terminal Function) SBV_BEGIN_APPLICATION response (output) with no Result parameter (invalid).
Field Name	Value
Header:	
Telematic VTX Header	04/00
SBV TC Header	09/14
Begin Appli. TC Code	00/06
TC Length	LENGTH
Parameters:	
Result	-
Detailed Comments:	

Table 242

PDU Constraint Declaration	
Constraint Name	: BA_RESP_valid_i
PDU Type	: BA_RESP
Derivation Path	:
Comments	: (IUT = Access Function) SBV_BEGIN_APPLICATION response (input) with any Result parameter.
Field Name	Value
Header:	
Telematic VTX Header	04/00
SBV TC Header	09/14
Begin Appli. TC Code	00/06
TC Length	LENGTH
Parameters:	
Result	13 - BCS (?)
Detailed Comments:	
xx - BCS (?) means Basic Coding Structure (ETS 300 079 [3], subclause 9.3.1), with xx code value and any parameter value.	

Table 243

PDU Constraint Declaration	
Constraint Name	: BA_RESP_valid_i
PDU Type	: BA_RESP
Derivation Path	:
Comments	: (IUT = Access Function) SBV_BEGIN_APPLICATION response (input) with Result parameter set to "Successful".
Field Name	Value
Header:	
Telematic VTX Header	04/00
SBV TC Header	09/14
Begin Appli. TC Code	00/06
TC Length	LENGTH
Parameters:	
Result	13 - BCS (0)
Detailed Comments:	
xx - BCS (yy) means Basic Coding Structure (ETS 300 079 [3], subclause 9.3.1), with xx code value and yy parameter value.	

Table 244

PDU Constraint Declaration	
Constraint Name	: EA_REQ_valid_o
PDU Type	: EA_REQ
Derivation Path	:
Comments	: (IUT = Access Function) SBV_END_APPLICATION request (output) This PDU has no parameters.
Field Name	Value
Header:	
Telematic VTX Header	04/00
SBV TC Header	09/14
End Appli. TC Code	00/07
TC Length	LENGTH
Detailed Comments:	

Table 245

PDU Constraint Declaration	
Constraint Name	: EA_REQ_valid_i
PDU Type	: EA_REQ
Derivation Path	:
Comments	: (IUT = Terminal Function) SBV_END_APPLICATION request (input) This PDU has no parameters.
Field Name	Value
Header:	
Telematic VTX Header	04/00
SBV TC Header	09/14
End Appli. TC Code	00/07
TC Length	LENGTH
Detailed Comments:	

Table 246

PDU Constraint Declaration	
Constraint Name	: EI_REQ_valid_i
PDU Type	: EI_REQ
Derivation Path	:
Comments	: (IUT = Terminal Function) SBV_END_IMMEDIATE request (input) This PDU has no parameters.
Field Name	Value
Header:	
SBV_End_Immediate Constant	08/00
Detailed Comments:	

Table 247

PDU Constraint Declaration	
Constraint Name	: TPDB_REQ_valid_o
PDU Type	: TPDB_REQ
Derivation Path	:
Comments	: (IUT = Terminal Function OR Access Function) SBV_TPD_BEGIN request (output)
This PDU has no parameters.	
Field Name	Value
Header:	
Telematic VTX Header	04/00
SBV TC Header	09/14
TPD Begin TC Code	00/08
TC Length	LENGTH
Detailed Comments:	

Table 248

PDU Constraint Declaration	
Constraint Name	: TPDB_REQ_valid_i
PDU Type	: TPDB_REQ
Derivation Path	:
Comments	: (IUT = Terminal Function OR Access Function) SBV_TPD_BEGIN request (input)
This PDU has no parameters.	
Field Name	Value
Header:	
Telematic VTX Header	04/00
SBV TC Header	09/14
TPD Begin TC Code	00/08
TC Length	LENGTH
Detailed Comments:	

Table 249

PDU Constraint Declaration	
Constraint Name	: TPDB_RESP_pos_o
PDU Type	: TPDB_RESP
Derivation Path	:
Comments	: (IUT = Terminal Function OR Access Function) SBV_TPD_BEGIN response (output) with Result set to "Successful".
Field Name	Value
Header:	
Telematic VTX Header	04/00
SBV TC Header	09/14
TPD Begin TC Code	00/08
TC Length	LENGTH
Parameters:	
Result	13 - BCS (0)
DDU_Fall_Back_Mode	-
Detailed Comments:	
xx - BCS (yy) means Basic Coding Structure (ETS 300 079 [3], subclause 9.3.1), with xx code value and yy parameter value.	

Table 250

PDU Constraint Declaration	
Constraint Name	: TPDB_RESP_ddufb_o
PDU Type	: TPDB_RESP
Derivation Path	:
Comments	: (IUT = Terminal Function OR Access Function) SBV_TPD_BEGIN response (output) with Result set to "TPD Not Supported" and DDU_Fall_Back_Mode parameter.
Field Name	Value
Header:	
Telematic VTX Header	04/00
SBV TC Header	09/14
TPD Begin TC Code	00/08
TC Length	LENGTH
Parameters:	
Result	13 - BCS (5)
DDU_Fall_Back_Mode	12/02 - ECS (Tsp_DDU_FB_Mode_receive)
Detailed Comments:	
xx - ECS (yy) means Extended Coding Structure (ETS 300 079 [3], subclause 9.3.2), with xx code value and yy parameter value.	
xx - BCS (yy) means Basic Coding Structure (ETS 300 079 [3], subclause 9.3.1), with xx code value and yy parameter value.	

Table 251

PDU Constraint Declaration	
Constraint Name	: TPDB_RESP_tpdns_o
PDU Type	: TPDB_RESP
Derivation Path	:
Comments	: (IUT = Terminal Function OR Access Function) SBV_TPD_BEGIN response (output) with Result set to "TPD Not Supported" and no DDU_Fall_Back_Mode parameter.
Field Name	Value
Header:	
Telematic VTX Header	04/00
SBV TC Header	09/14
TPD Begin TC Code	00/08
TC Length	LENGTH
Parameters:	
Result	13 - BCS (5)
DDU_Fall_Back_Mode	-
Detailed Comments:	
xx - ECS (yy) means Extended Coding Structure (ETS 300 079 [3], subclause 9.3.2), with xx code value and yy parameter value.	
xx - BCS (yy) means Basic Coding Structure (ETS 300 079 [3], subclause 9.3.1), with xx code value and yy parameter value.	

Table 252

PDU Constraint Declaration	
Constraint Name	: TPDB_RESP_sfb_o
PDU Type	: TPDB_RESP
Derivation Path	:
Comments	: (IUT = Terminal Function OR Access Function) SBV_TPD_BEGIN response (output) with Result set to "Successful" and DDU_Fall_Back_Mode parameter (this is an invalid PDU).
Field Name	Value
Header:	
Telematic VTX Header	04/00
SBV TC Header	09/14
TPD Begin TC Code	00/08
TC Length	LENGTH
Parameters:	
Result	13 - BCS (0)
DDU_Fall_Back_Mode	12/02 - ECS (Tsp_DDU_FB_Mode_receive)
Detailed Comments:	
xx - ECS (yy) means Extended Coding Structure (ETS 300 079 [3], subclause 9.3.2), with xx code value and yy parameter value.	
xx - BCS (yy) means Basic Coding Structure (ETS 300 079 [3], subclause 9.3.1), with xx code value and yy parameter value.	

Table 253

PDU Constraint Declaration	
Constraint Name	: TPDB_RESP_nr_o
PDU Type	: TPDB_RESP
Derivation Path	:
Comments	: (IUT = Terminal Function OR Access Function) SBV_TPD_BEGIN response (output) with no Result parameter (invalid).
Field Name	Value
Header:	
Telematic VTX Header	04/00
SBV TC Header	09/14
TPD Begin TC Code	00/08
TC Length	LENGTH
Parameters:	
Result	-
DDU_Fall_Back_Mode	-
Detailed Comments:	

Table 254

PDU Constraint Declaration	
Constraint Name	: TPDB_RESP_valid_i
PDU Type	: TPDB_RESP
Derivation Path	:
Comments	: (IUT = Terminal Function OR Access Function) SBV_TPD_BEGIN response (input) with any parameters.
Field Name	Value
Header:	
Telematic VTX Header	04/00
SBV TC Header	09/14
TPD Begin TC Code	00/08
TC Length	LENGTH
Parameters:	
Result	13 - BCS (?)
DDU_Fall_Back_Mode	*
Detailed Comments:	
The matching algorithm shall also ensure that:	
- If present, DDU_Fall_Back_Mode is coded as a valid Extended Coding Structure (ETS 300 079 [3], subclause 9.3.2) with code value 12/02 - If the Result parameter has the value 0, the DDU_Fall_Back_Mode parameter is absent. xx - BCS (yy) means Basic Coding Structure (ETS 300 079 [3], subclause 9.3.1), with xx code value and yy parameter value.	

Table 255

PDU Constraint Declaration	
Constraint Name	: TPDB_RESP_pos_i
PDU Type	: TPDB_RESP
Derivation Path	:
Comments	: (IUT = Terminal Function OR Access Function) SBV_TPD_BEGIN response (input) with Result set to "Successful".
Field Name	Value
Header:	
Telematic VTX Header	04/00
SBV TC Header	09/14
TPD Begin TC Code	00/08
TC Length	LENGTH
Parameters:	
Result	13 - BCS (0)
DDU_Fall_Back_Mode	*
Detailed Comments:	
xx - BCS (yy) means Basic Coding Structure (ETS 300 079 [3], subclause 9.3.1), with xx code value and yy parameter value.	
NOTE: The base standard specifies that there should be no DDU_Fall_Back_Mode parameter when the Result is "Successful". However, testing this is the purpose of a specific test case, and a DDU_Fall_Back_Mode parameter can be accepted here.	

Table 256

PDU Constraint Declaration	
Constraint Name	: TPDB_RESP_c2_i
PDU Type	: TPDB_RESP
Derivation Path	:
Comments	: (IUT = Terminal Function OR Access Function) SBV_TPD_BEGIN response (input) with Result set to "Successful" and NO DDU_Fall_Back_Mode parameter (i.e. valid PDU).
Field Name	Value
Header:	
Telematic VTX Header	04/00
SBV TC Header	09/14
TPD Begin TC Code	00/08
TC Length	LENGTH
Parameters:	
Result	13 - BCS (0)
DDU_Fall_Back_Mode	-
Detailed Comments:	
xx - BCS (yy) means Basic Coding Structure (ETS 300 079 [3], subclause 9.3.1), with xx code value and yy parameter value.	

Table 257

PDU Constraint Declaration	
Constraint Name	: TPDB_RESP_tpdns_i
PDU Type	: TPDB_RESP
Derivation Path	:
Comments	: (IUT = Terminal Function OR Access Function) SBV_TPD_BEGIN response (input) with Result set to "TPD Not Supported" and no requirement on DDU_Fall_Back_Mode parameter.
Field Name	Value
Header:	
Telematic VTX Header	04/00
SBV TC Header	09/14
TPD Begin TC Code	00/08
TC Length	LENGTH
Parameters:	
Result	13 - BCS (5)
DDU_Fall_Back_Mode	*
Detailed Comments:	
xx - ECS (yy) means Extended Coding Structure (ETS 300 079 [3], subclause 9.3.2), with xx code value and yy parameter value. xx - BCS (yy) means Basic Coding Structure (ETS 300 079 [3], subclause 9.3.1), with xx code value and yy parameter value. If present, the DDU_Fall_Back_Mode parameter shall be coded as a 12/02 ECS.	

Table 258

PDU Constraint Declaration	
Constraint Name	: TPDB_RESP_ddufb_i
PDU Type	: TPDB_RESP
Derivation Path	:
Comments	: (IUT = Terminal Function OR Access Function) SBV_TPD_BEGIN response (input) with Result set to "TPD Not Supported" and DDU_Fall_Back_Mode parameter.
Field Name	Value
Header:	
Telematic VTX Header	04/00
SBV TC Header	09/14
TPD Begin TC Code	00/08
TC Length	LENGTH
Parameters:	
Result	13 - BCS (5)
DDU_Fall_Back_Mode	12/02 - ECS (Tsp_DDU_FB_Mode_send)
Detailed Comments:	
xx - ECS (yy) means Extended Coding Structure (ETS 300 079 [3], subclause 9.3.2), with xx code value and yy parameter value.	
xx - BCS (yy) means Basic Coding Structure (ETS 300 079 [3], subclause 9.3.1), with xx code value and yy parameter value.	

Table 259

PDU Constraint Declaration	
Constraint Name	: TPDE_REQ_valid_o
PDU Type	: TPDE_REQ
Derivation Path	:
Comments	: (IUT = Terminal Function OR Access Function) SBV_TPD_END request (output)
This PDU has no parameters.	
Field Name	Value
Header:	
Telematic VTX Header	04/00
SBV TC Header	09/14
TPD End TC Code	00/09
TC Length	LENGTH
Detailed Comments:	

Table 260

PDU Constraint Declaration	
Constraint Name	: TPDE_REQ_valid_i
PDU Type	: TPDE_REQ
Derivation Path	:
Comments	: (IUT = Terminal Function OR Access Function) SBV_TPD_END request (input)
This PDU has no parameters.	
Field Name	Value
Header:	
Telematic VTX Header	04/00
SBV TC Header	09/14
TPD End TC Code	00/09
TC Length	LENGTH
Detailed Comments:	

Table 261

PDU Constraint Declaration	
Constraint Name	: DFK_REQ_rk_o
PDU Type	: DFK_REQ
Derivation Path	:
Comments	: (IUT = Terminal Function) SBV_DFK request (output) with Reset_Keys parameter.
Field Name	Value
Header:	
Telematic VTX Header	04/00
SBV TC Header	09/14
DFK TC Code	00/10
TC Length	LENGTH
Parameters:	
Function_Keys	-
Reset_Keys	14/02 - ECS ()
Detailed Comments:	
xx - ECS () means Extended Coding Structure (ETS 300 079 [3], subclause 9.3.2), with xx code value and no parameter.	

Table 262

PDU Constraint Declaration	
Constraint Name	: DFK_REQ_fk_o
PDU Type	: DFK_REQ
Derivation Path	:
Comments	: (IUT = Terminal Function) SBV_DFK request (output) with function_keys parameter.
Field Name	Value
Header:	
Telematic VTX Header	04/00
SBV TC Header	09/14
DFK TC Code	00/10
TC Length	LENGTH
Parameters:	
Function_Keys	Function_Keys_Struct_Valid_o
Reset_Keys	-
Detailed Comments:	

Table 263

PDU Constraint Declaration	
Constraint Name	: DFK_REQ_ifk_o
PDU Type	: DFK_REQ
Derivation Path	:
Comments	: (IUT = Terminal Function) SBV_DFK request (output) with function_keys parameter, containing a function key identification NOT supported by the IUT (from PIXIT question).
Field Name	Value
Header:	
Telematic VTX Header	04/00
SBV TC Header	09/14
DFK TC Code	00/10
TC Length	LENGTH
Parameters:	
Function_Keys	Function_Keys_Struct_NotSup_o
Reset_Keys	-
Detailed Comments:	

Table 264

PDU Constraint Declaration	
Constraint Name	: DFK_REQ_c1_o
PDU Type	: DFK_REQ
Derivation Path	:
Comments	: (IUT = Terminal Function) SBV_DFK request (output) with Function_Keys and Reset_Keys parameters.
Field Name	Value
Header:	
Telematic VTX Header	04/00
SBV TC Header	09/14
DFK TC Code	00/10
TC Length	LENGTH
Parameters:	
Function_Keys	Function_Keys_Struct_Valid_o
Reset_Keys	14/02 - ECS ()
Detailed Comments:	
xx - ECS () means Extended Coding Structure (ETS 300 079 [3], subclause 9.3.2), with xx code value and no parameter.	

Table 265

PDU Constraint Declaration	
Constraint Name	: DFK_REQ_np_o
PDU Type	: DFK_REQ
Derivation Path	:
Comments	: (IUT = Terminal Function) SBV_DFK request (output) with no parameters (invalid, but should be ignored by the IUT).
Field Name	Value
Header:	
Telematic VTX Header	04/00
SBV TC Header	09/14
DFK TC Code	00/10
TC Length	LENGTH
Parameters:	
Function_Keys	-
Reset_Keys	-
Detailed Comments:	
xx - ECS () means Extended Coding Structure (ETS 300 079 [3], subclause 9.3.2), with xx code value and no parameter.	

Table 266

PDU Constraint Declaration	
Constraint Name	: DFK_REQ_valid_i
PDU Type	: DFK_REQ
Derivation Path	:
Comments	: (IUT = Access Function) SBV_DFK request (input) with any parameter.
Field Name	Value
Header:	
Telematic VTX Header	04/00
SBV TC Header	09/14
DFK TC Code	00/10
TC Length	LENGTH
Parameters:	
Function_Keys	*
Reset_Keys	*
Detailed Comments:	
The matching algorithm shall also ensure that:	
- If present, Reset_Keys is coded as a valid Extended Coding Structure (ETS 300 079 [3], subclause 9.3.2) with code value 14/02	
- If present, Function_Keys is coded as defined in ETS 300 079 [3], subclause 9.4.5.3	

Table 267

PDU Constraint Declaration	
Constraint Name	: DFK_REQ_???_i
PDU Type	: DFK_REQ
Derivation Path	:
Comments	: (IUT = Access Function) SBV_DFK request (input) with Reset_Keys parameter.
Field Name	Value
Header:	
Telematic VTX Header	04/00
SBV TC Header	09/14
DFK TC Code	00/10
TC Length	LENGTH
Parameters:	
Function_Keys	*
Reset_Keys	14/02 - ECS ()
Detailed Comments:	
xx - ECS () means Extended Coding Structure (ETS 300 079 [3], subclause 9.3.2), with xx code value and no parameter. The matching algorithm shall also ensure that: - If present, Function_Keys is coded as defined in ETS 300 079 [3], subclause 9.4.5.3	

Table 268

PDU Constraint Declaration	
Constraint Name	: DFK_REQ_?????_i
PDU Type	: DFK_REQ
Derivation Path	:
Comments	: (IUT = Access Function) SBV_DFK request (input) with function_keys parameter.
Field Name	Value
Header:	
Telematic VTX Header	04/00
SBV TC Header	09/14
DFK TC Code	00/10
TC Length	LENGTH
Parameters:	
Function_Keys	?
Reset_Keys	*
Detailed Comments:	
The matching algorithm shall also ensure that:	
- If present, Reset_Keys is coded as a valid Extended Coding Structure (ETS 300 079 [3], subclause 9.3.2) with code value 14/02	
- Function_Keys is coded as defined in ETS 300 079 [3], subclause 9.4.5.3	

Table 269

PDU Constraint Declaration	
Constraint Name	: ESC_REQ_sid_o
PDU Type	: ESC_REQ
Derivation Path	:
Comments	: (IUT = Terminal Function OR Access Function) SBV_ESCAPE request (output) with Service_ID parameter and no Data.
Field Name	Value
Header:	
Telematic VTX Header	04/00
SBV TC Header	09/14
Service_ID	Tsp_Esc_Service_ID_receive
Parameters:	
Data	-
Detailed Comments:	

Table 270

PDU Constraint Declaration	
Constraint Name	: ESC_REQ_data_o
PDU Type	: ESC_REQ
Derivation Path	:
Comments	: (IUT = Terminal Function OR Access Function) SBV_ESCAPE request (output) with Data.
Field Name	Value
Header:	
Telematic VTX Header	04/00
SBV TC Header	09/14
Service_ID	Tsp_Esc_Service_ID_receive
Parameters:	
Data	Tsp_Esc_Data_receive
Detailed Comments:	

Table 271

PDU Constraint Declaration	
Constraint Name	: ESC_REQ_sid_i
PDU Type	: ESC_REQ
Derivation Path	:
Comments	: (IUT = Terminal Function OR Access Function) SBV_ESCAPE request (input) with Service_ID parameter and any data (absent data allowed).
Field Name	Value
Header:	
Telematic VTX Header	04/00
SBV TC Header	09/14
Service_ID	?
Parameters:	
Data	*
Detailed Comments:	
The matching algorithm shall also ensure that:	
- The Service_ID parameter value is between 08/00 and 11/14	

Table 272

PDU Constraint Declaration	
Constraint Name	: ESC_REQ_data_i
PDU Type	: ESC_REQ
Derivation Path	:
Comments	: (IUT = Terminal Function OR Access Function) SBV_ESCAPE request (input) with expected parameters from PIXIT values.
Field Name	Value
Header:	
Telematic VTX Header	04/00
SBV TC Header	09/14
Service_ID	Tsp_Esc_Service_ID_send
Parameters:	
Data	Tsp_Esc_Data_send
Detailed Comments:	

Table 273

PDU Constraint Declaration	
Constraint Name	: RE_REQ_valid_i
PDU Type	: RE_REQ
Derivation Path	:
Comments	: (IUT = Terminal Function OR Access Function) SBV_REMOTE_ECHO request (input) with no control on Echo parameter.
Field Name	Value
Header:	
Telematic VTX Header	04/00
SBV TC Header	09/14
Remote Echo TC Code	00/12
TC Length	LENGTH
Parameters:	
Echo	*
Detailed Comments:	

Table 274

PDU Constraint Declaration	
Constraint Name	: RE_REQ_echo_i
PDU Type	: RE_REQ
Derivation Path	:
Comments	: (IUT = Terminal Function OR Access Function) SBV_REMOTE_ECHO request (input) with a valid Echo parameter.
Field Name	Value
Header:	
Telematic VTX Header	04/00
SBV TC Header	09/14
Remote Echo TC Code	00/12
TC Length	LENGTH
Parameters:	
Echo	13/03 - ECS (0..1)
Detailed Comments:	
xx - ECS (yy..zz) means Extended Coding Structure (ETS 300 223 [2], subclause 9.3.2.), with xx code value, and a parameter which shall be in the range yy..zz.	

Table 275

PDU Constraint Declaration	
Constraint Name	: ITC_o3_error_o
PDU Type	: INVALID TC
Derivation Path	:
Comments	: Invalid Telematic Command, with an unknown TC Code in octet 3.
Field Name	Value
Header:	
Telematic VTX Header	04/00
SBV TC Header	09/14
Unknown TC Code	01/15
TC Length	LENGTH
Parameters:	
Function_Keys	-
Reset_Keys	-
Detailed Comments:	
It looks like a DFK TC.	

7.1.3 Structured Type Constraints declaration

Table 276

Structured Type Constraint Declaration	
Constraint Name	: X3_TF_Parameter_List_Valid_o
Structured Type	: X3_Param_List_Struct
Derivation Path	:
Comments	: Valid X3 parameter list, from PIXIT values (output).
Element Name	Value
Param_Reference	Tsp_TF_X3_Parameter
Param_Value	Tsp_TF_X3_Param_Value
Detailed Comments:	

Table 277

Structured Type Constraint Declaration	
Constraint Name	: X3_TF_Parameter_List_echo1_o
Structured Type	: X3_Param_List_Struct
Derivation Path	:
Comments	: Valid X3 parameter list, to set echo parameter to value 1.
Element Name	Value
Param_Reference	00/02
Param_Value	00/01
Detailed Comments:	

Table 278

Structured Type Constraint Declaration	
Constraint Name	: X3_TF_Parameter_List_e127_o
Structured Type	: X3_Param_List_Struct
Derivation Path	:
Comments	: Valid X3 parameter list, to set echo parameter to value 127 (invalid).
Element Name	Value
Param_Reference	00/02
Param_Value	07/15
Detailed Comments:	

Table 279

Structured Type Constraint Declaration	
Constraint Name	: X3_AF_Parameter_List_Valid_i
Structured Type	: X3_Param_List_Struct
Derivation Path	:
Comments	: Valid X3 parameter list, from PIXIT values (output).
Element Name	Value
Param_Reference Param_Value	Tsp_AF_X3_Parameter Tsp_AF_X3_Param_Value
Detailed Comments:	

Table 280

Structured Type Constraint Declaration	
Constraint Name	: X3_TF_Parameter_List_Valid_Read_o
Structured Type	: X3_Param_List_Struct
Derivation Path	:
Comments	: Valid X3 parameter list, from PIXIT values (output).
Element Name	Value
Param_Reference Param_Value	Tsp_TF_X3_Parameter 0
Detailed Comments:	

Table 281

Structured Type Constraint Declaration	
Constraint Name	: X3_TF_Parameter_List_echo_Read_o
Structured Type	: X3_Param_List_Struct
Derivation Path	:
Comments	: Valid X3 parameter list, from PIXIT values (output).
Element Name	Value
Param_Reference Param_Value	00/02 00/00
Detailed Comments:	

Table 282

Structured Type Constraint Declaration	
Constraint Name	: X3_AF_Parameter_List_Valid_Read_i
Structured Type	: X3_Param_List_Struct
Derivation Path	:
Comments	: Valid X3 parameter list, from PIXIT values (output).
Element Name	Value
Param_Reference Param_Value	Tsp_AF_X3_Parameter 0
Detailed Comments:	

Table 283

Structured Type Constraint Declaration	
Constraint Name	: X3_TF_Parameter_List_Valid_i
Structured Type	: X3_Param_List_Struct
Derivation Path	:
Comments	: Valid X3 parameter list, from PIXIT values; any parameter value (input).
Element Name	Value
Param_Reference Param_Value	Tsp_TF_X3_Parameter ?
Detailed Comments:	

Table 284

Structured Type Constraint Declaration	
Constraint Name	: X3_TF_Parameter_List_e127_i
Structured Type	: X3_Param_List_Struct
Derivation Path	:
Comments	: X3 parameter list sent by IUT after the tester has sent a Set Param to set the echo (2) parameter to invalid value 127.
Element Name	Value
Param_Reference Param_Value	10/02 00/00 .. 00/05
	NOTE 1 NOTE 2
Detailed Comments:	
NOTE 1: The bit 8 is set to indicate that an error occurred, as specified in CCITT Recommendation X.29 [9], subclause 4.4.5.3.	
NOTE 2: The parameter value is to report the type of error that was detected, according to CCITT Recommendation X.29 [9], table 3/X.29. The precise expected value cannot be given, because no error code is mandatory, except 0 "no additional information".	

Table 285

Structured Type Constraint Declaration	
Constraint Name	: X3_AF_Parameter_List_Valid_o
Structured Type	: X3_Param_List_Struct
Derivation Path	:
Comments	: Valid X3 parameter list, from PIXIT values (output).
Element Name	Value
Param_Reference Param_Value	Tsp_AF_X3_Parameter Tsp_AF_X3_Param_Value
Detailed Comments:	

Table 286

Structured Type Constraint Declaration	
Constraint Name	: Error_Code_Struct_NotSup_BA_o
Structured Type	: Error_Code_Struct
Derivation Path	:
Comments	: Valid Error Code Structure (output) with 'TC not Supported' value. The rejected Telematic Command is: SBV_BEGIN_APPLICATION.
Element Name	Value
Length	5
ECS_Header_Code	15/15
ECS_Type	08/01
ECS_Length	2
Error_Code_Value	00/00
Received_TC_Code	00/06
Erroneous_Param_Code	-
Detailed Comments:	

Table 287

Structured Type Constraint Declaration	
Constraint Name	: Error_Code_Struct_NotSup_TPDB_o
Structured Type	: Error_Code_Struct
Derivation Path	:
Comments	: Valid Error Code Structure (output) with 'TC not Supported' value. The rejected Telematic Command is: SBV_TPD_BEGIN.
Element Name	Value
Length	5
ECS_Header_Code	15/15
ECS_Type	08/01
ECS_Length	2
Error_Code_Value	00/00
Received_TC_Code	00/08
Erroneous_Param_Code	-
Detailed Comments:	

Table 288

Structured Type Constraint Declaration	
Constraint Name	: Error_Code_Struct_Erron_TFI_o
Structured Type	: Error_Code_Struct
Derivation Path	:
Comments	: Valid Error Code Structure (output) with 'TC Erroneous' value. The rejected Telematic Command is: SBV_TFI response. Its rejected parameter is: TFI_Ack.
Element Name	Value
Length	6
ECS_Header_Code	15/15
ECS_Type	08/01
ECS_Length	2
Error_Code_Value	00/01
Received_TC_Code	
Erroneous_Param_Code	- NOTE
Detailed Comments:	
NOTE: The parameter code is omitted for the moment, because it is not precise how it should be reported, the TFI_Ack code being not defined in the base standard.	

Table 289

Structured Type Constraint Declaration	
Constraint Name	: Error_Code_Struct_Valid_any_i
Structured Type	: Error_Code_Struct
Derivation Path	:
Comments	: Valid Error Code Structure (input) with any value. The rejected Telematic Command can be anything.
Element Name	Value
Length	5
ECS_Header_Code	15/15
ECS_Type	08/01
ECS_Length	LENGTH
Error_Code_Value	(00/00 .. 00/03)
Received_TC_Code	?
Erroneous_Param_Code	*
Octet_4	*
Detailed Comments:	
NOTE: The range of possible values for Error_Code_Value is expected to be extended with the future versions of SBV protocol standards, for which "TC semantic error" and "unknown TC_Event" should be defined (for "unknown TC_Event", an additional parameter is considered, to report the octet 4 of the received PDU).	

Table 290

Structured Type Constraint Declaration	
Constraint Name	: Error_Code_Struct_Valid_NS_CO_i
Structured Type	: Error_Code_Struct
Derivation Path	:
Comments	: Valid Error Code Structure (input) with 'TC not Supported' value. The rejected
Telematic Command is: SBV_CHANNEL_OPEN	
Element Name	Value
Length	5
ECS_Header_Code	15/15
ECS_Type	08/01
ECS_Length	2
Error_Code_Value	00/00
Received_TC_Code	00/02
Erroneous_Param_Code	-
Detailed Comments:	

Table 291

Structured Type Constraint Declaration	
Constraint Name	: Error_Code_Struct_Valid_NS_CC_i
Structured Type	: Error_Code_Struct
Derivation Path	:
Comments	: Valid Error Code Structure (input) with 'TC not Supported' value. The rejected
Telematic Command is: SBV_CHANNEL_CLOSE	
Element Name	Value
Length	5
ECS_Header_Code	15/15
ECS_Type	08/01
ECS_Length	2
Error_Code_Value	00/00
Received_TC_Code	00/03
Erroneous_Param_Code	-
Detailed Comments:	

Table 292

Structured Type Constraint Declaration	
Constraint Name	: Error_Code_Struct_Valid_NS_TPDB_i
Structured Type	: Error_Code_Struct
Derivation Path	:
Comments	: Valid Error Code Structure (input) with 'TC not Supported' value. The rejected
Telematic Command is: SBV_TPD_BEGIN	
Element Name	Value
Length	5
ECS_Header_Code	15/15
ECS_Type	08/01
ECS_Length	2
Error_Code_Value	00/00
Received_TC_Code	00/08
Erroneous_Param_Code	-
Detailed Comments:	

Table 293

Structured Type Constraint Declaration	
Constraint Name	: Error_Code_Struct_Valid_NS_TPDE_i
Structured Type	: Error_Code_Struct
Derivation Path	:
Comments	: Valid Error Code Structure (input) with 'TC not Supported' value. The rejected
Telematic Command is: SBV_TPD_END	
Element Name	Value
Length	5
ECS_Header_Code	15/15
ECS_Type	08/01
ECS_Length	2
Error_Code_Value	00/00
Received_TC_Code	00/09
Erroneous_Param_Code	-
Detailed Comments:	

Table 294

Structured Type Constraint Declaration	
Constraint Name	: Error_Code_Struct_Valid_NS_DFK_i
Structured Type	: Error_Code_Struct
Derivation Path	:
Comments	: Valid Error Code Structure (input) with 'TC not Supported' value. The rejected
Telematic Command is: SBV_DFK	
Element Name	Value
Length	5
ECS_Header_Code	15/15
ECS_Type	08/01
ECS_Length	2
Error_Code_Value	00/00
Received_TC_Code	00/10
Erroneous_Param_Code	-
Detailed Comments:	

Table 295

Structured Type Constraint Declaration	
Constraint Name	: Error_Code_Struct_Valid_NS_ESC_i
Structured Type	: Error_Code_Struct
Derivation Path	:
Comments	: Valid Error Code Structure (input) with 'TC not Supported' value. The rejected
Telematic Command is: SBV_ESCAPE	
Element Name	Value
Length	5
ECS_Header_Code	15/15
ECS_Type	08/01
ECS_Length	2
Error_Code_Value	00/00
Received_TC_Code	(08/00 .. 11/14)
Erroneous_Param_Code	-
Detailed Comments:	

Table 296

Structured Type Constraint Declaration	
Constraint Name	: Error_Code_Struct_Valid_NS_RES_i
Structured Type	: Error_Code_Struct
Derivation Path	:
Comments	: Valid Error Code Structure (input) with 'TC not Supported' value. The rejected Telematic Command is: SBV_RESET_TC
Element Name	Value
Length	5
ECS_Header_Code	15/15
ECS_Type	08/01
ECS_Length	2
Error_Code_Value	00/00
Received_TC_Code	00/11
Erroneous_Param_Code	-
Detailed Comments:	

Table 297

Structured Type Constraint Declaration	
Constraint Name	: Error_Code_Struct_Valid_utc_i
Structured Type	: Error_Code_Struct
Derivation Path	:
Comments	: Valid Error Code Structure (input) with 'TC not Supported' value. The rejected Telematic Command is unknown, having 01/15 as a TC code.
Element Name	Value
Length	5
ECS_Header_Code	15/15
ECS_Type	08/01
ECS_Length	2
Error_Code_Value	00/00
Received_TC_Code	01/15
Erroneous_Param_Code	-
Detailed Comments:	

Table 298

Structured Type Constraint Declaration	
Constraint Name	: Error_Code_Struct_Valid_Sem_BA_i
Structured Type	: Error_Code_Struct
Derivation Path	:
Comments	: Valid Error Code Structure (input) with 'TC Semantic Error' value. The rejected Telematic Command is: SBV_BEGIN_APPLICATION.
Element Name	Value
Length	6
ECS_Header_Code	15/15
ECS_Type	08/01
ECS_Length	2
Error_Code_Value	00/03
Received_TC_Code	00/06
Erroneous_Param_Code	-
Detailed Comments:	

Table 299

Structured Type Constraint Declaration	
Constraint Name	: Error_Code_Struct_Valid_Sem_TPDB_i
Structured Type	: Error_Code_Struct
Derivation Path	:
Comments	: Valid Error Code Structure (input) with 'TC Semantic Error' value. The rejected Telematic Command is: SBV_TPD_BEGIN
Element Name	Value
Length	6
ECS_Header_Code	15/15
ECS_Type	08/01
ECS_Length	2
Error_Code_Value	00/03
Received_TC_Code	00/08
Erroneous_Param_Code	-
Detailed Comments:	

Table 300

Structured Type Constraint Declaration	
Constraint Name	: Error_Code_Struct_Valid_Erron_DFK_i
Structured Type	: Error_Code_Struct
Derivation Path	:
Comments	: Valid Error Code Structure (input) with 'TC Erroneous' value. The rejected Telematic Command is: SBV_DFK. Its rejected parameter is: Function_Keys.
Element Name	Value
Length	6
ECS_Header_Code	15/15
ECS_Type	08/01
ECS_Length	3
Error_Code_Value	00/01
Received_TC_Code	00/10
Erroneous_Param_Code	14/01
Detailed Comments:	

Table 301

Structured Type Constraint Declaration	
Constraint Name	: Error_Code_Struct_Valid_Erron_TPDB_i
Structured Type	: Error_Code_Struct
Derivation Path	:
Comments	: Valid Error Code Structure (input) with 'TC Erroneous' value. The rejected Telematic Command is: SBV_TPD_BEGIN. Its rejected parameter is not specified.
Element Name	Value
Length	6
ECS_Header_Code	15/15
ECS_Type	08/01
ECS_Length	3
Error_Code_Value	00/01
Received_TC_Code	00/08
Erroneous_Param_Code	?
Detailed Comments:	

Table 302

Structured Type Constraint Declaration	
Constraint Name	: Error_Code_Struct_Valid_Erron_TFI_i
Structured Type	: Error_Code_Struct
Derivation Path	:
Comments	: Valid Error Code Structure (input) with 'TC Erroneous' value. The rejected Telematic Command is: SBV_TFI. Its rejected parameter is not specified (TFI_Enq missing, but its coding is not defined).
Element Name	Value
Length	6
ECS_Header_Code	15/15
ECS_Type	08/01
ECS_Length	LENGTH
Error_Code_Value	00/01
Received_TC_Code	00/05
Erroneous_Param_Code	*
Detailed Comments:	

Table 303

Structured Type Constraint Declaration	
Constraint Name	: Error_Code_Struct_Valid_Erron_CO_i
Structured Type	: Error_Code_Struct
Derivation Path	:
Comments	: Valid Error Code Structure (input) with 'TC Erroneous' value. The rejected Telematic Command is: SBV_CHANNEL_OPEN. Its rejected parameter is not specified.
Element Name	Value
Length	6
ECS_Header_Code	15/15
ECS_Type	08/01
ECS_Length	LENGTH
Error_Code_Value	00/01
Received_TC_Code	00/02
Erroneous_Param_Code	*
Detailed Comments:	

Table 304

Structured Type Constraint Declaration	
Constraint Name	: Error_Code_Struct_Valid_Erron_CC_i
Structured Type	: Error_Code_Struct
Derivation Path	:
Comments	: Valid Error Code Structure (input) with 'TC Erroneous' value. The rejected Telematic Command is: SBV_CHANNEL_CLOSE. Its rejected parameter is not specified.
Element Name	Value
Length	6
ECS_Header_Code	15/15
ECS_Type	08/01
ECS_Length	LENGTH
Error_Code_Value	00/01
Received_TC_Code	00/03
Erroneous_Param_Code	*
Detailed Comments:	

Table 305

Structured Type Constraint Declaration	
Constraint Name	: Error_Code_Struct_Valid_Erron_BA_i
Structured Type	: Error_Code_Struct
Derivation Path	:
Comments	: Valid Error Code Structure (input) with 'TC Erroneous' value. The rejected Telematic Command is: SBV_BEGIN_APPLICATION. Its rejected parameter is not specified.
Element Name	Value
Length	6
ECS_Header_Code	15/15
ECS_Type	08/01
ECS_Length	LENGTH
Error_Code_Value	00/01
Received_TC_Code	00/06
Erroneous_Param_Code	*
Detailed Comments:	

Table 306

Structured Type Constraint Declaration	
Constraint Name	: Error_Code_Struct_Valid_Erron_BAr_i
Structured Type	: Error_Code_Struct
Derivation Path	:
Comments	: Valid Error Code Structure (input) with 'TC Erroneous' value. The rejected Telematic Command is: SBV_BEGIN_APPLICATION. Its rejected parameter is: Result.
Element Name	Value
Length	6
ECS_Header_Code	15/15
ECS_Type	08/01
ECS_Length	3
Error_Code_Value	00/01
Received_TC_Code	00/06
Erroneous_Param_Code	13/00
Detailed Comments:	

Table 307

Structured Type Constraint Declaration	
Constraint Name	: Error_Code_Struct_Valid_Erron_TPDBr_i
Structured Type	: Error_Code_Struct
Derivation Path	:
Comments	: Valid Error Code Structure (input) with 'TC Erroneous' value. The rejected Telematic Command is: SBV_TPD_BEGIN. Its rejected parameter is: Result.
Element Name	Value
Length	6
ECS_Header_Code	15/15
ECS_Type	08/01
ECS_Length	3
Error_Code_Value	00/01
Received_TC_Code	00/08
Erroneous_Param_Code	13/00
Detailed Comments:	

Table 308

Structured Type Constraint Declaration	
Constraint Name	: Error_Code_Struct_Valid_Utce2_i
Structured Type	: Error_Code_Struct
Derivation Path	:
Comments	: Valid Error Code Structure (input) with 'Unknown TC Event' value (bad octet 2). The rejected TC looks like a SBV_TFI.
Element Name	Value
Length	6
ECS_Header_Code	15/15
ECS_Type	08/01
ECS_Length	4
Error_Code_Value	00/02
Octet_2	15/14
Octet_3	00/05
Octet_4	?
Detailed Comments:	

Table 309

Structured Type Constraint Declaration	
Constraint Name	: Error_Code_Struct_Valid_Utce4_i
Structured Type	: Error_Code_Struct
Derivation Path	:
Comments	: Valid Error Code Structure (input) with 'Unknown TC Event' value (bad octet 4). The rejected TC looks like a SBV_TFI.
Element Name	Value
Length	6
ECS_Header_Code	15/15
ECS_Type	08/01
ECS_Length	4
Error_Code_Value	00/02
Octet_2	09/14
Octet_3	00/05
Octet_4	15/15
Detailed Comments:	

Table 310

Structured Type Constraint Declaration	
Constraint Name	: Function_Keys_Struct_Valid_o
Structured Type	: Function_Keys_Struct
Derivation Path	:
Comments	: Valid Function Keys Structure, from PIXIT values (output).
Element Name	Value
ECS_Header_Code	15/15
ECS_Type	14/01
ECS_Length	LENGTH
Definition	Function_Key_Definition_Valid_o
Detailed Comments:	

Table 311

Structured Type Constraint Declaration	
Constraint Name	: Function_Keys_Struct_NotSup_o
Structured Type	: Function_Keys_Struct
Derivation Path	:
Comments	: Function Keys Structure with a not supported identification, from PIXIT values (output).
Element Name	Value
ECS_Header_Code	15/15
ECS_Type	14/01
ECS_Length	LENGTH
Definition	Function_Key_Definition_NotSup_o
Detailed Comments:	

Table 312

Structured Type Constraint Declaration	
Constraint Name	: Function_Key_Definition_Valid_o
Structured Type	: Function_Key_Definition
Derivation Path	:
Comments	: Valid Function Keys Definition subStructure, from PIXIT values (output).
Element Name	Value
Function_Key_Header_Code	06/00
Function_Key_Length	LENGTH
Identification	FK_Identification_Valid_o
User_Visible_Name	FK_User_Visible_Name_Valid_o
Code_Sequence	FK_Code_Sequence_Valid_o
Do_Not_Forward	FK_Do_Not_Forward_Valid_o
Detailed Comments:	

Table 313

Structured Type Constraint Declaration	
Constraint Name	: Function_Key_Definition_NotSup_o
Structured Type	: Function_Key_Definition
Derivation Path	:
Comments	: Function Keys Definition subStructure with non supported identification, from PIXIT values (output).
Element Name	Value
Function_Key_Header_Code	06/00
Function_Key_Length	LENGTH
Identification	FK_Identification_NotSup_o
User_Visible_Name	FK_User_Visible_Name_Valid_o
Code_Sequence	FK_Code_Sequence_Valid_o
Do_Not_Forward	FK_Do_Not_Forward_Valid_o
Detailed Comments:	

Table 314

Structured Type Constraint Declaration	
Constraint Name	: FK_Identification_Valid_o
Structured Type	: FK_Identification
Derivation Path	:
Comments	: Valid Function Keys Identification subStructure, from PIXIT values (output).
Element Name	Value
Identification_Header_Code	06/01
Identification_Length	00/01
Identification_Value	Tsp_TF_Function_Key_ID
Detailed Comments:	

Table 315

Structured Type Constraint Declaration	
Constraint Name	: FK_Identification_NotSup_o
Structured Type	: FK_Identification
Derivation Path	:
Comments	: Function Keys Identification subStructure with a not supported identification, from PIXIT values (output).
Element Name	Value
Identification_Header_Code	06/01
Identification_Length	00/01
Identification_Value	Tsp_TF_Function_Key_ID_NS
Detailed Comments:	

Table 316

Structured Type Constraint Declaration	
Constraint Name	: FK_User_Visible_Name_Valid_o
Structured Type	: FK_User_Visible_Name
Derivation Path	:
Comments	: Valid Function Keys User Visible Name subStructure, from PIXIT values (output).
Element Name	Value
User_V_Name_Header_Code	06/02
User_V_Name_Length	LENGTH
User_V_Name_Value	Tsp_TF_Vis_Name
Detailed Comments:	

Table 317

Structured Type Constraint Declaration	
Constraint Name	: FK_Code_Sequence_Valid_o
Structured Type	: FK_Code_Sequence
Derivation Path	:
Comments	: Valid Function Keys Code Sequence subStructure, from PIXIT values (output).
Element Name	Value
Code_Seq_Header_Code	06/03
Code_Seq_Length	LENGTH
Code_Seq_Value	Tsp_TF_DFK_Code_Seq
Detailed Comments:	

Table 318

Structured Type Constraint Declaration	
Constraint Name	: FK_Do_Not_Forward_Valid_o
Structured Type	: FK_Do_Not_Forward
Derivation Path	:
Comments	: Valid Function Keys Do Not Forward subStructure (output).
Element Name	Value
Do_Not_Fwd_Header_Code	06/04
Do_Not_Fwd_Length	00/00
Detailed Comments:	

8 Common Test Step Library

8.1 Preambles

Table 319

Test Step Dynamic Behaviour				
Test Step Name: CommonLib/preamble/pre_state_1				
Group:				
Objective: This Terminal or Access function initialization sequence is used whenever the IUT is required to be in the "null" state (1) before the execution of a test case.				
Default:				
Comments:				
Behaviour Description	Label	Constraint References	Verdict	Com
Detailed Comments:				
No action can be specified in terms of protocol; the operator should make sure that the IUT is functioning, and in the "null" state. This requirement is system-dependent, information can be found in the PIXIT.				

Table 320

Test Step Dynamic Behaviour				
Test Step Name: CommonLib/preamble/pre_state_4 Group: Objective: This Terminal Function initialization sequence is used whenever the IUT is required to be in the "TF data transfer ready" state (4) before the execution of a test case. Default: Comments:				
Behaviour Description	Label	Constraint References	Verdict	Com
+pre_state_1 <IUT!Est_req> START Oper_Timer ?Est_req !Est_resp ?OTHERWISE ?TIMEOUT Oper_Timer		CON_ind_0 (EST_REQ_valid_i) CON_res_0 (EST_RESP_valid_o)	INCONC INCONC	
Detailed Comments:				

Table 321

Test Step Dynamic Behaviour				
Test Step Name: CommonLib/preamble/pre_state_12 Group: Objective: This Terminal Function initialization sequence is used whenever the IUT is required to be in the "TPD data transfer" state (12) before the execution of a test case. Default: Comments:				
Behaviour Description	Label	Constraint References	Verdict	Com
+pre_state_4 !TPDB_req START CS_Timer ?TPDB_resp ?OTHERWISE +post_state_4 ?TIMEOUT CS_Timer +post_state_4		QDAT_req_0 (TPDB_REQ_valid_o) QDAT_ind_0 (TPDB_RESP_pos_i)	(INCONC) (INCONC)	
Detailed Comments:				

8.2 Postambles

Table 322

Test Step Dynamic Behaviour				
Test Step Name: CommonLib/postamble/post_state_1 Group: Objective: This Terminal or Access function sequence is used to verify the IUT is in "null" state (1) after the execution of a test case. Default: Comments:				
Behaviour Description	Label	Constraint References	Verdict	Com
Detailed Comments: No action can be specified in terms of protocol; the operator should make sure that the IUT is functioning, and returns to the "null" state. This requirement is system-dependent, information can be found in the PIXIT.				

Table 323

Test Step Dynamic Behaviour				
Test Step Name: CommonLib/postamble/release Group: Objective: This Terminal Function sequence is used to release the communication, after the execution of a test case. Default: Comments:				
Behaviour Description	Label	Constraint References	Verdict	Com
!Rel_req START Wait_Timer ?TIMEOUT Wait_Timer ?OTHERWISE	DIS_req_0 (REL_REQ_valid_o)			(1)
Detailed Comments: The release shall be performed on all the channels that were open during the test (PCOs L1, L2, L3), in order to leave properly. The subsequent SBV_CHANNEL_ERROR PDUs bound to be received on "master" channels should be ignored. (1) A warning should make the operator aware that something went wrong during the release, for such a behaviour may affect the following test cases.				

Table 324

Test Step Dynamic Behaviour				
Test Step Name: CommonLib/postamble/post_state_4 Group: Objective: This Terminal Function sequence is used to verify the IUT is in "TF data transfer ready" state (4) after the execution of a test case, and to release the communication. Default: Comments:				
Behaviour Description	Label	Constraint References	Verdict	Com
+release				
Detailed Comments: This postamble is a place holder, since no simple way seems to exist in order to check that the IUT is in state (4). In this version of the Abstract Test Suite, this postamble will thus leave the verdict as it was assigned by the test case, and simply release the communication.				

Table 325

Test Step Dynamic Behaviour				
Test Step Name: CommonLib/postamble/post_state_12 Group: Objective: This Terminal or Access function sequence is used to verify the IUT is in "TPD data transfer" state (12) after the execution of a test case. Default: Comments:				
Behaviour Description	Label	Constraint References	Verdict	Com
+release				
Detailed Comments: The "verification role" of this postamble is a place holder, since no simple way seems to exist in order to check that the IUT is in state (12). In this version of the Abstract Test Suite, this postamble will thus leave the verdict as it was assigned by the test case, and simply release the communication.				

8.3 Other Test Steps

Table 326

Test Step Dynamic Behaviour				
Test Step Name: CommonLib/teststep/open_slave_channel Group: Objective: This step opens a slave channel on the IUT. It assumes the IUT is already initialized to "TF data transfer state". Default: Comments:				
Behaviour Description	Label	Constraint References	Verdict	Com
L1!CO_req	QDAT_req_0 (CO_REQ_slave_o)			
START CS_Timer				
L2?Est_req	CON_ind0 (EST_REQ_valid_i)			
CANCEL CS_Timer				
L2!Est_resp	CON_res0 (EST_RESP_valid_o)			
START CS_Timer				
L1?CO_Resp	QDAT_ind_0 (CO_RESP_pos_i)			
?OTHERWISE			(INCONC)	
+release				
?TIMEOUT CS_Timer			(INCONC)	
+release				
?OTHERWISE			(INCONC)	
+release				
?TIMEOUT CS_Timer			(INCONC)	
+release				
Detailed Comments: This step is used to open a slave channel with the reference Tsp_TF_CO_Ref1. Other types of channels (other references, or independent channels) will be opened explicitly in the dynamic behaviour part.				

Table 327

Test Step Dynamic Behaviour				
Test Step Name: CommonLib/teststep/DEF_release Group: Objective: This step is included in the DEFAULTS REFERENCE of almost every test case. It allows the IUT to send a "release" PDU, causing the test case to go Inconclusive. Default: Comments:				
Behaviour Description	Label	Constraint References	Verdict	Com
?Rel_req		DIS_ind_0 (REL_REQ_valid_i)	INCONC	
Detailed Comments:				

9 Test case Library

9.1 Terminal Functions (TF)

All tests in this clause apply to devices which are implemented as Terminal Functions. The device type is specified in the PICS questions.

9.1.1 TF/Basic Interconnect Tests (BIT)

The purpose of this group is to check that sufficient functionality exists for an SBV logical channel to be established, and data to be transferred between the Terminal Function (TF) and Access Function (AF).

NOTE: The tests specified in this group are all defined elsewhere in this document. They are separated out here because, if an IUT does not pass these "basic" connection tests, there is no point in proceeding further with the test suite.

9.1.2 TF/Capability Tests (CA)

The tests in this group are intended to check that the observable external static capabilities of the implementation are valid with respect to the static conformance requirements expressed in the PICS of the IUT.

9.1.3 TF/Valid Behaviour Tests (BV)

All tests in the Valid Behaviour (BV) group are intended to verify as thoroughly as possible the various functions of the protocol. This subclause is divided into 4 major subsections as follows:

- 1) State Event Transitions
- 2) Parameter Variations
- 3) Encoding Variations
- 4) Parameter Combinations

9.1.3.1 TF/BV - State Event Transitions (SE)

This group of tests (TF/BV/SE...) are intended to verify the various state transitions of the protocol. Tests which require the IUT to remain in a "transient" state have not been included in this subclause.

9.1.3.1.1 SBV/TF/BV/SE - Kernel (KE)

Table 328

Test case Dynamic Behaviour				
Test case Name: SBV/TF/BV/SE/KE/1 Group: Purpose: Check that the IUT is able to receive a valid SBV_Establish_response PDU, after sending a valid SBV_Establish_request PDU, and goes into state (4), TF_Data_transfer_ready. Default: DEF_release				
Behaviour Description	Label	Constraint References	Verdict	Com
+pre_state_1 <IUT!Est_req> START Oper_Timer ?Est_req !Est_resp START Wait_Timer ?TIMEOUT Wait_Timer +post_state_4 ?OTHERWISE ?OTHERWISE ?TIMEOUT Oper_Timer		CON_ind_0 (EST_REQ_valid_i) CON_req_0 (EST_RESP_valid_o)	(PASS) INCONC INCONC INCONC	
Detailed Comments:				

Table 329

Test case Dynamic Behaviour				
Test case Name: SBV/TF/BV/SE/KE/2 Group: Purpose: Check that the IUT is able to send a valid SBV_Release_request PDU, ending in the Idle state (1). Default: DEF_release				
Behaviour Description	Label	Constraint References	Verdict	Com
+pre_state_4 START Oper_Timer <IUT!REL_REQ> ?Rel_req +post_state_1 ?OTHERWISE ?TIMEOUT Oper_Timer		DIS_ind_0 (REL_REQ_valid_i)	(PASS) INCONC INCONC	(1)
Detailed Comments:				
(1) PIXIT requirement - IUT shall be able to send SBV_Release request on demand.				

Table 330

Test case Dynamic Behaviour				
Test case Name: SBV/TF/BV/SE/KE/3 Group: Purpose: Check that the IUT is able to receive a valid SBV_Release_request PDU, ending in the Idle state (1). Default: DEF_release				
Behaviour Description	Label	Constraint References	Verdict	Com
+pre_state_4 !Rel_req DIS_req_0 (REL_REQ_valid_o) START Wait_Timer ?TIMEOUT Wait_Timer +post_state_1 ?OTHERWISE			(PASS) INCONC	
Detailed Comments:				

Table 331

Test case Dynamic Behaviour				
Test case Name: SBV/TF/BV/SE/KE/4 Group: Purpose: Check that the IUT is able to send a valid SBV_Release_request PDU, ending in the Idle state (1). Default: DEF_release				
Behaviour Description	Label	Constraint References	Verdict	Com
+pre_state_12 <IUT!REL_REQ> START Oper_Timer ?Rel_req +post_state_1 ?OTHERWISE ?TIMEOUT Oper_Timer		DIS_ind_0 (REL_REQ_valid_i)	(PASS) INCONC INCONC	(1)
Detailed Comments:				
(1) PIXIT requirement - IUT shall be able to send SBV_Release request on demand.				

Table 332

Test case Dynamic Behaviour				
Test case Name: SBV/TF/BV/SE/KE/5 Group: Purpose: Check that the IUT is able to receive a valid SBV_Release_request PDU, ending in the Idle state (1). Default: DEF_release				
Behaviour Description	Label	Constraint References	Verdict	Com
+pre_state_12 !Rel_req DIS_req_0 (REL_REQ_valid_o) START Wait_Timer ?TIMEOUT Wait_Timer +post_state_1 ?OTHERWISE			(PASS) INCONC	
Detailed Comments:				

Table 333

Test case Dynamic Behaviour				
Test case Name: SBV/TF/BV/SE/KE/6 Group: Purpose: Check that the IUT responds to a valid SBV_Reset request PDU, with a valid SBV_Reset response PDU, remaining in state (4) TF_Data transfer ready. Default: DEF_release				
Behaviour Description	Label	Constraint References	Verdict	Com
+pre_state_4 [NOT Tsp_Reset_mapped_on_TC] !Res_req START CS_Timer ?Res_resp +post_state_4 ?OTHERWISE ?TIMEOUT CS_Timer [Tsp_Reset_mapped_on_TC] !Res_TC_req START CS_Timer ?Res_TC_resp +post_state_4 ?OTHERWISE ?TIMEOUT CS_Timer		RES_req_0 (RES_REQ_valid_o) RES_con_0 (RES_RESP_valid_i) QDAT_req_0 (RES_TC_REQ_valid_o) QDAT_ind_0 (RES_TC_RESP_valid_i)	(PASS) FAIL INCONC (PASS) FAIL INCONC	
Detailed Comments: This test has two different behaviours, depending on the application layer to BIS association, see ETS 300 223 [2], subclause 8.3.3. This PICS information is expressed in the test case by the Boolean Test Suite Parameter Tsp_Reset_mappedd_on_TC.				

Table 334

Test case Dynamic Behaviour				
Test case Name: SBV/TF/BV/SE/KE/7 Group: Purpose: Check that the IUT responds to a valid SBV_Reset request PDU, with a valid SBV_Reset response PDU, moving to state (4) TF_Data transfer ready. Default: DEF_release				
Behaviour Description	Label	Constraint References	Verdict	Com
+pre_state_12 [NOT Tsp_Reset_mapped_on_TC] !Res_req START CS_Timer ?Res_resp +post_state_4 ?OTHERWISE ?TIMEOUT CS_Timer [Tsp_Reset_mapped_on_TC] !Res_TC_req START CS_Timer ?Res_TC_resp +post_state_4 ?OTHERWISE ?TIMEOUT CS_Timer		RES_req_0 (RES_REQ_valid_o) RES_con_0 (RES_RESP_valid_i) QDAT_req_0 (RES_TC_REQ_valid_o) QDAT_ind_0 (RES_TC_RESP_valid_i)	(PASS) FAIL INCONC (PASS) FAIL INCONC	
Detailed Comments: This test has two different behaviours, depending on the application layer to BIS association, see ETS 300 223 [2], subclause 8.3.3. This PICS information is expressed in the test case by the Boolean Test Suite Parameter Tsp_Reset_mappedd_on_TC.				

Table 335

Test case Dynamic Behaviour				
Test case Name: SBV/TF/BV/SE/KE/8 Group: Purpose: Check that the IUT is able to send a valid SBV_VTX Data request PDU, remaining in state (4), TF_Data transfer ready. Default: DEF_release				
Behaviour Description	Label	Constraint References	Verdict	Com
+pre_state_4 START Oper_Timer <IUT!DATA_REQ> ?Data_req +post_state_4 ?OTHERWISE ?TIMEOUT Oper_Timer		DAT_ind_0 (DATA_REQ_valid_i)	(PASS) INCONC INCONC	(1)
Detailed Comments: (1) PIXIT Requirement - IUT shall be able to send DATA Request on demand.				

Table 336

Test case Dynamic Behaviour				
Test case Name: SBV/TF/BV/SE/KE/9 Group: Purpose: Check that the IUT is able to receive a valid SBV_VTX Data request PDU, remaining in state (4), TF_Data transfer ready. Default: DEF_release				
Behaviour Description	Label	Constraint References	Verdict	Com
+pre_state_4 !Data_req START Wait_Timer ?TIMEOUT Wait_Timer +post_state_4 ?OTHERWISE	DAT_req_0	(DATA_REQ_valid_o)	(PASS) INCONC	(1)
Detailed Comments: (1) Nothing received from IUT after waiting.				

Table 337

Test case Dynamic Behaviour				
Test case Name: SBV/TF/BV/SE/KE/10 Group: Purpose: Check that the IUT is able to receive a valid SBV_Set parameter request PDU, remaining in state (4), TF_Data transfer ready. Default: DEF_release				
Behaviour Description	Label	Constraint References	Verdict	Com
+pre_state_4 !SP_req START Wait_Timer ?TIMEOUT Wait_Timer +post_state_4 ?PI_req ?OTHERWISE		QDAT_req_0 (SP_REQ_valid_o) QDAT_ind_0 (PI_REQ_valid_i)	(PASS) INCONC INCONC	(1)
Detailed Comments:				

Table 338

Test case Dynamic Behaviour				
Test case Name: SBV/TF/BV/SE/KE/11 Group: Purpose: Check that the IUT is able to receive a valid SBV_Read parameter request PDU, remaining in state (4), TF_Data transfer ready. Default: DEF_release				
Behaviour Description	Label	Constraint References	Verdict	Com
+pre_state_4 !RP_req START Wait_Timer ?TIMEOUT Wait_Timer +post_state_4 ?OTHERWISE ?PI_req GOTO L1	L1	QDAT_req_0 (RP_REQ_valid_o) QDAT_ind_0 (PI_REQ_valid_i)	(PASS) FAIL	(1)
Detailed Comments: (1) Read Parameters is a non confirmed service, so the purpose of this testcase is to ensure the IUT remains in data transfer state. It is valid (and desirable) for the IUT to send a parameter indication message in response to this, so if it is received, it is ignored by the testcase.				

Table 339

Test case Dynamic Behaviour				
Test case Name: SBV/TF/BV/SE/KE/12 Group: Purpose: Check that the IUT is able to receive a valid SBV_Set/Read parameter request PDU, remaining in state (4), TF_Data transfer ready. Default: DEF_release				
Behaviour Description	Label	Constraint References	Verdict	Com
+pre_state_4 !SRP_req START Wait_Timer ?TIMEOUT Wait_Timer +post_state_4 ?OTHERWISE ?PI_req GOTO L1	L1	QDAT_req_0 (SRP_REQ_valid_o) QDAT_ind_0 (PI_REQ_valid_i)	(PASS) FAIL	(1)
Detailed Comments: (1) Set/Read Parameters is a non confirmed service, so the purpose of this testcase is to ensure the IUT remains in data transfer state. It is valid (and desirable) for the IUT to send a parameter indication message in response to this, so if it is received, it is ignored by the testcase.				

Table 340

Test case Dynamic Behaviour				
Test case Name: SBV/TF/BV/SE/KE/13 Group: Purpose: Check that the IUT is able to send a valid SBV_Parameter indication PDU, remaining in state (4), TF_Data transfer ready. Default: DEF_release				
Behaviour Description	Label	Constraint References	Verdict	Com
+pre_state_4 !RP_req START NCS_Timer ?PI_req +post_state_4 ?OTHERWISE ?TIMEOUT NCS_Timer		QDAT_req_0 (RP_REQ_valid_o) QDAT_ind_0 (PI_REQ_valid_i)	(PASS) INCONC INCONC	(1)
Detailed Comments: (1) A read parameter is sent in the hopes of generating a Parameter Indication request.				

Table 341

Test case Dynamic Behaviour				
Test case Name: SBV/TF/BV/SE/KE/14 Group: Purpose: Check that the IUT responds to a valid SBV_TFI request PDU, with a valid SBV_TFI Response PDU, remaining in state (4), TF_Data transfer ready. Default: DEF_release				
Behaviour Description	Label	Constraint References	Verdict	Com
+pre_state_4 !TFI_req START CS_Timer ?TFI_resp +post_state_4 ?OTHERWISE ?TIMEOUT CS_Timer		QDAT_req_0 (TFI_REQ_valid_o) QDAT_ind_0 (TFI_RESP_valid_i)	(PASS) FAIL INCONC	
Detailed Comments:				

NOTE: For a terminal, SBV_TFI service is optional during an interim period (ETS 300 223 [2], note in table 1). This test is thus only applicable if the SBV_TFI service is stated as implemented in the PICS, and is to be de-selected otherwise. In case this test is de-selected, it should be checked that TFI can be transferred in the SBV_VTX_Data service element.

Table 342

Test case Dynamic Behaviour				
Test case Name: SBV/TF/BV/SE/KE/15 Group: Purpose: Check that the IUT is able to send a valid SBV_TC Error PDU, remaining in state (4), TF_Data transfer ready. Default: DEF_release				
Behaviour Description	Label	Constraint References	Verdict	Com
+pre_state_4 !BA_req START Error_Timer ?TC_error +post_state_4 ?OTHERWISE ?TIMEOUT Error_Timer		QDAT_req_0 (BA_REQ_valid_o) QDAT_req_0 (TCER_REQ_valid_i)	(PASS) INCONC INCONC	(1)
Detailed Comments: (1) Begin Application Request with an address parameter error forces a TC_Error PDU.				

Table 343

Test case Dynamic Behaviour				
Test case Name: SBV/TF/BV/SE/KE/16 Group: Purpose: Check that the IUT is able to receive a valid SBV_TC Error PDU, remaining in state (4), TF_Data transfer ready. Default: DEF_release				
Behaviour Description	Label	Constraint References	Verdict	Com
Detailed Comments:				

NOTE 1: TC_Error functions are checked much more extensively in section SBV/TP/BV/PC/KE/ER.

NOTE 2: **At any point in time**, to disconnect is a valid behaviour according to ETS 300 223 [2]. If for instance an implementation were to disconnect (systematically) rather than to remain in state(4) each time an SBV_TC_Error PDU occurs, this would comply with the base standard but lead to an INCONCLUSIVE verdict for this test cases. Such an inconclusive verdict will always lead a test lab expert to conclude that the IUT is compliant.

9.1.3.1.2 SBV/TF/BV/SE Comm. Channel Management (CCM)

9.1.3.1.2.1 SBV/TF/BV/SE/CCM Channel Management Procedure (CMP)

Table 344

Test case Dynamic Behaviour				
Test case Name: SBV/TF/BV/SE/CCM/CMP/1 Group: Purpose: Check that, on receipt of a valid SBV_Channel_Open request PDU, the IUT is able to send a valid SBV_Channel_Open response PDU, ending in state (4) TF_data_transfer_ready. Default: DEF_release				
Behaviour Description	Label	Constraint References	Verdict	Com
+pre_state_4 !CO_req QDAT_req_0 (CO_REQ_valid_o) START CS_Timer ?CO_resp +post_state_4 ?OTHERWISE ?TIMEOUT CS_Timer		QDAT_ind_0 (CO_RESP_valid_i)	(PASS) INCONC INCONC	
Detailed Comments:				

Table 345

Test case Dynamic Behaviour				
Test case Name: SBV/TF/BV/SE/CCM/CMP/2 Group: Purpose: IUT being in state (4) TF_data_transfer_ready, with a slave channel currently open. Check that, on receipt of a valid SBV_Channel_Close request PDU with a proper reference parameter, the IUT is able to send a valid positive SBV_Channel_Close response PDU, ending in state (4) TF_data_transfer_ready. Default: DEF_release				
Behaviour Description	Label	Constraint References	Verdict	Com
+pre_state_1 +open_slave_channel !CC_req START CS_Timer ?CC_resp +post_state_1 ?TIMEOUT CS_Timer ?OTHERWISE		QDAT_req_0 (CC_REQ_slave_o) QDAT_resp_0 (CC_RESP_pos_i)	 (PASS) INCONC INCONC	(1) (2)
Detailed Comments: (1) Channel close request for the existing slave channel. (2) Channel close response indicating successfully closed.				

Table 346

Test case Dynamic Behaviour				
Test case Name: SBV/TF/BV/SE/CCM/CMP/3 Group: Purpose: IUT being in state (4) TF_data_transfer_ready, with a slave channel previously open. Check that the IUT is able to send a valid SBV_Channel_Error PDU, ending in state (4) TF_data_transfer_ready. Default: DEF_release				
Behaviour Description	Label	Constraint References	Verdict	Com
+pre_state_4				
L1!CO_req		QDAT_req_0 (CO_REQ_slave_o)		(1)
START CS_Timer				
L2?Est_req		CON_ind_0 (EST_REQ_valid_i)		
		CON_res_0 (EST_RESP_valid_o)		
L2!Est_resp				
START CS_Timer				
L1?CO_resp		QDAT_res_0 (CO_RESP_pos_i)		(2)
START CH_Timer				
L2!Rel_req		DIS_req_0 (REL_REQ_valid_o)		(3)
L1?CE_req		QDAT_req_0 (CE_REQ_valid_o)	(PASS)	
L1?OTHERWISE			INCONC	
L2?OTHERWISE			INCONC	
?TIMEOUT CH_Timer			INCONC	
L1?OTHERWISE			INCONC	
L2?OTHERWISE			INCONC	
?TIMEOUT CS_Timer			INCONC	
L1?OTHERWISE			INCONC	
L2?OTHERWISE			FAIL	
Detailed Comments: (1) In this case, only the first possible slave channel is opened. If an establish request is sent on that channel, the test is considered successful. (2) Channel open response with result parameter = "successful". (3) Slave channel is closed by the AF without any Channel Close Request on the master channel.				

9.1.3.1.2.2

SBV/TF/BV/SE/CCM Multiple Channel Coordination (MCC)

Table 347

Test case Dynamic Behaviour				
Test case Name: SBV/TF/BV/SE/CCM/MCC/1 Group: Purpose: Check that, on receipt of a valid SBV_Channel_Open request PDU, a new instance of terminal function is created (see _1 subclause 6.2), and that the new instance of terminal function is able to send a valid SBV_Establish request PDU. Default: DEF_release				
Behaviour Description	Label	Constraint References	Verdict	Com
+pre_state_4 L1!CO_req START CS_Timer L2?Est_req L1?OTHERWISE L2?OTHERWISE ?TIMEOUT CS_Timer		QDAT_req_0 (CO_REQ_slave_o) CON_ind_0 (EST_REQ_valid_i)	PASS INCONC FAIL INCONC	(1)
Detailed Comments: (1) In this case, only the first possible slave channel is opened. If an establish request is sent on that channel, the test is considered successful.				

Table 348

Test case Dynamic Behaviour				
Test case Name: SBV/TF/BV/SE/CCM/MCC/2 Group: Purpose: IUT having received a valid SBV_Channel_Open request PDU, with a new instance of terminal function having been created, this new terminal function having sent a SBV_Establish request PDU. Check that, after the receipt of a valid SBV_Establish response PDU, the IUT is able to send a valid positive SBV_Channel_Open response PDU, ending in state (4) TF_data_transfer_ready. Default: DEF_release				
Behaviour Description	Label	Constraint References	Verdict	Com
+pre_state_4 L1!CO_req START CS_Timer L2?Est_req L2!Est_resp START CS_Timer L1?CO_resp +post_state_4 L2?OTHERWISE ?TIMEOUT CS_Timer L1?OTHERWISE L2?OTHERWISE ?TIMEOUT CS_Timer		QDAT_req_0 (CO_REQ_slave_o)		(1)
		CON_ind_0 (EST_REQ_valid_i)		
		CON_res_0 (EST_RESP_valid_o)		
		QDAT_res_0 (CO_RESP_pos_i)	(PASS)	(2)
			FAIL	(3)
			INCONC	
			INCONC	
			FAIL	
			INCONC	
Detailed Comments: (1) In this case, only the first possible slave channel is opened. If an establish request is sent on that channel, the test is considered successful. (2) Channel open response with result parameter = "successful". (3) Post_state_4 shall be run on the newly opened slave channel to ensure it is capable of data transfer.				

Table 349

Test case Dynamic Behaviour				
Test case Name: SBV/TF/BV/SE/CCM/MCC/3 Group: Purpose: IUT having received a valid SBV_Channel_Open request PDU, with a new instance of terminal function having been created, this new terminal function having sent a SBV_Establish request PDU. Check that, after the receipt of a valid SBV_Release PDU, the IUT is able to send a valid negative SBV_Channel_Open response PDU, ending in state (4) TF_data_transfer_ready. Default: DEF_release				
Behaviour Description	Label	Constraint References	Verdict	Com
+pre_state_4 L1!CO_req START CS_Timer L2?Est_req L2!Rel_req START CS_Timer L2?CO_resp +post_state_4 L2?OTHERWISE ?TIMEOUT CS_Timer L1?OTHERWISE L2?OTHERWISE ?TIMEOUT CS_Timer		QDAT_req_0 (CO_REQ_slave_o) CON_ind_0 (EST_REQ_valid_i) DIS_req_0 (REL_REQ_valid_o) QDAT_res_0 (CO_RESP_neg_i)	(PASS) FAIL INCONC INCONC FAIL INCONC	(1)
Detailed Comments: (1) In this case, only the first possible slave channel is opened. If an establish request is sent on that channel, the test is considered successful.				

Table 350

Test case Dynamic Behaviour				
Test case Name: SBV/TF/BV/SE/CCM/MCC/4 Group: Purpose: IUT being in state (4) TF_data_transfer_ready, with a slave channel currently open. Check that, after the receipt by the IUT of a valid SBV_Channel_Close request PDU with a proper reference parameter, the terminal function associated with the slave channel is able to send a valid SBV_Release PDU, ending in state 1 Idle. Default: DEF_release				
Behaviour Description	Label	Constraint References	Verdict	Com
+pre_state_4 +open_slave_channel !CC_req START CS_Timer L2?Rel_req +post_state_4 ?TIMEOUT CS_Timer ?OTHERWISE		QDAT_req_0 (CC_REQ_slave_o) DIS_ind_0 (REL_REQ_valid_i)	(PASS) INCONC INCONC	(1) (2) (3)
Detailed Comments: (1) Channel close request for the existing slave channel. (2) Release request on slave channel occurs before the Channel close response is received on the master. Since Channel close is a confirmed service, this release shall occur within the limit of the Confirmed Service timer. (3) Valid release request received on slave channel.				

Table 351

Test case Dynamic Behaviour				
Test case Name: SBV/TF/BV/SE/CCM/MCC/5 Group: Purpose: IUT being in state (4) TF_data_transfer_ready, with a slave channel currently open. Check that, after the receipt by the terminal function associated with the slave channel of a valid SBV_Release PDU, the IUT is able to send a valid SBV_Channel_Error PDU. Default: DEF_release				
Behaviour Description	Label	Constraint References	Verdict	Com
+pre_state_4 +open_slave_channel L2!Rel_req START Error_Timer L1?CE_req L1?OTHERWISE L2?OTHERWISE ?TIMEOUT Error_Timer		DIS_req_0 (REL_REQ_valid_o) QDAT_ind_0 (CE_REQ_valid_i)	PASS INCONC INCONC INCONC	
Detailed Comments:				

9.1.3.1.3 SBV/TF/BV/SE Application Services (AS)

Table 352

Test case Dynamic Behaviour				
Test case Name: SBV/TF/BV/SE/AS/1 Group: Purpose: Check that the IUT is able to send a valid SBV_Begin Application request PDU. Default: DEF_release				
Behaviour Description	Label	Constraint References	Verdict	Com
+pre_state_4 START Oper_Timer <IUT!BA_req> ?BA_req +post_state_4 ?OTHERWISE ?TIMEOUT Oper_Timer		QDAT_ind_0 (BA_req_valid_i)	(PASS) INCONC INCONC	(1)
Detailed Comments: (1) PIXIT requirement - IUT shall be able to send a Begin Application Request PDU on demand.				

Table 353

Test case Dynamic Behaviour				
Test case Name: SBV/TF/BV/SE/AS/2 Group: Purpose: Check that, after having sent a SBV_Begin Application request PDU, the IUT is able to accept a valid SBV_Begin_Application response PDU, ending in state (4) TF_data_transfer_ready. Default: DEF_release				
Behaviour Description	Label	Constraint References	Verdict	Com
+pre_state_4 START Oper_Timer <IUT!BA_req> ?BA_req !BA_resp +post_state_4 ?OTHERWISE ?TIMEOUT Oper_Timer		QDAT_ind_0 (BA_req_valid_i) QDAT_req_0 (BA_resp_valid_o)	(PASS) INCONC INCONC	(1)
Detailed Comments: (1) PIXIT requirement - IUT shall be able to send a Begin Application Request PDU on demand.				

Table 354

Test case Dynamic Behaviour				
Test case Name: SBV/TF/BV/SE/AS/3 Group: Purpose: Check that, after having sent a SBV_Begin Application request PDU, the IUT is able to accept a valid SBV_TC_Error PDU with Error_Code parameter meaning "TC not supported", ending in state (4) TF_data_transfer_ready (The SBV_TC_Error PDU acts as a negative response). Default: DEF_release				
Behaviour Description	Label	Constraint References	Verdict	Com
+pre_state_4 START Oper_Timer <IUT!BA_req> ?BA_req !TC_error # +post_state_4 ?OTHERWISE ?TIMEOUT Oper_Timer		QDAT_ind_0 (BA_REQ_valid_i) QDAT_req_0 (TCER_REQ_ns_BA_o)	(PASS) INCONC INCONC	(1) (2)
Detailed Comments: (1) PIXIT requirement - IUT shall be able to send a Begin Application Request PDU on demand. (2) TC error code 00/00 - TC not supported.				

Table 355

Test case Dynamic Behaviour				
Test case Name: SBV/TF/BV/SE/AS/4 Group: Purpose: Check that the IUT is able to send a valid SBV_End Application request PDU, ending in state (4) TF_data_transfer_ready. Default: DEF_release				
Behaviour Description	Label	Constraint References	Verdict	Com
+pre_state_4 START Oper_timer <IUT!EA_req> ?EA_req +post_state_4 ?OTHERWISE ?TIMEOUT Oper_Timer		QDAT_ind_0 (EA_REQ_valid_i)	(PASS) INCONC INCONC	(1)
Detailed Comments: (1) PIXIT requirement - IUT shall be able to send a End Application request on demand.				

Table 356

Test case Dynamic Behaviour				
Test case Name: SBV/TF/BV/SE/AS/5 Group: Purpose: Check that the IUT is able to send a valid SBV_End_Immediate request PDU, ending in state (4) TF_data_transfer_ready. Default: DEF_release				
Behaviour Description	Label	Constraint References	Verdict	Com
+pre_state_4 START Oper_timer <IUT!EI_req> ?EI_req +post_state_4 ?OTHERWISE ?TIMEOUT Oper_Timer		INT_ind_0 (EI_REQ_valid_i)	(PASS) INCONC INCONC	(1)
Detailed Comments: (1) PIXIT requirement - IUT shall be able to send a End Immediate request on demand.				

9.1.3.1.4 SBV/TF/BV/SE Transparent Processable Data (TPD)

Table 357

Test case Dynamic Behaviour				
Test case Name: SBV/TF/BV/SE/TPD/1 Group: Purpose: Check that the IUT is able to send a valid SBV_TPD Begin request PDU. Default: DEF_release				
Behaviour Description	Label	Constraint References	Verdict	Com
+pre_state_4 START Oper_Timer <IUT!TPDB_req> ?TPDB_req +post_state_4 ?OTHERWISE ?TIMEOUT Oper_Timer		QDAT_ind_0 (TPDB_REQ_valid_i)	(PASS) INCONC INCONC	
Detailed Comments: (1) PIXIT requirement - IUT shall be able to send a TPD Begin request on demand.				

Table 358

Test case Dynamic Behaviour				
Test case Name: SBV/TF/BV/SE/TPD/2 Group: Purpose: Check that, after having sent a SBV_TPD_Begin request PDU, the IUT is able to accept a valid SBV_TPD_Begin response PDU, ending in state (12) TF_TPD_data_transfer_ready. Default: DEF_release				
Behaviour Description	Label	Constraint References	Verdict	Com
+pre_state_4 START Oper_Timer <IUT!TPDB_req> ?TPDB_req !TPDB_resp +post_state_12 ?OTHERWISE ?TIMEOUT Oper_Timer		QDAT_ind_0 (TPDB_REQ_valid_i) QDAT_res_0 (TPDB_RESP_pos_o)	(PASS) INCONC INCONC	(1)
Detailed Comments: (1) PIXIT requirement - IUT shall be able to send a TPD Begin request on demand.				

Table 359

Test case Dynamic Behaviour				
Test case Name: SBV/TF/BV/SE/TPD/3 Group: Purpose: Check that, after having sent a SBV_TPD_Begin request PDU, the IUT is able to accept a valid SBV_TC_Error PDU with Error_Code parameter meaning "TC not supported", ending in state (4) TF_data_transfer_ready (The SBV_TC_Error PDU acts as a negative response). Default: DEF_release				
Behaviour Description	Label	Constraint References	Verdict	Com
+pre_state_4 START Oper_Timer <IUT!TPDB_req> ?TPDB_req !TC_error # +post_state_4 ?OTHERWISE ?TIMEOUT CS_Timer		QDAT_ind_0 (TPDB_REQ_valid_i) QDAT_res_0 (TCER_REQ_ns_TPDB_o)	(PASS) INCONC INCONC	(1) (2)
Detailed Comments: (1) PIXIT requirement - IUT shall be able to send a TPD Begin request on demand. (2) Error code - TC not supported.				

Table 360

Test case Dynamic Behaviour				
Test case Name: SBV/TF/BV/SE/TPD/4 Group: Purpose: Check that, after having sent a SBV_TPD_Begin request PDU, and received a valid and Successful SBV_TPD_Begin response PDU, the IUT is able to send a valid SBV_VTX_Data request PDU carrying a T-Associate request. Default: DEF_release				
Behaviour Description	Label	Constraint References	Verdict	Com
+pre_state_4 START Oper_Timer <IUT!TPDB_req> ?TPDB_req !TPDB_resp +send_data ?OTHERWISE ?TIMEOUT Oper_Timer send_data START Oper_Timer <IUT!Data_req> ?Data_req +post_state_4 ?OTHERWISE ?TIMEOUT Oper_Timer		QDAT_ind_0 (TPDB_REQ_valid_i) QDAT_res_0 (TPDB_RESP_pos_o) DAT_ind_0 (DATA_REQ_tass_i)	INCONC INCONC (PASS) INCONC INCONC	(1) (2) (3)
EXTENDED COMMENTS (1) PIXIT requirement - IUT shall be able to send a TPD begin request on demand. (2) PIXIT requirement - IUT shall be able to send a VTX Data request on demand. (3) Valid data request PDU with T-associate request.				

Table 361

Test case Dynamic Behaviour				
Test case Name: SBV/TF/BV/SE/TPD/5 Group: Purpose: Check that, on receipt of a valid SBV_TPD_Begin request PDU, the IUT is able to send a valid positive SBV_TPD_Begin response PDU, ending in state (12) TF_TPD_data_transfer_ready. Default: DEF_release				
Behaviour Description	Label	Constraint References	Verdict	Com
+pre_state_4 !TPDB_req START CS_Timer ?TPDB_resp +post_state_12 ?OTHERWISE ?TIMEOUT CS_Timer		QDAT_req_0 (TPDB_REQ_valid_o) QDAT_ind_0 (TPDB_RESP_pos_i)	(PASS) INCONC INCONC	
Detailed Comments:				

Table 362

Test case Dynamic Behaviour				
Test case Name: SBV/TF/BV/SE/TPD/6 Group: Purpose: Check that the IUT is able to accept a valid SBV_TPD_End request PDU, ending in state (4) TF_data transfer ready. Default: DEF_release				
Behaviour Description	Label	Constraint References	Verdict	Com
+pre_state_12 !TPDE_req STAR7T Wait_Timer ?TIMEOUT Wait_Timer +post_state_4 ?OTHERWISE		QDAT_req_0 (TPDE_REQ_valid_o)	(PASS) FAIL	
Detailed Comments:				

Table 363

Test case Dynamic Behaviour				
Test case Name: SBV/TF/BV/SE/TPD/7 Group: Purpose: Check that the IUT is able to send a valid SBV_TPD End request PDU, ending in state (4) TF_data transfer ready. Default: DEF_release				
Behaviour Description	Label	Constraint References	Verdict	Com
+pre_state_12 START Oper_Timer <IUT!TPDE_req> ?TPDE_req +post_state_4 ?OTHERWISE ?TIMEOUT CS_Timer		QDAT_ind_0 (TPDE_REQ_valid_i)	(PASS) FAIL INCONC	(1)
Detailed Comments:				
(1) PIXIT requirement - IUT shall be able to send a TPD End request on demand.				

9.1.3.1.5 SBV/TF/BV/SE Define Function Keys (DFK)

Table 364

Test case Dynamic Behaviour				
Test case Name: SBV/TF/BV/SE/DFK/1 Group: Purpose: Check that the IUT is able to receive a valid SBV_DFK request PDU, ending in state (4) TF_data_transfer_ready. Default: DEF_release				
Behaviour Description	Label	Constraint References	Verdict	Com
+pre_state_4 !DFK_req START Wait_Timer ?TIMEOUT Wait_Timer +post_state_4 ?OTHERWISE		QDAT_req_0 (DFK_REQ_valid_o)	(PASS)	
			INCONC	
Detailed Comments:				

9.1.3.1.6 SBV/TF/BV/SE Remote Echo (RE)

Table 365

Test case Dynamic Behaviour				
Test case Name: SBV/TF/BV/SE/RE/1 Group: Purpose: Check that the IUT is able to send a valid SBV_Remote_Echo request PDU, ending in state (4) TF_data_transfer_ready. Default: DEF_release				
Behaviour Description	Label	Constraint References	Verdict	Com
+pre_state_4 <IUT!RE_req> ?RE_req +post_state_4 ?OTHERWISE ?TIMEOUT Oper_Timer		QDAT_ind_0 (RE_REQ_valid_i)	(PASS)	(1)
			INCONC	
			INCONC	
Detailed Comments:				
(1) PIXIT requirement - IUT shall be able to send a Remote_Echo request on demand.				

9.1.3.1.7 SBV/TF/BV/SE Escape (ESC)

Table 366

Test case Dynamic Behaviour				
Test case Name: SBV/TF/BV/SE/ESC/1 Group: Purpose: Check that the IUT is able to accept a valid SBV_Escape request PDU, ending in state (4) TF_data_transfer ready. Default: DEF_release				
Behaviour Description	Label	Constraint References	Verdict	Com
+pre_state_4 !ESC_req START Wait_Timer ?TIMEOUT Wait_Timer +post_state_4 ?OTHERWISE		QDAT_req_0 (ESC_REQ_valid_o)	(PASS) INCONC	
Detailed Comments:				

Table 367

Test case Dynamic Behaviour				
Test case Name: SBV/TF/BV/SE/ESC/2 Group: Purpose: Check that the IUT is able to send a valid SBV_Escape request PDU, ending in state (4) TF_data_transfer_ready. Default: DEF_release				
Behaviour Description	Label	Constraint References	Verdict	Com
+pre_state_4 <IUT!ESC_req> ?ESC_req +post_state_4 ?OTHERWISE ?TIMEOUT Oper_Timer		QDAT_ind_0 (ESC_REQ_valid_i)	(PASS) INCONC INCONC	(1)
Detailed Comments:				
(1) PIXIT requirement - IUT shall be able to send an Escape request on demand.				

9.1.3.2 TF/BV - Parameter Variations (PV)

This group of tests (TF/BV/PV...) is intended to verify the ability to use different possible parameters for each SBV message. Each group is for a specific PDU, in which all the different parameters are verified, one at a time. The required preamble is specified along with each test purpose.

Several messages contain no parameters (SBV_Reset_request for example) and, therefore, are not listed below.

NOTE: What is called a parameter here is a SBV protocol data unit parameter. In particular, some service primitive parameters, which are not SBV PDU parameters, do not have to appear in a protocol test specification (This is the case, for instance, of OB_Called_Address, of IB_Cause,... These service primitive parameters are mapped onto lower layer protocols).

9.1.3.2.1 TF/BV/PV Kernel (KE)

9.1.3.2.1.1 TF/BV/PV/KE SBV_Establish

Table 368

Test case Dynamic Behaviour				
Test case Name: SBV/TF/PV/SE/KE/ER/1				
Group:				
Purpose: Check that the IUT is able to send a valid SBV_Establish request PDU with OB_Application_Address parameter present.				
Default:				
Behaviour Description	Label	Constraint References	Verdict	Com
+pre_state_1				(1)
<IUT!Est_req>				
START Oper_Timer				
?Est_req		CON_ind_0 (EST_REQ_obaa_i)	PASS	(2)
?OTHERWISE			INCONC	
?TIMEOUT Oper_Timer			INCONC	
Detailed Comments:				
(1) PIXIT requirement - IUT shall be able to send SBV Establish request on demand.				
(2) Establish request with "OB application address" parameter present.				

Table 369

Test case Dynamic Behaviour				
Test case Name: SBV/TF/PV/SE/KE/ER/2				
Group:				
Purpose: Check that the IUT is able to send a valid SBV_Establish request PDU with OB_Application_Selection parameter present.				
Default:				
Behaviour Description	Label	Constraint References	Verdict	Com
+pre_state_1 <IUT!Est_req> START Oper_Timer ?Est_req ?TIMEOUT Oper_Timer ?OTHERWISE		CON_ind_0 (EST_REQ_obas_i)		(1)
			PASS	(2)
			INCONC	
			FAIL	
Detailed Comments:				
(1) PIXIT requirement - IUT shall be able to send SBV Establish request on demand.				
(2) Establish request with "OB application selection" parameter present.				

Table 370

Test case Dynamic Behaviour				
Test case Name: SBV/TF/PV/SE/KE/ER/3				
Group:				
Purpose: Check that the IUT is able to send a valid SBV_Establish request PDU with OB_Application_Data parameter present.				
Default:				
Behaviour Description	Label	Constraint References	Verdict	Com
+pre_state_1 <IUT!Est_req> START Oper_Timer ?Est_req ?TIMEOUT Oper_Timer ?OTHERWISE		CON_ind_0 (EST_REQ_obad_i)		(1)
			PASS	(2)
			INCONC	
			FAIL	
Detailed Comments:				
(1) PIXIT requirement - IUT shall be able to send SBV Establish request on demand.				
(2) Establish request with "OB Application Data" parameter present.				

Table 371

Test case Dynamic Behaviour				
Test case Name: SBV/TF/PV/SE/KE/ER/4				
Group:				
Purpose: Check that the IUT is able to send a valid SBV_Establish request PDU with OB_User_Data parameter present.				
Default:				
Behaviour Description	Label	Constraint References	Verdict	Com
+pre_state_1 <IUT!Est_req> START Oper_Timer ?Est_req ?TIMEOUT Oper_Timer ?OTHERWISE		CON_ind_0 (EST_REQ_obud_i)		(1)
			PASS	(2)
			FAIL	
			FAIL	
Detailed Comments:				
(1) PIXIT requirement - IUT shall be able to send SBV Establish request on demand.				
(2) Establish request with "OB User Data" parameter present.				

Table 372

Test case Dynamic Behaviour				
Test case Name: SBV/TF/PV/SE/KE/ER/5				
Group:				
Purpose: Check that the IUT is able to send a valid SBV_Establish request PDU with IB_Called_Address parameter present.				
Default:				
Behaviour Description	Label	Constraint References	Verdict	Com
+pre_state_1 <IUT!Est_req> START Oper_Timer ?Est_req ?TIMEOUT Oper_Timer ?OTHERWISE		CON_ind_0 (EST_REQ_ibca_i)		(1)
			PASS	(2)
			INCONC	
			INCONC	
Detailed Comments:				
NOTE: This test is only applicable when inband addressing is used. As a matter of fact, in this case IB_Called_Address is no longer a lower layer addressing parameter (that would be out of scope of SBV protocol testing) but a means for SBV to convey information, hence a PDU parameter.				
(1) PIXIT requirement - IUT shall be able to send SBV Establish request on demand.				
(2) Establish request with "IB Called Address" parameter present.				

Table 373

Test case Dynamic Behaviour				
Test case Name: SBV/TF/PV/SE/KE/ER/6				
Group:				
Purpose: Check that the IUT is able to send a valid SBV_Establish request PDU with IB_Application Address parameter present.				
Default:				
Behaviour Description	Label	Constraint References	Verdict	Com
+pre_state_1 <IUT!Est_req> START Oper_Timer ?Est_req ?TIMEOUT Oper_Timer ?OTHERWISE		CON_ind_0 (EST_REQ_ibaa_i)		(1)
			PASS	(2)
			INCONC	
			INCONC	
Detailed Comments:				
(1) PIXIT requirement - IUT shall be able to send SBV Establish request on demand.				
(2) Establish request with "IB Application Address" present.				

Table 374

Test case Dynamic Behaviour				
Test case Name: SBV/TF/PV/SE/KE/ER/7				
Group:				
Purpose: Check that the IUT is able to send a valid SBV_Establish request PDU with IB_Application Selection parameter present.				
Default:				
Behaviour Description	Label	Constraint References	Verdict	Com
+pre_state_1 <IUT!Est_req> START Oper_Timer ?Est_req ?TIMEOUT Oper_Timer ?OTHERWISE		CON_ind_0 (EST_REQ_ibas_i)		(1)
			PASS	(2)
			INCONC	
			INCONC	
Detailed Comments:				
(1) PIXIT requirement - IUT shall be able to send SBV Establish request on demand.				
(2) Establish request with "IB Application Selection" parameter present.				

Table 375

Test case Dynamic Behaviour				
Test case Name: SBV/TF/PV/SE/KE/ER/8				
Group:				
Purpose: Check that the IUT is able to send a valid SBV_Establish request PDU with IB_Application Data parameter present.				
Default:				
Behaviour Description	Label	Constraint References	Verdict	Com
+pre_state_1 <IUT!Est_req> START Oper_Timer ?Est_req ?TIMEOUT Oper_Timer ?OTHERWISE		CON_ind_0 (EST_REQ_ibad_i)		(1)
			PASS	(2)
			INCONC	
			INCONC	
Detailed Comments:				
(1) PIXIT requirement - IUT shall be able to send SBV Establish request on demand.				
(2) Establish request with "IB Application" parameter present				

Table 376

Test case Dynamic Behaviour				
Test case Name: SBV/TF/PV/SE/KE/ER/9				
Group:				
Purpose: Check that the IUT is able to send a valid SBV_Establish request PDU with IB_User_Data parameter present.				
Default:				
Behaviour Description	Label	Constraint References	Verdict	Com
+pre_state_1 <IUT!Est_req> START Oper_Timer ?Est_req ?TIMEOUT Oper_Timer ?OTHERWISE		CON_ind_0 (EST_REQ_ibud_i)		(1)
			PASS	(2)
			INCONC	
			INCONC	
Detailed Comments:				
(1) PIXIT requirement - IUT shall be able to send SBV Establish request on demand.				
(2) Establish request with "IB User Data" parameter present.				

Table 377

Test case Dynamic Behaviour				
Test case Name: SBV/TF/PV/SE/KE/ER/10				
Group:				
Purpose: Check that the IUT is able to send a valid SBV_Establish request PDU with Reference parameter present.				
Default:				
Behaviour Description	Label	Constraint References	Verdict	Com
+pre_state_1 <IUT!Est_req> START Oper_Timer ?Est_req ?TIMEOUT Oper_Timer ?OTHERWISE		CON_ind_0 (EST_REQ_ref_i)		(1)
			PASS	(2)
			INCONC	
			FAIL	
Detailed Comments:				
(1) PIXIT requirement - IUT shall be able to send SBV Establish request on demand.				
(2) Establish request with "reference" parameter present.				

Table 378

Test case Dynamic Behaviour				
Test case Name: SBV/TF/PV/SE/KE/ER/11				
Group:				
Purpose: Check that the IUT is able to send a valid SBV_Establish request PDU with "Reverse Role Assignment" parameter present.				
Default:				
Behaviour Description	Label	Constraint References	Verdict	Com
+pre_state_1 <IUT!Est_req> START Oper_Timer ?Est_req ?TIMEOUT Oper_Timer ?OTHERWISE		CON_ind_0 (EST_REQ_rev_i)		(1)
			PASS	(2)
			INCONC	
			INCONC	
Detailed Comments:				
(1) PIXIT requirement - IUT shall be able to send SBV Establish request on demand.				
(2) Establish request with "Reverse Role assignment" parameter present. PICS Requirement - IUT shall support Reverse Role assignment.				

9.1.3.2.1.2

TF/BV/PV/KE SBV_Release

Table 379

Test case Dynamic Behaviour				
Test case Name: SBV/TF/BV/PV/KE/RR/1				
Group:				
Purpose: Check that the IUT is able to send a valid SBV Release request PDU with Result parameter present.				
Default:				
Behaviour Description	Label	Constraint References	Verdict	Com
+pre_state_4 <IUT!Rel_req> START Oper_Timer ?Rel_req ?TIMEOUT Oper_Timer ?OTHERWISE		DIS_ind_0 (REL_REQ_res_i)		(1)
			PASS	(2)
			INCONC	
			INCONC	
Detailed Comments:				
(1) PIXIT requirement - IUT shall be able to send SBV Release request on demand.				
(2) Release Request with "result" parameter present.				

Table 380

Test case Dynamic Behaviour				
Test case Name: SBV/TF/BV/PV/KE/RR/2 Group: Purpose: Check that the IUT is able to receive a valid SBV Release request PDU with Result parameter present. Default:				
Behaviour Description	Label	Constraint References	Verdict	Com
+pre_state_4 !Rel_req START Wait_Timer ?TIMEOUT Wait_Timer +post_state_4 ?OTHERWISE		DES_req_0 (REL_REQ_res_o)	(PASS) INCONC	(1)
Detailed Comments: (1) Release request with "result" parameter present.				

9.1.3.2.1.3 TF/BV/PV/KE SBV_Reset

Table 381

Test case Dynamic Behaviour				
Test case Name: SBV/TF/BV/PV/KE/RT/1				
Group:				
Purpose: Check that the IUT is able to send a valid SBV_Reset response PDU with Result parameter present and having the value "Successful".				
Default:				
Behaviour Description	Label	Constraint References	Verdict	Com
+pre_state_4 !Res_TC_req Start CS_Timer ?Res_TC_resp +post_state_4 ?TIMEOUT CS_Timer ?OTHERWISE		QDAT_req_0 (RES_TC_REQ_valid_o)		(1)
		QDAT_ind_0 (RES_TC_RESP_pos_i)	(PASS)	(2)
			INCONC	
			INCONC	
Detailed Comments:				
(1) PICS Requirement: SBV_Reset mapped onto a BIS__N_Q_DATA. see ETS 300 223 [2], subclause 8.3.3.				
A valid Reset request telematic command is sent.				
(2) Reset response shall contain a "successful" result parameter.				

9.1.3.2.1.4

TF/BV/PV/KE SBV_VTX_Data

Table 382

Test case Dynamic Behaviour				
Test case Name: SBV/TF/BV/PV/KE/DATA/1 Group: Purpose: Check that the IUT is able to send a valid SBV_VTX Data request PDU with VTX_Data parameter present. Default:				
Behaviour Description	Label	Constraint References	Verdict	Com
+pre_state_4 <IUT!Data_req> START Oper_Timer ?Data_req ?OTHERWISE ?TIMEOUT Oper_Timer		DAT_ind_0 (DATA_REQ_data_i)	PASS INCONC INCONC	(1) (2)
Detailed Comments: (1) PIXIT Requirement - IUT shall be able to send Data Request PDU on demand. (2) Data request PDU with "VTX Data" parameter present. NOTE: The VTX_Data parameter shall comply with one possible syntax defined in the PIXIT. (see _1 clause: "Coding of User data fields as defined in other documents").				

Table 383

Test case Dynamic Behaviour				
Test case Name: SBV/TF/BV/PV/KE/DATA/2 Group: Purpose: Check that the IUT is able to receive a valid SBV_VTX Data request PDU with VTX_Data parameter present. Default:				
Behaviour Description	Label	Constraint References	Verdict	Com
+pre_state_4 !Data_req START Wait_Timer ?TIMEOUT Wait_Timer +post_state_4 ?OTHERWISE		DAT_req_0 (DATA_REQ_valid_o)	(PASS) INCONC	(1)
Detailed Comments: (1) Data Request PDU with "VTX data" parameter present. NOTE: The VTX_Data parameter shall comply with one possible syntax defined in the PIXIT. (see _1 clause: "Coding of User data fields as defined in other documents").				

9.1.3.2.1.5

TF/BV/PV/KE SBV_Set_parameter

Table 384

Test case Dynamic Behaviour				
Test case Name: SBV/TF/BV/PV/KE/SP/1 Group: Purpose: Check that the IUT is able to receive a valid SBV_Set Param request PDU with a non empty X.3 Parameter List parameter. Default:				
Behaviour Description	Label	Constraint References	Verdict	Com
+pre_state_4 !SP_req START Wait_Timer ?TIMEOUT Wait_Timer +post_state_4 ?OTHERWISE ?PI_req		QDAT_req_0 (SP_REQ_echo1_o) QDAT_ind_0 (PI_REQ_any_i)	(PASS) INCONC FAIL	(1)
Detailed Comments: (1) Set Parameter PDU with the X.3 "Echo" parameter set to 1. All IUTs should support this mandatory X.3 parameter.				

Table 385

Test case Dynamic Behaviour				
Test case Name: SBV/TF/BV/PV/KE/SP/2 Group: Purpose: Check that the IUT is able to receive a valid SBV_Set Param request PDU with an empty X.3_Parameter List parameter. Default:				
Behaviour Description	Label	Constraint References	Verdict	Com
+pre_state_4 !SP_req START Wait_Timer ?TIMEOUT Wait_Timer +post_state_4 ?OTHERWISE ?PI_req		QDAT_req_0 (SP_REQ_np_o) QDAT_ind_0 (PI_REQ_any_i)	(PASS) INCONC FAIL	(1)
Detailed Comments: (1) Set Parameter PDU with NO X.3 parameters present. NOTE: The actual effect - which is not to be tested here - of a X.29 message with an empty list, is defined in CCITT Recommendation X.29 [9], table 1/X.29.				

9.1.3.2.1.6

TF/BV/PV/KE SBV_Read_parameter

Table 386

Test case Dynamic Behaviour				
Test case Name: SBV/TF/BV/PV/KE/RP/1 Group: Purpose: Check that the IUT is able to receive a valid SBV_Read_Param request PDU with a non empty X.3_Parameter_List parameter. Default:				
Behaviour Description	Label	Constraint References	Verdict	Com
+pre_state_1 !RP_req START Wait_Timer ?TIMEOUT Wait_Timer +post_state_4 ?OTHERWISE ?PI_req GOTO L1	L1	QDAT_req_0 (RP_REQ_echo_o) QDAT_req_0 (PI_REQ_any_i)	 INCONC	 (2)
Detailed Comments: (1) Send a Read Parameter request PDU, asking for the value of the X.3 "echo" parameter. (2) If a Parameter Indication is received (normal behaviour) then it is ignored by the tester.				

Table 387

Test case Dynamic Behaviour				
Test case Name: SBV/TF/BV/PV/KE/RP/2 Group: Purpose: Check that the IUT is able to receive a valid SBV_Read Param request PDU with an empty X.3_Parameter List parameter. Default:				
Behaviour Description	Label	Constraint References	Verdict	Com
+pre_state_4 !SP_req START Wait_Timer ?TIMEOUT Wait_Timer +post_state_4 ?OTHERWISE ?PI_req GOTO L1	L1	QDAT_req_0 (RP_REQ_np_o) QDAT_ind_0 (PI_REQ_any_i)	 INCONC	 (2)
Detailed Comments: (1) Read Parameter PDU with NO X.3 parameters present. (2) A Parameter Indication request from the IUT is expected and can be ignored. NOTE: The actual effect - which is not to be tested here - of a X.29 message with an empty list, is defined in CCITT Recommendation X.29 [9], table 1/X.29.				

9.1.3.2.1.7

TF/BV/PV/KE SBV_Set/Read_parameter

Table 388

Test case Dynamic Behaviour				
Test case Name: SBV/TF/BV/PV/KE/SRP/1				
Group:				
Purpose: Check that the IUT is able to receive a valid SBV_Set Read Param request PDU with a non empty X.3_Parameter List parameter.				
Default:				
Behaviour Description	Label	Constraint References	Verdict	Com
+pre_state_4 !SRP_req START Wait_Timer ?TIMEOUT Wait_Timer +post_state_4 ?OTHERWISE ?PI_req GOTO L1	L1	QDAT_req_0 (SRP_REQ_echo1_o)	(PASS)	(1)
		QDAT_ind_0 (PI_REQ_valid_i)	INCONC	(2)
Detailed Comments:				
(1) Set/Read Parameter PDU with X.3 echo parameter set to 1.				
(2) A Parameter Indication request from the IUT is expected and can be ignored.				

Table 389

Test case Dynamic Behaviour				
Test case Name: SBV/TF/BV/PV/KE/SRP/2				
Group:				
Purpose: Check that the IUT is able to receive a valid SBV_Set_Read_Param request PDU with an empty X.3_Parameter_List parameter.				
Default:				
Behaviour Description	Label	Constraint References	Verdict	Com
+pre_state_4 !SRP_req START Wait_Timer ?TIMEOUT Wait_Timer +post_state_4 ?OTHERWISE ?PI_req GOTO L1	L1	QDAT_req_0 (SRP_REQ_np_o)	(PASS)	(1)
		QDAT_ind_0 (PI_REQ_valid_i)	INCONC	(2)
Detailed Comments:				
(1) Set/Read Parameter PDU with no X.3 parameter present.				
(2) A Parameter Indication request from the IUT is expected and can be ignored.				
NOTE: The actual effect - which is not to be tested here - of a X.29 message with an empty list, is defined in CCITT Recommendation X.29 [9], table 1/X.29.				

9.1.3.2.1.8

TF/BV/PV/KE SBV_Parameter_indication

Table 390

Test case Dynamic Behaviour				
Test case Name: SBV/TF/BV/PV/KE/PIR/1 Group: Purpose: Check that the IUT is able to send a valid SBV_Parameter Indication request PDU with a non empty X.3_Parameter List parameter. Default:				
Behaviour Description	Label	Constraint References	Verdict	Com
+pre_state_1		QDAT_req_0 (SRP_REQ_echo1_o)		(1)
!SRP_req				
START NCS_Timer		QDAT_ind_0 (PI_REQ_valid_i)		(2)
?PI_req			(PASS)	
+post_state_4				
?OTHERWISE			INCONC	
?TIMEOUT NCS_Timer			INCONC	
Detailed Comments: (1) A Set/read request is sent to the IUT in an attempt to generate a Parameter Indication request with the same parameter. Setting the echo to 1 should be implemented on all IUTs. (2) Receive a Parameter Indication with X.3 echo parameter set to 1.				

9.1.3.2.1.9

TF/BV/PV/KE SBV_TFI

Table 391

Test case Dynamic Behaviour				
Test case Name: SBV/TF/BV/PV/KE/TFI/1 Group: Purpose: Check that the IUT is able to receive a valid SBV_TFI request PDU with TFI_Enq parameter present. Default:				
Behaviour Description	Label	Constraint References	Verdict	Com
+pre_state_4		QDAT_req_0 (TFI_REQ_valid_o)		(1)
!TFI_req				
START CS_Timer				
?TIMEOUT CS_Timer	L1		(PASS)	
+post_state_4				
?OTHERWISE			FAIL	
?TFI_resp		QDAT_ind_0 (TFI_RESP_valid_i)		(2)
GOTO L1				
Detailed Comments: (1) TFI Request PDU with "enq" parameter present. (2) A valid TFI Response PDU is ignored from the IUT. NOTE: The TFI_Ack parameter shall be coded according to ETS 300 076 [14]; the way the TFI shall be used is determined following PIXIT indications.				

9.1.3.2.1.10

TF/BV/PV/KE SBV_TC_Error

Table 392

Test case Dynamic Behaviour				
Test case Name: SBV/TF/BV/PV/KE/TCE/1 Group: Purpose: Check that the IUT is able to receive a valid SBV_TC Error PDU with Error_Code parameter present. Default:				
Behaviour Description	Label	Constraint References	Verdict	Com
+pre_state_4				
!TFI_req		QDAT_req_0 (TFI_REQ_valid_o)		(1)
START NCS_Timer				
?TFI_resp		QDAT_resp_0 (TFI_RESP_valid_i)		(2)
+send_error				
?TIMEOUT NCS_Timer			INCONC	
?OTHERWISE			INCONC	
send_error				
!TC_error		QDAT_req_0 (TCER_REQ_Err_TFI_o)		(3)
START Wait_Timer				
?TIMEOUT Wait_Timer			(PASS)	
+post_state_4				
?OTHERWISE			INCONC	
Detailed Comments: (1) Valid TFI Request PDU. (2) Valid TFI response PDU. (3) TC_Error PDU with "Error Code" Parameter present.				

Table 393

Test case Dynamic Behaviour				
Test case Name: SBV/TF/BV/PV/KE/TCE/2 Group: Purpose: Check that the IUT is able to send a valid SBV_TC Error PDU with Error_Code parameter present. Default:				
Behaviour Description	Label	Constraint References	Verdict	Com
+pre_state_4				
!TFI_req		QDAT_req_0 (TFI_REQ_e02_o)		(1)
START Error_Timer				
?TC_err		QDAT_ind_0 (TCER_REQ_valid_i)	(PASS)	(2)
+post_state_4				
?OTHERWISE			FAIL	
?TIMEOUT Oper_Timer			INCONC	
Detailed Comments: (1) A TC error PDU is generated by sending a TFI request with octet 2 of the User Data field set to 15/14. This is also used in testcase SBV/TF/BO/EV/TC/1. (2) TC_error with "error code" parameter present.				

9.1.3.2.2 TF/BV/PV Communication Channel Management (CCM)

9.1.3.2.2.1 TF/BV/PV/CCM Channel Management Procedure (CMP)

9.1.3.2.2.1.1 TF/BV/PV/CCM/CMP SBV_Channel_open

Table 394

Test case Dynamic Behaviour				
Test case Name: SBV/TF/BV/PV/CCM/CMP/CO/1 Group: Purpose: Check that the IUT is able to receive a valid SBV_Channel_Open request PDU with Req_OB Called Address parameter present. Default:				
Behaviour Description	Label	Constraint References	Verdict	Com
+pre_state_4		QDAT_req_0 (CO_REQ_obca_o)		(1)
!CO_req				
Start CS_Timer				
?CO_resp		QDAT_ind_0 (CO_RESP_valid_i)	(PASS)	(2)
+post_state_4				
?TIMEOUT CS_Timer			INCONC	
?OTHERWISE			INCONC	
Detailed Comments: (1) Channel open with "OB Called Address" parameter. (2) A valid Channel open response PDU. Parameters are not checked.				

Table 395

Test case Dynamic Behaviour				
Test case Name: SBV/TF/BV/PV/CCM/CMP/CO/2 Group: Purpose: Check that the IUT is able to receive a valid SBV_Channel Open request PDU with Req_OB Called Subaddress parameter present. Default:				
Behaviour Description	Label	Constraint References	Verdict	Com
+pre_state_4		QDAT_req_0 (CO_REQ_obcs_o)		(1)
!CO_req				
Start CS_Timer				
?CO_resp		QDAT_ind_0 (CO_RESP_valid_i)	(PASS)	(2)
+post_state_4				
?TIMEOUT CS_Timer			INCONC	
?OTHERWISE			INCONC	
Detailed Comments: (1) Channel open request with "OB called subaddress" parameter. (2) A valid channel open response PDU.				

Table 396

Test case Dynamic Behaviour				
Test case Name: SBV/TF/BV/PV/CCM/CMP/CO/3				
Group:				
Purpose: Check that the IUT is able to receive a valid SBV_Channel Open request PDU with OB_Application Address parameter present.				
Default:				
Behaviour Description	Label	Constraint References	Verdict	Com
+pre_state_4 !CO_req Start CS_Timer ?CO_resp +post_state_4 ?TIMEOUT CS_Timer ?OTHERWISE		QDAT_req_0 (CO_REQ_obaa_o)		(1)
		QDAT_ind_1 (CO_RESP_valid_i)	(PASS)	(2)
			INCONC	
			INCONC	
Detailed Comments:				
(1) Channel open request with "OB application address" parameter.				
(2) Any valid channel open response PDU.				

Table 397

Test case Dynamic Behaviour				
Test case Name: SBV/TF/BV/PV/CCM/CMP/CO/4				
Group:				
Purpose: Check that the IUT is able to receive a valid SBV_Channel Open request PDU with OB_Application Selection parameter present.				
Default:				
Behaviour Description	Label	Constraint References	Verdict	Com
+pre_state_4 !CO_req Start CS_Timer ?CO_resp +post_state_4 ?TIMEOUT CS_Timer ?OTHERWISE		QDAT_req_0 (CO_REQ_obas_o)		(1)
		QDAT_ind_0 (CO_RESP_valid_i)		(2)
			(PASS)	
		INCONC		
		INCONC		
Detailed Comments:				
(1) Channel Open req with "OB application selection" parameter.				
(2) Valid Channel Open response.				

Table 398

Test case Dynamic Behaviour				
Test case Name: SBV/TF/BV/PV/CCM/CMP/CO/5 Group: Purpose: Check that the IUT is able to receive a valid SBV_Channel Open request PDU with OB_Application Data parameter present. Default:				
Behaviour Description	Label	Constraint References	Verdict	Com
+pre_state_4		QDAT_req_0 (CO_REQ_obad_o)		(1)
!CO_req				
Start CS_Timer				
?CO_resp		QDAT_ind_0 (CO_RESP_valid_i)	(PASS)	(2)
+post_state_4				
?TIMEOUT CS_Timer			INCONC	
?OTHERWISE			INCONC	
Detailed Comments: (1) Channel Open request with "OB application data" parameter. (2) A valid Channel Open response.				

Table 399

Test case Dynamic Behaviour				
Test case Name: SBV/TF/BV/PV/CCM/CMP/CO/6 Group: Purpose: Check that the IUT is able to receive a valid SBV_Channel Open request PDU with Req_OB User Data parameter present. Default:				
Behaviour Description	Label	Constraint References	Verdict	Com
+pre_state_4		QDAT_req_0 (CO_REQ_robud_o)		(1)
!CO_req				
Start CS_Timer				
?CO_resp		QDAT_ind_0 (CO_RESP_valid_i)	(PASS)	(2)
+post_state_4				
?TIMEOUT CS_Timer			INCONC	
?OTHERWISE			INCONC	
Detailed Comments: (1) Channel open request with "Request OB user data" parameter. (2) A valid channel open response.				

Table 400

Test case Dynamic Behaviour				
Test case Name: SBV/TF/BV/PV/CCM/CMP/CO/7 Group: Purpose: Check that the IUT is able to receive a valid SBV_Channel Open request PDU with Req_IB Called Address parameter present. Default:				
Behaviour Description	Label	Constraint References	Verdict	Com
+pre_state_4		QDAT_req_0 (CO_REQ_ribca_o)		(1)
!CO_req				
Start CS_Timer				
?CO_resp		QDAT_ind_0 (CO_RESP_valid_i)	(PASS)	(2)
+post_state_4				
?TIMEOUT CS_Timer			INCONC	
?OTHERWISE			INCONC	
Detailed Comments: (1) Channel open request with "request IB called address" parameter. (2) Valid Channel open response.				

Table 401

Test case Dynamic Behaviour				
Test case Name: SBV/TF/BV/PV/CCM/CMP/CO/8 Group: Purpose: Check that the IUT is able to receive a valid SBV_Channel Open request PDU with IB_Application Address parameter present. Default:				
Behaviour Description	Label	Constraint References	Verdict	Com
+pre_state_4		QDAT_req_0 (CO_REQ_ibaa_o)		(1)
!CO_req				
Start CS_Timer				
?CO_resp		QDAT_ind_0 (CO_RESP_valid_i)	(PASS)	(2)
+post_state_4				
?TIMEOUT CS_Timer			INCONC	
?OTHERWISE			INCONC	
Detailed Comments: (1) Channel open request with "IB application address" parameter. (2) Valid channel open response.				

Table 402

Test case Dynamic Behaviour				
Test case Name: SBV/TF/BV/PV/CCM/CMP/CO/9 Group: Purpose: Check that the IUT is able to receive a valid SBV_Channel_Open request PDU with IB_Application_Selection parameter present. Default:				
Behaviour Description	Label	Constraint References	Verdict	Com
+pre_state_4		QDAT_req_0 (CO_REQ_ibas_o)		(1)
!CO_req				
Start CS_Timer				
?CO_resp		QDAT_ind_0 (CO_RESP_valid_i)	(PASS)	(2)
+post_state_4				
?TIMEOUT CS_Timer			INCONC	
?OTHERWISE			INCONC	
Detailed Comments: (1) Channel open request with "IB application selection" parameter. (2) Valid channel open response.				

Table 403

Test case Dynamic Behaviour				
Test case Name: SBV/TF/BV/PV/CCM/CMP/CO/10 Group: Purpose: Check that the IUT is able to receive a valid SBV_Channel Open request PDU with IB_Application Data parameter present. Default:				
Behaviour Description	Label	Constraint References	Verdict	Com
+pre_state_4		QDAT_req_0 (CO_REQ_ibad_o)		(1)
!CO_req				
Start CS_Timer				
?CO_resp		QDAT_ind_0 (CO_RESP_valid_i)	(PASS)	(2)
+post_state_4				
?TIMEOUT CS_Timer			INCON	
OTHERWISE			INCON	
Detailed Comments: (1) Channel open request with "IB application data" parameter. (2) Valid channel open response.				

Table 404

Test case Dynamic Behaviour				
Test case Name: SBV/TF/BV/PV/CCM/CMP/CO/11				
Group:				
Purpose: Check that the IUT is able to receive a valid SBV_Channel Open request PDU with Req_IB User Data parameter present.				
Default:				
Behaviour Description	Label	Constraint References	Verdict	Com
+pre_state_4 !CO_req Start CS_Timer ?CO_resp +post_state_4 ?TIMEOUT CS_Timer ?OTHERWISE		QDAT_req_0 (CO_REQ_ribud_o)		(1)
		QDAT_ind_0 (CO_RESP_valid_i)	(PASS)	(2)
			INCONC	
			INCONC	
Detailed Comments:				
(1) Channel open request with "request IB user data" parameter.				
(2) Valid channel open response.				

Table 405

Test case Dynamic Behaviour				
Test case Name: SBV/TF/BV/PV/CCM/CO/12				
Group:				
Purpose: Check that the IUT is able to receive a valid SBV_Channel Open request PDU with Packet_Size parameter present.				
Default:				
Behaviour Description	Label	Constraint References	Verdict	Com
+pre_state_4 !CO_req Start CS_Timer ?CO_resp +post_state_4 ?TIMEOUT CS_Timer ?OTHERWISE		QDAT_req_0 (CO_REQ_ps_o)		(1)
		QDAT_ind_0 (CO_RESP_valid_i)	(PASS)	(2)
			INCONC	
			INCONC	
Detailed Comments:				
(1) Channel open request with "packet size" parameter.				
(2) Valid channel open response.				

Table 406

Test case Dynamic Behaviour				
Test case Name: SBV/TF/BV/PV/CCM/CMP/CO/13 Group: Purpose: Check that the IUT is able to receive a valid SBV_Channel Open request PDU with Window_Size parameter present. Default:				
Behaviour Description	Label	Constraint References	Verdict	Com
+pre_state_4		QDAT_req_0 (CO_REQ_ws_o)		(1)
!CO_req				
Start CS_Timer				
?CO_resp		QDAT_ind_0 (CO_RESP_valid_i)	(PASS)	(2)
+post_state_4				
?TIMEOUT CS_Timer			INCONC	
?OTHERWISE			INCONC	
Detailed Comments: (1) Channel open request with "window size" parameter. (2) Valid channel open response.				

Table 407

Test case Dynamic Behaviour				
Test case Name: SBV/TF/BV/PV/CCM/CMP/CO/14 Group: Purpose: Check that the IUT is able to receive a valid SBV_Channel Open request PDU with Reference parameter present. Default:				
Behaviour Description	Label	Constraint References	Verdict	Com
+pre_state_4		QDAT_req_0 (CO_REQ_slave_o)		(1)
!CO_req				
Start CS_Timer				
?CO_resp		QDAT_ind_0 (CO_RESP_valid_i)	(PASS)	(2)
+post_state_4				
?TIMEOUT CS_Timer			INCONC	
?OTHERWISE			INCONC	
Detailed Comments: (1) Channel open request with "reference" parameter. (2) Valid channel open response.				

Table 408

Test case Dynamic Behaviour				
Test case Name: SBV/TF/BV/PV/CCM/CMP/CO/15				
Group:				
Purpose: Check that the IUT is able to send a valid SBV_Channel Open response PDU with Result parameter present.				
Default:				
Behaviour Description	Label	Constraint References	Verdict	Com
+pre_state_4 !CO_req Start CS_Timer ?CO_resp +post_state_4 ?TIMEOUT CS_Timer ?OTHERWISE		QDAT_req_0 (CO_REQ_slave_o)		(1)
		QDAT_ind_0 (CO_RESP_valid_i)	(PASS)	(2)
			INCONC	
		INCONC		
Detailed Comments:				
(1) Valid Channel open request is sent.				
(2) Channel open response shall contain one of "successful", "not successful" or "application not available" in the result parameter.				

Table 409

Test case Dynamic Behaviour				
Test case Name: SBV/TF/BV/PV/CCM/CMP/CO/16 Group: Purpose: Check that the IUT is able to send a valid SBV_Channel Open response PDU with Ind_OB Cause parameter present. Default:				
Behaviour Description	Label	Constraint References	Verdict	Com
Detailed Comments:				

NOTE: For the OB cause to be included in the response, there has to be a lower level problem in establishing an additional channel. This is not possible using this test method.

Table 410

Test case Dynamic Behaviour				
Test case Name: SBV/TF/BV/PV/CCM/CMP/CO/17				
Group:				
Purpose: Check that the IUT is able to send a valid SBV_Channel Open response PDU with Ind_IB Cause parameter present.				
Default:				
Behaviour Description	Label	Constraint References	Verdict	Com
+pre_state_4 !CO_req Start CS_Timer ?CO_resp +post_state_4 ?TIMEOUT CS_Timer ?OTHERWISE		QDAT_req_0 (CO_REQ_valid_o)		(1)
		QDAT_ind_0 (CO_RESP_ibc_i)	(PASS)	(2)
			INCONC	
			INCONC	
Detailed Comments:				
(1) Valid Channel open request is sent.				
(2) Channel open response shall contain one of "successful", "not successful" or "aplication not available" in the result parameter.				

Table 411

Test case Dynamic Behaviour				
Test case Name: SBV/TF/BV/PV/CCM/CMP/CO/18				
Group:				
Purpose: Check that the IUT is able to send a valid SBV_Channel Open response PDU with Ind_IB Diagnostic parameter present.				
Default:				
Behaviour Description	Label	Constraint References	Verdict	Com
+pre_state_4 !CO_req Start CS_Timer ?CO_resp +post_state_4 ?TIMEOUT CS_Timer ?OTHERWISE		QDAT_req_0 (CO_REQ_valid_o)		(1)
		QDAT_ind_0 (CO_RESP_ibd_i)	(PASS)	(2)
			INCONC	
			INCONC	
Detailed Comments:				
(1) Valid Channel open request is sent.				
(2) Channel open response shall contain one of "successful", "not successful" or "application not available" in the result parameter.				

Table 412

Test case Dynamic Behaviour				
Test case Name: SBV/TF/BV/PV/CCM/CMP/CO/19				
Group:				
Purpose: Check that the IUT is able to send a valid SBV_Channel Open response PDU with Result parameter present and having the value "Successful".				
Default:				
Behaviour Description	Label	Constraint References	Verdict	Com
+pre_state_4 !CO_req Start CS_Timer ?CO_resp +post_state_4 ?TIMEOUT CS_Timer ?OTHERWISE		QDAT_req_0 (CO_REQ_valid_o)		(1)
		QDAT_ind_0 (CO_RESP_pos_i)	(PASS)	(2)
			INCONC	
			INCONC	
Detailed Comments:				
(1) Valid Channel open request is sent.				
(2) Channel open response shall contain one of "successful", "not successful" or "application not available" in the result parameter.				
(3) For the OB Cause to be included in the response, there shall be some problem in establishing an additional channel on the B-Channel.				

9.1.3.2.2.1.2

TF/BV/PV/CCM SBV_Channel_close

Table 413

Test case Dynamic Behaviour				
Test case Name: SBV/TF/BV/PV/CCM/CMP/CC/1 Group: Purpose: Check that the IUT is able to receive a valid SBV_Channel Close request PDU with Reference parameter present. Default:				
Behaviour Description	Label	Constraint References	Verdict	Com
+pre_state_4				
!CO_req		QDAT_req_0 (CO_REQ_valid_o)		(1)
Start CS_Timer				
?CO_resp		QDAT_ind_0 (CO_RESP_valid_i)		(2)
!CC_req		QDAT_req_0 (CC_REQ_slave_o)		(3)
Start CS_Timer				
?CC_resp		QDAT_ind_0 (CC_RESP_valid_i)	(PASS)	(4)
+post_state_4				
?TIMEOUT CS_Timer			INCONC	
?OTHERWISE			INCONC	
?TIMEOUT CS_Timer			INCONC	
?OTHERWISE			INCONC	
Detailed Comments: (1) Valid channel open request is sent. (2) A valid channel open response is received, no parameter checking. (3) Channel Close request with "reference parameter" present. (4) A valid channel close response.				

Table 414

Test case Dynamic Behaviour				
Test case Name: SBV/TF/BV/PV/CCM/CMP/CC/2 Group: Purpose: Check that the IUT is able to send a valid SBV_Channel Close response PDU with Result parameter present and having the value "Successful". Default:				
Behaviour Description	Label	Constraint References	Verdict	Com
+pre_state_4				
!CO_req		QDAT_req_0 (CO_REQ_valid_o)		(1)
Start CS_Timer				
?CO_resp		QDAT_ind_0 (CO_RESP_valid_i)		(2)
!CC_req		QDAT_req_0 (CC_REQ_slave_o)		(3)
Start CS_Timer				
?CC_resp		QDAT_ind_0 (CC_RESP_pos_i)	(PASS)	(4)
+post_state_4				
?TIMEOUT CS_Timer			INCONC	
?OTHERWISE			INCONC	
?TIMEOUT CS_Timer			INCONC	
?OTHERWISE			INCONC	
Detailed Comments: (1) Valid channel open request is sent. (2) A valid channel open response is received, no parameter checking. (3) A valid Channel Close request. (4) A channel close response, with "result" parameter set to "successful".				

9.1.3.2.2.1.3

TF/BV/PV/CCM/CMP SBV_Channel_Error

Table 415

Test case Dynamic Behaviour				
Test case Name: SBV/TF/BV/PV/CCM/CMP/CE/1 Group: Purpose: Check that the IUT is able to send a valid SBV_Channel Error request PDU with proper Reference parameter present. Default:				
Behaviour Description	Label	Constraint References	Verdict	Com
+pre_state_1 +open_slave_channel				
L2!Rel_req		DIS_req_ob (REL_REQ_valid_o)		(1)
START Wait_Timer				
L1?CE_req		QDAT_ind_0 (CE_REQ_ref_i)	(PASS)	(2)
+post_state_1				
?TIMEOUT Wait_Timer			INCONC	
L1?OTHERWISE			INCONC	
L2?OTHERWISE			INCONC	
Detailed Comments: (1) The release shall be such that the "reference" parameter should be generated on the following channel error request. (2) Channel Error request with reference parameter should be generated on the master channel.				

Table 416

Test case Dynamic Behaviour				
Test case Name: SBV/TF/BV/PV/CCM/CMP/CE/2 Group: Purpose: Check that the IUT is able to send a valid SBV_Channel Error request PDU with Ind_OB_Cause parameter present. Default:				
Behaviour Description	Label	Constraint References	Verdict	Com
+pre_state_1 +open_slave_channel				
L2!Rel_req		DIS_req_ib (REL_REQ_valid_o)		(1)
START Wait_Timer				
L1?CE_req		QDAT_ind_0 (CE_REQ_obc_i)	(PASS)	(2)
+post_state_1				
?TIMEOUT Wait_Timer			INCONC	
L1?OTHERWISE			INCONC	
L2?OTHERWISE			INCONC	
Detailed Comments: (1) The release shall be such that the "OB cause indication" parameter should be generated on the following channel error request. (2) Channel Error request with "OB cause indication" parameter should be generated on the master channel.				

Table 417

Test case Dynamic Behaviour				
Test case Name: SBV/TF/BV/PV/CCM/CMP/CE/3 Group: Purpose: Check that the IUT is able to send a valid SBV_Channel_Error request PDU with Ind_IB_Cause parameter present. Default:				
Behaviour Description	Label	Constraint References	Verdict	Com
+pre_state_1 +open_slave_channel				
L2!Rel_req		DIS_req_ib (REL_REQ_valid_o)		(1)
START Wait_Timer				
L1?CE_req		QDAT_ind_0 (CE_REQ_ibc_i)	(PASS)	(2)
+post_state_1				
?TIMEOUT Wait_Timer			INCONC	
L1?OTHERWISE			INCONC	
L2?OTHERWISE			INCONC	
Detailed Comments: (1) The release shall be such that the "IB cause indication" parameter should be generated on the following channel error request. (2) Channel Error request with "IB cause indication" parameter should be generated on the master channel.				

Table 418

Test case Dynamic Behaviour				
Test case Name: SBV/TF/BV/PV/CCM/CMP/CE/4 Group: Purpose: Check that the IUT is able to send a valid SBV_Channel_Error request PDU with Ind_IB Diagnostic parameter present. Default:				
Behaviour Description	Label	Constraint References	Verdict	Com
+pre_state_1 +open_slave_channel				
L2!Rel_req		DIS_req_0 (REL_REQ_ceibd_o)		(1)
START Wait_Timer				
L1?CE_req		QDAT_ind_0 (CE_REQ_ibd_i)	(PASS)	(2)
+post_state_1				
?TIMEOUT Wait_Timer			INCONC	
L1?OTHERWISE			INCONC	
L2?OTHERWISE			INCONC	
Detailed Comments: (1) The release shall be such that the "IB diagnostic indication" parameter should be generated on the following channel error request. (2) Channel Error request with "IB diagnostic indication" parameter should be generated on the master channel.				

9.1.3.2.2.2 TF/BV/PV/MCC Multiple Channel Coordination

NOTE: Here stands a place holder allowing, for instance, tests of the mapping of addresses between Channel Management services and correlated SBV Establishment services. This mapping of parameters is only stated as possible in the standard. see ETS 300 079 [3], subclause 7.3.1.1.

9.1.3.2.3 TF/BV/PV Application Selections (AS)

9.1.3.2.3.1 TF/BV/PV/AS SBV_Begin_application

Table 419

Test case Dynamic Behaviour				
Test case Name: SBV/TF/BV/PV/AS/1				
Group:				
Purpose: Check that the IUT is able to send a valid SBV_Begin Application request PDU with IB_Application Address parameter present.				
Default:				
Behaviour Description	Label	Constraint References	Verdict	Com
+pre_state_4				
<IUT!BA_req>				(1)
START Oper_Timer				
?BA_req		QDAT_ind_0 (BA_REQ_ibaa_i)	PASS	(2)
?OTHERWISE			INCONC	
?TIMEOUT Oper_Timer			INCONC	
Detailed Comments:				
(1) PIXIT requirement - IUT shall be able to send a Begin Application request on demand.				
(2) Begin application request with "IB application address" parameter.				

Table 420

Test case Dynamic Behaviour				
Test case Name: SBV/TF/BV/PV/AS/2				
Group:				
Purpose: Check that the IUT is able to send a valid SBV_Begin Application request PDU with IB_Application Selection parameter present.				
Default:				
Behaviour Description	Label	Constraint References	Verdict	Com
+pre_state_4				
<IUT!BA_req>				(1)
START Oper_Timer				
?BA_req		QDAT_ind_0 (BA_REQ_ibas_i)	PASS	(2)
?OTHERWISE			INCONC	
?TIMEOUT Oper_Timer			INCONC	
Detailed Comments:				
(1) PIXIT requirement - IUT shall be able to send a Begin Application request on demand.				
(2) Begin application request with "IB application selection" parameter.				

Table 421

Test case Dynamic Behaviour				
Test case Name: SBV/TF/BV/PV/AS/3				
Group:				
Purpose: Check that the IUT is able to send a valid SBV_Begin Application request PDU with IB_Application Data parameter present.				
Default:				
Behaviour Description	Label	Constraint References	Verdict	Com
+pre_state_4 <IUT!BA_req> START Oper_Timer ?BA_req ?OTHERWISE ?TIMEOUT Oper_Timer		QDAT_ind_0 (BA_REQ_ibad_i)		(1)
			PASS	(2)
			INCONC	
			INCONC	
Detailed Comments:				
(1) PIXIT requirement - IUT shall be able to send a Begin Application request on demand.				
(2) Begin application request with "IB application data" parameter.				

Table 422

Test case Dynamic Behaviour				
Test case Name: SBV/TF/BV/PV/AS/4				
Group:				
Purpose: Check that the IUT is able to send a valid SBV_Begin Application request PDU with IB_User Data parameter present.				
Default:				
Behaviour Description	Label	Constraint References	Verdict	Com
+pre_state_4 <IUT!BA_req> START Oper_Timer ?BA_req ?OTHERWISE ?TIMEOUT Oper_Timer		QDAT_ind_0 (BA_REQ_ibud_i)		(1)
			PASS	(2)
			INCONC	
			INCONC	
Detailed Comments:				
(1) PIXIT requirement - IUT shall be able to send a Begin Application request on demand.				
(2) Begin application request with "IB user data" parameter.				

Table 423

Test case Dynamic Behaviour				
Test case Name: SBV/TF/BV/PV/AS/5 Group: Purpose: Check that the IUT is able to receive a valid SBV_Begin Application response PDU with Result parameter present and having the value "Successful". Default:				
Behaviour Description	Label	Constraint References	Verdict	Com
+pre_state_4 <IUT!BA_req> START Oper_Timer ?BA_req !BA_resp START Wait_Timer ?TIMEOUT Wait_Timer +post_state_4 ?OTHERWISE ?TIMEOUT Oper_Timer ?OTHERWISE		QDAT_ind_0 (BA_REQ_valid_i) QDAT_resp_0 (BA_RESP_valid_o)	(PASS) INCONC INCONC INCONC	(1) (2) (3)
Detailed Comments: (1) PIXIT requirement - IUT shall be able to send a Begin Application request on demand. (2) Valid Begin Application request. (3) Begin application response with result parameter having the value "successful".				

Table 424

Test case Dynamic Behaviour				
Test case Name: SBV/TF/BV/PV/AS/6 Group: Purpose: Check that the IUT is able to receive a valid SBV_Begin Application response PDU with Result parameter present and having the value "Application already engaged". Default:				
Behaviour Description	Label	Constraint References	Verdict	Com
+pre_state_4 <IUT!BA_req> START Oper_Timer ?BA_req !BA_resp START Wait_Timer ?TIMEOUT Wait_Timer +post_state_4 ?OTHERWISE ?TIMEOUT Oper_Timer ?OTHERWISE		QDAT_ind_0 (BA_REQ_valid_i) QDAT_resp_0 (BA_RESP_eng_o)	(PASS) INCONC INCONC INCONC	(1) (2) (3)
Detailed Comments: (1) PIXIT requirement - IUT shall be able to send a Begin Application request on demand. (2) Valid Begin Application request. (3) Begin application response with result parameter having the value "engaged".				

9.1.3.2.4 TF/BV/PV Transparent Processable Data (TPD)

9.1.3.2.4.1 TF/BV/PV/TPD SBV_TPD_Begin

Table 425

Test case Dynamic Behaviour				
Test case Name: SBV/TF/BV/PV/TPD/1				
Group:				
Purpose: Check that the IUT is able to receive a valid SBV_TPD Begin response PDU with Result parameter present and having the value "Successful".				
Default:				
Behaviour Description	Label	Constraint References	Verdict	Com
+pre_state_4 <IUT!TPD_req> START Oper_Timer ?TPDB_req !TPDB_resp START Wait_Timer ?TIMEOUT Wait_Timer +post_state_4 ?OTHERWISE ?TIMEOUT Oper_Timer ?OTHERWISE		QDAT_req_0 (TPDB_REQ_valid_i) QDAT_resp_0 (TPDB_RESP_pos_o)		(1)
				(2)
			(PASS)	
			INCONC	
			INCONC	
			INCONC	
Detailed Comments:				
(1) PIXIT requirement - IUT shall be able to send a Transparent Processable data begin request on demand.				
(2) Transparent processable data with result parameter of "successful".				

Table 426

Test case Dynamic Behaviour				
Test case Name: SBV/TF/BV/PV/TPD/2				
Group:				
Purpose: Check that the IUT is able to receive a valid SBV_TPD Begin response PDU with Result parameter present and having the value "TPD Not Supported".				
Default:				
Behaviour Description	Label	Constraint References	Verdict	Com
+pre_state_4 <IUT!TPD_req> START Oper_Timer ?TPDB_req !TPDB_resp START Wait_Timer ?TIMEOUT Wait_Timer +post_state_4 ?OTHERWISE ?TIMEOUT Oper_Timer ?OTHERWISE		QDAT_req_0 (TPDB_REQ_valid_i) QDAT_resp_0 (TPDB_RESP_tpdns_o)		(1)
				(2)
			(PASS)	
			INCONC	
			INCONC	
			INCONC	
Detailed Comments:				
(1) PIXIT requirement - IUT shall be able to send a Transparent Processable data begin request on demand.				
(2) Transparent processable data with result parameter of "TPD not supported".				

Table 427

Test case Dynamic Behaviour				
Test case Name: SBV/TF/BV/PV/TPD/3				
Group:				
Purpose: Check that the IUT is able to receive a valid SBV_TPD Begin response PDU with DDU_Fall-Back_Mode parameter present.				
Default:				
Behaviour Description	Label	Constraint References	Verdict	Com
+pre_state_4 <IUT!TPD_req> START Oper_Timer ?TPDB_req !TPDB_resp START Wait_Timer ?TIMEOUT Wait_Timer +post_state_4 ?OTHERWISE ?TIMEOUT Oper_Timer ?OTHERWISE		QDAT_req_0 (TPDB_REQ_valid_i) QDAT_resp_0 (TPDB_RESP_ddufb_o)		(1)
				(2)
			(PASS)	
			INCONC	
			INCONC	
			INCONC	
Detailed Comments:				
(1) PIXIT requirement - IUT shall be able to send a Transparent Processable data begin request on demand.				
(2) Transparent processable data with "DDU fall-back mode" parameter present.				

Table 428

Test case Dynamic Behaviour				
Test case Name: SBV/TF/BV/PV/TPD/4 Group: Purpose: Check that the IUT is able to send a valid SBV_TPD_Begin response PDU with Result parameter present and having the value "Successful". Default:				
Behaviour Description	Label	Constraint References	Verdict	Com
+pre_state_4		QDAT_req_0 (TPDB_REQ_valid_o)		(1)
!TPDB_req				
START CS_Timer				
?TPDB_resp		QDAT_resp_0 (TPDB_RESP_pos_i)	(PASS)	(2)
+post_state_4				
?TIMEOUT CS_Timer			INCONC	
?OTHERWISE			INCONC	
Detailed Comments: (1) Valid TPD begin request (2) TPD begin with result parameter "successful". This testcase is valid if the PICS question - Does the IUT support TPD? is answered "yes".				

Table 429

Test case Dynamic Behaviour				
Test case Name: SBV/TF/BV/PV/TPD/5 Group: Purpose: Check that the IUT is able to send a valid SBV_TPD Begin response PDU with Result parameter present and having the value "TPD Not Supported". Default:				
Behaviour Description	Label	Constraint References	Verdict	Com
+pre_state_4		QDAT_req_0 (TPDB_REQ_valid_o)		(1)
!TPDB_req				
START CS_Timer				
?TPDB_resp		QDAT_resp_0 (TPDB_RESP_tpdns_i)	(PASS)	(2)
+post_state_4				
?TIMEOUT CS_Timer			INCONC	
?OTHERWISE			INCONC	
Detailed Comments: (1) Valid TPD begin request (2) TPD begin with result parameter "TPD not supported". This testcase is valid if the PICS question - Does the IUT support TPD? is answered "no".				

Table 430

Test case Dynamic Behaviour				
Test case Name: SBV/TF/BV/PV/TPD/6 Group: Purpose: Check that the IUT is able to send a valid SBV_TPD Begin response PDU with DDU_Fall-Back_Mode parameter present. Default:				
Behaviour Description	Label	Constraint References	Verdict	Com
+pre_state_4		QDAT_req_0 (TPDB_REQ_valid_o)		(1)
!TPDB_req				
START CS_Timer				
?TPDB_resp		QDAT_resp_0 (TPDB_RESP_ddufb_i)	(PASS)	(2)
+post_state_4				
?TIMEOUT CS_Timer			INCONC	
?OTHERWISE			INCONC	
Detailed Comments: (1) Valid TPD begin request (2) TPD begin with "DDU fall back mode" parameter present.				

9.1.3.2.5 TF/BV/PV Define Function Keys (DFK)

9.1.3.2.5.1 TF/BV/PV/DFK SBV_DFK

Table 431

Test case Dynamic Behaviour				
Test case Name: SBV/TF/BV/PV/DFK/1 Group: Purpose: Check that the IUT is able to receive a valid SBV_DFK request PDU with Function_Keys parameter present and containing at least one item. Default:				
Behaviour Description	Label	Constraint References	Verdict	Com
+pre_state_4		QDAT_req_0 (DFK_REQ_fk_o)		(1)
!DFK_req				
START Wait_Timer				
?TIMEOUT Wait_Timer			(PASS)	
+post_state_4				
?OTHERWISE			INCONC	
Detailed Comments: (1) DFK request shall contain at least one definition in the "function key" parameter list.				

Table 432

Test case Dynamic Behaviour				
Test case Name: SBV/TF/BV/PV/DFK/2 Group: Purpose: Check that the IUT is able to receive a valid SBV_DFK request PDU with Reset_Keys parameter present. Default:				
Behaviour Description	Label	Constraint References	Verdict	Com
+pre_state_4 !DFK_req START Wait_Timer ?TIMEOUT Wait_Timer +post_state_4 ?OTHERWISE		QDAT_req_0 (DFK_REQ_rk_o)	(PASS) INCONC	(1)
Detailed Comments: (1) DFK request with "reset keys" parameter				

9.1.3.2.6 TF/BV/PV Remote Echo (RE)

9.1.3.2.6.1 TF/BV/PV/RE SBV_Remote_Echo

Table 433

Test Case Dynamic Behaviour				
Test Case Name: SBV/TF/BV/PV/RE/1 Group: Purpose: Check that the IUT is able to send a valid SBV_Remote_Echo request PDU, with Echo parameter present. Default: DEF_release				
Behaviour Description	Label	Constraint References	Verdict	Com
+pre_state_4 <IUT!RE_req> ?RE_req +post_state_4 ?OTHERWISE ?TIMEOUT Oper_Timer		QDAT_ind_0 (RE_REQ_echo_i)	(PASS) INCONC INCONC	(1)
Detailed Comments: (1) PIXIT requirement - IUT shall be able to send a Remote_Echo request on demand.				

9.1.3.2.7 TF/BV/PV Escape (ESC)

9.1.3.2.7.1 TF/BV/PV/ESC SBV_Escape

Table 434

Test Case Dynamic Behaviour				
Test Case Name: SBV/TF/BV/PV/ESC/1 Group: Purpose: Check that the IUT is able to receive a valid SBV_Escape request PDU with Service_ID parameter present. Default:				
Behaviour Description	Label	Constraint References	Verdict	Com
+pre_state_4 !ESC_req START Wait_Timer ?TIMEOUT Wait_Timer +post_state_4 ?OTHERWISE		QDAT_req_0 (ESC_REQ_sid_o)	(PASS) INCONC	(1)
Detailed Comments: (1) Escape request PDU with "service ID" parameter present.				

Table 435

Test Case Dynamic Behaviour				
Test Case Name: SBV/TF/BV/PV/ESC/2 Group: Purpose: Check that the IUT is able to receive a valid SBV_Escape request PDU with Data parameter present. Default:				
Behaviour Description	Label	Constraint References	Verdict	Com
+pre_state_4 !ESC_req START Wait_Timer ?TIMEOUT Wait_Timer +post_state_4 ?OTHERWISE		QDAT_req_0 (ESC_REQ_data_o)	(PASS) INCONC	(1)
Detailed Comments: (1) Escape request PDU with "data" parameter present.				

Table 436

Test Case Dynamic Behaviour				
Test Case Name: SBV/TF/BV/PV/ESC/3				
Group:				
Purpose: Check that the IUT is able to send a valid SBV_Escape request PDU with Service_ID parameter present.				
Default:				
Behaviour Description	Label	Constraint References	Verdict	Com
+pre_state_4 <IUT!ESC_req> START Oper_Timer ?ESC_req START Wait_Timer ?TIMEOUT Wait_Timer +post_state_4 ?OTHERWISE ?TIMEOUT Oper_Timer ?OTHERWISE		QDAT_ind_0 (ESC_REQ_sid_i)		(1)
				(2)
			(PASS)	
			INCONC	
			INCONC	
			INCONC	
Detailed Comments:				
(1) PIXIT Requirement - IUT shall be able to send an SBV Escape request on demand.				
(2) Escape request PDU with "service ID" parameter set.				

Table 437

Test Case Dynamic Behaviour				
Test Case Name: SBV/TF/BV/PV/ESC/4				
Group:				
Purpose: Check that the IUT is able to send a valid SBV_Escape request PDU with Data parameter present.				
Default:				
Behaviour Description	Label	Constraint References	Verdict	Com
+pre_state_4 <IUT!ESC_req> START Oper_Timer ?ESC_req START Wait_Timer ?TIMEOUT Wait_Timer +post_state_4 ?OTHERWISE ?TIMEOUT Oper_Timer ?OTHERWISE		QDAT_ind_0 (ESC_REQ_data_i)		(1)
				(2)
			(PASS)	
			FAIL	
			INCONC FAIL	
Detailed Comments:				
(1) PIXIT Requirement - IUT shall be able to send an SBV Escape request on demand.				
(2) Escape request PDU with "data" parameter present.				

9.1.3.3 TF/BV - Encoding Variations (EV)

This group of tests (TF/BV/EV...) is intended to verify that the protocol behaves the same when different encoding variations are allowed for the same packet (i.e. extended packets, etc.).

NOTE: This subclause does not apply to the Valid Behaviour test cases.

9.1.3.4 TF/BV - Parameter Combinations (PC)

This group of tests (TF/BV/PC...) is intended to verify the ability to use all possible (supported) parameters together, or specific combinations of compatible parameters, for each SBV message. Each group is for a specific PDU.

When it is stated in a test purpose that a set of parameters shall be present, it means that all the parameters quoted *and supported according to PICS* shall be present. If none of the quoted parameters is supported according to PICS, then the test does not apply.

9.1.3.4.1 TF/BV/PC Kernel (KE)

9.1.3.4.1.1 TF/BV/PC/KE SBV_Establish

Table 438

Test Case Dynamic Behaviour				
Test Case Name: SBV/TF/BV/PC/KE/EST/1 Group: Purpose: Check that the IUT is able to send a valid SBV_Establish request PDU with OB_Application Address, OB_Application Selection, OB_Application Data parameters present. Default:				
Behaviour Description	Label	Constraint References	Verdict	Com
+pre_state_1 <IUT!Est_req> START Oper_Timer ?Est_req ?OTHERWISE ?TIMEOUT Oper_Timer		CON_ind_0 (EST_REQ_c1_i)	PASS INCONC INCONC	(1) (2)
Detailed Comments: (1) PIXIT requirement - IUT shall be able to send an SBV Establish Request on demand. (2) Establish request shall contain the following parameters: - OB Application Address - OB Application Selection - OB Application Data				

Table 439

Test Case Dynamic Behaviour				
Test Case Name: SBV/TF/BV/PC/EST/2				
Group:				
Purpose: Check that the IUT is able to send a valid SBV_Establish request PDU with IB_Called Address, IB_Application Address, IB_Application Selection, IB_Application Data, IB_User_Data parameters present.				
Default:				
Behaviour Description	Label	Constraint References	Verdict	Com
+pre_state_1 <IUT!Est_req> START Oper_Timer ?Est_req ?OTHERWISE ?TIMEOUT Oper_Timer		CON_ind_0 (EST_REQ_c2_i)		(1)
			PASS	(2)
			FAIL	
			INCONC	
Detailed Comments:				
(1) PIXIT requirement - IUT shall be able to send an SBV Establish Request on demand.				
(2) Establish request shall contain the following parameters:				
- IB Called Address				
- IB Application Address				
- IB Application Selection				
- IB Application Data				
- IB User Data				

Table 440

Test Case Dynamic Behaviour				
Test Case Name: SBV/TF/BV/PC/KE/SBV/3				
Group:				
Purpose: Check that the IUT is able to send a valid SBV_Establish request PDU with OB_Application Address, OB_Application Selection, OB_Application Data, IB_Called Address, IB_Application Address, IB_Application Selection, IB_Application Data, IB_User Data parameters present.				
Default:				
Behaviour Description	Label	Constraint References	Verdict	Com
+pre_state_1 <IUT!Est_req> START Oper_Timer ?Est_req ?OTHERWISE ?TIMEOUT Oper_Timer		CON_ind_0 (EST_REQ_c3_i)		(1)
			PASS	(2)
			FAIL	
			INCONC	
Detailed Comments:				
(1) PIXIT requirement - IUT shall be able to send an SBV Establish Request on demand.				
(2) Establish request shall contain the following parameters:				
- OB Application Address				
- OB Application Selection				
- OB Application Data				
- IB Called Address				
- IB Application Address				
- IB Application Selection				
- IB Application Data				
- IB User Data				

Table 441

Test Case Dynamic Behaviour				
Test Case Name: SBV/TF/BV/PC/KE/EST/4 Group: Purpose: Check that the IUT is able to send a valid SBV_Establish request PDU with IB_Application Address, IB_Application Selection, IB_Application Data, IB_User Data parameters present. Default:				
Behaviour Description	Label	Constraint References	Verdict	Com
+pre_state_1 <IUT!Est_req> START Oper_Timer ?Est_req ?OTHERWISE ?TIMEOUT Oper_Timer		CON_ind_0 (EST_REQ_c4_i)	PASS FAIL INCONC	(1) (2)
Detailed Comments: (1) PIXIT requirement - IUT shall be able to send an SBV Establish Request on demand. (2) Establish request shall contain the following parameters: - IB Application Address - IB Application Selection - IB Application Data - IB User Data				

NOTE: The different combinations above are designed with the end in view to test implementations operating above different types of network. Tests from 1) to 3) are recommended for DTE/DTE circuit mode (ISDN); 4) is recommended for DTE/DCE circuit mode (ISDN+PSDN), DTE/DCE packet mode (ISDN, PSDN), and DTE/DCE "medium speed" (PSTN+PSDN).

In the case of a DTE/DTE circuit mode, the in_band addressing is not used, and the parameter IB_Called_Address is used by the application layer to convey information. In this case, IB_Called_Address is to be conformance tested with layer 7. In all other quoted cases of networks, in-band addressing is used, and hence IB_Called_Address is a layer 3 address, not tested in the present document.

Table 442

Test Case Dynamic Behaviour				
Test Case Name: SBV/TF/BV/PC/KE/EST/5				
Group:				
Purpose: Check that the IUT is able to send a valid SBV_Establish request PDU with OB_Application Address, OB_Application Selection, OB_Application Data parameters present and Reverse_Role_Assignment parameter present.				
Default:				
Behaviour Description	Label	Constraint References	Verdict	Com
+pre_state_1				
<IUT!Est_req>				(1)
START Oper_Timer				
?Est_req		CON_ind_0 (EST_REQ_c5_i)	PASS	(2)
?OTHERWISE			INCONC	
?TIMEOUT Oper_Timer			INCONC	
Detailed Comments:				
(1) PIXIT requirement - IUT shall be able to send an SBV Establish Request on demand.				
(2) Establish request shall contain the following parameters:				
- OB Application Address				
- OB Application Selection				
- OB Application Data				
- Reverse Role assignment				

Table 443

Test Case Dynamic Behaviour				
Test Case Name: SBV/TF/BV/PC/KE/EST/6				
Group:				
Purpose: Check that the IUT is able to send a valid SBV_Establish request PDU with IB_Called Address, IB_Application Address, IB_Application Selection, IB_Application Data, IB_User_Data parameters present and Reverse_Role_Assignment parameter present.				
Default:				
Behaviour Description	Label	Constraint References	Verdict	Com
+pre_state_1				
<IUT!Est_req>				(1)
START Oper_Timer				
?Est_req		CON_ind_0 (EST_REQ_c6_i)	PASS	(2)
?OTHERWISE			INCONC	
?TIMEOUT Oper_Timer			INCONC	
Detailed Comments:				
(1) PIXIT requirement - IUT shall be able to send an SBV Establish Request on demand.				
(2) Establish request shall contain the following parameters:				
- IB Called Address				
- IB Application Address				
- IB Application Selection				
- IB Application Data				
- IB User Data				
- Reverse Role Assignment parameter				

Table 444

Test Case Dynamic Behaviour				
Test Case Name: SBV/TF/BV/PC/KE/EST/7				
Group:				
Purpose: Check that the IUT is able to send a valid SBV_Establish request PDU with OB_Application Address, OB_Application Selection, OB_Application Data, IB_Called Address, IB_Application Address, IB_Application Selection, IB_Application Data, IB_User_Data parameters present and Reverse_Role_Assignment parameter present.				
Default:				
Behaviour Description	Label	Constraint References	Verdict	Com
+pre_state_1				
<IUT!Est_req>				(1)
START Oper_Timer				
?Est_req		CON_ind_0 (EST_REQ_c7_i)	PASS	(2)
?OTHERWISE			INCONC	
?TIMEOUT Oper_Timer			INCONC	
Detailed Comments:				
(1) PIXIT requirement - IUT shall be able to send an SBV Establish Request on demand.				
(2) Establish request shall contain the following parameters:				
- OB Application Address				
- OB Application Selection				
- OB Application Data				
- IB Called Address				
- IB Application Address				
- IB Application Selection				
- IB Application Data				
- IB User Data				
- Reverse Role Assignment				

Table 445

Test Case Dynamic Behaviour				
Test Case Name: SBV/TF/BV/PC/KE/EST/8				
Group:				
Purpose: Check that the IUT is able to send a valid SBV_Establish request PDU with IB_Application Address, IB_Application Selection, IB_Application Data, IB_User Data parameters present and Reverse_Role Assignment parameter present.				
Default:				
Behaviour Description	Label	Constraint References	Verdict	Com
+pre_state_1 <IUT!Est_req> START Oper_Timer ?Est_req ?OTHERWISE ?TIMEOUT Oper_Timer		CON_ind_0 (EST_REQ_c8_i)		(1)
			PASS	(2)
			INCONC	
			INCONC	
Detailed Comments:				
(1) PIXIT requirement - IUT shall be able to send an SBV Establish Request on demand.				
(2) Establish request shall contain the following parameters:				
- IB Application Address				
- IB Application Selection				
- IB Application Data				
- IB User Data				
- Reverse Role Assignment				

NOTE: As before, the different combinations above are designed to test implementations operating above different types of network. Tests from 5) to 7) are recommended for DTE/DTE circuit mode (ISDN); 8) is recommended for DTE/DCE circuit mode (ISDN+PSDN), DTE/DCE packet mode (ISDN, PSDN), and DTE/DCE "medium speed" (PSTN+PSDN).

9.1.3.4.1.2 TF/BV/PC/KE SBV_Release

None.

NOTE: The only SBV protocol data unit parameter carried by SBV_Release is Result, already dealt with in the Parameter Variation part. The other **service** parameters are layer 3 matters.

9.1.3.4.1.3 TF/BV/PC/KE SBV_VTX_Data

None.

9.1.3.4.1.4 TF/BV/PC/KE SBV_Set_parameter

None.

NOTE: The X.3 parameter list is, with respect to SBV protocol, one unique parameter. The SBV protocol machine passes the X.3 parameter list, through its service interface, to the application, in charge of the real terminal. Thus the X.3 parameter syntax and semantic are a matter belonging to the application. For this reason, both X.3 parameter syntax (proper combinations and encodings) and semantic (actual mapping onto terminal parameters) are tested in a separate branch of the test suite structure, and no test is specified here, for "X.3 parameter combination".

9.1.3.4.1.5 TF/BV/PC/KE SBV_Read_parameter

None.

NOTE: The X.3 parameter list is, with respect to SBV protocol, one unique parameter. The SBV protocol machine passes the X.3 parameter list, through its service interface, to the application, in charge of the real terminal. Thus the X.3 parameter syntax and semantic are a matter belonging to the application. For this reason, both X.3 parameter syntax (proper combinations and encodings) and semantic (actual mapping onto terminal parameters) are tested in a separate branch of the test suite structure, and no test is specified here, for "X.3 parameter combination".

9.1.3.4.1.6 TF/BV/PC/KE SBV_Set/Read_parameter

None.

NOTE: The X.3 parameter list is, with respect to SBV protocol, one unique parameter. The SBV protocol machine passes the X.3 parameter list, through its service interface, to the application, in charge of the real terminal. Thus the X.3 parameter syntax and semantic are a matter belonging to the application. For this reason, both X.3 parameter syntax (proper combinations and encodings) and semantic (actual mapping onto terminal parameters) are tested in a separate branch of the test suite structure, and no test is specified here, for "X.3 parameter combination".

9.1.3.4.1.7 TF/BV/PC/KE SBV_Parameter_indication

None.

NOTE: The X.3 parameter list is, with respect to SBV protocol, one unique parameter. The SBV protocol machine passes the X.3 parameter list, through its service interface, to the application, in charge of the real terminal. Thus the X.3 parameter syntax and semantic are a matter belonging to the application. For this reason, both X.3 parameter syntax (proper combinations and encodings) and semantic (actual mapping onto terminal parameters) are tested in a separate branch of the test suite structure, and no test is specified here, for "X.3 parameter combination".

9.1.3.4.1.8 TF/BV/PC/KE SBV_TFI

NOTE: The TFI request and response data are not a matter of SBV protocol, but a matter of syntax (they are defined in ETS 300 076 [14]). For this reason, no test is to be specified within the scope of the present document, for TFI request data parameters combination.

9.1.3.4.1.9 TF/BV/PC/KE SBV_TC_Error

None.

9.1.3.4.2 TF/BV/PC Communication Channel Management (CCM)

9.1.3.4.2.1 TF/BV/PC/CCM Channel Management Procedure (CMP)

9.1.3.4.2.1.1 TF/BV/PC/CCM/CMP SBV_Channel_open

Table 446

Test Case Dynamic Behaviour				
Test Case Name: SBV/TF/BV/PC/CCM/CMP/CO/1				
Group:				
Purpose: Check that the IUT is able to receive a valid SBV_Channel_Open request PDU with Req_OB_Called Address, Req_OB_Called_Subaddress, OB_Application Address, OB_Application Selection, OB_Application Data, OB_User_Data, Reference parameters present.				
Default:				
Behaviour Description	Label	Constraint References	Verdict	Com
+pre_state_1 !CO_req START CS_Timer ?CO_resp +post_state_4 ?OTHERWISE ?TIMEOUT CS_Timer		QDAT_req_0 (CO_REQ_c1_o)		(1)
		QDAT_resp_0 (CO_RESP_valid_i)	(PASS)	(2)
			INCONC	
		INCONC		
Detailed Comments:				
(1) Channel Open request shall contain the following parameters: - Req_OB_Called_Address - Req_OB_Called_Subaddress - OB_Application Address - OB_Application Selection - OB_Application Data - Reference parameters				
(2) Valid channel open response.				

Table 447

Test Case Dynamic Behaviour				
Test Case Name: SBV/TF/BV/PC/CCM/CMP/CO/2 Group: Purpose: Check that the IUT is able to receive a valid SBV_Channel_Open request PDU with Req_IB_Called Address, IB_Application Address, IB_Application Selection, IB_Application Data, Req_IB_User Data, Reference parameters present. Default:				
Behaviour Description	Label	Constraint References	Verdict	Com
+pre_state_1				
!CO_req		QDAT_req_0 (CO_REQ_c2_o)		(1)
START CS_Timer				
?CO_resp		QDAT_resp_0 (CO_RESP_valid_i)	(PASS)	(2)
+post_state_4				
?OTHERWISE			INCONC	
?TIMEOUT CS_Timer			INCONC	
Detailed Comments: (1) Channel Open request shall contain the following parameters: - Req_IB_Called_Address - IB_Application Address - IB_Application Selection - IB_Application Data - Req_IB_User_Data - Reference parameters (2) Valid channel close response.				

Table 448

Test Case Dynamic Behaviour				
Test Case Name: SBV/TF/BV/PC/CCM/CMP/CO/3 Group: Purpose: Check that the IUT is able to receive a valid SBV_Channel_Open request PDU with Req_OB_Called Address, Req_OB_Called Subaddress, OB_Application Address, OB_Application Selection, OB_Application Data, OB_User Data, Req_IB_Called Address, IB_Application Address, IB_Application Selection, IB_Application Data, Req_IB_User Data, Reference parameters present. Default:				
Behaviour Description	Label	Constraint References	Verdict	Com
+pre_state_1				
!CO_req		QDAT_req_0 (CO_REQ_c3_o)		(1)
START CS_Timer				
?CO_resp		QDAT_resp_0 (CO_RESP_valid_i)	(PASS)	(2)
+post_state_4				
?OTHERWISE			INCONC	
?TIMEOUT CS_Timer			INCONC	
Detailed Comments: (1) Channel Open request shall contain the following parameters: - Req_OB_Called_Address - Req_OB_Called_Subaddress - OB_Application Address - OB_Application Selection - OB_Application Data - OB_User Data - Req_IB_Called_Address - IB_Application Address - IB_Application Selection - IB_Application Data - Req_IB_User_Data - Reference parameters (2) Valid Channel open confirm.				

Table 449

Test Case Dynamic Behaviour				
Test Case Name: SBV/TF/BV/PC/CCM/CMP/CO/4 Group: Purpose: Check that the IUT is able to receive a valid SBV_Channel_Open request PDU with Req_IB_Packet Size and Req_IB_Window Size parameters present. Default:				
Behaviour Description	Label	Constraint References	Verdict	Com
+pre_state_1		QDAT_req_0 (CO_REQ_c4_o)		(1)
!CO_req				
START CS_Timer				
?CO_resp		QDAT_resp_0 (CO_RESP_valid_i)	(PASS)	(2)
+post_state_4				
?OTHERWISE			INCONC	
?TIMEOUT CS_Timer			INCONC	
Detailed Comments: (1) Channel Open request shall contain the following parameters: - Req_IB_Packet_Size - Req_IB_Window_Size (2) Valid Channel open response.				

Table 450

Test Case Dynamic Behaviour				
Test Case Name: SBV/TF/BV/PC/CCM/CMP/CO/5 Group: Purpose: Check that the IUT is able to send a valid SBV_Channel_Open response PDU with Ind_IB_Cause and Ind_IB_Diagnostic parameters present. Default:				
Behaviour Description	Label	Constraint References	Verdict	Com
+pre_state_1		QDAT_req_0 (CO_REQ_valid_o)		(1)
!CO_req				
START CS_Timer				
?CO_resp		QDAT_resp_0 (CO_RESP_ibcd_i)	(PASS)	(2)
+post_state_4				
?OTHERWISE			INCONC	
?TIMEOUT CS_Timer			INCONC	
Detailed Comments: (1) Valid channel open request. (2) Channel Open response shall contain the following parameters: - Ind_IB_Cause - Ind_IB_Diagnostic				

Table 451

Test Case Dynamic Behaviour				
Test Case Name: SBV/TF/BV/PC/CCM/CMP/CO/6 Group: Purpose: Check that the IUT is able to send a valid SBV_Channel Open response PDU with Result parameter present and having the value "Successful". Check that, in this case, no Ind_OB_Cause, Ind_IB_Cause or Ind_IB_Diagnostic is present. Default:				
Behaviour Description	Label	Constraint References	Verdict	Com
+pre_state_1		QDAT_req_0 (CO_REQ_valid_o)		(1)
!CO_req				
START CS_Timer				
?CO_resp		QDAT_resp_0 (CO_RESP_pos_i)	(PASS)	(2)
+post_state_4				
?OTHERWISE			INCONC	
?TIMEOUT CS_Timer			INCONC	
Detailed Comments: (1) Channel Open response shall contain the following parameters: - Result parameter = "successful" - NO Ind_IB_Diagnostic - NO Ind_IB_Cause				

9.1.3.4.2.1.2 TF/BV/PC/CCM SBV_Channel_close

None.

9.1.3.4.2.1.3 TF/BV/PC/CCM/CMP SBV_Channel_Error

Table 452

Test Case Dynamic Behaviour				
Test Case Name: SBV/TF/BV/PC/CCM/CMP/CE/1 Group: Purpose: Check that the IUT is able to send a valid SBV_Channel Error request PDU with proper Reference parameter, and Ind_OB_Cause parameter present. Check that, in this case, no Ind_IB_Cause or Ind_IB_Diagnostic are present. Default:				
Behaviour Description	Label	Constraint References	Verdict	Com
+pre_state_1				(1)
<IUT!CE_req>				
START Oper_Timer				
?CE_req		QDAT_ind_0 (CE_REQ_c1_i)	(PASS)	(2)
+post_state_4				
?OTHERWISE			INCONC	
?TIMEOUT Oper_Timer			INCONC	
Detailed Comments: (1) PIXIT Requirement - IUT shall be able to send a Channel Error request on demand. (2) Channel Open response shall contain the following parameters: - Reference Parameter - Ind_OB_Cause. - NO Ind_IB_Diagnostic - NO Ind_IB_Cause				

Table 453

Test Case Dynamic Behaviour				
Test Case Name: SBV/TF/BV/PC/CCM/CMP/CE/2				
Group:				
Purpose: Check that the IUT is able to send a valid SBV_Channel_Error request PDU with proper Reference parameter, Ind_IB_Cause and Ind_IB_Diagnostic parameters present. Check that, in this case, no Ind_OB_Cause is present.				
Default:				
Behaviour Description	Label	Constraint References	Verdict	Com
+pre_state_1 <IUT!CE_req> START Oper_Timer ?CE_req +post_state_4 ?OTHERWISE ?TIMEOUT Oper_Timer		QDAT_ind_0 (CE_REQ_c2_i)		(1)
			(PASS)	(2)
			INCONC	
			INCONC	
Detailed Comments:				
(1) PIXIT Requirement - IUT shall be able to send a Channel Error request on demand.				
(2) Channel Open response shall contain the following parameters:				
- Reference Parameter				
- NO Ind_OB_Cause.				
- Ind_IB_Diagnostic				
- Ind_IB_Cause				

9.1.3.4.2.2

TF/BV/PC/CCM Multiple Channel Coordination

None.

9.1.3.4.3 TF/BV/PC Application Selections (AS)

9.1.3.4.3.1 TF/BV/PC/AS SBV_Begin_application

Table 454

Test Case Dynamic Behaviour				
Test Case Name: SBV/TF/BV/PV/AS/1				
Group:				
Purpose: Check that the IUT is able to send a valid SBV_Begin Application request PDU with IB_Application Address, IB_Application Selection, IB_Application Data, IB_User Data parameters present.				
Default:				
Behaviour Description	Label	Constraint References	Verdict	Com
+pre_state_1				
<IUT!BA_req>				(1)
START Oper_Timer				
!BA_req		QDAT_ind_0 (BA_REQ_c1_i)	PASS	(2)
?OTHERWISE			INCONC	
?TIMEOUT Oper_Timer			INCONC	
Detailed Comments:				
(1) PIXIT requirement - IUT shall be able to send an SBV Establish Request on demand.				
(2) Establish request shall contain the following parameters:				
- IB Application Address				
- IB Application Selection				
- IB Application Data				
- IB User Data				

9.1.3.4.4 TF/BV/PC Transparent Processable Data (TPD)

9.1.3.4.4.1 TF/BV/PC/TPD SBV_TPD_Begin

Table 455

Test Case Dynamic Behaviour				
Test Case Name: SBV/TF/BV/PC/TPD/1				
Group:				
Purpose: Check that the IUT is able to receive a valid SBV_TPD_Begin response PDU with Result parameter present and having the value "TPD Not Supported" and DDU_Fall-Back_Mode parameter present.				
Default:				
Behaviour Description	Label	Constraint References	Verdict	Com
+pre_state_1 <IUT!TPDB_req> START Oper_Timer ?TPDB_req !TPDB_resp START Wait_Timer ?TIMEOUT Wait_Timer +post_state_4 ?OTHERWISE ?OTHERWISE ?TIMEOUT Oper_Timer		QDAT_ind_0 (TPDB_REQ_valid_i) QDAT_resp_0 (TPDB_RESP_ddufb_o)		(1)
				(2)
			(PASS)	
			INCONC	
			INCONC	
			INCONC	
Detailed Comments:				
(1) PIXIT requirement - IUT shall be able to send a TPB begin request on demand.				
(2) TPD Begin Response shall contain the following parameters: - Result Parameter = "TPD Not Supported" - DDU Fall-Back Mode				

Table 456

Test Case Dynamic Behaviour				
Test Case Name: SBV/TF/BV/PC/TPD/2 Group: Purpose: Check that the IUT is able to send a valid SBV_TPD_Begin response PDU with Result parameter present and having the value "TPD Not Supported" and DDU_Fall-Back_Mode parameter present. Default:				
Behaviour Description	Label	Constraint References	Verdict	Com
+pre_state_1 !TPDB_req Start CS_Timer ?TPDB_resp START Wait_Timer ?TIMEOUT Wait_Timer +post_state_4 ?OTHERWISE ?OTHERWISE ?TIMEOUT CS_Timer		QDAT_req_0 (TPDB_REQ_valid_o) QDAT_ind_0 (TPDB_RESP_ddufb_i)	(PASS) INCONC INCONC INCONC	(1)
Detailed Comments: (1) TPD Begin Response shall contain the following parameters: - Result Parameter = "TPD Not Supported" - DDU_Fall-Back_Mode				

Table 457

Test Case Dynamic Behaviour				
Test Case Name: SBV/TF/BV/PC/TPD/3 Group: Purpose: Check that DDU_Fall-Back_Mode parameter is absent from a SBV_TPD_Begin response PDU sent by the IUT with Result parameter present and having the value "Successful". Default:				
Behaviour Description	Label	Constraint References	Verdict	Com
+pre_state_1 !TPDB_req (TPDB_REQ_valid_o) Start CS_Timer ?TPDB_resp START Wait_Timer ?TIMEOUT Wait_Timer +post_state_4 ?OTHERWISE ?OTHERWISE ?TIMEOUT CS_Timer		QDAT_req_ QDAT_resp_0 (TPDB_RESP_c2_i)	(PASS) INCONC INCONC INCONC	(1) (2)
Detailed Comments: (1) Valid TPD begin request command. (2) TPD Begin Response shall contain the following parameters: - Result Parameter = "Successful" - NO DDU_Fall-Back_Mode parameter				

9.1.3.4.5 TF/BV/PC Define Function Keys (DFK)

9.1.3.4.5.1 TF/BV/PC/DFK SBV_DFK

NOTE: As in the case of the X.3 parameter list, the Function_Keys parameter is, with respect to SBV protocol, one unique parameter. The SBV protocol machine passes the Function_Keys parameter, through its service interface, to the application, in charge of the real terminal. Thus the Function_Keys parameter syntax and semantic are a matter belonging to the application. For this reason, both X.3 parameter syntax (proper combinations and encodings) and semantic (actual mapping onto terminal parameters) are tested in a separate branch of the test suite structure, and no test is specified here, for "Function_Keys parameter combination".

Table 458

Test Case Dynamic Behaviour				
Test Case Name: SBV/TF/BV/PC/DFK/1 Group: Purpose: Check that the IUT is able to receive a valid SBV_DFK request PDU with Function_Keys parameter and Reset_Keys parameter present. Default:				
Behaviour Description	Label	Constraint References	Verdict	Com
+pre_state_1 !DFK_req START Wait_Timer ?TIMEOUT Wait_Timer +post_state_4 ?OTHERWISE		QDAT_ind_0 (DFK_REQ_c1_o)	(PASS) INCONC	(1)
Detailed Comments: (1) DFK Request shall contain the following parameters: - Function Keys - Reset Keys				

9.1.3.4.6 TF/BV/PC Escape (ESC)

9.1.3.4.6.1 TF/BV/PC/ESC SBV_Escape

Table 459

Test Case Dynamic Behaviour				
Test Case Name: SBV/TF/BV/PC/ESC/1 Group: Purpose: Check that the IUT is able to receive a valid SBV_Escape request PDU with Service_ID and Data parameters present. Default:				
Behaviour Description	Label	Constraint References	Verdict	Com
+pre_state_1 !ESC_req START Wait_Timer ?TIMEOUT Wait_Timer +post_state_4 ?OTHERWISE		QDAT_req_0 (ESC_REQ_data_o)	(PASS) INCONC	(1)
Detailed Comments: (1) ESC Request shall contain the following parameters: - Service ID - Data Parameter				

Table 460

Test Case Dynamic Behaviour				
Test Case Name: SBV/TF/BV/PC/ESC/2 Group: Purpose: Check that the IUT is able to send a valid SBV_Escape request PDU with Service_ID and Data parameters present. Default:				
Behaviour Description	Label	Constraint References	Verdict	Com
+pre_state_1 <IUT!ESC_req> START Oper_Timer ?ESC_req +post_state_4 ?TIMEOUT Oper_Timer ?OTHERWISE		QDAT_ind_0 (ESC_REQ_c1_i)	(PASS) INCONC INCONC	(1) (2)
Detailed Comments: (1) PIXIT requirement - IUT shall be able to send an ESC request on demand. (2) ESC Request shall contain the following parameters: - Service ID - Data Parameter				

9.1.4 TF - Inopportune Behaviour (BI)

This group of tests (TF/BI...) is intended to verify that the IUT is able to react properly in case an inopportune protocol event occurs. Such an event is sometimes called a *Semantically invalid PDU*.

NOTE: The services addressed by the Inopportune Behaviour part are those which are related to specific SBV protocol elements. As an opposite example, no inopportune event can occur between SBV Establish request and SBV Establish response, for this protocol mechanism is a layer 3 (X.25 and Out-of-Band) matter.

9.1.4.1 TF/BI - Test Event variation (TE)

9.1.4.1.1 TF/BI/TE - Unsupported services

These tests apply if, for a given item, **the corresponding PDU** is not stated as supported in the PICS.

If only the service is not supported but the PDU is supported (i.e. the service is "refused": situation causing, for instance, a SBV_TPD_Begin response PDU to be sent with a Result parameter set to "TPD_Not_Supported"), a corresponding test shall not be considered as inopportune in terms of protocol, and shall be found in the Valid Behaviour clause.

Table 461

Test Case Dynamic Behaviour				
Test Case Name: SBV/TF/BI/TE/US/1 Group: Purpose: Check that, on receipt of an SBV_Channel Open request PDU, the IUT is able to send a valid SBV_TC_Error PDU, with Error_Code set to "TC Not Supported", and the following octet meaning SBV_Channel_Open. Default:				
Behaviour Description	Label	Constraint References	Verdict	Com
+pre_state_4		QDAT_req_0 (CO_REQ_slave_o)		(1)
!CO_req				
START Error_Timer				
?TC_error		QDAT_ind_0 (TCER_REQ_ns_co_i)	(PASS)	(2)
+post_state_4				
?TIMEOUT Error_Timer			INCONC	
?OTHERWISE			INCONC	
Detailed Comments: (1) Valid channel open request. (2) TC Error octet 8 = "TC not supported TC Error octet 9 = "SBV Channel Open"				

Table 462

Test Case Dynamic Behaviour				
Test Case Name: SBV/TF/BI/TE/US/2 Group: Purpose: Check that, on receipt of an SBV_Channel Close request PDU, the IUT is able to send a valid SBV_TC_Error PDU, with Error_Code set to "TC Not Supported", and the following octet meaning SBV_Channel_Close. Default:				
Behaviour Description	Label	Constraint References	Verdict	Com
+pre_state_4		QDAT_req_0 (CC_REQ_slave_o)		(1)
!CC_req				
START Error_Timer				
?TC_error		QDAT_ind_0 (TCER_REQ_ns_cc_i)	(PASS)	(2)
+post_state_4				
?TIMEOUT Error_Timer			INCONC	
?OTHERWISE			INCONC	
Detailed Comments: (1) Valid Channel close request PDU. (2) TC Error octet 8 = "TC not supported" TC Error octet 9 = "SBV Channel Close"				

Table 463

Test Case Dynamic Behaviour				
Test Case Name: SBV/TF/BI/TE/US/3 Group: Purpose: Check that, on receipt of an SBV_TPD_Begin request PDU, the IUT is able to send a valid SBV_TC_Error PDU, with Error_Code set to "TC Not Supported", and the following octet meaning SBV_TPD_Begin. Default:				
Behaviour Description	Label	Constraint References	Verdict	Com
+pre_state_4		QDAT_req_0 (TPDB_REQ_valid_o)		(1)
!TPDB_req				
START Error_Timer				
?TC_error		QDAT_ind_0 (TCER_REQ_nstpdb_i)	(PASS)	(2)
+post_state_4				
?TIMEOUT Error_Timer			INCONC	
?OTHERWISE			INCONC	
Detailed Comments: (1) Valid TPD begin request PDU. (2) TC Error octet 8 = "TC not supported" TC Error octet 9 = "TPD Begin Request"				

Table 464

Test Case Dynamic Behaviour				
Test Case Name: SBV/TF/BI/TE/US/4 Group: Purpose: Check that, on receipt of an SBV_TPD_End request PDU, the IUT is able to send a valid SBV_TC_Error PDU, with Error_Code set to "TC Not Supported", and the following octet meaning SBV_TPD_End. Default:				
Behaviour Description	Label	Constraint References	Verdict	Com
+pre_state_4		QDAT_req_0 (TPDE_REQ_valid_o)		(1)
!TPDE_req				
START Error_Timer				
?TC_error		QDAT_ind_0 (TCER_REQ_ns_tpde_i)	(PASS)	(2)
+post_state_4				
?TIMEOUT Error_Timer			INCONC	
?OTHERWISE			INCONC	
Detailed Comments: (1) Valid TPDE request PDU. (2) TC Error octet 8 = "TC not supported" TC Error octet 9 = "TPD End Request"				

Table 465

Test Case Dynamic Behaviour				
Test Case Name: SBV/TF/BI/TE/US/5 Group: Purpose: Check that, on receipt of an SBV_DFK request PDU, the IUT is able to send a valid SBV_TC_Error PDU, with Error_Code set to "TC Not Supported", and the following octet meaning SBV_DFK. Default:				
Behaviour Description	Label	Constraint References	Verdict	Com
+pre_state_4		QDAT_req_0 (DFK_REQ_rk_o)		(1)
!DFK_req				
START Error_Timer				
?TC_error		QDAT_ind_0 (TCER_REQ_ns_dfk_i)	(PASS)	(2)
+post_state_4				
?TIMEOUT Error_Timer			INCONC	
?OTHERWISE			INCONC	
Detailed Comments: (1) Valid Define function keys request PDU. (2) TC Error octet 8 = "TC not supported" TC Error octet 9 = "DFK Request"				

Table 466

Test Case Dynamic Behaviour				
Test Case Name: SBV/TF/BI/TE/US/6 Group: Purpose: Check that, on receipt of an SBV_Escape request PDU, the IUT is able to send a valid SBV_TC_Error PDU, with Error_Code set to "TC Not Supported", and the following octet meaning SBV_Escape. Default:				
Behaviour Description	Label	Constraint References	Verdict	Com
+pre_state_4		QDAT_req_0 (ESC_REQ_sid_o)		(1)
!ESC_req				
START Error_Timer				
?TC_error		QDAT_ind_0 (TCER_REQ_ns_esc_i)	(PASS)	(2)
+post_state_4				
?TIMEOUT Error_Timer			INCONC	
?OTHERWISE			INCONC	
Detailed Comments: (1) Valid Escape request PDU. (2) TC Error octet 8 = "TC not supported" TC Error octet 9 = "ESC Request"				

9.1.4.1.2 TF/BI/TE - Other inopportune events

Table 467

Test Case Dynamic Behaviour				
Test Case Name: SBV/TF/BI/TE/OIE/1 Group: Purpose: Check that, on receipt of an SBV_Begin Application response corresponding to no previous request, the IUT sends a valid SBV_TC_Error PDU with Error_Code set to "TC_Semantic Error". Default:				
Behaviour Description	Label	Constraint References	Verdict	Com
+pre_state_4		QDAT_req_0 (BA_RESP_valid_o)		(1)
!BA_resp				
START Error_Timer				
?TC_error		QDAT_req_0		
#		(TCER_REQ_sem_BA_i)	(PASS)	(2)
+post_state_4				
?TIMEOUT Error_Timer			INCONC	
?OTHERWISE			INCONC	
Detailed Comments: (1) Valid Begin application request PDU. (2) TC Error octet 8 = "TC Semantic_error" TC Error octet 9 = "SBV Begin Application"				

Table 468

Test Case Dynamic Behaviour				
Test Case Name: SBV/TF/BI/TE/OIE/2 Group: Purpose: Check that, on receipt of a SBV_TPD_Begin response corresponding to no previous request, the IUT sends a valid SBV_TC_Error PDU with Error_Code set to "TC_Erroneous". Default:				
Behaviour Description	Label	Constraint References	Verdict	Com
+pre_state_4 !TPDB_resp # START Error_Timer ?TC_Error # +post_state_4 ?OTHERWISE ?TIMEOUT		QDAT_resp_0 (TPDB_RESP_valid_o) QDAT_ind_0 (TCER_REQsem_TPDB_i)	(PASS) INCONC INCONC	(1)
Detailed Comments: (1) Valid TPD Begin response without a request first. (2) Valid TC error indication PDU.				

9.1.4.2 TF/BI - Timing/Timer variation

Table 469

Test Case Dynamic Behaviour				
Test Case Name: SBV/TF/BI/TI/1 Group: Purpose: Check that, after having sent a SBV_Begin Application request PDU and not received any response PDU for a certain time, the IUT releases the communication. Default:				
Behaviour Description	Label	Constraint References	Verdict	Com
+pre_state_4 <IUT!BA> ?BA_req START Wait_Release ?Rel_req +post_state_4 ?TIMEOUT Wait_Release ?OTHERWISE		QDAT_req_0 (BA_REQ_valid_o) DIS_ind_0 (REL_REQ_valid_i)	(1) (PASS) INCONC INCONC	(2) (3)
Detailed Comments: (1) PIXIT requirement - IUT shall be able to send a Begin Application message on demand. (2) Valid begin application request PDU. (3) Valid release request PDU.				

Table 470

Test Case Dynamic Behaviour				
Test Case Name: SBV/TF/BI/TI/2				
Group:				
Purpose: Check that, after having sent a SBV_TPD_Begin request PDU and not received any response PDU for a certain time, the IUT releases the communication.				
Default:				
Behaviour Description	Label	Constraint References	Verdict	Com
+pre_state_4 <IUT!TPDB> ?TPDB_req START Wait_Release ?Rel_req +post_state_4 ?TIMEOUT Wait_Release ?OTHERWISE		QDAT_req_0 (TPDB_REQ_valid_o)		(1) (2)
		DIS_ind_0 (REL_REQ_valid_i)	(PASS)	(3)
			INCONC	
			INCONC	
Detailed Comments:				
(1) PIXIT requirement - IUT shall be able to send a TPD Begin Application message on demand.				
(2) Valid TPD Begin application request PDU.				
(3) Valid release request PDU.				

NOTE: The "certain time" a tester is to wait for the communication release is given by the PICS. In any case it should not be smaller than timer value T28 multiplied by counter value R28 as defined in ISO/IEC 8208 [17] (cf ETS 300 079 [3], clause 8).

9.1.4.3 TF/BI - parameter value Variation (PV)

9.1.4.3.1 TF/BI/PV - Establishment service

NOTE: The following test applies only if, according to PICS, the IUT is not able to support a reverse role assignment.

Table 471

Test Case Dynamic Behaviour				
Test Case Name: SBV/TF/BI/PV/ES/1 Group: Purpose: Check that after having received a SBV_Establish request with Reverse_Role_Assignment parameter present, the IUT either ignores the request or sends a SBV_Release PDU (i.e. rejects the incoming call). Default:				
Behaviour Description	Label	Constraint References	Verdict	Com
+pre_state_1		QDAT_req_0 (EST_REQ_rr_o)		(1)
!EST_req				
START Wait_Timer				
?Rel_req		DIS_ind_0 (REL_REQ_valid_i)	(PASS)	(2)
+post_state_1				
?TIMEOUT Wait_Timer			(PASS)	(3)
+post_state_1				
?OTHERWISE			FAIL	
Detailed Comments: (1) Valid establish request PDU. (2) Valid release request PDU. (3) Establish request ignored by the IUT.				

9.1.4.3.2 TF/BI/PV - X3 related services

NOTE: The following tests do not focus on checking the semantics of CCITT Recommendation X.3 [8], which do not belong to this branch of the test suite. They are intended to check the protocol mechanism related to CCITT Recommendations X.3 [8]/X.29 [9] matters.

Table 472

Test Case Dynamic Behaviour				
Test Case Name: SBV/TF/BI/PV/X3/1 Group: Purpose: Check that after having received a SBV_Set Param PDU with a X3_Parameter_List parameter containing out-of-range X3 parameters, the IUT is able to send a SBV_Param_Indication PDU (containing the list of the bad parameters). Default:				
Behaviour Description	Label	Constraint References	Verdict	Com
+pre_state_4		QDAT_req_0 (SP_REQ_e127_o)		(1)
!SP_req				
START NCS_Timer				
?PI_req		QDAT_ind_0 (PI_REQ_e127_i)	PASS	(2)
?TIMEOUT NCS_Timer			INCONC	
?OTHERWISE			INCONC	
Detailed Comments: (1) Set Parameter request with the X.3 "echo" parameter set to the non-allowed value of 127. (2) Parameter indication request containing the non-allowed X.3 "echo" parameter value of 127.				

Table 473

Test Case Dynamic Behaviour				
Test Case Name: SBV/TF/II/PV/X3/2 Group: Purpose: Check that after having received a SBV_Set Read Param PDU with a X3_Parameter_List parameter containing out-of-range X3 parameters, the IUT is able to send a SBV_Param_Indication PDU (containing the list of the bad parameters). Default:				
Behaviour Description	Label	Constraint References	Verdict	Com
+pre_state_4		QDAT_req_0 (SRP_REQ_e127_o)		(1)
!SRP_req				
START NCS_Timer		QDAT_ind_0 (PI_REQ_e127_i)	PASS	(2)
?PI_req			INCONC	
?TIMEOUT NCS_Timer			INCONC	
?OTHERWISE				
Detailed Comments: (1) Set/Read Parameter request with the X.3 "echo" parameter set to the non-allowed value of 127. (2) Parameter indication request containing the non-allowed X.3 "echo" parameter value of 127.				

9.1.4.3.3 TF/BI/PV - Telematic Commands

Table 474

Test Case Dynamic Behaviour				
Test Case Name: SBV/TF/BI/PV/TC/1 Group: Purpose: Check that, on receipt of a SBV_Channel Open request PDU with a Reference parameter value already in use, the IUT sends a SBV_Channel_Open response PDU, with Result set to "Not Successful". Default:				
Behaviour Description	Label	Constraint References	Verdict	Com
+pre_state_4				
+open_slave_channel		QDAT_req_0 (CO_REQ_slave_o)		(1)
!CO_req				
START CS_Timer		QDAT_resp_0 (CO_RESP_neg_i)	PASS	(2)
?CO_resp			INCONC	
?TIMEOUT CS_Timer			INCONC	
?Otherwise				
Detailed Comments: (1) Channel open request with the same reference parameter as the just opened slave channel. (2) Channel open response with "result" parameter set to "not successful".				

Table 475

Test Case Dynamic Behaviour				
Test Case Name: SBV/TF/BI/PV/TC/2 Group: Purpose: Check that, on receipt of a SBV_Channel Close request PDU with a Reference parameter value corresponding to no open slave channel, the IUT sends a SBV_Channel_Close response PDU, with Result set to "Illegal Reference Parameter". Default:				
Behaviour Description	Label	Constraint References	Verdict	Com
+pre_state_4				
!CC_req		QDAT_req_0 (CC_REQ_slave_o)		(1)
START CS_Timer				
?CC_resp		QDAT_resp_0 (CC_RESP_irp_i)	PASS	(2)
?TIMEOUT CS_Timer			INCONC	
?Otherwise			INCONC	
Detailed Comments: (1) Channel close request with reference parameter of a non existent slave channel. (2) Channel close response with "result" parameter set to "illegal reference parameter".				

Table 476

Test Case Dynamic Behaviour				
Test Case Name: SBV/TF/BI/PV/TC/3 Group: Purpose: Check that, on receipt of a SBV_Channel_Close request PDU with a Reference parameter value corresponding to the master channel of the channel on which the exchanges are considered, the IUT sends a SBV_Channel_Close response PDU, with Result set to "Release not allowed". Default:				
Behaviour Description	Label	Constraint References	Verdict	Com
+pre_state_4				
+open_slave_channel				
L2!CO_req		QDAT_req_0 (CO_REQ_slave2_o)		(1)
START CS_Timer				
L2?CO_resp		QDAT_resp_0 (CO_RESP_pos_i)		(2)
+try_to_close				
L2?TIMEOUT CS_Timer			INCONC	
L2?OTHERWISE			INCONC	
try_to_close				
L3!CC_req		QDAT_req_0 (CC_REQ_slave_o)		(3)
START CS_Timer				
L3?CC_resp		QDAT_resp_0 (CC_RESP_rna_i)	PASS	(4)
L3?TIMEOUT CS_Timer			INCONC	
L3?OTHERWISE			INCONC	
Detailed Comments: (1) Second slave channel is opened from the first slave channel. (2) Channel open response confirming the second opened slave channel. (3) Channel close request with reference parameter of the first opened slave channel, is issued on the second slave channel. (4) Channel close response with "result" parameter set to "release not allowed".				

NOTE 1: The test above refers to the case of a "Slave" channel trying to release its "Master" channel, see ETS 300 079 [3], subclause 7.3.1.2 - definition of the "Result" parameter. This test implies that the "Master" channel is also the "slave" of another one, for otherwise it would not have any reference.

Table 477

Test Case Dynamic Behaviour				
Test Case Name: SBV/TF/BI/PV/TC/4 Group: Purpose: Check that, on receipt of a SBV_Channel_Close request PDU with a Reference parameter value corresponding to another slave channel of the same master channel as the master of the channel on which the exchanges are considered, the IUT sends a SBV_Channel_Close response PDU, with Result set to "Release not allowed". Default:				
Behaviour Description	Label	Constraint References	Verdict	Com
+pre_state_4 +open_slave_channel +open_slave_channel L3!CC_req START CS_Timer L3?CC_resp L3?TIMEOUT CS_Timer L3?OTHERWISE		QDAT_req_0 (CC_REQ_slave_o) QDAT_resp_0 (CC_RESP_rna_i)	 PASS INCONC INCONC	(1) (2) (3)
Detailed Comments: (1) A second slave channel is opened from the master channel. (2) Channel close request with reference parameter of the first opened slave channel, is issued on the second slave channel. (3) Channel close response with "result" parameter set to "release not allowed".				

NOTE 2: The test above refers to the case of a channel trying to release its "brother", that is, a channel having the same master.

Table 478

Test Case Dynamic Behaviour				
Test Case Name: SBV/TF/BI/PV/TC/5 Group: Purpose: Check that, on receipt of a SBV_Channel_Close request PDU with a Reference parameter value corresponding to the channel on which the exchanges are considered, the IUT sends a SBV_Channel_Close response PDU, with Result set to "Release not allowed". Default:				
Behaviour Description	Label	Constraint References	Verdict	Com
+pre_state_4				
+open_slave_channel				
L2!CC_req		QDAT_req_0 (CC_REQ_slave_o)		(1)
START CS_Timer				
L2?CC_resp		QDAT_resp_0 (CC_RESP_rna_i)	PASS	(2)
L2?TIMEOUT CS_Timer			INCONC	
L2?OTHERWISE			INCONC	
Detailed Comments: (1) Channel close request with reference parameter of itself. (2) Channel close response with "result" parameter set to "release not allowed".				

NOTE 3: The test above refers to the case of a channel trying to release itself.

Table 479

Test Case Dynamic Behaviour				
Test Case Name: SBV/TF/BI/PV/TC/6 Group: Purpose: Check that the IUT ignores an incoming SBV_DFK request PDU with no parameter present. Default:				
Behaviour Description	Label	Constraint References	Verdict	Com
+pre_state_4				
!DFK_req		QDAT_req_0 (DFK_REQ_np_o)		(1)
START Error_Timer				(2)
?TC_Error		QDAT_req_0 (TCER_REQ_valid_i)	FAIL	(3)
?TIMEOUT Error_Timer			(PASS)	
+post_state_4				
?OTHERWISE			INCONC	
Detailed Comments: (1) DFK request PDU with no parameter present. (2) Error_Timer is used specifically to wait for a TC_Error request, which should NOT occur. (3) Valid TC error request should not occur.				

NOTE 4: To "ignore" means that the IUT does not crash, and does not generate any TC_Error PDU. The real effect on the function keys - that should remain unaffected - is not tested here, but in the specific test suite branch, devoted to real DFK effects testing.

Table 480

Test Case Dynamic Behaviour				
Test Case Name: SBV/TF/BI/PV/TC/7				
Group:				
Purpose: Check that, on receipt of a SBV_DFK request PDU with a Function_Keys parameter corresponding to an identification which is not supported, the IUT sends a SBV_TC_Error PDU.				
Default:				
Behaviour Description	Label	Constraint References	Verdict	Com
+pre_state_4 !DFK_req START Error_Timer ?TC_Error +post_state_4 ?TIMEOUT Error_Timer ?OTHERWISE		QDAT_req_0 (DFK_REQ_ifk_o)		(1)
		QDAT_ind_0 (TCER_REQ_error_DFK_i)	(PASS)	(2)
			INCONC	
			INCONC	
Detailed Comments:				
(1) DFK request PDU with an invalid function keys parameter.				
(2) Valid TC error PDU.				

9.1.4.4 TF/BI - Parameter Combination (PC)

9.1.4.4.1 TF/BI/PC - X.3 related services

None.

NOTE: This list of CCITT Recommendation X.3 [8] parameters is just one parameter as far as the SBV protocol commands are concerned.

9.1.4.4.2 TF/BI/PC - Telematic Commands

Table 481

Test Case Dynamic Behaviour				
Test Case Name: SBV/TF/BI/PC/TC/1				
Group:				
Purpose: Check that, on receipt of a SBV_TPD_Begin response PDU, with Result parameter set to "Successful" and DDU_Fall_Back mode parameter present, the IUT issues a SBV_TC_Error PDU.				
Default:				
Behaviour Description	Label	Constraint References	Verdict	Com
+pre_state_4 <IUT!TPDB_req> START Oper_Timer ?TPDB_req !TPDB_resp +error_check ?TIMEOUT Oper_Timer ?OTHERWISE error_check START Error_Timer ?TC_Error # +post_state_4 ?TIMEOUT Error_Timer ?OTHERWISE		QDAT_ind_0 (TPDB_REQ_valid_i) QDAT_resp_0 (TPDB_RESP_sfb_o)		(1)
				(2)
				(3)
			INCONC INCONC	
		QDAT_ind_0 (TCER_REQ_Error_TPDB_i)	(PASS)	(4)
			INCONC INCONC	
Detailed Comments:				
(1) PIXIT requirement - IUT shall be able to send a TPD Begin request on demand.				
(2) Valid TPD begin request received.				
(3) TPD begin response indicating "successful", but having the DDU mode fall-back parameter present.				
(4) Valid TC error request PDU.				

NOTE: The mandatory reaction from the IUT, that should issue a SBV_TC_Error PDU, proceeds from the fourth general "rule" in ETS 300 079 [3] subclause 8.1, concerning the behaviour in case of a protocol error. However, the proper form of the SBV_TC_Error PDU to be sent in case of such a semantic error seems to have been forgotten from the coding given in subclause 9.4.5.1.

9.1.5 TF - Invalid Behaviour (BO)

This group of tests (TF/BO...) is intended to verify that the IUT is able to react properly in case an invalid protocol data unit. Invalid PDU here means *Syntactically invalid PDU*.

NOTE: The same remark applies, as for the Inopportune Behaviour group. The services addressed by the Invalid Behaviour part are those which are related to specific SBV protocol elements. As an opposite example, a badly encoded SBV Establish request would cause an error to be detected by the layer 3.

9.1.5.1 TF/BO - parameter value Variation (PV)

Here the cases are treated in which the presence, the absence, or a specific value of a parameter are precluded by the **syntax** definition (e.g. mandatory parameter omitted).

9.1.5.1.1 TF/BO/PV - X.3 related services

None.

9.1.5.1.2 TF/BO/PV - Telematic Commands

Table 482

Test Case Dynamic Behaviour				
Test Case Name: SBV/TF/BO/PV/TC/1				
Group:				
Purpose: Check that, on receipt of a SBV_TFI request PDU with no TFI_Enq parameter, the IUT sends a SBV_TC_Error PDU, with Error_Code parameter set to "TC_Erroneous".				
Default:				
Behaviour Description	Label	Constraint References	Verdict	Com
+pre_state_4				
!TFI_req		QDAT_req_0 (TFI_REQ_nenq_o)		(1)
START Error_Timer				
?TC_Error		QDAT_ind_0 (TCER_REQ_Error_TFI_i)	(PASS)	(2)
+post_state_4				
?TIMEOUT Error_Timer			INCONC	
?OTHERWISE			INCONC	
Detailed Comments:				
(1) TFI Request PDU with no TFI_enq parameter.				
(2) TC Error PDU with the error code parameter = '00/01', TC erroneous.				

NOTE: For a terminal, SBV_TFI service is optional during an interim period (ETS 300 223 [2], note in table 1). This test is thus only applicable if the SBV_TFI service is stated as implemented in the PICS, and is to be de-selected otherwise. In case this test is de-selected, it should be checked that TFI can be transferred in the SBV_VTX_Data service element.

Table 483

Test Case Dynamic Behaviour				
Test Case Name: SBV/TF/BO/PV/TC/2 Group: Purpose: Check that, on receipt of an invalid SBV_TC_ErrorDetailed Comments: (1) Channel Open request PDU with no "Req_OB Called Address", "OB Application Address", "OB Application Selection", "Req_OB Application Selection", "Req_OB User Data", "Req_IB Called Address", "IB Application Address", "IB Application Selection", "Req_IB User Data" parameters. (2) Valid TC error received. PDU, with no Error_Code parameter, the IUT does not send anything (in particular does not generate a new SBV_TC_Error). Default:				
Behaviour Description	Label	Constraint References	Verdict	Com
+pre_state_4		QDAT_req_0 (TCER_REQ_noec_o)		(1)
!TC_Error				
START Error_Timer		QDAT_ind_0 (TCER_REQ_valid_i)	FAIL	(2)
?TC_Error			(PASS)	
?TIMEOUT Error_Timer				
+post_state_4				
?OTHERWISE			INCONC	
Detailed Comments: (1) Channel Open request PDU with no "Req_OB Called Address", "OB Application Address", "OB Application Selection", "Req_OB Application Selection", "Req_OB User Data", "Req_IB Called Address", "IB Application Address", "IB Application Selection", "Req_IB User Data" parameters. (2) Valid TC error received.				

Table 484

Test Case Dynamic Behaviour				
Test Case Name: SBV/TF/BO/PV/TC/3 Group: Purpose: Check that, on receipt of a SBV_Channel Open request PDU with no Req_OB Called Address parameter, no OB_Application Address parameter, no OB_Application Selection parameter, no Req_OB User Data parameter, no Req_IB Called Address parameter, no IB_Application Address parameter, no IB_Application Selection parameter, no Req_IB User Data parameter, the IUT sends a SBV_TC Error PDU, with Error_Code parameter set to "TC_Erroneous". Default:				
Behaviour Description	Label	Constraint References	Verdict	Com
+pre_state_4 !CO_req START Error_Timer ?TC_Error		QDAT_req_0 (CO_REQ_nop_o)		(1)
# +post_state_4 ?TIMEOUT Error_Timer ?OTHERWISE		QDAT_ind_0 TCER_REQ_Error_co_i)	(PASS)	(2)
			INCONC INCONC	
Detailed Comments: (1) Channel Open request PDU with no "Req_OB Called Address", "OB Application Address", "OB Application Selection", "Req_OB Application Selection", "Req_OB User Data", "Req_IB Called Address", "IB Application Address", "IB Application Selection", "Req_IB User Data" parameters. (2) TC Error PDU with the error code parameter = '00/01', TC erroneous.				

Table 485

Test Case Dynamic Behaviour				
Test Case Name: SBV/TF/BO/PV/TC/4 Group: Purpose: Check that, on receipt of a SBV_Channel_Close request PDU with no Reference parameter, the IUT sends a SBV_TC_Error PDU, with Error_Code parameter set to "TC_Erroneous". Default:				
Behaviour Description	Label	Constraint References	Verdict	Com
+pre_state_4 !CC_req START Error_Timer ?TC_Error		QDAT_req_0 (CC_REQ_nrp_o)		(1)
# +post_state_4 ?TIMEOUT Error_Timer ?OTHERWISE		QDAT_ind_0 (TCER_REQ_Error_CC_i)	(PASS)	(2)
			INCONC INCONC	
Detailed Comments: (1) Channel Close request PDU with no reference parameter. (2) TC Error PDU with the error code parameter = '00/01', TC erroneous.				

Table 486

Test Case Dynamic Behaviour				
Test Case Name: SBV/TF/BO/PV/TC/5 Group: Purpose: Check that, on receipt of a SBV_Begin_Application request PDU with no IB_Application_Address parameter, no IB_Application_Selection parameter, and no IB_User_Data parameter, the IUT sends a SBV_TC_Error PDU, with Error_Code parameter set to "TC_Erroneous". Default:				
Behaviour Description	Label	Constraint References	Verdict	Com
+pre_state_4 !BA_req START Error_Timer ?TC_Error		QDAT_req_0 (BA_REQ_nop_o)		(1)
# +post_state_4 ?TIMEOUT Error_Timer ?OTHERWISE		QDAT_ind_0 (TCER_REQ_Error_BA_i)	(PASS)	(2)
			INCONC INCONC	
Detailed Comments: (1) Begin Application request PDU with no "IB Application Address", "IB Application Selection", or "IB_User_Data" parameters. (2) TC Error PDU with the error code parameter = '00/01', TC erroneous.				

Table 487

Test Case Dynamic Behaviour				
Test Case Name: SBV/TF/BO/PV/TC/6 Group: Purpose: Check that, on receipt of a SBV_Begin_Application response PDU with no Result parameter, the IUT sends a SBV_TC_Error PDU, with Error_Code parameter set to "TC_Erroneous". Default:				
Behaviour Description	Label	Constraint References	Verdict	Com
+pre_state_4 <IUT!BA_req> START Oper_Timer ?BA_req !BA_resp +error_check ?TIMEOUT Oper_Timer ?OTHERWISE error_check START Error_Timer ?TC_Error # +post_state_4 ?TIMEOUT Error_Timer ?OTHERWISE		QBIT_req_0 (BA_REQ_valid_i) QBIT_resp_0 (BA_RESP_nr_o) QBIT_ind_0 (TCER_REQ_Error_BAr_i)	 INCONC INCONC (PASS) INCONC INCONC	(1) (2) (3) (4)
Detailed Comments: (1) PIXIT requirement - IUT shall be able to send a Begin Application request PDU on demand. (2) Valid begin application request. (3) Begin Application response PDU with no result parameter. (4) TC Error PDU with the error code parameter = '00/01', TC erroneous.				

Table 488

Test Case Dynamic Behaviour				
Test Case Name: SBV/TF/BO/PB/TC/7 Group: Purpose: Check that, on receipt of a SBV_TPD_Begin response PDU with no Result parameter, the IUT sends a SBV_TC_Error PDU, with Error_Code parameter set to "TC_Erroneous". Default:				
Behaviour Description	Label	Constraint References	Verdict	Com
+pre_state_4 <IUT!TPDB_req> START Oper_Timer ?TPDB_req !TPDB_resp +check_error ?TIMEOUT Oper_Timer ?OTHERWISE check_error START Error_Timer ?TC_Error +post_state_4 ?TIMEOUT Error_Timer ?OTHERWISE		QDAT_ind_0 (TPDB_REQ_valid_i) QDAT_req_0 (TPDB_RESP_nr_o) QDAT_ind_0 (TCER_REQ_Error_TPDBr_i)	INCONC INCONC (PASS) INCONC INCONC	(1) (2) (3) (4)
Detailed Comments: (1) PIXIT requirement - IUT shall be able to send a TPD Begin request on demand. (2) Valid TPD begin request. (3) TPD Begin response PDU with no result parameter. (4) TC Error PDU with the error code parameter = '00/01', TC erroneous.				

9.1.5.2 TF/BO - Encoding Variations (EV)

9.1.5.2.1 TF/BO/EV - X.3 related services

None.

NOTE: Not in this branch of the Test Suite.

9.1.5.2.2 TF/BO/EV - Telematic Commands

Table 489

Test Case Dynamic Behaviour				
Test Case Name: SBV/TF/BO/EV/TC/1 Group: Purpose: Check that, on receipt of a SBV_TFI request PDU, with octet 2 of the User Data field of the X.25 PLP Data Packet set to 15/14 (NOTE: instead of 09/14 for a valid ISDN Syntax-Based Videotex Telematic Command), the IUT sends a TC_Error PDU. Default:				
Behaviour Description	Label	Constraint References	Verdict	Com
+pre_state_4		QDAT_req_0 (TFI_REQ_eo2_o)		(1)
!TFI_req				
START Error_Timer				
?TC_Error		QDAT_ind_0 (TCER_REQ_Utce2_i)	(PASS)	(2)
+post_state_4				
?TIMEOUT Error_Timer			INCONC	
?OTHERWISE			INCONC	
Detailed Comments: (1) TFI request with octet 2 of the user data field set to 15/14. (2) Valid TC Error PDU with code "Unknown TC Event".				

NOTE 1: For a terminal, SBV_TFI service is optional during an interim period (ETS 300 223 [2], note in table 1). This test is thus only applicable if the SBV_TFI service is stated as implemented in the PICS, and is to be de-selected otherwise.

Table 490

Test Case Dynamic Behaviour				
Test Case Name: SBV/TF/BO/EV/TC/2 Group: Purpose: Check that, on receipt of a SBV_TFI request PDU, with octet 4 of the User Data field of the X.25 PLP Data Packet (TC length) set to 15/15 (NOTE: instead of being in the range 00/00 to 15/14 for a valid ISDN Syntax-Based Videotex Telematic Command), the IUT sends a TC_Error PDU. Default:				
Behaviour Description	Label	Constraint References	Verdict	Com
+pre_state_4		QDAT_req_0 (TFI_REQ_eo4_o)		(1)
!TFI_req				
START Error_Timer				
?TC_Error		QDAT_ind_0 (TCER_REQ_Utce4_i)	(PASS)	(2)
+post_state_4				
?TIMEOUT Error_Timer			INCONC	
?OTHERWISE			INCONC	
Detailed Comments: (1) TFI request with octet (length) of the user data field set to 15/15. (2) Valid TC Error request with code "Unknown TC Event".				

NOTE 2: The SBV_TFI was chosen because it is the only confirmed Telematic Command belonging to Kernel Services.

NOTE 3: For a terminal, SBV_TFI service is optional during an interim period (ETS 300 223 [2], note in table 1). This test is thus only applicable if the SBV_TFI service is stated as implemented in the PICS, and is to be de-selected otherwise.

Table 491

Test Case Dynamic Behaviour				
Test Case Name: SBV/TF/BO/EV/TC/3				
Group:				
Purpose: Check that, on receipt of a Telematic Command with octet 3 of the User Data field of the X.25 PLP Data Packet (TC Code) set to 01/15 (NOTE: Unknown Telematic Command code), the IUT sends a TC_Error PDU.				
Default:				
Behaviour Description	Label	Constraint References	Verdict	Com
+pre_state_4 !ITC START Error_Timer ?TC_error ?OTHERWISE ?TIMEOUT Error_Timer		QDAT_req_0 (ITC_o3_error_o)		(1)
		QDAT_ind_0 (TCER_REQ_UTC_i)	PASS	(2)
			INCONC	
			INCONC	
Detailed Comments:				
(1) An invalid Telematic command with octet 3 of the user data field set to 01/15.				
(2) TC error indication with code set to "TC Not Supported". The reason for this is to be found in the note in ETS 300 223 [2] "A given implementation will possibly not distinguish between a non-supported and an invalid code point.				

Annex A (normative): SBV PICS proforma

Notwithstanding the provisions of the copyright clause related to the text of the present document, ETSI grants that users of the present document may freely reproduce the PICS proforma in this annex so that it can be used for its intended purposes and may further publish the completed PICS.

A.1 Classification

In accordance to ETR 021, the following notation is used in the proforma to indicate the status of a question:

m: mandatory - the capability is required to be implemented, in conformance with the protocol standard;

In the context of PICS, "mandatory" means that a feature shall be supported; it does not mean that it should always be used.

When the feature in question is a receiving capability, "mandatory" means that the receipt of an associated protocol element shall always be accepted by the IUT.

When the feature in question is a sending capability, "mandatory" means that the associated protocol element may be sent by the IUT if the service user, e.g. the application, decides so. It may happen that, for any reason, the application would never request to send this protocol element. Whether a sending capability may be observed or not is a PIXIT matter.

NOTE 1: There is no contradiction in the use of a parameter stated as optional in the standard and its support as mandatory in the PICS.

- o: Boolean optional - the capability may be implemented, and if it is implemented it is required to conform to the protocol specification (see ISO 9646-1 [4], clause A.3);
- o.n: optional - the capability may be implemented, and if it is implemented it is required to conform to the protocol specification; whether an option is mutually exclusive or selectable (see ISO 9646-1 [4], clause A.3) is given in annex C;
- x: prohibited - there is a requirement not to use this capability in a given context;
- cnn: conditional - the requirement on the capability depends on the selection of other optional or conditional items; conditions are numbered (as indicated by characters "nn"), and a list showing all numbered conditions is given annex B.
- : not applicable - no requirement can be expressed in a given context.

To specify the level of support for all entries except those of clause A.2 and those of the parameter value column in annex A, subclause A.3.5, the following classification shall be used to fill in the "support" column:

- y: supported;
- : not supported.

NOTE 2: In the context of PICS, "supported" only means that if it is done, it is done in conformance to the standard. In case of IUT initiated elements, "supported" does not indicate, whether such an element is actually implemented or not.

A.2 PICS proforma, identification of the implementation

A.2.1 Guidance for completion

This subclause is used to record the date of completion of the PICS, and to describe the supplier of the implementation, the implementation itself and the standards to which the implementation is claimed to conform.

A.2.2 Date

Table A.1: Date

Ref	Question	Response
1	Date of statement (dd-mm-yy)	

A.2.3 Supplier details

Table A.2: Supplier details

Ref	Question	Response
1	Organization	
2	Contact name(s)	
3	Address	
4	Telephone	
5	Telex	
6	Fax	
7	E-mail	
8	Other information	

A.2.4 Implementation details

Table A.3: Implementation details

Ref	Question	Response
1	Implementation name	
2	Version	
3	Hardware name	
4	Hardware version	
5	Operating system name	
6	Operating system version	
7	Special configuration requirements	
8	Other information	

A.2.5 Claimed compliance to standards

Table A.4: Protocol identification

Ref	Question	Status	Response
1	Are all the mandatory features of the SBV_Protocol as defined by ETS 300 223 [2] implemented?	m	

NOTE 1: Answering "no" to this question indicates non-conformance to the present document.

NOTE 2: The list of mandatory features varies depending on the device type being implemented. See also annex A, subclause A.3.1.

A.3 PICS proforma, capabilities and options

A.3.1 Initiator/Responder capability

SBV protocol is asymmetrical by nature: In a given communication, a device may act either as a Terminal Function or as a Access Function; during execution of the SBV_Establish service the role assignment of that communication is determined (see ETS 300 223 [2], subclause 7.1).

Neither ETS 300 223 [2] nor ETS 300 079 [3] do provide for classes of devices.

To facilitate conformance testing the following types of device are identified here:

NOTE: It is proposed to introduce the classification given here into the base standard(s). Up to than, it is conform to the base standard to implement e.g. "half a TF and half an AF".

1. called Access Device
A device which is capable to respond on incoming calls and to act as the Access Function after completion of SBV_Establish service. Such a device shall support all SBV-PDUs being mandatory for an Access Function (see subclause A.3.4.1).
2. calling Access Device
A device which is, in addition to called Access Device capabilities, capable to initiate a communication and to act as the Access Function after completion of SBV_Establish service. Such a device shall support all SBV-PDUs being mandatory for an Access Function (see subclause A.3.4.1) with the additional requirement that the SBV_Establish parameter "Reverse_Role_Assignment" is supported.
3. calling Terminal Device
A device which is capable to initiate a communication and to act as the Terminal Function after completion of SBV_Establish service. Such a device shall support all SBV-PDUs being mandatory for a Terminal Function (see subclause A.3.4.2).
4. called Terminal Device
A device which is, in addition to the calling Terminal Device capabilities, capable to act as a Terminal Function after completion of SBV_Establish service. Such a device shall support all SBV-PDUs being mandatory for a Terminal Function (see subclause A.3.4.2) with the additional requirement that the SBV_Establish parameter "Reverese_Role_Assignment" is supported.

For a SBV_Protocol implementation claiming to cover more than one of this devices, one PICS per device is required.

Table A.5: Device Types

Ref	Device Type	Status	Support
1	called Access	0.1	
2	calling Access	0.1	
3	calling Terminal	0.1	
4	called Terminal	0.1	

A.3.2 Network Capabilities

Table A.6: Network Capabilities

Ref	Network Capability	Status	Support
1	Out_Band Addressing	0.5	
2	Out_Band Data Transfer during Establ.	0.5	
3	In_Band Addressing (note)	0.5	
4	In_Band Data Transfer during Establ.	0.5	
5	(In_Band) Fast Select	0.5	
NOTE: When In_Band Addressing is not used, the corresponding parameters may be used for other purposes.			

A.3.3 SBV Services

Table A.7: SBV services

Ref	SBV Service	Status	Support
1	SBV Establish	m	
2	SBV Release	m	
3	SBV VTX Data	m	
4	SBV Reset	m	
5	SBV Set Param	m	
6	SBV Read Param	m	
7	SBV Set Read Param	m	
8	SBV Param Indication	m	
9	SBV TFI (note)	c1	
10	SBV TC Error	m	
11	SBV Channel Open	0.2	
12	SBV Channel Close	0.2	
13	SBV Channel Error	0.2	
14	SBV Begin Application	0	
15	SBV End Application	c16	
16	SBV End Immediate	c16	
17	SBV TPD Begin	0.3	
18	SBV TPD End	0.3	
19	SBV DFK	0	
20	SBV Remote Echo	0	
21	SBV Escape	0	
NOTE: For a terminal, SBV_TFI service is optional during an interim period (ETS 300 223 [2], note in table 1), as long as the TFI is implemented in the terminal and can be transferred in the SBV_VTX_Data service element.			

A.3.4 SBV to BIS association options

Table A.8: SBV to BIS association options

Ref	SBV Service	Mapping on BIS Service	Status	Support
1	SBV Reset	BIS_N RESET	0.1	
2	SBV Reset	BIS_N_Q DATA	0.1	
NOTE: This optionality appears in subclause 8.3.3. of ETS 300 223 [2].				

A.3.5 PDUs

Table A.9: TC encoding

Ref	Parameter Encoding	ETS 300 223 [2]	ETS 300 079 [3]	Support
1	TC encoding according to	9.1	9.2	

Whenever receiving a PDU is not possible according to the protocol definition, this is indicated within these subclauses by "-" (not applicable). This does not rule out the SBV_TC_Error definition stating that such a PDU shall cause a TC_Error PDU, as being inopportune.

A.3.5.1 AF PDUs

This subclause lists the possible PDUs for an Access Function (AF) (table 5, reference 1 or table 5, reference 2 applies). In case of a Terminal Function (TF), this subclause shall be skipped.

NOTE: Strictly following the above convention above would hide all status=m entries as being conditionals. This is avoided by the chosen method.

A.3.5.1.1 AF PDUs/SBV_Establish

Table A.10: AF PDUs/SBV_Establish

Ref	PDU Type	Status	Support
1	SBV_Establish Request send	x	
2	SBV_Establish Request receive	m	
3	SBV_Establish Response send	m	
4	SBV_Establish Response receive	-	

A.3.5.1.2 AF PDUs/SBV_Release

Table A.11: AF PDUs/SBV_Release

Ref	PDU Type	Status	Support
1	SBV_Release Request send	m	
2	SBV_Release Request receive	m	

A.3.5.1.3 AF PDUs/SBV_Reset

Table A.12: AF PDUs/SBV_Reset

Ref	PDU Type	Status	Support
1	SBV_Reset Request (mapping on BIS-N-RESET)	send	c17
2	SBV_Reset Request (mapping on BIS-N-RESET)	receive	-
3	SBV_Reset Response (mapping on BIS-N-RESET)	send	x
4	SBV_Reset Response (mapping on BIS-N-RESET)	receive	c17a
5	SBV_Reset_TC Request (telematic command)	send	c18
6	SBV_Reset_TC Request (telematic command)	receive	-
7	SBV_Reset_TC Response (telematic command)	send	x
8	SBV_Reset_TC Response (telematic command)	receive	c18a

A.3.5.1.4 AF PDUs/SBV_VTX_Data

Table A.13: AF PDUs/SBV_VTX_Data

Ref	PDU Type	Status	Support
1	SBV_VTX_Data Request send	m	
2	SBV_VTX_Data Request receive	m	

A.3.5.1.5 AF PDUs/SBV_Set_Param

Table A.14: AF PDUs/SBV_Set_Param

Ref	PDU Type	Status	Support
1	SBV_Set_Param Request send	m	
2	SBV_Set_Param Request receive	-	

A.3.5.1.6 AF PDUs/SBV_Read_Param

Table A.15: AF PDUs/SBV_Read_Param

Ref	PDU Type	Status	Support
1	SBV_Read_Param Request send	m	
2	SBV_Read_Param Request receive	-	

A.3.5.1.7 AF PDUs/SBV_Set_Read_Param

Table A.16: AF PDUs/SBV_Set_Read_Param

Ref	PDU Type	Status	Support
1	SBV_Set_Read_Param Request send	m	
2	SBV_Set_Read_Param Request receive	-	

A.3.5.1.8 AF PDUs/SBV_Param_Indication

Table A.17: AF PDUs/SBV_Param_Indication

Ref	PDU Type	Status	Support
1	SBV_Param_Indication Request send	x	
2	SBV_Param_Indication Request receive	m	

A.3.5.1.9 AF PDUs/SBV_TFI

Table A.18: AF PDUs/SBV_TFI

Ref	PDU Type	Status	Support
1	SBV_TFI Request send	m	
2	SBV_TFI Request receive	-	
3	SBV_TFI Response send	x	
4	SBV_TFI Response receive	m	

A.3.5.1.10 AF PDUs/SBV_TC_Error

Table A.19: AF PDUs/SBV_TC_Error

Ref	PDU Type		Status	Support
1	SBV_TC_Error Request	send	m	
2	SBV_TC_Error Request	receive	m	

A.3.5.1.11 AF PDUs/SBV_Channel_Open

Table A.20: AF PDUs/SBV_Channel_Open

Ref	PDU Type		Status	Support
1	SBV_Channel_Open Request	send	c2	
2	SBV_Channel_Open Request	receive	-	
3	SBV_Channel_Open Response	send	x	
4	SBV_Channel_Open Response	receive	c2a	

A.3.5.1.12 AF PDUs/SBV_Channel_Close

Table A.21: AF PDUs/SBV_Channel_Close

Ref	PDU Type		Status	Support
1	SBV_Channel_Close Request	send	c3	
2	SBV_Channel_Close Request	receive	-	
3	SBV_Channel_Close Response	send	x	
4	SBV_Channel_Close Response	receive	c3a	

A.3.5.1.13 AF PDUs/SBV_Channel_Error

Table A.22: AF PDUs/SBV_Channel_Error

Ref	PDU Type		Status	Support
1	SBV_Channel_Error Request	send	x	
2	SBV_Channel_Error Request	receive	c4	

A.3.5.1.14 AF PDUs/SBV_Begin_Application

Table A.23: AF PDUs/SBV_Begin_Application

Ref	PDU Type		Status	Support
1	SBV_Begin_Application Request	send	x	
2	SBV_Begin_Application Request	receive	c7a	
3	SBV_Begin_Application Response	send	c7	
4	SBV_Begin_Application Response	receive	-	

A.3.5.1.15 AF PDUs/SBV_End_Application

Table A.24: AF PDUs/SBV_End_Application

Ref	PDU Type		Status	Support
1	SBV_End_Application Request	send	x	
2	SBV_End_Application Request	receive	c8a	

A.3.5.1.16 AF PDUs/SBV_End_Immediate

Table A.25: AF PDUs/SBV_End_Immediate

Ref	PDU Type	Status	Support
1	SBV_End_Immediate Request send	x	
2	SBV_End_Immediate Request receive	c19a	

A.3.5.1.17 AF PDUs/SBV_TPD_Begin

Table A.26: AF PDUs/SBV_TPD_Begin

Ref	PDU Type	Status	Support
1	SBV_TPD_Begin Request send	c5	
2	SBV_TPD_Begin Request receive	c5a	
3	SBV_TPD_Begin Response send	c5	
4	SBV_TPD_Begin Response receive	c5a	

A.3.5.1.18 AF PDUs/SBV_TPD_End

Table A.27: AF PDUs/SBV_TPD_End

Ref	PDU Type	Status	Support
1	SBV_TPD_End Request send	c6	
2	SBV_TPD_End Request receive	c6a	

A.3.5.1.19 AF PDUs/SBV_DFK

Table A.28: AF PDUs/SBV_DFK

Ref	PDU Type	Status	Support
1	SBV_DFK Request send	c9	
2	SBV_DFK Request receive	-	

A.3.5.1.20 AF PDUs/SBV_Remote_Echo

Table A.29: AF PDUs/SBV_Remote_Echo

Ref	PDU Type	Status	Support
1	SBV_Remote_Echo Request send	x	
2	SBV_Remote_Echo Request receive	c20a	

A.3.5.1.21 AF PDUs/SBV_Escape

Table A.30: AF PDUs/SBV_Escape

Ref	PDU Type	Status	Support
1	SBV_Escape Request send	c10	
2	SBV_Escape Request receive	c10a	

A.3.5.2 TF PDUs

This subclause lists the possible PDUs for a Terminal Function (TF) (table 5/ reference 3 or table 5/reference 4 applies). In case of an Access Function (AF), this subclause shall be skipped.

NOTE: Strictly following the above convention would hide all status=m entries as being conditionals. This is avoided by the chosen method.

A.3.5.2.1 TF PDUs/SBV_Establish

Table A.31: TF PDUs/SBV_Establish

Ref	PDU Type	Status	Support
1	SBV_Establish Request send	m	
2	SBV_Establish Request receive	-	
3	SBV_Establish Response send	x	
4	SBV_Establish Response receive	m	

A.3.5.2.2 TF PDUs/SBV_Release

Table A.32: TF PDUs/SBV_Release

Ref	PDU Type	Status	Support
1	SBV_Release Request send	m	
2	SBV_Release Request receive	m	

A.3.5.2.3 TF PDUs/SBV_Reset

Table A.33: TF PDUs/SBV_Reset

Ref	PDU Type	Status	Support
1	SBV_Reset Request (mapping on BIS-N-RESET)	send	x
2	SBV_Reset Request (mapping on BIS-N-RESET)	receive	c17a
3	SBV_Reset Response (mapping on BIS-N-RESET)	send	c17
4	SBV_Reset Response (mapping on BIS-N-RESET)	receive	-
5	SBV_Reset_TC Request (telematic command)	send	x
6	SBV_Reset_TC Request (telematic command)	receive	c18a
7	SBV_Reset_TC Response (telematic command)	send	c18
8	SBV_Reset_TC Response (telematic command)	receive	-

A.3.5.2.4 TF PDUs/SBV_VTX_Data

Table A.34: TF PDUs/SBV_VTX_Data

Ref	PDU Type	Status	Support
1	SBV_VTX_Data Request send	m	
2	SBV_VTX_Data Request receive	m	

A.3.5.2.5 TF PDUs/SBV_Set_Param

Table A.35: TF PDUs/SBV_Set_Param

Ref	PDU Type	Status	Support
1	SBV_Set_Param Request send	x	
2	SBV_Set_Param Request receive	m	

A.3.5.2.6 TF PDUs/SBV_Read_Param

Table A.36: TF PDUs/SBV_Read_Param

Ref	PDU Type	Status	Support
1	SBV_Read_Param Request send	x	
2	SBV_Read_Param Request receive	m	

A.3.5.2.7 TF PDUs/SBV_Set_Read_Param

Table A.37: TF PDUs/SBV_Set_Read_Param

Ref	PDU Type	Status	Support
1	SBV_Set_Read_Param Request send	x	
2	SBV_Set_Read_Param Request receive	m	

A.3.5.2.8 TF PDUs/SBV_Param_Indication

Table A.38: TF PDUs/SBV_Param_Indication

Ref	PDU Type	Status	Support
1	SBV_Param_Indication Request send	m	
2	SBV_Param_Indication Request receive	-	

A.3.5.2.9 TF PDUs/SBV_TFI

Table A.39: TF PDUs/SBV_TFI

Ref	PDU Type	Status	Support
1	SBV_TFI Request send	x	
2	SBV_TFI Request receive (note)	m	
3	SBV_TFI Response send (note)	m	
4	SBV_TFI Response receive	-	
NOTE: For a terminal, SBV_TFI service is optional during an interim period (ETS 300 223 [2], note in table 1), as long as the TFI is implemented in the terminal and can be transferred in the SBV_VTX_Data service element.			

A.3.5.2.10 TF PDUs/SBV_TC_Error

Table A.40: TF PDUs/SBV_TC_Error

Ref	PDU Type	Status	Support
1	SBV_TC_Error Request send	m	
2	SBV_TC_Error Request receive	m	

A.3.5.2.11 TF PDUs/SBV_Channel_Open

Table A.41: TF PDUs/SBV_Channel_Open

Ref	PDU Type	Status	Support
1	SBV_Channel_Open Request send	x	
2	SBV_Channel_Open Request receive	c2a	
3	SBV_Channel_Open Response send	c2	
4	SBV_Channel_Open Response receive	-	

A.3.5.2.12 TF PDUs/SBV_Channel_Close

Table A.42: TF PDUs/SBV_Channel_Close

Ref	PDU Type	Status	Support
1	SBV_Channel_Close Request send	x	
2	SBV_Channel_Close Request receive	c3a	
3	SBV_Channel_Close Response send	c3	
4	SBV_Channel_Close Response receive	-	

A.3.5.2.13 TF PDUs/SBV_Channel_Error

Table A.43: TF PDUs/SBV_Channel_Error

Ref	PDU Type	Status	Support
1	SBV_Channel_Error Request send	c4	
2	SBV_Channel_Error Request receive	-	

A.3.5.2.14 TF PDUs/SBV_Begin_Application

Table A.44: TF PDUs/SBV_Begin_Application

Ref	PDU Type	Status	Support
1	SBV_Begin_Application Request send	c7	
2	SBV_Begin_Application Request receive	-	
3	SBV_Begin_Application Response send	x	
4	SBV_Begin_Application Response receive	c7a	

A.3.5.2.15 TF PDUs/SBV_End_Application

Table A.45: TF PDUs/SBV_End_Application

Ref	PDU Type	Status	Support
1	SBV_End_Application Request send	c8	
2	SBV_End_Application Request receive	c8a	

A.3.5.2.16 TF PDUs/SBV_End_Immediate

Table A.46: TF PDUs/SBV_End_Immediate

Ref	PDU Type	Status	Support
1	SBV_End_Immediate Request send	c19	
2	SBV_End_Immediate Request receive	-	

A.3.5.2.17 TF PDUs/SBV_TPD_Begin

Table A.47: TF PDUs/SBV_TPD_Begin

Ref	PDU Type	Status	Support
1	SBV_TPD_Begin Request send	c5	
2	SBV_TPD_Begin Request receive	c5a	
3	SBV_TPD_Begin Response send	c5	
4	SBV_TPD_Begin Response receive	c5a	

A.3.5.2.18 TF PDUs/SBV_TPD_End

Table A.48: TF PDUs/SBV_TPD_End

Ref	PDU Type		Status	Support
1	SBV_TPD_End Request	send	c6	
2	SBV_TPD_End Request	receive	c6a	

A.3.5.2.19 TF PDUs/SBV_DFK

Table A.49: TF PDUs/SBV_DFK

Ref	PDU Type		Status	Support
1	SBV_DFK Request	send	x	
2	SBV_DFK Request	receive	c9a	

A.3.5.2.20 TF PDUs/SBV_Remote_Echo

Table A.50: TF PDUs/SBV_Remote_Echo

Ref	PDU Type		Status	Support
1	SBV_Remote_Echo Request	send	c20	
2	SBV_Remote_Echo Request	receive	-	

A.3.5.2.21 TF PDUs/SBV_Escape

Table A.51: TF PDUs/SBV_Escape

Ref	PDU Type		Status	Support
1	SBV_Escape Request	send	c10	
2	SBV_Escape Request	receive	c10a	

A.3.6 Parameters

Table A.52: Parameter encoding

Ref	Parameter Encoding	ETS 300 223 [2]	ETS 300 079 [3]	Status	Support
1	TLV encoded parameters according to	9.2, 9.3.1	9.3, 9.4.4	m	

Depending on the selections made in subclause A.3.3 or A.3.4, respectively, individual PDUs may or may not be supported. Individual tables in subclause A.3.5 shall be completed if the corresponding table entries in subclause A.3.4 indicate that the PDU is supported by the implementation in question.

NOTE: Whether it is possible to use combinations of supported parameters is a question to be answered by the PIXIT.

A.3.6.1.1 AF parameters/SBV Establish Request

Ref.	Parameter	Status	Support	Value		Support
				Allowed		
				ETS 300 223 [2]	ETS 300 079 [3]	
1	OB_Application_Address	c13		9.3.1	9.4.4	
2	OB_Application_Selection	c13		9.3.1	9.4.4	
3	OB_Application_Data	c13		9.3.1	9.4.4	
4	OB_User_Data	c13		9.3.1	9.4.4	
5	IB_Called_Address (note)	c14		?	?	
7	IB_Application_Address	c15		9.3.1	9.4.4	
8	IB_Application_Selection	c15		9.3.1	9.4.4	
9	IB_Application_Data	c15		9.3.1	9.4.4	
10	IB_User_Data	c15		9.3.1	9.4.4	
11	Reference	c15		9.3.1	9.4.4	
12	Reverse_Role_Assignment	cxy		9.3.1	9.4.4	

NOTE 1: When In-Band Addressing is used (table 6, reference 3 answered with "y"), this parameter does not form a part of this table.

NOTE 2: A gap is left between reference 5 and reference 7 in order to insert a possible "IB_Called_Subaddress" parameter, which is not justified by the protocol definition at the time of creation of the present document.

NOTE 3: A calling Access device acts as a Terminal Function before Reverse_Role_Assignment has been agreed upon.

A.3.6.1.2 AF parameters/SBV Establish Response

Ref.	Parameter	Status	Support	Value		
				Allowed		Support
				ETS 300 223 [2]	ETS 300 079 [3]	
1	Result	c12		9.3.1	9.4.4	
NOTE: A calling Access device acts as a Terminal Function before Reverse_Role_Assignment has been agreed upon.						

A.3.6.1.3 AF parameters/SBV Release Request

Ref.	Parameter	Status	Support	Value		Support
				Allowed		
				ETS 300 223 [2]	ETS 300 079 [3]	
1	OB_Cause	c11		11.3.1	9.4.1	
2	IB_Cause	m		11.4.2.2	9.4.1	
3	IB_Diagnostic	m		11.4.2.2	9.4.1	
4	Result	c12		9.3.1	9.4.4	

NOTE: c11 is not justified by the protocol definition at the time of creation of the present document. Nevertheless, it appears to be reasonable in a Videotex context.

Table A.56: AF parameters/receive/Release Request

Ref.	Parameter	Status	Support	Value		
				Allowed		Support
				ETS 300 223 [2]	ETS 300 079 [3]	
1	OB_Cause	c11a		11.3.1	9.4.1	
2	IB_Cause	m		11.4.2.2	9.4.1	
3	IB_Diagnostic	m		11.4.2.2	9.4.1	
4	Result	c12a		9.3.1	9.4.4	
NOTE: c11a is not justified by the protocol definition at the time of creation of the present document. Nevertheless, it appears to be reasonable in a videotex context.						

A.3.6.1.4 AF parameters/SBV_Reset Request

No parameter.

A.3.6.1.5 AF parameters/SBV_Reset Response

Table A.57: AF parameters/receive/Reset Response

Ref.	Parameter	Status	Support	Value		
				Allowed		Support
				ETS 300 223 [2]	ETS 300 079 [3]	
1	Result	c18a		7.2.3; 9.3.1.		

A.3.6.1.6 AF parameters/SBV_VTX_Data Request

Table A.58: AF parameters/send/VTX_Data Request

Ref.	Parameter	Status	Support	Value		
				Allowed		Support
				ETS 300 223 [2]	ETS 300 079 [3]	
1	VTX_Data	m		9.3.2	9.4.2	

Table A.59: AF parameters/receive/VTX_Data Request

Ref.	Parameter	Status	Support	Value		
				Allowed		Support
				ETS 300 223 [2]	ETS 300 079 [3]	
1	X.3_Parameter_List	m		9.3.2	9.4.2	

A.3.6.1.7 AF parameters/SBV_Set_Param Request

Table A.60: AF parameters/send/X.3_Set_Param Request

Ref.	Parameter	Status	Support	Value		
				Allowed		Support
				ETS 300 223 [2]	ETS 300 079 [3]	
1	X.3_Parameter_List	m		9.3.2	9.4.2	

A.3.6.1.8 AF parameters/SBV_Read_Param Request

Table A.61: AF parameters/send/X.3_Read_Param Request

Ref.	Parameter	Status	Support	Value		
				Allowed		Support
				ETS 300 223 [2]	ETS 300 079 [3]	
1	X.3_Parameter_List	m		9.3.2	9.4.2	

A.3.6.1.9 AF parameters/SBV_Set_Read_Param Request

Table A.62: AF parameters/send/X.3_Set_Read_Param Request

Ref.	Parameter	Status	Support	Value		
				Allowed		Support
				ETS 300 223 [2]	ETS 300 079 [3]	
1	X.3_Parameter_List	m		9.3.2	9.4.2	

A.3.6.1.10 AF parameters/SBV_Param_Ind Request

Table A.63: AF parameters/receive/X.3_Param_Ind Request

Ref.	Parameter	Status	Support	Value		
				Allowed		Support
				ETS 300 223 [2]	ETS 300 079 [3]	
1	X.3_Parameter_List	m		9.3.2	9.4.2	

A.3.6.1.11 AF parameters/SBV_TFI Request

Table A.64: AF parameters/send/SBV_TFI Request

Ref.	Parameter	Status	Support	Value		
				Allowed		Support
				ETS 300 223 [2]	ETS 300 079 [3]	
1	TFI_Enq	m		9.3.2	9.4.2	

A.3.6.1.12 AF parameters/SBV_TFI Response

Table A.65: AF parameters/receive/SBV_TFI Response

Ref.	Parameter	Status	Support	Value		
				Allowed		Support
				ETS 300 223 [2]	ETS 300 079 [3]	
1	TFI_Ack	m		9.3.2	9.4.2	

A.3.6.1.13 AF parameters/SBV_TC_Error Request

Table A.66: AF parameters/send/SBV_TC_Error Request

Ref.	Parameter	Status	Support	Value		
				Allowed		Support
				ETS 300 223 [2]	ETS 300 079 [3]	
1	Error Code	m		9.3.3.1	9.4.51	

Table A.67: AF parameters/receive/SBV_TC_Error Request

Ref.	Parameter	Status	Support	Value		
				Allowed		Support
				ETS 300 223 [2]	ETS 300 079 [3]	
1	Error Code	m		9.3.3.1	9.4.5.1	

A.3.6.1.14 AF parameters/SBV_Channel_Open Request

Table A.68: AF parameters/send/SBV_Channel_Open Request

Ref.	Parameter	Status	Support	Value		Support
				Allowed		
				ETS 300 223 [2]	ETS 300 079 [3]	
1	Req_OB_Called_Address	0.4		9.3.1	9.4.4	
2	Req_OB_Called_Subaddres	0		9.3.1	9.4.4	
3	OB_Application_Address	0.4		9.3.1	9.4.4	
4	OB_Application_Selection	0.4		9.3.1	9.4.4	
5	OB_Application_Data	0		9.3.1	9.4.4	
6	Req_OB_User_Data	0.4		9.3.1	9.4.4	
7	Req_IB_Called_Address	0.4		9.3.1	9.4.4	
9	IB_Application_Address	0.4		9.3.1	9.4.4	
10	IB_Application_Selection	0.4		9.3.1	9.4.4	
11	IB_Application_Data	0		9.3.1	9.4.4	
12	Req_IB_User_Data	0.4		9.3.1	9.4.4	
13	Packet_Size	0		9.3.1	9.4.4	
14	Window_Size	0		9.3.1	9.4.4	
15	Reference	0		9.3.1	9.4.4	
NOTE:	A gap is left between reference 7 and reference 9 in order to insert a possible "Req_IB_Called_Subaddress" parameter, which is not justified by the protocol definition at the time of creation of this ETS.					

A.3.6.1.15 AF parameters/SBV_Channel_Open Response

Table A.69: AF parameters/receive/SBV_Channel_Open Response

Ref.	Parameter	Status	Support	Value		
				Allowed		Support
				ETS 300 223 [2]	ETS 300 079 [3]	
1	Ind_OB_Cause	o		9.3.1	9.4.4	
2	Ind_IB_Cause	o		9.3.1	9.4.4	
3	Ind_IB_Diagnostic	o		9.3.1	9.4.4	
4	Result	m		9.3.1	9.4.4	

A.3.6.1.16 AF parameters/SBV_Channel_Close Request

Table A.70: AF parameters/send/SBV_Channel_Close Request

Ref.	Parameter	Status	Support	Value		
				Allowed		Support
				ETS 300 223 [2]	ETS 300 079 [3]	
1	Reference	m		not defined (see 9.3.1)	not defined (see 9.4.4)	

A.3.6.1.17 AF parameters/SBV_Channel_Close Response

Table A.71: AF parameters/receive/SBV_Channel_Close Response

Ref.	Parameter	Status	Support	Value		
				Allowed		Support
				ETS 300 223 [2]	ETS 300 079 [3]	
1	Result	m		9.3.1	9.4.4	

A.3.6.1.18 AF parameters/SBV_Channel_Error Request

Table A.72: AF parameters/receive/SBV_Channel_Error Request

Ref.	Parameter	Status	Support	Value		
				Allowed		Support
				ETS 300 223 [2]	ETS 300 079 [3]	
1	Reference	m		not defined (see 9.3.1)	not defined (see 9.4.4)	
2	Ind_OB_Cause	m		9.3.1	9.4.4	
3	Ind_IB_Cause	m		9.3.1	9.4.4	
4	Ind_IB_Diagnostic	m		9.3.1	9.4.4	

A.3.6.1.19 AF parameters/SBV_Begin_Application Request

Table A.73: AF parameters/receive/SBV_Begin_Application Request

Ref.	Parameter	Status	Support	Value		
				Allowed		Support
				ETS 300 223 [2]	ETS 300 079 [3]	
1	IB_Application_Address	m		9.3.1	9.4.4	
2	IB_Application_Selection	m		9.3.1	9.4.4	
3	IB_Application_Data	m		9.3.1	9.4.4	
4	IB_User_Data	m		9.3.1	9.4.4	

A.3.6.1.20 AF parameters/SBV_Begin_Application Response

Table A.74: AF parameters/send/SBV_Begin_Application Response

Ref.	Parameter	Status	Support	Value		
				Allowed		Support
				ETS 300 223 [2]	ETS 300 079 [3]	
1	Result	m		9.3.1	9.4.4	

A.3.6.1.21 AF parameters/SBV_End_Application Request

No parameter.

A.3.6.1.22 AF parameters/SBV_End_Immediate Request

No parameter.

A.3.6.1.23 AF parameters/SBV_TPD_Begin Request

No parameter.

A.3.6.1.24 AF parameters/SBV_TPD_Begin Response

Table A.75: AF parameters/send/SBV_TPD_Begin Response

Ref.	Parameter	Status	Support	Value		
				Allowed		Support
				ETS 300 223 [2]	ETS 300 079 [3]	
1	Result	m		9.3.1	9.4.4	
2	DDU_Fall_Back_Mode	o		9.3.3.2	9.3.3.2	

Table A.76: AF parameters/receive/SBV_TPD_Begin Response

Ref.	Parameter	Status	Support	Value		
				Allowed		Support
				ETS 300 223 [2]	ETS 300 079 [3]	
1	Result	m		9.3.1	9.4.4	
2	DDU_Fall_Back_Mode	m		9.3.3.2	9.3.3.2	

A.3.6.1.25 AF parameters/SBV_TPD_End Request

No parameter.

A.3.6.1.26 AF parameters/SBV_DFK Request

Table A.77: AF parameters/send/SBV_DFK Request

Ref.	Parameter	Status	Support	Value		
				Allowed		Support
				ETS 300 223 [2]	ETS 300 079 [3]	
1	Function_Keys	o.4		9.4.5.3	9.3.3.3	
2	Reset_Keys	o.4		9.4.5.3	9.3.3.3	

A.3.6.1.27 AF parameters/SBV_Remote_Echo Request

Table A.78: AF parameters/receive/SBV_Remote_Echo Request

Ref.	Parameter	Status	Support	Value		
				Allowed		Support
				ETS 300 223 [2]	ETS 300 079 [3]	
1	Echo	m		7.3.5; 9.3.1.		

A.3.6.1.28 AF parameters/SBV_Escape Request

Table A.79: AF parameters/send/SBV_Escape Request

Ref.	Parameter	Status	Support	Value		
				Allowed		Support
				ETS 300 223 [2]	ETS 300 079 [3]	
1	Service-ID	m		D.3	D.3	
2	Data	o		not defined	not defined	

Table A.80: AF parameters/receive/SBV_Escape Request

Ref.	Parameter	Status	Support	Value		
				Allowed		Support
				ETS 300 223 [2]	ETS 300 079 [3]	
1	Service-ID	m		D.3	D.3	
2	Data	m		not defined	not defined	

A.3.6.2 TF Parameters

A.3.6.2.1 TF Parameters/SBV_Establish Request

Table A.81: TF Parameters/send/Establish Request

Ref.	Parameter	Status	Support	Value		
				Allowed		Support
				ETS 300 223 [2]	ETS 300 079 [3]	
1	OB_Application_Address	c13a		9.3.1	9.4.4	
2	OB_Application_Selection	c13a		9.3.1	9.4.4	
3	OB_Application_Data	c13a		9.3.1	9.4.4	
4	OB_User_Data	c13a		9.3.1	9.4.4	
5	IB_Called_Address (note)	c14a		?	?	
7	IB_Application_Address	c15a		9.3.1	9.4.4	
8	IB_Application_Selection	c15a		9.3.1	9.4.4	
9	IB_Application_Data	c15a		9.3.1	9.4.4	
10	IB_User_Data	c15a		9.3.1	9.4.4	
11	Reference	c15a		9.3.1	9.4.4	
12	Reverse Role Assignment	cxya		9.3.1	9.4.4	

NOTE 1: When In-Band Addressing is used (table 6, Reference 3 answered with "y"), this parameters do not form a part of this table.

NOTE 2: A gap is left between reference 5 and reference 7 in order to insert a possible "IB_Called_Subaddress" parameter, which is not justified by the protocol definition at the time of creation of the present document.

NOTE 3: A calling Access device acts as a Terminal Function before Reverse_Role_Assignment has been agreed upon.

A.3.6.2.2 TF Parameters/SBV_Establish Response

Table A.82: TF Parameters/receive/Establish Response

Ref.	Parameter	Status	Support	Value		
				Allowed		Support
				ETS 300 223 [2]	ETS 300 079 [3]	
1	Result	c12a		9.3.1	9.4.4	
NOTE: A calling Access device acts as a Terminal Function before Reverse_Role_Assignment has been agreed upon.						

A.3.6.2.3 TF Parameters/SBV_Release Request

Table A.83: TF Parameters/receive/Release Request

Ref.	Parameter	Status	Support	Value		
				Allowed		Support
				ETS 300 223 [2]	ETS 300 079 [3]	
1	OB_Cause	c11a		11.3.1	9.4.1	
2	IB_Cause	m		11.4.2.2	9.4.1	
3	IB_Diagnostic	m		11.4.2.2	9.4.1	
4	Result	c12a		9.3.1	9.4.4	
NOTE: c11a is not justified by the protocol definition at the time of creation of the present document. Nevertheless, it appears to be reasonable in a Videotex context.						

Table A.84: TF Parameters/send/Release Response

Ref.	Parameter	Status	Support	Value		
				Allowed		Support
				ETS 300 223 [2]	ETS 300 079 [3]	
1	OB_Cause	c11		11.3.1	9.4.1	
2	IB_Cause	m		11.4.2.2	9.4.1	
3	IB_Diagnostic	m		11.4.2.2	9.4.1	
4	Result	c12		9.3.1	9.4.4	
NOTE: c11 is not justified by the protocol definition at the time of creation of the present document. Nevertheless, it appears to be reasonable in a Videotex context.						

A.3.6.2.4 TF Parameters/SBV_Reset Request

No parameter.

A.3.6.2.5 TF Parameters/SBV_Reset Response

Table A.85: AF parameters/send/Reset Response

Ref.	Parameter	Status	Support	Value		
				Allowed		Support
				ETS 300 223 [2]	ETS 300 079 [3]	
1	Result	c18		7.2.3; 9.3.1.		

A.3.6.2.6 TF Parameters/SBV_VTX_Data Request

Table A.86: TF Parameters/receive/VTX_Data Request

Ref.	Parameter	Status	Support	Value		
				Allowed		Support
				ETS 300 223 [2]	ETS 300 079 [3]	
1	VTX_Data	m		9.3.2	9.4.2	

Table A.87: TF Parameters/send/VTX_Data Request

Ref.	Parameter	Status	Support	Value		
				Allowed		Support
				ETS 300 223 [2]	ETS 300 079 [3]	
1	X.3_Parameter_List	m		9.3.2	9.4.2	

A.3.6.2.7 TF Parameters/SBV_Set_Param Request

Table A.88: TF Parameters/receive/X.3_Set_Param Request

Ref.	Parameter	Status	Support	Value		
				Allowed		Support
				ETS 300 223 [2]	ETS 300 079 [3]	
1	X.3_Parameter_List	m		9.3.2	9.4.2	

A.3.6.2.8 TF Parameters/SBV_Read_Param Request

Table A.89: TF Parameters/receive/X.3_Read_Param Request

Ref.	Parameter	Status	Support	Value		
				Allowed		Support
				ETS 300 223 [2]	ETS 300 079 [3]	
1	X.3_Parameter_List	m		9.3.2	9.4.2	

A.3.6.2.9 TF Parameters/SBV_Set_Read_Param Request

Table A.90: TF Parameters/receive/X.3_Set_Read_Param Request

Ref.	Parameter	Status	Support	Value		
				Allowed		Support
				ETS 300 223 [2]	ETS 300 079 [3]	
1	X.3_Parameter_List	m		9.3.2	9.4.2	

A.3.6.2.10 TF Parameters/SBV_Param_Ind Request

Table A.91: TF Parameters/send/X.3_Param_Ind Request

Ref.	Parameter	Status	Support	Value		
				Allowed		Support
				ETS 300 223 [2]	ETS 300 079 [3]	
1	X.3_Parameter_List	m		9.3.2	9.4.2	

A.3.6.2.11 TF Parameters/SBV_TFI Request

Table A.92: TF Parameters/receive/SBV_TFI Request

Ref.	Parameter	Status	Support	Value		
				Allowed		Support
				ETS 300 223 [2]	ETS 300 079 [3]	
1	TFI_Enq	m		9.3.2	9.4.2	

A.3.6.2.12 TF Parameters/SBV_TFI Response

Table A.93: TF Parameters/send/SBV_TFI Response

Ref.	Parameter	Status	Support	Value		
				Allowed		Support
				ETS 300 223 [2]	ETS 300 079 [3]	
1	TFI_Ack	m		9.3.2	9.4.2	

A.3.6.2.13 TF Parameters/SBV_TC_Error Request

Table A.94: TF Parameters/receive/SBV_TC_Error Request

Ref.	Parameter	Status	Support	Value		
				Allowed		Support
				ETS 300 223 [2]	ETS 300 079 [3]	
1	Error_Code	m		9.3.3.1	9.4.51	

Table A.95: TF Parameters/send/SBV_TC_Error Request

Ref.	Parameter	Status	Support	Value		
				Allowed		Support
				ETS 300 223 [2]	ETS 300 079 [3]	
1	Error_Code	m		9.3.3.1	9.4.5.1	

A.3.6.2.14 TF Parameters/SBV_Channel_Open Request

Table A.96: TF Parameters/receive/SBV_Channel_Open Request

Ref.	Parameter	Status	Support	Value		Support
				Allowed		
				ETS 300 223 [2]	ETS 300 079 [3]	
1	Req_OB_Called_Address	0		9.3.1	9.4.4	
2	Req_OB_Called_Subaddress	0		9.3.1	9.4.4	
3	OB_Application_Address	0		9.3.1	9.4.4	
4	OB_Application_Selection	0		9.3.1	9.4.4	
5	OB_Application_Data	0		9.3.1	9.4.4	
6	Req_OB_User_Data	0		9.3.1	9.4.4	
7	Req_IB_Called_Address	0		9.3.1	9.4.4	
9	IB_Application_Address	0		9.3.1	9.4.4	
10	IB_Application_Selection	0		9.3.1	9.4.4	
11	IB_Application_Data	0		9.3.1	9.4.4	
12	Req_IB_User_Data	0		9.3.1	9.4.4	
13	Packet_Size	0		9.3.1	9.4.4	
14	Window_Size	0		9.3.1	9.4.4	
15	Reference	0		9.3.1	9.4.4	
NOTE:	A gap is left between reference 7 and reference 9 in order to insert a possible "IB_Called_Subaddress" parameter, which is not justified by the protocol definition at the time of creation of the present document.					

A.3.6.2.15 TF Parameters/SBV_Channel_Open Response

Table A.97: TF Parameters/send/SBV_Channel_Open Response

Ref.	Parameter	Status	Support	Value		
				Allowed		Support
				ETS 300 223 [2]	ETS 300 079 [3]	
1	Ind_OB_Cause	o		9.3.1	9.4.4	
2	Ind_IB_Cause	o		9.3.1	9.4.4	
3	Ind_IB_Diagnostic	o		9.3.1	9.4.4	
4	Result	m		9.3.1	9.4.4	

A.3.6.2.16 TF Parameters/SBV_Channel_Close Request

Table A.98: TF Parameters/receive/SBV_Channel_Close Request

Ref.	Parameter	Status	Support	Value		
				Allowed		Support
				ETS 300 223 [2]	ETS 300 079 [3]	
\$ 1	Reference	c25		not defined.		

A.3.6.2.17 TF Parameters/SBV_Channel_Close Response

Table A.99: TF Parameters/send/SBV_Channel_Close Response

Ref.	Parameter	Status	Support	Value		
				Allowed		Support
				ETS 300 223 [2]	ETS 300 079 [3]	
1	Result	c25		9.3.1	9.4.4	

A.3.6.2.18 TF Parameters/SBV_Channel_Error Request

Table A.100: TF Parameters/send/SBV_Channel_Error Request

Ref.	Parameter	Status	Support	Value		
				Allowed		Support
				ETS 300 223 [2]	ETS 300 079 [3]	
1	Reference	m		not defined (see 9.3.1)	not defined (see 9.4.4)	
2	Ind_OB_Cause	o		9.3.1	9.4.4	
3	Ind_IB_Cause	o		9.3.1	9.4.4	
4	Ind_IB_Diagnostic	o		9.3.1	9.4.4	

A.3.6.2.19 TF Parameters/SBV_Begin_Application Request

Table A.101: TF Parameters/send/SBV_Begin_Application Request

Ref.	Parameter	Status	Support	Value		
				Allowed		Support
				ETS 300 223 [2]	ETS 300 079 [3]	
1	IB_Application_Address	0		9.3.1	9.4.4	
2	IB_Application_Selection	0		9.3.1	9.4.4	
3	IB_Application_Data	0		9.3.1	9.4.4	
4	IB_User_Data	0		9.3.1	9.4.4	

A.3.6.2.20 TF Parameters/SBV_Begin_Application Response

Table A.102: TF Parameters/receive/SBV_Begin_Application Response

Ref.	Parameter	Status	Support	Value		
				Allowed		Support
				ETS 300 223 [2]	ETS 300 079 [3]	
1	Result	m		9.3.1	9.4.4	

A.3.6.2.21 TF Parameters/SBV_End_Application Request

No parameter.

A.3.6.2.22 TF Parameters/SBV_End_Immediate Request

No parameter.

A.3.6.2.23 TF Parameters/SBV_TPD_Begin Request

No parameter.

A.3.6.2.24 TF Parameters/SBV_TPD_Begin Response

Table A.103: TF Parameters/receive/SBV_TPD_Begin Response

Ref.	Parameter	Status	Support	Value		
				Allowed		Support
				ETS 300 223 [2]	ETS 300 079 [3]	
1	Result	m		9.3.1	9.4.4	
2	DDU_Fall_Back_Mode	m		9.3.3.2	9.3.3.2	

Table A.104: TF Parameters/send/SBV_TPD_Begin Response

Ref.	Parameter	Status	Support	Value		
				Allowed		Support
				ETS 300 223 [2]	ETS 300 079 [3]	
1	Result	m		9.3.1	9.4.4	
2	DDU_Fall_Back_Mode	c29		9.3.3.2	9.3.3.2	

A.3.6.2.25 TF Parameters/SBV_TPD_End Request

No parameter.

A.3.6.2.26 TF Parameters/SBV_DFK Request

Table A.105: TF Parameters/receive/SBV_DFK Request

Ref.	Parameter	Status	Support	Value		
				Allowed		Support
				ETS 300 223 [2]	ETS 300 079 [3]	
1	Function_Keys	m		9.4.5.3	9.3.3.3	
2	Reset_Keys	m		9.4.5.3	9.3.3.3	

A.3.6.2.27 AF parameters/SBV_Remote_Echo Request

Table A.106: AF parameters/send/SBV_Remote_Echo Request

Ref.	Parameter	Status	Support	Value		
				Allowed		Support
				ETS 300 223 [2]	ETS 300 079 [3]	
1	Echo	m		7.3.5; 9.3.1.		

A.3.6.2.28 TF Parameters/SBV_Escape Request

Table A.107: TF Parameters/receive/SBV_Escape Request

Ref.	Parameter	Status	Support	Value		
				Allowed		Support
				ETS 300 223 [2]	ETS 300 079 [3]	
1	Service-ID	m		D.3	D.3	
2	Data	m		not defined	not defined	

Table A.108: TF Parameters/send/SBV_Escape Request

Ref.	Parameter	Status	Support	Value		
				Allowed		Support
				ETS 300 223 [2]	ETS 300 079 [3]	
1	Service-ID	m		D.3	D.3	
2	Data	o		not defined	not defined	

A.3.6.3 X.3 Parameters

In this subclause, only the capability to handle the CCITT Recommendation X.3 [8] parameters in either incoming or outgoing PDUs is questioned. However, it is not questioned whether the semantic of those parameters is supported according to the standards.

A.3.6.3.1 X.3 Parameters/send

Table A.109: X.3 Parameters/send

Ref.	X.3 Parameter	Status	Support	Value	
				Allowed	Support
1	2	m		10.2	
2	3	m		10.2	
3	4	m		10.2	
4	11	m		10.2	
5	23	o		10.2	
6	24	o		10.2	
7	25	o		10.2	
8	26	o		10.2	
9	28	o		10.2	
10	29	o		10.2	

A.3.6.3.2 X.3 Parameters/receive

Table A.110: X.3 Parameters/receive

Ref.	X.3 Parameter	Status	Support	Value	
				Allowed	Support
1	2	m		10.2	
2	3	m		10.2	
3	4	m		10.2	
4	11	m		10.2	
5	23	o		10.2	
6	24	o		10.2	
7	25	o		10.2	
8	26	o		10.2	
9	28	o		10.2	
10	29	o		10.2	

Annex B (normative): SBV PICS conditional expressions

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This annex defines the conditional keys used in the PICS proforma. In table B.1, each conditional expression is identified by the sequence of characters "cnn", where "nn" is an integer value. In the conditional expressions, individual table entry replies are referenced by the character sequence "nn/mm" where "nn" is the table number and "mm" is the "Ref." number in that table.

Table B.1: Conditional expressions

Ref.	Conditional Expression	Comment
c1	if (5/3 or 5/4) then m else o	
c2	if 7/11 then m else x	
c2a	if 7/11 then m else -	
c3	if 7/12 then m else x	
c3a	if 7/12 then m else -	
c4	if 7/13 then m else x	
c5	if 7/17 then m else x	
c5a	if 7/17 then m else -	
c6	if 7/18 then m else x	
c6a	if 7/18 then m else -	
c7	if 7/14 then m else x	
c7a	if 7/14 then m else -	
c8	if 7/15 then m else x	
c8a	if 7/15 then m else -	
c9	if 7/19 then m else x	
c10	if 7/21 then m else x	
c10a	if 7/21 then m else -	
c11	if 6/1 then o else -	see note
c11a	if 6/1 then m else -	see note
c12	if 6/5 then o else -	see note
c12a	if 6/5 then m else -	see note
c13	if 6/2 then o else -	see note
c13a	if 6/2 then m else -	see note
c14	if 6/3 then - else o	see note
c14a	if 6/3 then - else o	see note
c15	if 6/4 then o else -	see note
c15a	if 6/4 then m else -	see note
c16	if (5/3 or 5/4) then o else o.3	
c17	if 8/1 then m else x	
c17a	if 8/1 then m else -	
c18	if 8/2 then m else x	
c18a	if 8/2 then m else -	
c19	if 7/16 then m else x	
c19a	if 7/16 then m else -	
c20	if 7/20 then m else x	
c20a	if 7/20 then m else -	
NOTE: To group parameters is not fully justified by the standard(s) itself. Nevertheless, it appears to be reasonable. To give an example: The I-ETS allows for an incoming SBV_Establish PDU to support the IB_Application_Address parameter while not supporting at the same time IB_Application_Selection parameter. It is proposed to amend the standard(s) as it is done here.		

Annex C (normative): SBV PICS optional types

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This annex defines the optional keys used in the PICS proforma. In table C.1, each optional type is identified by the sequence of characters "o.nn", where "nn" is an integer value. For each optional key the table states whether it is a mutually exclusive or selectable option. For selectable options a list of possible selections shown in addition. Only selections contained in that list are allowed by the base standard.

Table C.1: Optional types

Ref.	Optional Type	Comment
o.1	mutually exclusive;	one device type shall be supported; for an implementation supporting more than one device type, one PICS per device type is required.
o.2	selectable: 0/3, 3/3;	
o.3	selectable: 0/2, 2/2;	
o.4	selectable: at least one of them shall be present	
o.5	not defined here.	What is needed depends on the underlying network/Bearer service.

Annex D (normative): SBV PIXIT proforma

Notwithstanding the provisions of the copyright clause related to the text of the present document, ETSI grants that users of the present document may freely reproduce the PIXIT proforma in this annex so that it can be used for its intended purposes and may further publish the completed PIXIT.

NOTE: This note and text in *italics* is comment for guidance purposes only, and is not to be included in the actual proforma.

D.1 Identification summary

PIXIT Number

Test Laboratory Name

Date of Issue

Issued to *Name of client*

The test laboratory may include client or contract references in the identification summary.

D.2 Abstract Test Suite summary

Protocol Standard *ETS 300 079 [3] or ETS 300 223 [2]*

ATS Standard *the present document*

Abstract Test Method *Remote Test Method*

D.3 Test laboratory

This clause shall contain information for the identification of the test laboratory and the Means of Testing. Typically, this should include:

Test Laboratory Identification *Name and addressing details*

Test Laboratory Manager *Name*

Means of Testing

SAP Address(es) *Lower Tester address for testing the SUT, if required*

Instructions for Completion *The test laboratory shall include any special instructions necessary for the completion and return of the proforma by the client.*

D.4 Client

This clause shall contain information for the identification of the client. Typically, this should include:

Client Identification *Name and address details*

Client Test Manager *Name*

Test Facilities Required *The client shall record the particular facilities required for testing, if a range of facilities is provided by the test laboratory.*

D.5 SUT

Name:
 Version:
 SCS Number:
 Machine Configuration:
 Operating System Identification:
 IUT Identification:
 PICS Reference for IUT:
 Limitations of the SUT:

NOTE: The client may provide information explaining if any of the abstract tests cannot be executed.

Environmental Conditions:

D.6 Ancillary protocols

In the following table the client shall identify relevant information concerning each ancillary protocol of the SUT.

Table D.1: Ancillary protocols

Protocol Name	Version No.	PICS Ref.(opt.)	PIXIT Ref.(opt.)	PCTR Ref.(opt.)
<i>e.g. ETS 300 080</i>				

One clause is required for the ancillary protocol (e.g. Out-of-Band) included in the SUT other than the IUT itself. The information required depends on the Means of Testing and the SUT.

NOTE: The information requested covers all the addressing parameters, parameter values, timer values and facilities as defined by the PICS for each protocol.

D.7 Protocol layer information for SBV protocol

D.7.1 Protocol identification

Name: SBV protocol
 Version:
 PICS Reference:

D.7.1.1 ITU information

This subclause includes such items as addresses, parameter values and timer values required to test the IUT. It also includes test suite parameters where they are identified in the Executable Test Suite specification.

D.7.1.2 Addresses

This subclause shall identify the SAP addresses to be used:

- a) by the lower tester to access the IUT (provided by the client);
- b) by the SUT to access the lower tester (provided by the test laboratory).

These addresses are only used when the Lower Tester is to call the IUT, i.e. **when the IUT is a called Access Device or a Called Terminal Device**. PICS Ref.: Table A.5. Note that in both cases the IUT acts as an Access Function during the connection establishment.

Table D.2: IUT Addresses

Ref.	Address Name	PICS Ref.	Comments	Value
1	IUT Out-of-Band Address	6/1	note 1	
2	IUT Out-of-Band Subaddress	6/1	note 1	
3	IUT In-Band Address	6/3	note 2	
NOTE 1: If Out-of-Band addressing is used only; see PICS clause.				
NOTE 2: If In-Band addressing is used only; see PICS clause.				

NOTE: The following table need not be filled in by the Client; the Lower Tester Address is normally provided by the test laboratory. However, the Client may specify here if some remote addresses are imposed by the SUT.

Table D.3: Lower Tester Addresses

Ref.	Address Name	PICS Ref.	Comments	Value
1	Lower Tester Out-of-Band Address	6/1	note 1	
2	Lower Tester Out-of-Band Subaddress	-	note 1	
3	Lower Tester In-Band Address	6/3	note 2	
NOTE 1: If Out-of-Band addressing is used only; see PICS clause.				
NOTE 2: If In-Band addressing is used only; see PICS clause.				

D.7.1.2.1 PDU parameter values

This subclause contains information on PDUs exchanged between the Lower Tester and the IUT. As the SBV protocol does not assume anything concerning the syntax or the values of application-specific parameters, the Client is asked here to provide possible values of:

- parameters of PDUs that shall be sent to the IUT during test execution, and that can be accepted by the IUT.
- parameters of PDUs that shall be received from the IUT during test execution, and that shall be expected by the Lower Tester.

Values should be given in the PIXIT for the parameters that are stated as supported in the PICS.

Client provides the parameter range and the exact value to be used is agreed between the Client and the test laboratory. Both range and value shall appear in these tables.

Extra information may be given with a parameter to explain in what conditions the parameter shall take the specified value. For instance, it can be explained how to set a parameter.

The parameter values have no universal character: they are given as examples of values that can be used for testing purposes.

D.7.1.2.2 Parameter values accepted by the IUT

D.7.1.2.2.1 Specific parameters for an IUT acting as an Access Function

Table D.4: Parameter values accepted by the IUT on a SBV_Establish request PDU sent by the Lower Tester

Ref.	Param. Name	PICS Ref.	Comments	Param. Range	Param. Value
1	OB_Application_Address	48/1			
2	OB_Application_Selection	48/2			
3	OB_Application_Data	48/3			
4	OB_User_Data	48/4	note 1		
5	IB_Address	48/5	note 2		
6	IB_Application_Address	48/7			
7	IB_Application_Selection	48/8			
8	IB_Application_Data	48/9			
9	IB_User_Data	48/10	note 1		
10	Reference	48/11	note 3		

NOTE 1: These strings shall be encoded according to the Free Format requirement (ETS 300 079 [3], cl 9.4.3; ETS 300 223 [2], subclause 9.3.1) i.e. the MSB of their first octet shall be 0.

NOTE 2: This parameter is relevant if In-Band addressing is not used only.

NOTE 3: Two references are requested: These are two references of channels that can be opened with the IUT.

Table D.5: Parameter values accepted by the IUT on a SBV_TFI response PDU sent by the Lower Tester

Ref.	Param. Name	PICS Ref.	Comments	Param. Range	Param. Value
1	TFI_Ack	58/1	note		

NOTE: This parameter should be encoded according to ETS 300 076 [14], and according to the way TFI is used by the IUT.

Table D.6: Parameter values accepted by the IUT on a SBV_Begin_Application request PDU sent by the Lower Tester

Ref.	Param. Name	PICS Ref.	Comments	Param. Range	Param. Value
1	IB_Application_Address	66/1	note		
2	IB_Application_Selection	66/2	note		
3	IB_Application_Data	66/3	note		
4	IB_User_Data	66/4	note		

NOTE: As the semantics of these parameters are not defined by the standards, these values may be different from the ones given for an SBV_Establish request sent to the IUT. One can admit the case of an allowable value carried by a SBV-ESTABLISH that is to be excluded on a SBV_Begin_Application, and vice versa.

Table D.7: Parameter values accepted by the IUT on a SBV_Channel_Open response PDU sent by the Lower Tester

Ref.	Param. Name	PICS Ref.	Comments	Param. Range	Param. Value
1	Ind_OB_Cause	62/1			
2	Ind_IB_Cause	62/2			
3	Ind_IB_Diagnostic	62/3			

Table D.8: Parameter values accepted by the IUT on a SBV_Channel_Error request PDU sent by the Lower Tester

Ref.	Param. Name	PICS Ref.	Comments	Param. Range	Param. Value
1	Ind_OB_Cause	65/1			
2	Ind_IB_Cause	65/2			
3	Ind_IB_Diagnostic	65/3			

D.7.1.2.2.1.1 Specific parameters for an IUT acting as a Terminal Function

Table D.9: Parameter values accepted by the IUT on a SBV_Channel_Open request PDU sent by the Lower Tester

Ref.	Param. Name	PICS Ref.	Comments	Param. Range	Param. Value
1	Req_OB_Called_Address	86/1			
2	Req_OB_Called_Subaddress	86/2			
3	OB_Application_Address	86/3			
4	OB_Application_Selection	86/4			
5	OB_Application_Data	86/5			
6	Req_OB_User_Data	86/6	note		
7	Req_IB_Called_Address	86/7			
8	IB_Application_Address	86/9			
9	IB_Application_Selection	86/10			
10	IB_Application_Data	86/11			
11	IB_User_Data	86/12	note		
12	Packet_Size	86/13			
13	Window_Size	86/14			
14	Reference	86/15			
NOTE: These strings shall be encoded according to the Free Format requirement (ETS 300 079 [3], cl 9.4.3; ETS 300 223 [2], subclause 9.3.1) i.e. the MSB of their first octet shall be 0.					

Table D.10: Parameter values accepted by the IUT on a SBV_TFI request PDU sent by the Lower Tester

Ref.	Param. Name	PICS Ref.	Comments	Param. Range	Param. Value
1	TFI_Enq	82/1	note		
NOTE: This parameter should be encoded according to ETS 300 076 [14], and according to the way TFI is used by the IUT.					

Table D.11: Parameter values accepted by the IUT on X.3 manipulation services PDUs sent by the Lower Tester

Ref.	Param. Name	PICS Ref.	Comments	Param. Range	Param. Value
1	X3_Parameter	98 and 99	note 1		
2	X3_Parameter_Value	98 and 99	note 2		
NOTE 1: This is one X.3 parameter supported by the IUT; it should be able to be sent and received.					
NOTE 2: This is one value possibly accepted by the IUT for the X.3 parameter given on reference 1.					

Table D.12: Parameter values accepted by the IUT on a SBV_DFK request PDU sent by the Lower Tester

Ref.	Param. Name	PICS Ref.	Comments	Param. Range	Param. Value
1	Function_Key_ID	95/1	note 1		
2	Visible_Name	95/1	note 2		
3	Code_Sequence	95/1	note 3		
4	Function_key_ID_NS	95/1	note 4		
NOTE 1: This is one Function Key supported by the IUT.					
NOTE 2: This is one Visible Name value possibly accepted by the IUT for the Function Key given on reference 1.					
NOTE 3: This is one Code Sequence value possibly accepted by the IUT for the Function Key given on reference 1.					
NOTE 4: This is one Function Key NOT supported by the IUT.					

D.7.1.2.2.1.2 Common parameters for an Access Function or a Terminal Function IUT

Table D.13: Parameter values accepted by the IUT on a SBV_VTX_Data request PDU sent by the Lower Tester

Ref.	Param. Name	PICS Ref.	Comments	Param. Range	Param. Value
1	VTX_Data_String_receive	53/1; 77/1	NOTE		
NOTE: This is a string of data that can be accepted by the IUT. As the syntax is not defined by SBV protocol, this string is supposed to be encoded according to a valid syntax supported by the IUT.					

Table D.14: Parameter values accepted by the IUT on a SBV_TPD_Begin response PDU sent by the Lower Tester

Ref.	Param. Name	PICS Ref.	Comments	Param. Range	Param. Value
1	DDU_Fall_Back_Mode_receive	69/2; 93/2			

Table D.15: Parameter values accepted by the IUT on a SBV_Escape request PDU sent by the Lower Tester

Ref.	Param. Name	PICS Ref.	Comments	Param. Range	Param. Value
1	Service_ID_receive	72/1; 96/1			
2	Escape_Data_Receive	72/2; 96/2			

D.7.1.2.2.2 Parameter values expected from the IUT

D.7.1.2.2.2.1 Specific parameters for an IUT acting as an Access Function

Table D.16: Parameter values expected by the Lower Tester on a SBV_Channel_Open request PDU sent by the IUT

Ref.	Param. Name	PICS Ref.	Comments	Param. Range	Param. Value
1	Req_OB_Called_Address	61/1			
2	Req_OB_Called_Subaddress	61/2			
3	OB_Application_Address	61/3			
4	OB_Application_Selection	61/4			
5	OB_Application_Data	61/5			
6	Req_OB_User_Data	61/6	note		
7	Req_IB_Called_Address	61/7			
8	IB_Application_Address	61/9			
9	IB_Application_Selection	61/10			
10	IB_Application_Data	61/11			
11	IB_User_Data	61/12	note		
12	Packet_Size	61/13			
13	Window_Size	61/14			
14	Reference	61/15			
NOTE: These strings shall be encoded according to the Free Format requirement (ETS 300 079 [3], cl 9.4.3; ETS 300 223 [2], subclause 9.3.1) i.e. the MSB of their first octet shall be 0.					

D.7.1.2.2.2.2 Specific parameters for an IUT acting as a Terminal Function

Table D.17: Parameter values expected by the Lower Tester on a SBV_Establish request PDU sent by the IUT

Ref.	Param. Name	PICS Ref.	Comments	Param. Range	Param. Value
1	OB_Application_Address	73/1			
2	OB_Application_Selection	73/2			
3	OB_Application_Data	73/3			
4	OB_User_Data	73/4	note 1		
5	IB_Called_Address	73/5	note 2		
6	IB_Application_Address	73/7			
7	IB_Application_Selection	73/8			
8	IB_Application_Data	73/9			
9	IB_User_Data	73/10	note 1		
10	Reference	73/11	note 3		
NOTE 1: These strings shall be encoded according to the Free Format requirement (ETS 300 079 [3], cl 9.4.3; ETS 300 223 [2], subclause 9.3.1) i.e. the MSB of their first octet shall be 0.					
NOTE 2: This parameter is relevant if In-Band addressing is not used only.					
NOTE 3: Two references are requested: These are two references of channels that can be opened with the IUT.					

Table D.18: Parameter values expected by the Lower Tester on a SBV_Param_Ind request PDU sent by the IUT

Refer to PIXIT table D.11

D.7.1.2.2.3 Common parameters for an Access Function or a Terminal Function IUT

Table D.19: Parameter values expected by the Lower Tester on a SBV_VTX_Data request PDU sent by the IUT

Ref.	Param. Name	PICS Ref.	Comments	Param. Range	Param. Value
1	VTX_Data_String_send	52/1; 78/1	note		
NOTE: This is a string of data that can be expected from the IUT. As the syntax is not defined by SBV protocol, this string is supposed to be encoded according to a valid syntax supported by the IUT.					

Table D.20: Parameter values expected by the Lower Tester on a SBV_TPD_Begin response PDU sent by the IUT

Ref.	Param. Name	PICS Ref.	Comments	Param. Range	Param. Value
1	DDU_Fall_Back_Mode_send	68/2; 94/2			

Table D.21: Parameter values expected by the Lower Tester on a SBV_Escape request PDU sent by the IUT

Ref.	Param. Name	PICS Ref.	Comments	Param. Range	Param. Value
1	Service_ID_send	71/1; 97/1			
2	Escape_Data_send	71/2; 97/2			

D.7.1.2.3 Timer values

No timer is defined by the SBV protocol ETS; however, several timers are to be used to control test execution, and their value should be set according to the typical times of the IUT.

Table D.22: Timers used for testing

Ref.	Timer Description	Timer Duration
1	Timer used to await a response from a Confirmed Service. Its value should be greater than the maximum response time of all confirmed services.	
2	Timer used to await a reaction from IUT, related to Non-Confirmed services (X.3 parameter manipulation services). Its value should be greater than the maximum possible time between a SBV_Set_Param, SBV_Read_Param or SBV_Set_Read_Param PDU is received by the IUT and the time the IUT sends back a SBV_Param_Ind PDU.	
3	Timer used to await an action from a human operator. A message will require an event to be triggered on the SUT.	
4	Timer used to check that nothing happens for a certain period of time. This timer should expire before anything is received from the IUT.	
5	"Error-detection" Timer, used to await a TC_ERROR PDU from the IUT. Its value should be the maximum time between a PDU is received by the IUT that causes a protocol error and an SBV_TC_Error PDU is sent back by the IUT.	
6	"Channel-Management" Timer, used to await a SBV_Channel_Error PDU on the master channel. Its value should be the maximum time between a PDU is received by the IUT that causes a channel error and an SBV_Channel_Error PDU is sent back by the IUT.	
7	"Timer used to await a release from the IUT after a confirmed service stayed without a response. Its value should be the maximum time between a request PDU is sent by the IUT that would expect a response, and a Release Request PDU is sent by the IUT.	

D.7.1.2.4 Procedural Information

This subclause defines the actions and events controlled or observed by an operator, at any access on the SUT.

As the testing method used is the Remote method (see subclause 5.3 of the present document), no mapping is defined between the SBV Service interface of the IUT and the access an operator may have on the SUT. However, when the IUT is expected to send a PDU x, a Test Coordination Procedure (ISO 9646-2 [5]) shall be a message to the operator: "Have the IUT send a PDU x". The information contained herein shall then be used. The clause "Observing IUT events" is less important, as no test verdict shall be assigned out of SUT human observation.

For every type of PDU, written information shall be provided by the client. The proforma given in this subclause lists all possible types of PDUs.

D.7.1.2.4.1 Triggering IUT actions

A list of PDUs possibly sent by the IUT is given hereafter. For each of them the question should be answered: "how to make the IUT send such a PDU".

In the case of request PDUs, the procedure should be described.

In the case of response PDUs, that are automatically expected from the IUT after reception of a request, details should be given on how to set the IUT in order to get a positive or a negative response.

D.7.1.2.4.1.1 The IUT acts as an Access Function

SBV_Establish Response.....:
 SBV_Release Request:
 SBV_Reset Request or Reset_TC Request.....:
 SBV_VTX_Data Request.....:
 SBV_Set_Param Request:
 SBV_Read_Param Request:
 SBV_Set_Read_Param Request:
 SBV_TFI Request.....:
 SBV_TC_Error Request:
 SBV_Channel_Open Request.....:
 SBV_Channel_Close Request:
 SBV_Begin_Application Response:
 SBV_TPD_Begin Request.....:
 SBV_TPD_Begin Response:
 SBV_TPD_End Request.....:
 SBV_DFK Request.....:
 SBV_Escape Request:

D.7.1.2.5.1.2 The IUT acts as a Terminal Function

SBV_Establish Request:
 SBV_Release Request:
 SBV_Reset Response or Reset_TC Response:
 SBV_VTX_Data Request.....:
 SBV_Param_Indication Request:
 SBV_TFI Response:
 SBV_TC_Error Request:
 SBV_Channel_Open Response:

SBV_Channel_Close Response:
 SBV_Channel_Error Request:
 SBV_Begin_Application Request:
 SBV_End_Application Request.....:
 SBV_End_Immediate Request:
 SBV_TPD_Begin Request.....:
 SBV_TPD_Begin Response:
 SBV_TPD_End Request.....:
 SBV_Remote_Echo Request:
 SBV_Escape Request:

D.7.1.2.4.2 Observing IUT Events

A list of PDUs possibly received by the IUT is given hereafter. For each of them the question should be answered: "how to observe that the IUT received such a PDU".

If possible, details should be given on the visibility of some parameters of the received PDU, e.g. display of data received.

D.7.1.2.4.2.1 The IUT acts as an Access Function

SBV_Establish Request:
 SBV_Release Request:
 SBV_Reset Response or Reset_TC Response:
 SBV_VTX_Data Request:
 SBV_Param_Indication Request:
 SBV_TFI Response:
 SBV_TC_Error Request:
 SBV_Channel_Open Response:
 SBV_Channel_Close Response:
 SBV_Channel_Error Request:
 SBV_Begin_Application Request:
 SBV_End_Application Request.....:
 SBV_End_Immediate Request:
 SBV_TPD_Begin Request.....:
 SBV_TPD_Begin Response:
 SBV_TPD_End Request.....:
 SBV_Remote_Echo Request:
 SBV_Escape Request:

D.7.1.2.4.2.2 The IUT acts as a Terminal Function

SBV_Establish Response.....:
 SBV_Release Request:
 SBV_Reset Request or Reset_TC Request.....:
 SBV_VTX_Data Request:
 SBV_Set_Param Request:
 SBV_Read_Param Request:

SBV_Set_Read_Param Request:
SBV_TFI Request.....:
SBV_TC_Error Request:
SBV_Channel_Open Request.....:
SBV_Channel_Close Request:
SBV_Begin_Application Response:
SBV_TPD_Begin Request.....:
SBV_TPD_Begin Response:
SBV_TPD_End Request.....:
SBV_DFK Request.....:

NOTE: In case of testing real effects, it is also the question whether an IUT support DFK forwarding conditions or not.

SBV_Escape Request:

Annex E (informative): SBV Test Purposes

This annex contains the test requirements (or test purposes) for the Syntax-based Videotex protocol. From these test purposes, the Abstract Test Suites (ATS) are derived, having one Abstract Test Case per test purpose.

NOTE: This is done to provide more help to a possible user of the present document.

Each of the specific test purposes described below requires a preamble to ensure the IUT is in the correct state. Each test refers to one of the following abbreviations for its preamble:

- 1) pre_state_1 - Bring the IUT into the "Idle" state.
- 2) pre_state_4 - Bring the IUT into the "TF_data transfer ready" state on a terminal function.
- 3) pre_state_12 - Bring the IUT into the "TPD Data transfer" state on a terminal function.
- 4) pre_state_4_a - Bring the IUT into the "TF_data transfer ready" state on an access function.
- 5) pre_state_12_a - Bring the IUT into the "TPD Data transfer" state on an access function.

E.1 Terminal Functions (TF)

All tests in this clause apply to devices which are implemented as Terminal Functions. The device type is specified in the PICS questions.

E.1.1 TF/Basic Interconnect Tests (BIC)

The purpose of this group is to check that sufficient functionality exists for an SBV logical channel to be established, and data to be transferred between the Terminal Function (TF) and Access Function (AF).

NOTE: The tests specified in this group are all defined elsewhere in the present document. They are separated out here because, if an IUT does not pass these "basic" connection tests, there is no point in proceeding further with the test suite.

- 1) (Use preamble pre_state_1). Check that the IUT is able to receive a valid SBV_Establish_response PDU, after sending a valid SBV_Establish_request PDU, and goes into state (4), TF_Data_transfer_ready.
- 2) (Use preamble pre_state_4). Check that the IUT is able to receive a valid SBV_VTX_Data_request PDU, remaining in state (4), TF_Data_transfer_ready.
- 3) (Use preamble pre_state_4). Check that the IUT is able to send a valid SBV_VTX_Data_request PDU, remaining in state (4), TF_Data_transfer_ready.

E.1.2 TF/Capability Tests (CA)

The tests in this group are intended to check that the observable external static capabilities of the implementation are valid with respect to the static conformance requirements expressed in the PICS of the IUT.

E.1.3 TF/Valid Behaviour Tests (BV)

All tests in the Valid Behaviour (BV) group are intended to verify as thoroughly as possible the various functions of the protocol. This subclause is divided into 4 major subsections as follows:

- 1) State Event Transitions;
- 2) Parameter Variations;
- 3) Encoding Variations;
- 4) Parameter Combinations.

E.1.3.1 TF/BV - State Event Transitions (SE)

This group of tests (TF/BV/S..) are intended to verify the various state transitions of the protocol. Tests which require the IUT to remain in a "transient" state have not been included in this subclause.

NOTE: State diagrams or state table given in annex F and annex G, respectively, are used to identify the several states.

E.1.3.1.1 TF/BV/SE - Kernel (KE)

- 1) (Use preamble pre_state_1). Check that the IUT is able to receive a valid SBV_Establish_response PDU, after sending a valid SBV_Establish_request PDU, and goes into state (4), TF_Data_transfer_ready.
- 2) (Use preamble pre_state_4). Check that the IUT is able to send a valid SBV_Release_request PDU, ending in the Idle state (1).
- 3) (Use preamble pre_state_4). Check that the IUT is able to receive a valid SBV_Release_request PDU, ending in the Idle state (1).
- 4) (Use preamble pre_state_12). Check that the IUT is able to send a valid SBV_Release_request PDU, ending in the Idle state (1).
- 5) (Use preamble pre_state_12). Check that the IUT is able to receive a valid SBV_Release_request PDU, ending in the Idle state (1).
- 6) (Use preamble pre_state_4). Check that the IUT responds to a valid SBV_Reset_request PDU, with a valid SBV_Reset_response PDU, remaining in state (4) TF_Data_transfer_ready.
- 7) (Use preamble pre_state_12). Check that the IUT responds to a valid SBV_Reset_request PDU, with a valid SBV_Reset_response PDU, ending in state (4) TF_Data_transfer_ready.

NOTE: (Applicable to the two tests above, i.e. 6) and 7)) These tests have two different behaviours, depending on the application layer to BIS association, see ETS 300 223 [2], subclause 8.3.3.

- 8) (Use preamble pre_state_4). Check that the IUT is able to send a valid SBV_VTX_Data_request PDU, remaining in state (4), TF_Data_transfer_ready.
- 9) (Use preamble pre_state_4). Check that the IUT is able to receive a valid SBV_VTX_Data_request PDU, remaining in state (4), TF_Data_transfer_ready.
- 10) (Use preamble pre_state_4). Check that the IUT is able to receive a valid SBV_Set_parameter_request PDU, remaining in state (4), TF_Data_transfer_ready.
- 11) (Use preamble pre_state_4). Check that the IUT is able to receive a valid SBV_Read_parameter_request PDU, remaining in state (4), TF_Data_transfer_ready.
- 12) (Use preamble pre_state_4). Check that the IUT is able to receive a valid SBV_Set/Read_parameter_request PDU, remaining in state (4), TF_Data_transfer_ready.
- 13) (Use preamble pre_state_4). Check that the IUT is able to send a valid SBV_Parameter_indication PDU, remaining in state (4), TF_Data_transfer_ready.
- 14) (Use preamble pre_state_4). Check that the IUT responds to a valid SBV_TFI_request PDU, with a valid SBV_TFI_Response PDU, remaining in state (4), TF_Data_transfer_ready.
- 15) (Use preamble pre_state_4). Check that the IUT responds to a valid SBV_TFI_request PDU, with a valid SBV_TFI_Response PDU, remaining in state (4), TF_Data_transfer_ready.
- 16) (Use preamble pre_state_4). Check that the IUT is able to send a valid SBV_TC_Error PDU, remaining in state (4), TF_Data_transfer_ready.
- 17) (Use preamble pre_state_4). Check that the IUT is able to receive a valid SBV_TC_Error PDU, remaining in state (4), TF_Data_transfer_ready.

E.1.3.1.2 TF/BV/SE Comm. Channel Management (CCM)

None.

E.1.3.1.2.1 TF/BV/SE/CCM Channel Management Procedure (CMP)

- 1) (Use preamble pre_state_4). Check that, on receipt of a valid SBV_Channel_Open request PDU, the IUT is able to send a valid SBV_Channel_Open response PDU, ending in state (4) TF_data_transfer_ready.
- 2) IUT being in state (4) TF_data_transfer_ready, with a slave channel currently open. Check that, on receipt of a valid SBV_Channel_Close request PDU with a proper reference parameter, the IUT is able to send a valid positive SBV_Channel_Close response PDU, ending in state (4) TF_data_transfer_ready.
- 3) IUT being in state (4) TF_data_transfer_ready, with a slave channel previously open. Check that the IUT is able to send a valid SBV_Channel_Error PDU, ending in state (4) TF_data_transfer_ready.

E.1.3.1.2.2 TF/BV/SE/CCM Multiple Channel Coordination (MCC)

- 1) (Use preamble pre_state_4). Check that, on receipt of a valid SBV_Channel_Open request PDU, a new instance of terminal function is created (see ETS 300 079 [3], subclause 6.2), and that the new instance of terminal function is able to send a valid SBV_Establish request PDU.
- 2) IUT having received a valid SBV_Channel_Open request PDU, with a new instance of terminal function having been created, this new terminal function having sent a SBV_Establish request PDU. Check that, after the receipt of a valid SBV_Establish response PDU, the IUT is able to send a valid positive SBV_Channel_Open response PDU, ending in state (4) TF_data_transfer_ready.
- 3) IUT having received a valid SBV_Channel_Open request PDU, with a new instance of terminal function having been created, this new terminal function having sent a SBV_Establish request PDU. Check that, after the receipt of a valid SBV_Release PDU, the IUT is able to send a valid negative SBV_Channel_Open response PDU, ending in state (4) TF_data_transfer_ready.
- 4) IUT being in state (4) TF_data_transfer_ready, with a slave channel currently open. Check that, after the receipt by the IUT of a valid SBV_Channel_Close request PDU with a proper reference parameter, the terminal function associated with the slave channel is able to send a valid SBV_Release PDU, ending in state 1 Idle.
- 5) IUT being in state (4) TF_data_transfer_ready, with a slave channel currently open. Check that, after the receipt by the terminal function associated with the slave channel of a valid SBV_Release PDU, the IUT is able to send a valid SBV_Channel_Error PDU.

E.1.3.1.3 TF/BV/SE Application Selection (AS)

- 1) (Use preamble pre_state_4). Check that the IUT is able to send a valid SBV_Begin_Application request PDU.
- 2) Check that, after having sent a SBV_Begin_Application request PDU, the IUT is able to accept a valid SBV_Begin_Application response PDU, ending in state (4) TF_data_transfer_ready.
- 3) Check that, after having sent a SBV_Begin_Application request PDU, the IUT is able to accept a valid SBV_TC_Error PDU with Error_Code parameter meaning "TC not supported", ending in state (4) TF_data_transfer_ready (The SBV_TC_Error PDU acts as a negative response).
- 4) IUT being in state (4) TF_data_transfer_ready. Check that the IUT is able to send a valid SBV_End_Application request PDU, ending in state (4) TF_data_transfer_ready.
- 5) IUT being in state (4) TF_data_transfer_ready. Check that the IUT is able to send a valid SBV_End_Immediate request PDU, ending in state (4) TF_data_transfer_ready.

E.1.3.1.4 TF/BV/SE Transparent Processable Data (TPD)

- 1) (Use preamble pre_state_4). Check that the IUT is able to send a valid SBV_TPD_Begin request PDU.

- 2) Check that, after having sent a SBV_TPD_Begin request PDU, the IUT is able to accept a valid SBV_TPD_Begin response PDU, ending in state (12) TF_TPD_data_transfer_ready.
- 3) Check that, after having sent a SBV_TPD_Begin request PDU, the IUT is able to accept a valid SBV_TC_Error PDU with Error_Code parameter meaning "TC not supported", ending in state (4) TF_data_transfer_ready (The SBV_TC_Error PDU acts as a negative response).
- 4) Check that, after having sent a SBV_TPD_Begin request PDU, and received a valid and Successful SBV_TPD_Begin response PDU, the IUT is able to send a valid SBV_VTX_Data request PDU carrying a T-Associate request.
- 5) (Use preamble pre_state_4). Check that, on receipt of a valid SBV_TPD_Begin request PDU, the IUT is able to send a valid positive SBV_TPD_Begin response PDU, ending in state (12) TF_TPD_data_transfer_ready.
- 6) (Use preamble pre_state_12). Check that the IUT is able to accept a valid SBV_TPD_End request PDU, ending in state (4) TF_data_transfer_ready.
- 7) (Use preamble pre_state_12). Check that the IUT is able to send a valid SBV_TPD_End request PDU, ending in state (4) TF_data_transfer_ready.

E.1.3.1.5 TF/BV/SE Define Function Keys (DFK)

- 1) (Use preamble pre_state_4). Check that the IUT is able to receive a valid SBV_DFK request PDU, ending in state (4) TF_data_transfer_ready.

E.1.3.1.6 TF/BV/SE Remote Echo (RE)

- 1) (Use preamble pre_state_4). Check that the IUT is able to send a valid SBV_Remote_Echo request PDU, ending in state (4) TF_data_transfer_ready.

E.1.3.1.7 TF/BV/SE Escape (ESC)

- 1) (Use preamble pre_state_4). Check that the IUT is able to accept a valid SBV_Escape request PDU, ending in state (4) TF_data_transfer_ready.
- 2) (Use preamble pre_state_4). Check that the IUT is able to send a valid SBV_Escape request PDU, ending in state (4) TF_data_transfer_ready.

E.1.3.2 TF/BV - Parameter Variations (PV)

This group of tests (TF/BV/PV...) is intended to verify the ability to use different possible parameters for each SBV message. Each group is for a specific PDU, in which all the different parameters are verified, one at a time. The required preamble is specified along with each test purpose.

Several messages contain no parameters (SBV_End_Application for example) and, therefore, are not listed below.

NOTE: What is called a parameter here is a SBV protocol data unit parameter. In particular, some service primitive parameters, which are not SBV PDU parameters, do not have to appear in a protocol test specification (this is the case, for instance, of OB_Called_Address, of IB_Cause,... These service primitive parameters are mapped onto lower layer protocols).

E.1.3.2.1 TF/BV/PV Kernel (KE)

E.1.3.2.1.1 TF/BV/PV/KE SBV_Establish

- 1) Check that the IUT is able to send a valid SBV_Establish request PDU with OB_Application_Address parameter present.
- 2) Check that the IUT is able to send a valid SBV_Establish request PDU with OB_Application_Selection parameter present.

- 3) Check that the IUT is able to send a valid SBV_Establish request PDU with OB_Application_Data parameter present.
- 4) Check that the IUT is able to send a valid SBV_Establish request PDU with OB_User_Data parameter present.
- 5) Check that the IUT is able to send a valid SBV_Establish request PDU with IB_Called_Address parameter present.

NOTE: The test above is only applicable in case of a DTE/DTE communication over an ISDN network. As a matter of fact, in this case IB_Called_Address is no longer a lower layer addressing parameter (that would be out of scope of SBV protocol testing) but a means for SBV to convey information, hence a PDU parameter.

- 6) Check that the IUT is able to send a valid SBV_Establish request PDU with IB_Application_Address parameter present.
- 7) Check that the IUT is able to send a valid SBV_Establish request PDU with IB_Application_Selection parameter present.
- 8) Check that the IUT is able to send a valid SBV_Establish request PDU with IB_Application_Data parameter present.
- 9) Check that the IUT is able to send a valid SBV_Establish request PDU with IB_User_Data parameter present.
- 10) (Use preamble channel_open_req) Check that the IUT is able to send a valid SBV_Establish request PDU with Reference parameter present.
- 11) Check that the IUT is able to send a valid SBV_Establish request PDU with Reverse_Role_Assignment parameter present.

E.1.3.2.1.2 TF/BV/PV/KE SBV_Release

- 1) (Use preamble pre_state_4) Check that the IUT is able to send a valid SBV_Release request PDU with Result parameter present.
- 2) (Use preamble pre_state_4) Check that the IUT is able to receive a valid SBV_Release request PDU with Result parameter present.

E.1.3.2.1.3 TF/BV/PV/KE SBV_Reset

- 1) (Use preamble pre_state_4) Check that the IUT is able to send a valid SBV_Reset response PDU with Result parameter present and having the value "Successful".

NOTE: The test above only applies if the SBV_Reset is mapped onto a BIS_N_Q_DATA (see ETS 300 223 [2], subclause 8.3.3).

E.1.3.2.1.4 TF/BV/PV/KE SBV_VTX_Data

- 1) (Use preamble pre_state_4) Check that the IUT is able to send a valid SBV_VTX_Data request PDU with VTX_Data parameter present.

The VTX_Data parameter shall comply with one possible syntax defined in the PIXIT. (see [3] clause: "Coding of User data fields as defined in other documents").

- 2) (Use preamble pre_state_4) Check that the IUT is able to receive a valid SBV_VTX_Data request PDU with VTX_Data parameter present.

The VTX_Data parameter shall comply with one possible syntax defined in the PIXIT. (see ETS 300 079 [3] subclause 9.4.2: "Coding of User data fields as defined in other documents").

E.1.3.2.1.5 TF/BV/PV/KE SBV_Set_parameter

- 1) Check that the IUT is able to receive a valid SBV_Set_Param request PDU with a non empty X.3_Parameter_List parameter.

2) Check that the IUT is able to receive a valid SBV_Set_Param request PDU with an empty X.3_Parameter_List parameter.

NOTE: The actual effect - which is not to be tested here - of a X.29 message with an empty list, is defined in CCITT Recommendation X.29 [9], table 1/X.29.

E.1.3.2.1.6 TF/BV/PV/KE SBV_Read_parameter

1) Check that the IUT is able to receive a valid SBV_Read_Param request PDU with a non empty X.3_Parameter_List parameter.

2) Check that the IUT is able to receive a valid SBV_Read_Param request PDU with an empty X.3_Parameter_List parameter.

NOTE: The actual effect - which is not to be tested here - of a X.29 message with an empty list, is defined in CCITT Recommendation X.29 [9], table 1/X.29.

E.1.3.2.1.7 TF/BV/PV/KE SBV_Set/Read_parameter

1) Check that the IUT is able to receive a valid SBV_Set_Read_Param request PDU with a non empty X.3_Parameter_List parameter.

2) Check that the IUT is able to receive a valid SBV_Set_Read_Param request PDU with an empty X.3_Parameter_List parameter.

NOTE: The actual effect - which is not to be tested here - of a X.29 message with an empty list, is defined in CCITT Recommendation X.29 [9], table 1/X.29.

E.1.3.2.1.8 TF/BV/PV/KE SBV_Parameter_indication

1) Check that the IUT is able to send a valid SBV_Parameter_Indication request PDU with a non empty X.3_Parameter_List parameter.

E.1.3.2.1.9 TF/BV/PV/KE SBV_TFI

1) Check that the IUT is able to receive a valid SBV_TFI request PDU with TFI_Enq parameter present.

2) Check that the IUT is able to send a valid SBV_TFI response PDU with TFI_Ack parameter present.

The TFI_Ack parameter shall be coded according to ETS 300 076 [14]; the way the TFI shall be used is determined following PIXIT indications.

E.1.3.2.1.10 TF/BV/PV/KE SBV_TC_Error

1) Check that the IUT is able to receive a valid SBV_TC_Error PDU with Error_Code parameter present.

2) Check that the IUT is able to send a valid SBV_TC_Error PDU with Error_Code parameter present.

E.1.3.2.2 TF/BV/PV Communication Channel Management (CCM)

E.1.3.2.2.1 TF/BV/PV/CCM Channel Management Procedure (CMP)

E.1.3.2.2.1.1 TF/BV/PV/CCM/CMP SBV_Channel_open

1) Check that the IUT is able to receive a valid SBV_Channel_Open request PDU with Req_OB_Called_Address parameter present.

2) Check that the IUT is able to receive a valid SBV_Channel_Open request PDU with Req_OB_Called_Subaddress parameter present.

- 3) Check that the IUT is able to receive a valid SBV_Channel_Open request PDU with OB_Application_Address parameter present.
- 4) Check that the IUT is able to receive a valid SBV_Channel_Open request PDU with OB_Application_Selection parameter present.
- 5) Check that the IUT is able to receive a valid SBV_Channel_Open request PDU with OB_Application_Data parameter present.
- 6) Check that the IUT is able to receive a valid SBV_Channel_Open request PDU with Req_OB_User_Data parameter present.
- 7) Check that the IUT is able to receive a valid SBV_Channel_Open request PDU with Req_IB_Called_Address parameter present.
- 8) Check that the IUT is able to receive a valid SBV_Channel_Open request PDU with IB_Application_Address parameter present.
- 9) (Use preamble channel_open_req) Check that the IUT is able to receive a valid SBV_Channel_Open request PDU with IB_Application_Selection parameter present.
- 10) Check that the IUT is able to receive a valid SBV_Channel_Open request PDU with IB_Application_Data parameter present.
- 11) Check that the IUT is able to receive a valid SBV_Channel_Open request PDU with Req_IB_User_Data parameter present.
- 12) Check that the IUT is able to receive a valid SBV_Channel_Open request PDU with Packet_Size parameter present.
- 13) Check that the IUT is able to receive a valid SBV_Channel_Open request PDU with Window_Size parameter present.
- 14) Check that the IUT is able to receive a valid SBV_Channel_Open request PDU with Reference parameter present.
- 15) Check that the IUT is able to send a valid SBV_Channel_Open response PDU with Result parameter present.
- 16) Check that the IUT is able to send a valid SBV_Channel_Open response PDU with Ind_OB_Cause parameter present.
- 17) Check that the IUT is able to send a valid SBV_Channel_Open response PDU with Ind_IB_Cause parameter present.
- 18) Check that the IUT is able to send a valid SBV_Channel_Open response PDU with Ind_IB_Diagnostic parameter present.
- 19) Check that the IUT is able to send a valid SBV_Channel_Open response PDU with Result parameter present and having the value "Successful".

E.1.3.2.2.1.2 TF/BV/PV/CCM SBV_Channel_close

- 1) Check that the IUT is able to receive a valid SBV_Channel_Close request PDU with Reference parameter present.
- 2) Check that the IUT is able to send a valid SBV_Channel_Close response PDU with Result parameter present and having the value "Successful".

E.1.3.2.2.1.3 TF/BV/PV/CCM/CMP SBV_Channel_Error

- 1) Check that the IUT is able to send a valid SBV_Channel_Error request PDU with proper Reference parameter present.
- 2) Check that the IUT is able to send a valid SBV_Channel_Error request PDU with Ind_OB_Cause parameter present.
- 3) Check that the IUT is able to send a valid SBV_Channel_Error request PDU with Ind_IB_Cause parameter present.

4) Check that the IUT is able to send a valid SBV_Channel_Error request PDU with Ind_IB_Diagnostic parameter present.

E.1.3.2.2.2 TF/BV/PV/CCM Multiple channel co-ordination

NOTE: Here stands a place holder allowing, for instance, tests of the mapping of addresses between Channel Management services and correlated SBV Establishment services. This mapping of parameters is only stated as possible in the standard. see for instance ETS 300 079 [3], subclause 7.3.1.1.

1) Check that a SBV_Establish request PDU sent by the IUT, which is not the result of a previously received SBV_Channel_Open request PDU with a Reference parameter value present, carries no Reference parameter (see ETS 300 079 [3], subclause 7.2.1, definition of Reference parameter).

E.1.3.2.3 TF/BV/PV Application Selection (AS)

E.1.3.2.3.1 TF/BV/PV/AS SBV_Begin_application

1) Check that the IUT is able to send a valid SBV_Begin_Application request PDU with IB_Application_Address parameter present.

2) Check that the IUT is able to send a valid dSBV_Begin_Application request PDU with IB_Application_Selection parameter present.

3) Check that the IUT is able to send a valid SBV_Begin_Application request PDU with IB_Application_Data parameter present.

4) Check that the IUT is able to send a valid SBV_Begin_Application request PDU with IB_User_Data parameter present.

5) Check that the IUT is able to receive a valid SBV_Begin_Application response PDU with Result parameter present and having the value "Successful".

6) Check that the IUT is able to receive a valid SBV_Begin_Application response PDU with Result parameter present and having the value "Application already engaged".

E.1.3.2.4 TF/BV/PV Transparent Processable Data (TPD)

E.1.3.2.4.1 TF/BV/PV/TPD SBV_TPD_Begin

1) Check that the IUT is able to receive a valid SBV_TPD_Begin response PDU with Result parameter present and having the value "Successful".

2) Check that the IUT is able to receive a valid SBV_TPD_Begin response PDU with Result parameter present and having the value "TPD Not Supported".

3) Check that the IUT is able to receive a valid SBV_TPD_Begin response PDU with DDU_Fall-Back_Mode parameter present.

4) Check that the IUT is able to send a valid SBV_TPD_Begin response PDU with Result parameter present and having the value "Successful".

5) Check that the IUT is able to send a valid SBV_TPD_Begin response PDU with Result parameter present and having the value "TPD Not Supported".

6) Check that the IUT is able to send a valid SBV_TPD_Begin response PDU with DDU_Fall-Back_Mode parameter present.

E.1.3.2.5 TF/BV/PV Define Function Keys (DFK)

E.1.3.2.5.1 TF/BV/PV/DFK SBV_DFK

- 1) Check that the IUT is able to receive a valid SBV_DFK request PDU with Function_Keys parameter present and containing at least one item.
- 2) Check that the IUT is able to receive a valid SBV_DFK request PDU with Reset_Keys parameter present.

E.1.3.2.6 TF/BV/PV Remote Echo (RE)

E.1.3.2.6.1 TF/BV/PV/RE SBV_Remote_Echo

- 1) Check that the IUT is able to send a valid SBV_Remote_Echo request PDU with Echo parameter present.

E.1.3.2.7 TF/BV/PV Escape (ESC)

E.1.3.2.7.1 TF/BV/PV/ESC SBV_Escape

- 1) Check that the IUT is able to receive a valid SBV_Escape request PDU with Service_ID parameter present.
- 2) Check that the IUT is able to receive a valid SBV_Escape request PDU with Data parameter present.
- 3) Check that the IUT is able to send a valid SBV_Escape request PDU with Service_ID parameter present.
- 4) Check that the IUT is able to send a valid SBV_Escape request PDU with Data parameter present.

E.1.3.3 TF/BV - Encoding Variations (EV)

This group of tests (TF/BV/EV...) is intended to verify that the protocol behaves the same when different encoding variations are allowed for the same packet (i.e. extended packets, etc.). This is not intended to be a complete list of all possible Encoding Variations, but rather is a sampling of the more important functions of the protocol.

No test cases in this group.

E.1.3.4 TF/BV - Parameter Combinations (PC)

This group of tests (TF/BV/PC...) is intended to verify the ability to use all possible (supported) parameters together, or specific combinations of compatible parameters, for each SBV message. Each group is for a specific PDU. The required preamble is specified along with each test purpose.

When it is stated in a test purpose that a set of parameters shall be present, it means that all the parameters quoted *and supported according to PICS* shall be present. If none of the quoted parameters is supported according to PICS, then the test does not apply.

E.1.3.4.1 TF/BV/PC Kernel (KE)

E.1.3.4.1.1 TF/BV/PC/KE SBV_Establish

- 1) Check that the IUT is able to send a valid SBV_Establish request PDU with OB_Application_Address, OB_Application_Selection, OB_Application_Data parameters present.
- 2) Check that the IUT is able to send a valid SBV_Establish request PDU with IB_Called_Address, IB_Application_Address, IB_Application_Selection, IB_Application_Data, IB_User_Data parameters present.
- 3) Check that the IUT is able to send a valid SBV_Establish request PDU with OB_Application_Address, OB_Application_Selection, OB_Application_Data, IB_Called_Address, IB_Application_Address, IB_Application_Selection, IB_Application_Data, IB_User_Data parameters present.

4) Check that the IUT is able to send a valid SBV_Establish request PDU with IB_Application_Address, IB_Application_Selection, IB_Application_Data, IB_User_Data parameters present.

NOTE 1: The different combinations above are designed with the end in view to test implementations operating above different types of network. Tests from 1) to 3) are recommended for DTE/DTE circuit mode (ISDN); 4) is recommended for DTE/DCE circuit mode (ISDN+PSDN), DTE/DCE packet mode (ISDN, PSDN), and DTE/DCE "medium speed" (PSTN+PSDN).

In the case of a DTE/DTE circuit mode, the in_band addressing is not used, and the parameter IB_Called_Address is used by the application layer to convey information. In this case, IB_Called_Address is to be conformance tested with layer 7. In all other quoted cases of networks, in-band addressing is used, and hence IB_Called_Address is a layer 3 address, not tested in the present document.

5) Check that the IUT is able to send a valid SBV_Establish request PDU with OB_Application_Address, OB_Application_Selection, OB_Application_Data parameters present and Reverse_Role_Assignment parameter present.

6) Check that the IUT is able to send a valid SBV_Establish request PDU with IB_Called_Address, IB_Application_Address, IB_Application_Selection, IB_Application_Data, IB_User_Data parameters present and Reverse_Role_Assignment parameter present.

7) Check that the IUT is able to send a valid SBV_Establish request PDU with OB_Application_Address, OB_Application_Selection, OB_Application_Data, IB_Called_Address, IB_Application_Address, IB_Application_Selection, IB_Application_Data, IB_User_Data parameters present and Reverse_Role_Assignment parameter present.

8) Check that the IUT is able to send a valid SBV_Establish request PDU with IB_Application_Address, IB_Application_Selection, IB_Application_Data, IB_User_Data parameters present and Reverse_Role_Assignment parameter present.

NOTE 2: As before, the different combinations above are designed to test implementations operating above different types of network. Tests from 5) to 7) are recommended for DTE/DTE circuit mode (ISDN); 8) is recommended for DTE/DCE circuit mode (ISDN+PSDN), DTE/DCE packet mode (ISDN, PSDN), and DTE/DCE "medium speed" (PSTN+PSDN).

E.1.3.4.1.2 TF/BV/PC/KE SBV_Release

None.

NOTE: The only SBV protocol data unit parameter carried by SBV_Release is Result, already dealt with in the Parameter Variation part. The other **service** parameters are layer 3 matters.

E.1.3.4.1.3 TF/BV/PC/KE SBV_VTX_Data

None.

E.1.3.4.1.4 TF/BV/PC/KE SBV_Set_parameter

None.

NOTE: The X.3 parameter list is, with respect to SBV protocol, one unique parameter. The SBV protocol machine passes the X.3 parameter list, through its service interface, to the application, in charge of the real terminal. Thus the X.3 parameter syntax and semantic are a matter belonging to the application. For this reason, both X.3 parameter syntax (proper combinations and encodings) and semantic (actual mapping onto terminal parameters) are tested in a separate branch of the test suite structure, and no test is specified here, for "X.3 parameter combination".

E.1.3.4.1.5 TF/BV/PC/KE SBV_Read_parameter

The X.3 parameter list is, with respect to SBV protocol, one unique parameter. The SBV protocol machine passes the X.3 parameter list, through its service interface, to the application, in charge of the real terminal. Thus the X.3 parameter

syntax and semantic are a matter belonging to the application. For this reason, both X.3 parameter syntax (proper combinations and encodings) and semantic (actual mapping onto terminal parameters) are tested in a separate branch of the test suite structure, and no test is specified here, for "X.3 parameter combination".

E.1.3.4.1.6 TF/BV/PC/KE SBV_Set/Read_parameter

The X.3 parameter list is, with respect to SBV protocol, one unique parameter. The SBV protocol machine passes the X.3 parameter list, through its service interface, to the application, in charge of the real terminal. Thus the X.3 parameter syntax and semantic are a matter belonging to the application. For this reason, both X.3 parameter syntax (proper combinations and encodings) and semantic (actual mapping onto terminal parameters) are tested in a separate branch of the test suite structure, and no test is specified here, for "X.3 parameter combination".

E.1.3.4.1.7 TF/BV/PC/KE SBV_Parameter_indication

The X.3 parameter list is, with respect to SBV protocol, one unique parameter. The SBV protocol machine passes the X.3 parameter list, through its service interface, to the application, in charge of the real terminal. Thus the X.3 parameter syntax and semantic are a matter belonging to the application. For this reason, both X.3 parameter syntax (proper combinations and encodings) and semantic (actual mapping onto terminal parameters) are tested in a separate branch of the test suite structure, and no test is specified here, for "X.3 parameter combination".

E.1.3.4.1.8 TF/BV/PC/KE SBV_TFI

The TFI request and response data are not a matter of SBV protocol, but a matter of syntax (they are defined in ETS 300 076 [14]). For this reason, no test is to be specified within the scope of the present document, for TFI request data parameters combination.

E.1.3.4.1.9 TF/BV/PC/KE SBV_TC_Error

None.

E.1.3.4.2 TF/BV/PC Communication Channel Management (CCM)

E.1.3.4.2.1 TF/BV/PC/CCM Channel Management Procedure (CMP)

E.1.3.4.2.1.1 TF/BV/PC/CCM/CMP SBV_Channel_open

20) Check that the IUT is able to receive a valid SBV_Channel_Open request PDU with Req_OB_Called_Address, Req_OB_Called_Subaddress, OB_Application_Address, OB_Application_Selection, OB_Application_Data, OB_User_Data, Reference parameters present.

21) Check that the IUT is able to receive a valid SBV_Channel_Open request PDU with Req_IB_Called_Address, IB_Application_Address, IB_Application_Selection, IB_Application_Data, Req_IB_User_Data, Reference parameters present.

22) Check that the IUT is able to receive a valid SBV_Channel_Open request PDU with Req_OB_Called_Address, Req_OB_Called_Subaddress, OB_Application_Address, OB_Application_Selection, OB_Application_Data, OB_User_Data, Req_IB_Called_Address, IB_Application_Address, IB_Application_Selection, IB_Application_Data, Req_IB_User_Data, Reference parameters present.

23) Check that the IUT is able to receive a valid SBV_Channel_Open request PDU with Req_IB_Packet_Size and Req_IB_Window_Size parameters present.

24) Check that the IUT is able to send a valid SBV_Channel_Open response PDU with Ind_IB_Cause and Ind_IB_Diagnostic parameters present.

25) Check that the IUT is able to send a valid SBV_Channel_Open response PDU with Result parameter present and having the value "Successful". Check that, in this case, no Ind_OB_Cause, Ind_IB_Cause or Ind_IB_Diagnostic is present.

E.1.3.4.2.1.2 TF/BV/PC/CCM SBV_Channel_close

None.

E.1.3.4.2.1.3 TF/BV/PC/CCM/CMP SBV_Channel_Error

5) Check that the IUT is able to send a valid SBV_Channel_Error request PDU with proper Reference parameter, and Ind_OB_Cause parameter present. Check that, in this case, no Ind_IB_Cause or Ind_IB_Diagnostic are present.

6) Check that the IUT is able to send a valid SBV_Channel_Error request PDU with proper Reference parameter, Ind_IB_Cause and Ind_IB_Diagnostic parameters present. Check that, in this case, no Ind_OB_Cause is present.

E.1.3.4.2.2 TF/BV/PC/CCM Multiple Channel Coordination

None.

E.1.3.4.3 TF/BV/PC Application Selections (AS)

E.1.3.4.3.1 TF/BV/PC/AS SBV_Begin_application

7) Check that the IUT is able to send a valid SBV_Begin_Application request PDU with IB_Application_Address, IB_Application_Selection, IB_Application_Data, IB_User_Data parameters present.

E.1.3.4.4 TF/BV/PC Transparent Processable Data (TPD)

E.1.3.4.4.1 TF/BV/PC/TPD SBV_TPD_Begin

7) Check that the IUT is able to receive a valid SBV_TPD_Begin response PDU with Result parameter present and having the value "TPD Not Supported" and DDU_Fall-Back_Mode parameter present.

8) Check that the IUT is able to send a valid SBV_TPD_Begin response PDU with Result parameter present and having the value "TPD Not Supported" and DDU_Fall-Back_Mode parameter present.

9) Check that DDU_Fall-Back_Mode parameter is absent from a SBV_TPD_Begin response PDU sent by the IUT with Result parameter present and having the value "Successful".

E.1.3.4.5 TF/BV/PC Define Function Keys (DFK)

E.1.3.4.5.1 TF/BV/PC/DFK SBV_DFK

3) Check that the IUT is able to receive a valid SBV_DFK request PDU with Function_Keys parameter and Reset_Keys parameter present.

NOTE: As in the case of the X.3 parameter list, the Function_Keys parameter is, with respect to SBV protocol, one unique parameter. The SBV protocol machine passes the Function_Keys parameter, through its service interface, to the application, in charge of the real terminal. Thus the Function_Keys parameter syntax and semantic are a matter belonging to the application. For this reason, both X.3 parameter syntax (proper combinations and encodings) and semantic (actual mapping onto terminal parameters) are tested in a separate branch of the test suite structure, and no test is specified here, for "Function_Keys parameter combination".

E.1.3.4.6 TF/BV/PC Escape (ESC)

E.1.3.4.6.1 TF/BV/PC/TPD SBV_Escape

10) Check that the IUT is able to receive a valid SBV_Escape request PDU with Service_ID and Data parameters present.

11) Check that the IUT is able to send a valid SBV_Escape request PDU with Service_ID and Data parameters present.

E.1.4 TF - Inopportune Behaviour (BI)

This group of tests (TF/BI...) is intended to verify that the IUT is able to react properly in case an inopportune protocol event occurs. Such an event is sometimes called a *Semantically invalid PDU*.

NOTE: The services addressed by the Inopportune Behaviour part are those which are related to specific SBV protocol elements. As an opposite example, no inopportune event can occur between SBV Establish request and SBV Establish response, for this protocol mechanism is a layer 3 (X.25 and Out-of-Band) matter.

E.1.4.1 TF/BI - Test Event variation (TE)

E.1.4.1.1 TF/BI/TE - Unsupported services

These tests apply if, for a given item, **the corresponding PDU** is not stated as supported in the PICS.

If only the service is not supported but the PDU is supported (i.e. the service is "refused": situation causing, for instance, a SBV_TPD_Begin response PDU to be sent with a Result parameter set to "TPD_Not_Supported"), a corresponding test shall not be considered as inopportune in terms of protocol, and shall be found in the section Valid Behaviour.

- 1) Check that, on receipt of a SBV_Channel_Open request PDU, the IUT is able to send a valid SBV_TC_Error PDU, with Error_Code set to "TC Not Supported", and the following octet meaning SBV_Channel_Open.
- 2) Check that, on receipt of a SBV_Channel_Close request PDU, the IUT is able to send a valid SBV_TC_Error PDU, with Error_Code set to "TC Not Supported", and the following octet meaning SBV_Channel_Close.
- 3) Check that, on receipt of a SBV_TPD_Begin request PDU, the IUT is able to send a valid SBV_TC_Error PDU, with Error_Code set to "TC Not Supported", and the following octet meaning SBV_TPD_Begin.
- 4) Check that, on receipt of a SBV_TPD_End request PDU, the IUT is able to send a valid SBV_TC_Error PDU, with Error_Code set to "TC Not Supported", and the following octet meaning SBV_TPD_End.
- 5) Check that, on receipt of a SBV_DFK request PDU, the IUT is able to send a valid SBV_TC_Error PDU, with Error_Code set to "TC Not Supported", and the following octet meaning SBV_DFK.
- 6) Check that, on receipt of a SBV_Escape request PDU, the IUT is able to send a valid SBV_TC_Error PDU, with Error_Code set to "TC Not Supported", and the following octet meaning SBV_Escape.

E.1.4.1.2 TF/BI/TE - Other inopportune events

- 1) Check that, on receipt of a SBV_Begin_Application response corresponding to no previous request, the IUT sends a valid SBV_TC_Error PDU with Error_Code set to "TC_Semantic_Error".
- 2) Check that, on receipt of a SBV_TPD_Begin response corresponding to no previous request, the IUT sends a valid SBV_TC_Error PDU with Error_Code set to "TC_Erroneous".

E.1.4.2 TF/BI - Timing/Timer variation (TI)

- 1) Check that, after having sent a SBV_Begin_Application request PDU and not received any response PDU for a certain time, the IUT releases the communication.
- 2) Check that, after having sent a SBV_TPD_Begin request PDU and not received any response PDU for a certain time, the IUT releases the communication.

NOTE: The "certain time" a tester is to wait for the communication release is given by the PICS. In any case it should not be smaller than timer value T28 multiplied by counter value R28 as defined in ISO/IEC 8208 [17], clause 8.

E.1.4.3 TF/BI - parameter value Variation (PV)

E.1.4.3.1 TF/BI/PV - Establishment service

1) Check that after having received a SBV_Establish request with Reverse_Role_Assignment parameter present, the IUT either ignores the request or sends a SBV_Release PDU (i.e. rejects the incoming call).

NOTE: The following test applies only if, according to PICS, the IUT is not able to support a reverse role assignment.

E.1.4.3.2 TF/BI/PV - X.3 related services

NOTE: The following tests do not focus on checking the semantics of CCITT Recommendation X.3, which do not belong to this branch of the test suite. They are intended to check the protocol mechanism related to CCITT Recommendations X.3 [8]/X.29 [9] matters.

1) Check that after having received a SBV_Set_Param PDU with a X.3_Parameter_List parameter containing out-of-range X.3 parameters, the IUT is able to send a SBV_Param_Indication PDU (containing the list of the bad parameters).

2) Check that after having received a SBV_Set_Read_Param PDU with a X3_Parameter_List parameter containing out-of-range X.3 parameters, the IUT is able to send a SBV_Param_Indication PDU (containing the list of the bad parameters).

E.1.4.3.3 TF/BI/PV - Telematic Commands

1) Check that, on receipt of a SBV_Channel_Open request PDU with a Reference parameter value already in use, the IUT sends a SBV_Channel_Open response PDU, with Result set to "Not Successful".

2) Check that, on receipt of a SBV_Channel_Close request PDU with a Reference parameter value corresponding to no open slave channel, the IUT sends a SBV_Channel_Close response PDU, with Result set to "Illegal Reference Parameter".

3) Check that, on receipt of a SBV_Channel_Close request PDU with a Reference parameter value corresponding to the master channel of the channel on which the exchanges are considered, the IUT sends a SBV_Channel_Close response PDU, with Result set to "Release not allowed".

NOTE 1: The test above refers to the case of a "Slave" channel trying to release its "Master" channel, see ETS 300 079 [3], subclause 7.3.1.2 - definition of the "Result" parameter. This test implies that the "Master" channel is also the "slave" of another one, for otherwise it would not have any reference.

4) Check that, on receipt of a SBV_Channel_Close request PDU with a Reference parameter value corresponding to another slave channel of the same master channel as the master of the channel on which the exchanges are considered, the IUT sends a SBV_Channel_Close response PDU, with Result set to "Release not allowed".

NOTE 2: The test above refers to the case of a channel trying to release its "brother", that is, a channel having the same master.

5) Check that, on receipt of a SBV_Channel_Close request PDU with a Reference parameter value corresponding to the channel on which the exchanges are considered, the IUT sends a SBV_Channel_Close response PDU, with Result set to "Release not allowed".

NOTE 3: The test above refers to the case of a channel trying to release itself.

6) Check that the IUT ignores an incoming SBV_DFK request PDU with no parameter present.

NOTE 4: To "ignore" means that the IUT does not crash, and does not generate any TC_Error PDU. The real effect on the function keys - that should remain unaffected - is not tested here, but in the specific test suite branch, devoted to real DFK effects testing.

7) Check that, on receipt of a SBV_DFK request PDU with a Function_Keys parameter corresponding to an identification which is not supported, the IUT sends a SBV_TC_Error PDU.

E.1.4.4 TF/BI - Parameter Combination (PC)

E.1.4.4.1 TF/BI/PC - X.3 related services

None.

E.1.4.4.2 TF/BI/PC - Telematic Commands

1) Check that, on receipt of a SBV_TPD_Begin response PDU, with Result parameter set to "Successful" and DDU_Fall_Back mode parameter present, the IUT issues a SBV_TC_Error PDU.

E.1.5 TF - Invalid Behaviour (BO)

This group of tests (TF/BO...) is intended to verify that the IUT is able to react properly in case an invalid protocol data unit. Invalid PDU here means *Syntactically invalid PDU*.

NOTE: The same remark applies, as for the Inopportune Behaviour group: The services addressed by the Invalid Behaviour part are those which are related to specific SBV protocol elements. As an opposite example, a badly encoded SBV Establish request would cause an error to be detected by the layer 3 (CCITT Recommendation X.25).

E.1.5.1 TF/BO - parameter value Variation (PV)

Are treated here the cases in which the presence, the absence, or a specific value of a parameter are precluded by the **syntax** definition (e.g. mandatory parameter omitted).

E.1.5.1.1 TF/BO/PV - X.3 related services

None.

NOTE: This matter belongs to the specific CCITT Recommendation X.3 [8] testing branch.

E.1.5.1.2 TF/BO/PV - Telematic Commands

1) Check that, on receipt of a SBV_TFI request PDU with no TFI_Enq parameter, the IUT sends a SBV_TC_Error PDU, with Error_Code parameter set to "TC_Erroneous".

2) Check that, on receipt of an invalid SBV_TC_Error PDU, with no Error_Code parameter, the IUT does not send anything (in particular does not generate a new SBV_TC_Error).

3) Check that, on receipt of a SBV_Channel_Open request PDU with no Req_OB_Called_Address parameter, no OB_Application_Address parameter, no OB_Application_Selection parameter, no Req_OB_User_Data parameter, no Req_IB_Called_Address parameter, no IB_Application_Address parameter, no IB_Application_Selection parameter, no Req_IB_User_Data parameter, the IUT sends a SBV_TC_Error PDU, with Error_Code parameter set to "TC_Erroneous".

4) Check that, on receipt of a SBV_Channel_Close request PDU with no Reference parameter, the IUT sends a SBV_TC_Error PDU, with Error_Code parameter set to "TC_Erroneous".

5) Check that, on receipt of a SBV_Begin_Application response PDU with no Result parameter, the IUT sends a SBV_TC_Error PDU, with Error_Code parameter set to "TC_Erroneous".

6) Check that, on receipt of a SBV_TPD_Begin response PDU with no Result parameter, the IUT sends a SBV_TC_Error PDU, with Error_Code parameter set to "TC_Erroneous".

E.1.5.2 TF/BO - Encoding Variations (EV)

E.1.5.2.1 TF/BO/EV - X.3 related services

None.

NOTE: Not in this branch of the Test Suite.

E.1.5.2.2 TF/BO/EV - Telematic Commands

1) Check that, on receipt of a SBV_TFI request PDU, with octet 2 of the User Data field of the X.25 PLP Data Packet set to 15/14 (NOTE: instead of 09/14 for a valid ISDN Syntax-Based Videotex Telematic Command), the IUT sends a TC_Error PDU.

2) Check that, on receipt of a SBV_TFI request PDU, with octet 4 of the User Data field of the X.25 PLP Data Packet (TC length) set to 15/15 (NOTE: instead of being in the range 00/00 to 15/14 for a valid ISDN Syntax-Based Videotex Telematic Command), the IUT sends a TC_Error PDU.

3) Check that, on receipt of a Telematic Command with octet 3 of the User Data field of the X.25 PLP Data Packet (TC Code) set to 01/05 (NOTE: Unknown Telematic Command code), the IUT sends a TC_Error PDU.

E.2 Access Functions (AF)

All tests in this clause apply to devices which implement the Access Functions, as specified in the PICS.

E.2.1 AF/Basic Interconnect Tests (BIC)

Test Group Objective: To check that sufficient functionality exists for an SBV logical channel to be established, and data to be transferred between the Terminal Function (TF) and Access Function (AF).

Test Purposes:

E.2.2 AF/Capability Tests (CA)

E.2.3 AF/Valid Behaviour Tests (BV)

All tests in the Valid Behaviour (BV) group are intended to verify as thoroughly as possible the various functions of the protocol. This subclause is divided into 4 further main clauses as follows:

- 1) State Event Transitions;
- 2) Parameter Variations;
- 3) Encoding Variations;
- 4) Parameter Combinations.

E.2.3.1 AF/BV - State Event Transitions (SE)

This group of tests (AF/BV/S..) are intended to verify the various state transitions of the protocol. Tests which require the IUT to remain in a "transient" state have not been included in this clause.

E.2.3.1.1 AF/BV/SE - Kernel (KE)

1) (Use preamble pre_state_1). Check that on receipt of a valid SBV_Establish_request PDU, the IUT sends a valid SBV_Establish_response PDU, and goes into state (4), TF_Data_transfer_ready.

2) (Use preamble pre_state_4_a). Check that on receipt of a valid SBV_Release_request PDU, the IUT goes into the Idle State (1).

- 3) (Use preamble pre_state_4_a). Check that the IUT is able to send a valid SBV_Release_request PDU, ending in the Idle State (1).
 - 4) (Use preamble pre_state_12_a). Check that on receipt of a valid SBV_Release_request PDU, the IUT goes into the Idle State (1).
 - 5) (Use preamble pre_state_12_a). Check that the IUT is able to send a valid SBV_Release_request PDU, ending in the Idle State (1).
 - 6) (Use preamble pre_state_4_a). Check that the IUT is able to send a valid SBV_Reset_request PDU, and after receiving a valid SBV_Reset_response PDU, remains in state (4_a) TF_Data_transfer_ready.
 - 7) (Use preamble pre_state_12_a). Check that the IUT is able to send a valid SBV_Reset_request PDU, and after receiving a valid SBV_Reset_response PDU, goes to state (4_a) TF_Data_transfer_ready.
- NOTE: (applies to the two tests above: 6 and 7) These tests have two different behaviours, depending on the application layer to BIS association, see ETS 300 223 [2], subclause 8.3.3.
- 8) (Use preamble pre_state_4_a). Check that the IUT is able to send a valid SBV_VTX_Data_request PDU, remaining in state (4_a), TF_Data_transfer_ready.
 - 9) (Use preamble pre_state_4_a). Check that the IUT is able to receive a valid SBV_VTX_Data_request PDU, remaining in state (4_a), TF_Data_transfer_ready.
 - 10) (Use preamble pre_state_4_a). Check that the IUT is able to send a valid SBV_Set_param PDU, remaining in state (4_a), TF_Data_transfer_ready.
 - 11) (Use preamble pre_state_4_a). Check that the IUT is able to send a valid SBV_Read_param PDU, remaining in state (4_a), TF_Data_transfer_ready.
 - 12) (Use preamble pre_state_4_a). Check that the IUT is able to send a valid SBV_Set/Read_param PDU, remaining in state (4_a), TF_Data_transfer_ready.
 - 13) (Use preamble pre_state_4_a). Check that the IUT is able to receive a valid SBV_Param_Indication PDU, remaining in state (4_a), TF_Data_transfer_ready.
 - 14) (Use preamble pre_state_4_a). Check that the IUT is able to receive a valid SBV_TFI_Response PDU, after sending a valid SBV_TFI_Request PDU, remaining in state (4_a), TF_Data_transfer_ready.
 - 15) (Use preamble pre_state_4_a). Check that the IUT is able to receive a valid SBV_TC_Error PDU, remaining in state (4_a), TF_Data_transfer_ready.
 - 16) (Use preamble pre_state_4_a). Check that the IUT is able to send a valid SBV_TC_Error PDU, remaining in state (4_a), TF_Data_transfer_ready.

E.2.3.1.2 AF/BV/SE Comm. Channel Management (CCM)

E.2.3.1.2.1 AF/BV/SE/CCM Channel Management Procedure (CMP)

- 1) (Use preamble pre_state_4A). Check that the IUT is able to send a valid SBV_Channel_Open request PDU.
- 2) Check that, after having sent a SBV_Channel_Open request PDU, the IUT is able to accept a valid SBV_Channel_Open response PDU, ending in state (4') AF_data_transfer_ready.
- 3) Check that, after having sent a SBV_Channel_Open request PDU, the IUT is able to accept a valid SBV_TC_Error PDU with Error_Code parameter meaning "TC not supported", ending in state (4') AF_data_transfer_ready (The SBV_TC_Error PDU acts as a negative response).
- 4) IUT being in state (4') AF_data_transfer_ready, with a slave channel currently open. Check that the IUT is able to send a valid SBV_Channel_Close request PDU.
- 5) Check that, after having sent a SBV_Channel_Close request PDU, the IUT is able to accept a valid SBV_Channel_Close response PDU, ending in state (4') AF_data_transfer_ready.

6) Check that, after having sent a SBV_Channel_Close request PDU, the IUT is able to accept a valid SBV_TC_Error PDU with Error_Code parameter meaning "TC not supported", ending in state (4') AF_data_transfer_ready (The SBV_TC_Error PDU acts as a negative response).

7) IUT being in state (4') AF_data_transfer_ready, with a slave channel previously open. Check that the IUT is able to accept a valid SBV_Channel_Error PDU with a proper reference parameter, ending in state (4') AF_data_transfer_ready.

E.2.3.1.2.2 AF/BV/SE/CCM Multiple Channel Co-ordination (MCC)

1) IUT having sent a SBV_Channel_Open request PDU. Check that the IUT is able to receive a valid SBV_Establish request PDU, creating a new instance of access function (see ETS 300 079 [3] subclause 6.2).

2) IUT having sent a SBV_Channel_Open request PDU. Check that, after the receipt by the IUT of a valid SBV_Establish request PDU, the subsequently created new instance of access function is able to send a valid SBV_Establish response PDU, ending in state (4') AF_data_transfer_ready.

3) A slave channel being currently open, and the IUT having sent a SBV_Channel_Close PDU. Check that the access function associated with the slave channel is able to accept a valid SBV_Release PDU, the access function associated with the slave channel ending in state (1) Idle.

E.2.3.1.3 AF/BV/SE Application Selection (AS)

1) (Use preamble pre_state_4A). Check that, on receipt of a valid SBV_Begin_Application request PDU, the IUT is able to send a valid SBV_Begin_Application response PDU, ending in state (4') AF_Data_transfer_ready.

2) IUT being in state (4') AF_Data_transfer_ready. Check that the IUT is able to accept a valid SBV_End_Application request PDU, ending in state (4') AF_Data_transfer_ready.

3) IUT being in state (4') AF_Data_transfer_ready. Check that the IUT is able to accept a valid SBV_End_Immediate request PDU, ending in state (4') AF_Data_transfer_ready.

E.2.3.1.4 AF/BV/SE Transparent Processable Data (TPD)

1) (Use preamble pre_state_4A). Check that the IUT is able to send a valid SBV_TPD_Begin request PDU.

2) Check that, after having sent a SBV_TPD_Begin request PDU, the IUT is able to accept a valid positive SBV_TPD_Begin response PDU, ending in state (12') AF_TPD_data_transfer_ready.

3) Check that, after having sent a SBV_TPD_Begin request PDU, the IUT is able to accept a valid SBV_TC_Error PDU with Error_Code parameter meaning "TC not supported", ending in state (4') AF_data_transfer_ready (The SBV_TC_Error PDU acts as a negative response).

4) Check that, after having sent a SBV_TPD_Begin request PDU, and received a valid and Successful SBV_TPD_Begin response PDU, the IUT is able to send a valid SBV_VTX_Data request PDU carrying a T-Associate request.

5) (Use preamble pre_state_4A). Check that, on receipt of a valid SBV_TPD_Begin request PDU, the IUT is able to send a valid positive SBV_TPD_Begin response PDU, ending in state (12') AF_TPD_data_transfer_ready.

6) (Use preamble pre_state_12A). Check that the IUT is able to accept a valid SBV_TPD_End request PDU, ending in state (4') AF_data_transfer_ready.

7) (Use preamble pre_state_12A). Check that the IUT is able to send a valid SBV_TPD_End request PDU, ending in state (4') AF_data_transfer_ready.

E.2.3.1.5 AF/BV/SE Define Function Keys (DFK)

1) (Use preamble pre_state_4A). Check that the IUT is able to send a valid SBV_DFK request PDU, ending in state (4') AF_data_transfer_ready.

E.2.3.1.6 AF/BV/SE Remote Echo (RE)

1) (Use preamble pre_state_4A). Check that the IUT is able to receive a valid SBV_Remote_Echo request PDU, ending in state (4') AF_data_transfer_ready.

E.2.3.1.7 AF/BV/SE Escape (ESC)

1) (Use preamble pre_state_4A). Check that the IUT is able to receive a valid SBV_Escape request PDU, ending in state (4') AF_data_transfer_ready.

2) (Use preamble pre_state_4A). Check that the IUT is able to send a valid SBV_Escape request PDU, ending in state (4') AF_data_transfer_ready.

E.2.4 AF - Inopportune Behaviour (BI)

This group of tests (AF/BI...) is intended to verify that the IUT is able to react properly in case an inopportune protocol event occurs. Such an event is sometimes called a *Semantically invalid PDU*.

NOTE: The services addressed by the Inopportune Behaviour part are those which are related to specific SBV protocol elements. As an opposite example, no inopportune event can occur between SBV Establish request and SBV Establish response, for this protocol mechanism is a layer 3 (CCITT Recommendation X.25 and Out-of-Band) matter.

E.2.4.1 AF/BI - Test Event variation (TE)

E.2.4.1.1 AF/BI/TE - Unsupported services

These tests apply if, for a given item, **the corresponding PDU** is not stated as supported in the PICS.

If only the service is not supported but the PDU is supported (i.e. the service is "refused": situation causing, for instance, a SBV_TPD_Begin response PDU to be sent with a Result parameter set to "TPD_Not_Supported"), a corresponding test shall not be considered as inopportune in terms of protocol, and shall be found in the Valid Behaviour clause.

- 1) Check that, on receipt of a SBV_Channel_Error request PDU, the IUT is able to send a valid SBV_TC_Error PDU, with Error_Code set to "TC Not Supported", and the following octet meaning SBV_Channel_Error.
- 2) Check that, on receipt of a SBV_Begin_Application request PDU, the IUT is able to send a valid SBV_TC_Error PDU, with Error_Code set to "TC Not Supported", and the following octet meaning SBV_Begin_Application.
- 3) Check that, on receipt of a SBV_End_Application request PDU, the IUT is able to send a valid SBV_TC_Error PDU, with Error_Code set to "TC Not Supported", and the following octet meaning SBV_End_Application.
- 4) Check that, on receipt of a SBV_End_Immediate request PDU, the IUT is able to send a valid SBV_TC_Error PDU, with Error_Code set to "TC Not Supported", and the following octet meaning SBV_End_Immediate.
- 5) Check that, on receipt of a SBV_TPD_Begin request PDU, the IUT is able to send a valid SBV_TC_Error PDU, with Error_Code set to "TC Not Supported", and the following octet meaning SBV_TPD_Begin.
- 6) Check that, on receipt of a SBV_TPD_End request PDU, the IUT is able to send a valid SBV_TC_Error PDU, with Error_Code set to "TC Not Supported", and the following octet meaning SBV_TPD_End.
- 7) Check that, on receipt of a SBV_Remote_Echo request PDU, the IUT is able to send a valid SBV_TC_Error PDU, with Error_Code set to "TC Not Supported", and the following octet meaning SBV_Remote_Echo.
- 8) Check that, on receipt of a SBV_Escape request PDU, the IUT is able to send a valid SBV_TC_Error PDU, with Error_Code set to "TC Not Supported", and the following octet meaning SBV_Escape.

E.2.4.1.2 AF/BI/TE - Other inopportune events

- 1) Check that, on receipt of a SBV_TFI response corresponding to no previous request, the IUT sends a valid SBV_TC_Error PDU with Error_Code set to "TC_Erroneous".

- 2) Check that, on receipt of a SBV_Channel_Open response corresponding to no previous request, the IUT sends a valid SBV_TC_Error PDU with Error_Code set to "TC_Erroneous".
- 3) Check that, on receipt of a SBV_Channel_Close response corresponding to no previous request, the IUT sends a valid SBV_TC_Error PDU with Error_Code set to "TC_Erroneous".
- 4) Check that, on receipt of a SBV_TPD_Begin response corresponding to no previous request, the IUT sends a valid SBV_TC_Error PDU with Error_Code set to "TC_Erroneous".
- 5) Check that, on receipt of a SBV_Reset response corresponding to no previous request, the IUT sends a valid SBV_TC_Error PDU with Error_Code set to "TC_Erroneous".

NOTE: The test above only applies if the SBV_Reset is mapped onto a BIS_N_Q_DATA (see ETS 300 223 [2], subclause 8.3.3).

E.2.4.2 AF/BI - Timing/Timer variation (TI)

- 1) Check that, after having sent a SBV_TFI request PDU and not received any response PDU for a certain time, the IUT releases the communication.
- 2) Check that, after having sent a SBV_Channel_Open request PDU and not received any response PDU for a certain time, the IUT releases the communication.
- 3) Check that, after having sent a SBV_Channel_Close request PDU and not received any response PDU for a certain time, the IUT releases the communication.
- 4) Check that, after having sent a SBV_TPD_Begin request PDU and not received any response PDU for a certain time, the IUT releases the communication.
- 5) Check that, after having sent a SBV_Reset request PDU and not received any response PDU for a certain time, the IUT releases the communication.

NOTE 1: The test above only applies if the SBV_Reset is mapped onto a BIS_N_Q_DATA (see ETS 300 223 [2], subclause 8.3.3).

NOTE 2: The "certain time" a tester is to wait for the communication release is given by the PICS. In any case it should not be smaller than timer value T28 multiplied by counter value R28 as defined in ISO/IEC 8208 [17], clause 8.

E.2.4.3 AF/BI - parameter value Variation (PV)

E.2.4.3.1 AF/BI/PV - Establishment service

None.

E.2.4.3.2 AF/BI/PV - X.3 related services

None.

E.2.4.3.3 AF/BI/PV - Telematic Commands

- 1) Check that, after the IUT has sent a SBV_Channel_Open request with no reference parameter (i.e. request to open an "Independent" channel), the IUT rejects a SBV_Establish request PDU with a reference parameter sent by the tester.
- 2) Check that, the IUT having sent no SBV_Channel_Open request, the IUT rejects a SBV_Establish request PDU with a reference parameter sent by the tester.

NOTE 1: (applies to two tests above) References: ETS 300 079 [3] and ETS 300 223 [2] subclauses 7.2.1 (definition of reference parameter; case of "no reference value available") and 7.3.1.

- 3) Check that the IUT rejects a SBV_Establish request PDU sent by the tester on which the reference parameter is set to a value already used for another channel.

NOTE 2: (applies to test above) References: ETS 300 079 [3] and ETS 300 223 [2] subclause 7.3.1 ("the reference value used to establish this communication channel shall be no longer available").

E.2.4.4 AF/BI - Parameter Combination (PC)

E.2.4.4.1 AF/BI/PC - X.3 related services

None.

E.2.4.4.2 AF/BI/PC - Telematic Commands

1) Check that, on receipt of a SBV_TPD_Begin response PDU, with Result parameter set to "Successful" and DDU_Fall_Back mode parameter present, the IUT issues a SBV_TC_Error PDU.

E.2.5 AF - Invalid Behaviour (BO)

This group of tests (AF/BO...) is intended to verify that the IUT is able to react properly in case an invalid protocol data unit. Invalid PDU here means *Syntactically invalid PDU*.

NOTE: The same remark applies, as for the Inopportune Behaviour group: The services addressed by the Invalid Behaviour part are those which are related to specific SBV protocol elements. As an opposite example, a badly encoded SBV Establish request would cause an error to be detected by the layer 3 (CCITT Recommendation X.25).

E.2.5.1 AF/BO - parameter value Variation (PV)

Are treated here the cases in which the presence, the absence, or a specific value of a parameter are precluded by the **syntax** definition (e.g. mandatory parameter omitted).

E.2.5.1.1 AF/BO/PV - X.3 related services

None.

NOTE: This matter belongs to the specific CCITT Recommendation X.3 [8] testing branch.

E.2.5.1.2 AF/BO/PV - Telematic Commands

1) Check that, on receipt of an invalid SBV_TC_Error PDU, with no Error_Code parameter, the IUT does not send anything (in particular does not generate a new SBV_TC_Error).

2) Check that, on receipt of a SBV_Reset response PDU with no Result parameter, the IUT sends a SBV_TC_Error PDU, with Error_Code parameter set to "TC_Erroneous".

NOTE: The test above only applies if the SBV_Reset is mapped onto a BIS_N_Q_DATA (see ETS 300 223 [2], subclause 8.3.3).

3) Check that, on receipt of a SBV_Channel_Open response PDU with no Result parameter, the IUT sends a SBV_TC_Error PDU, with Error_Code parameter set to "TC_Erroneous".

4) Check that, on receipt of a SBV_Channel_Close response PDU with no Result parameter, the IUT sends a SBV_TC_Error PDU, with Error_Code parameter set to "TC_Erroneous".

5) Check that, on receipt of a SBV_Channel_Error request PDU with no Reference parameter, the IUT sends a SBV_TC_Error PDU, with Error_Code parameter set to "TC_Erroneous".

6) Check that, on receipt of a SBV_Channel_Error request PDU with no Ind_OB_Cause, no Ind_IB_Cause, no Ind_IB_Diagnostic parameters, the IUT sends a SBV_TC_Error PDU, with Error_Code parameter set to "TC_Erroneous".

- 7) Check that, on receipt of a SBV_Begin_Application request PDU with no IB_Application_Address parameter, no IB_Application_Selection parameter, and no IB_User_Data parameter, the IUT sends a SBV_TC_Error PDU, with Error_Code parameter set to "TC_Erroneous".
- 8) Check that, on receipt of a SBV_TPD_Begin response PDU with no Result parameter, the IUT sends a SBV_TC_Error PDU, with Error_Code parameter set to "TC_Erroneous".
- 9) Check that, on receipt of a SBV_Remote_Echo request PDU with no Echo parameter, the IUT sends a SBV_TC_Error PDU, with Error_Code parameter set to "TC_Erroneous".
- 10) Check that, on receipt of a SBV_Escape PDU with no Service_ID parameter, the IUT sends a SBV_TC_Error PDU, with Error_Code parameter set to "TC_Erroneous".

E.2.5.2 AF/BO - Encoding Variations (EV)

E.2.5.2.1 AF/BO/EV - X.3 related services

None.

NOTE: Not in this branch of the Test Suite.

E.2.5.2.2 AF/BO/EV - Telematic Commands

- 1) Check that, on receipt of a Telematic Command with octet 2 of the User Data field of the X.25 PLP Data Packet set to 15/14 (NOTE: instead of 09/14 for a valid ISDN Syntax-Based Videotex Telematic Command), the IUT sends a TC_Error PDU.
- 2) Check that, on receipt of a Telematic Command with octet 4 of the User Data field of the X.25 PLP Data Packet (TC length) set to 15/15 (NOTE: instead of being in the range 00/00 to 15/14 for a valid ISDN Syntax-Based Videotex Telematic Command), the IUT sends a TC_Error PDU.

NOTE: The SBV_TFI is recommended for the two tests above because it is the only confirmed Telematic Command belonging to Kernel Services.

- 3) Check that, on receipt of a Telematic Command with octet 3 of the User Data field of the X.25 PLP Data Packet (TC Code) set to 01/05 (NOTE: Unknown Telematic Command code), the IUT sends a TC_Error PDU.

Annex F (normative): SBV state Diagrams

This annex gives the state diagrams of the SBV protocol as defined by ETS 300 223 [2] and ETS 300 079 [3], respectively, but does not define any aspect of that protocol itself.

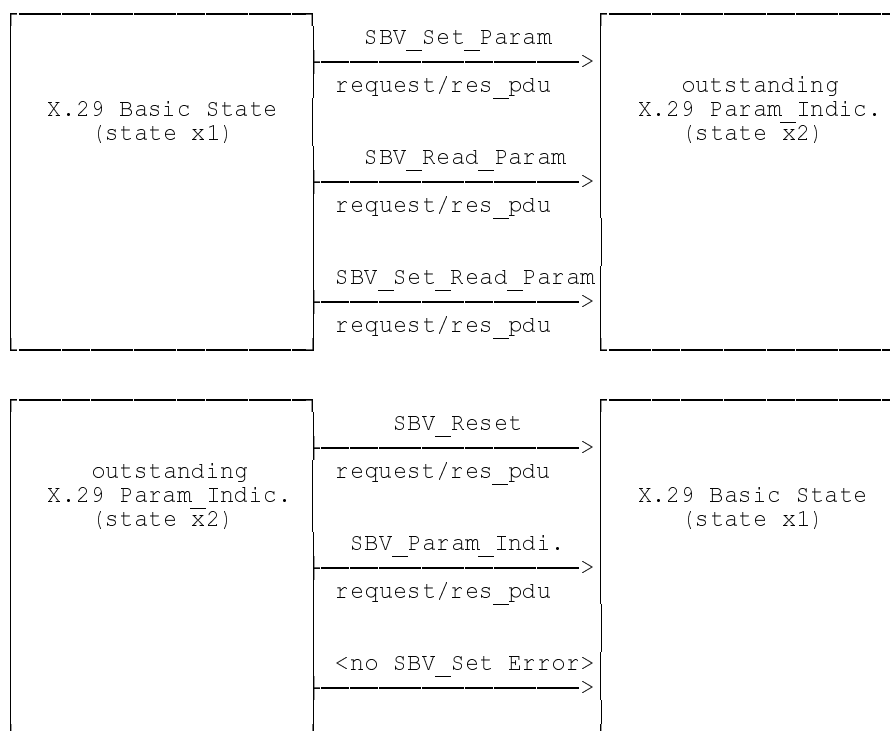
NOTE 1: Transitions due to errors (both, either X.29 Error PAD message or SBV_TC_Error) are not shown here. These errors might occur each time a PDU is received.

NOTE 2: In case of any discrepancy between the base standard and the state diagram the base standard takes precedence over the state diagram.

NOTE 3: Currently, abbreviations used here are not aligned with those used in the state tables.

F.1 CCITT Recommendation X.29 state machine

The CCITT Recommendation X.29 [9] machine is processed independently of the SBV state machine, as indicated in states 4 and 4'.



NOTE: It is not clear, whether the number of PARAM_REQ_PDUs shall be "equal to" or "less than or equal to" the number of e.g. READs. Is it enough to send one PARAM_REQ_PDU to answer two READ's?

Figure F.1: X.29 state machine

F.2 SBV state Diagram

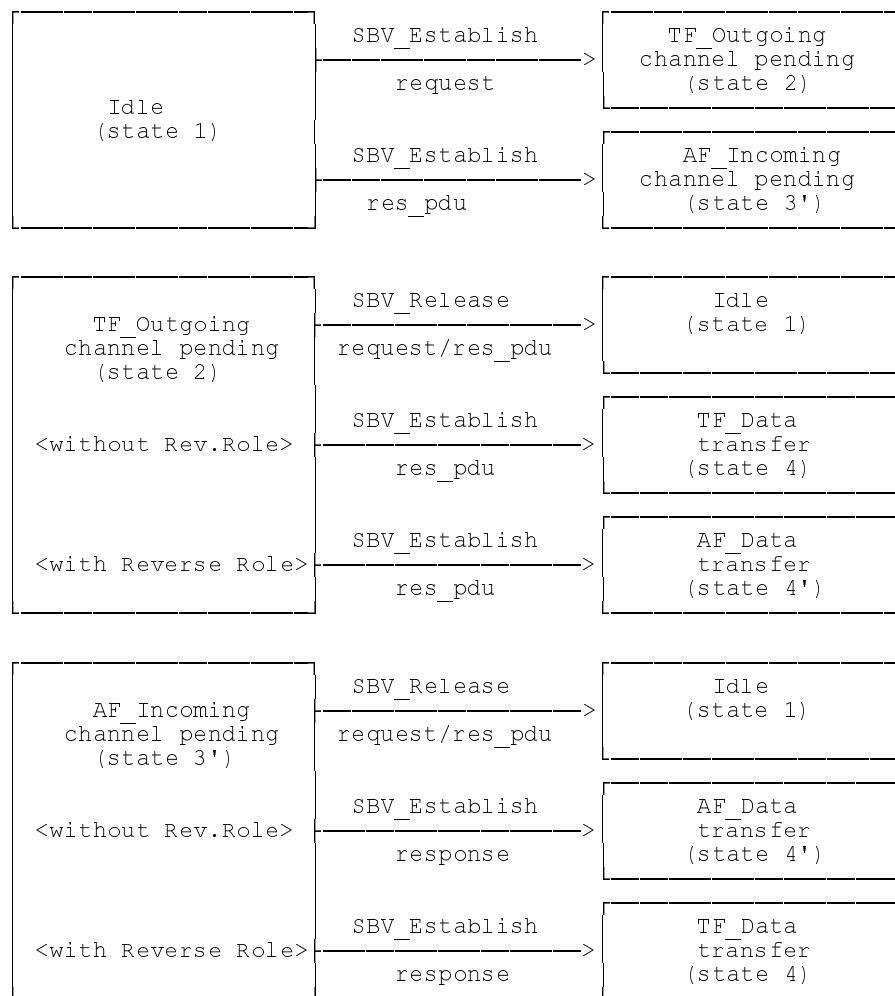


Figure F.2: Connection Establishment

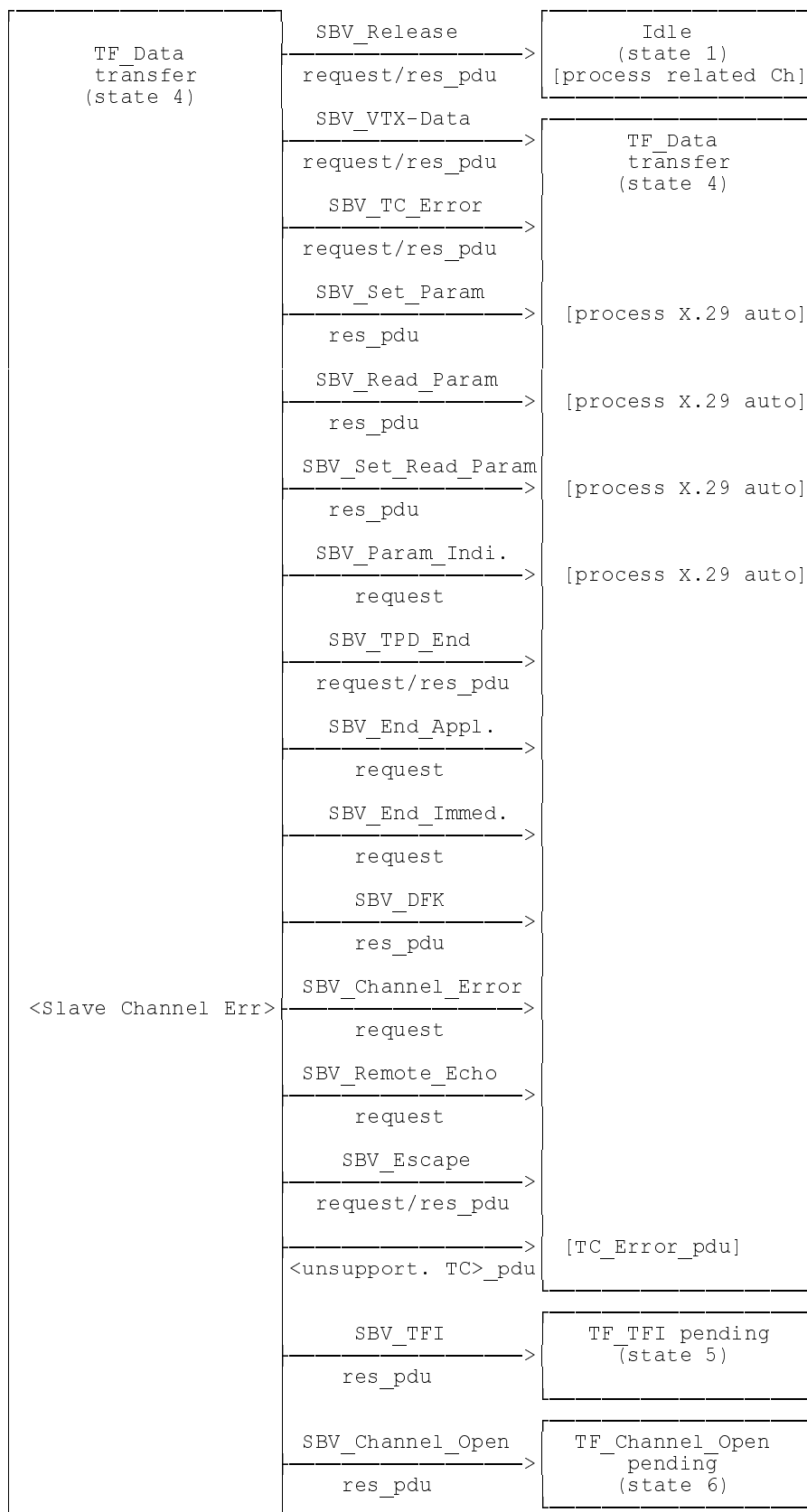


Figure F.3: TF connected

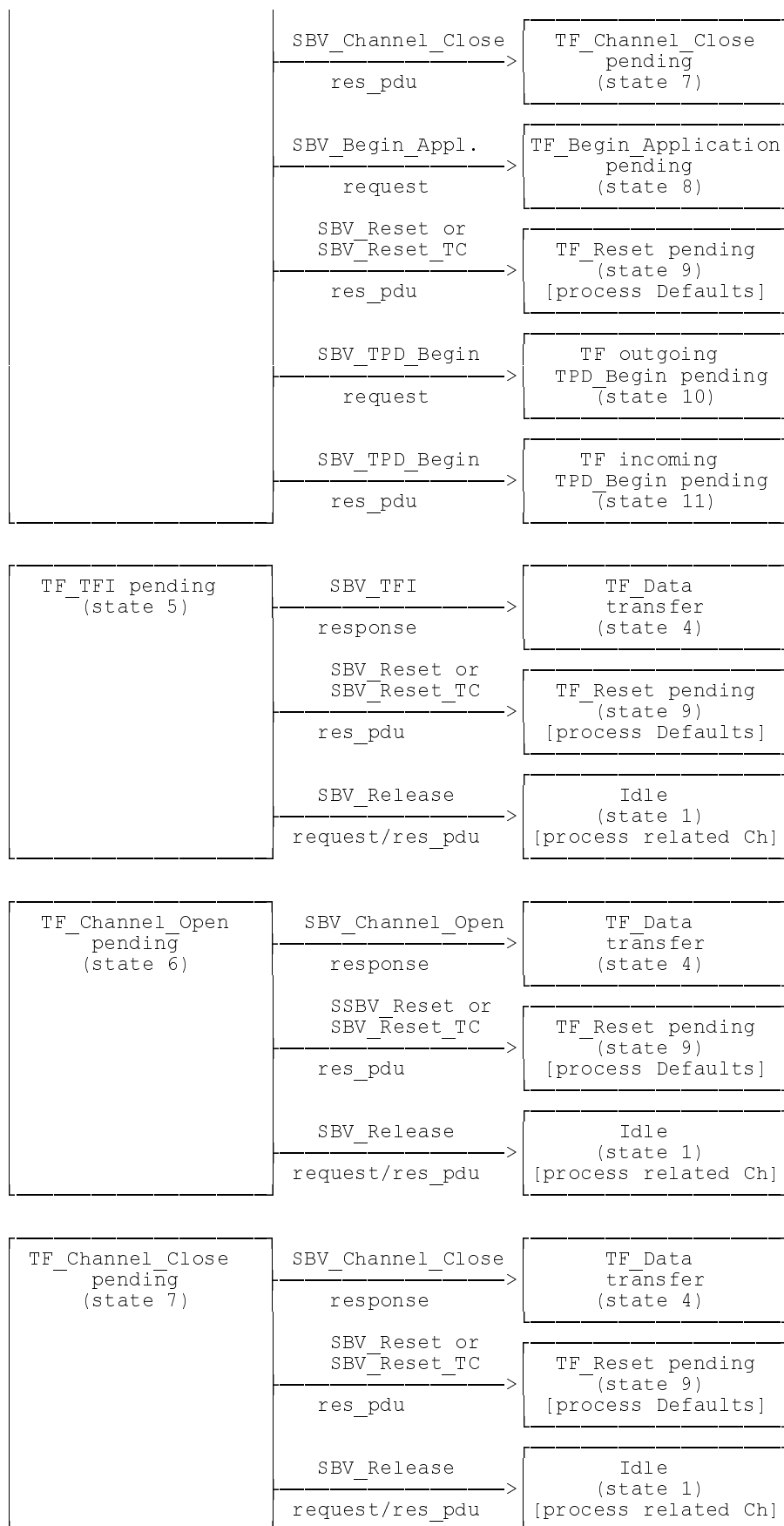


Figure F.3: TF connected (continued)

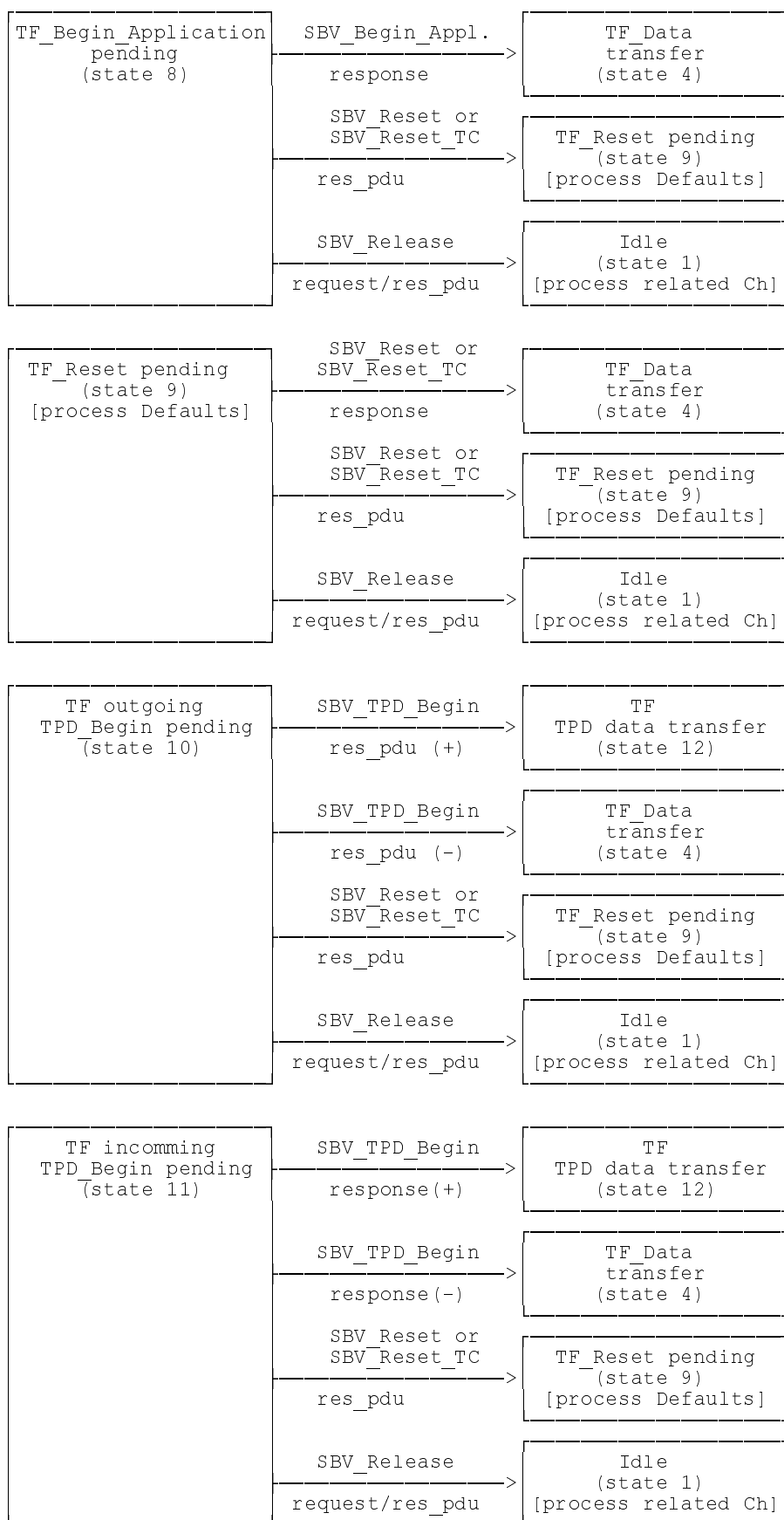
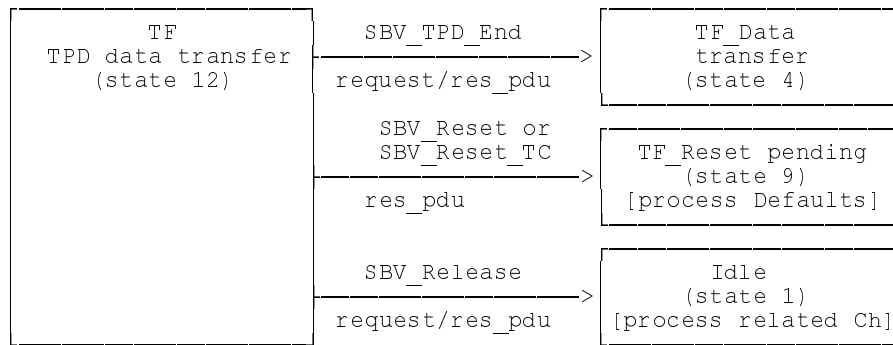


Figure F.3: TF connected (continued)

**Figure F.3: TF connected (concluded)**

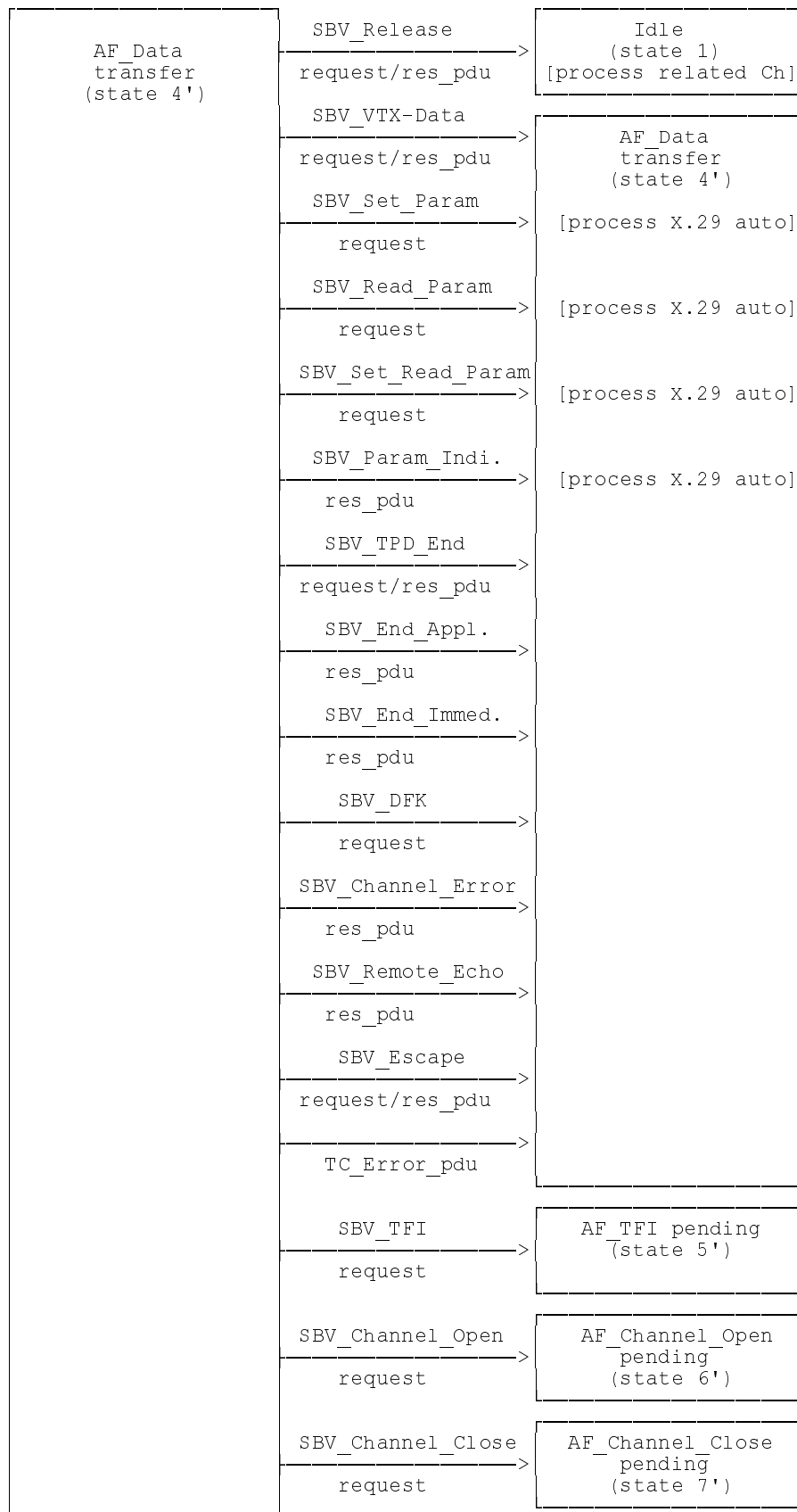


Figure F.4: AF connected

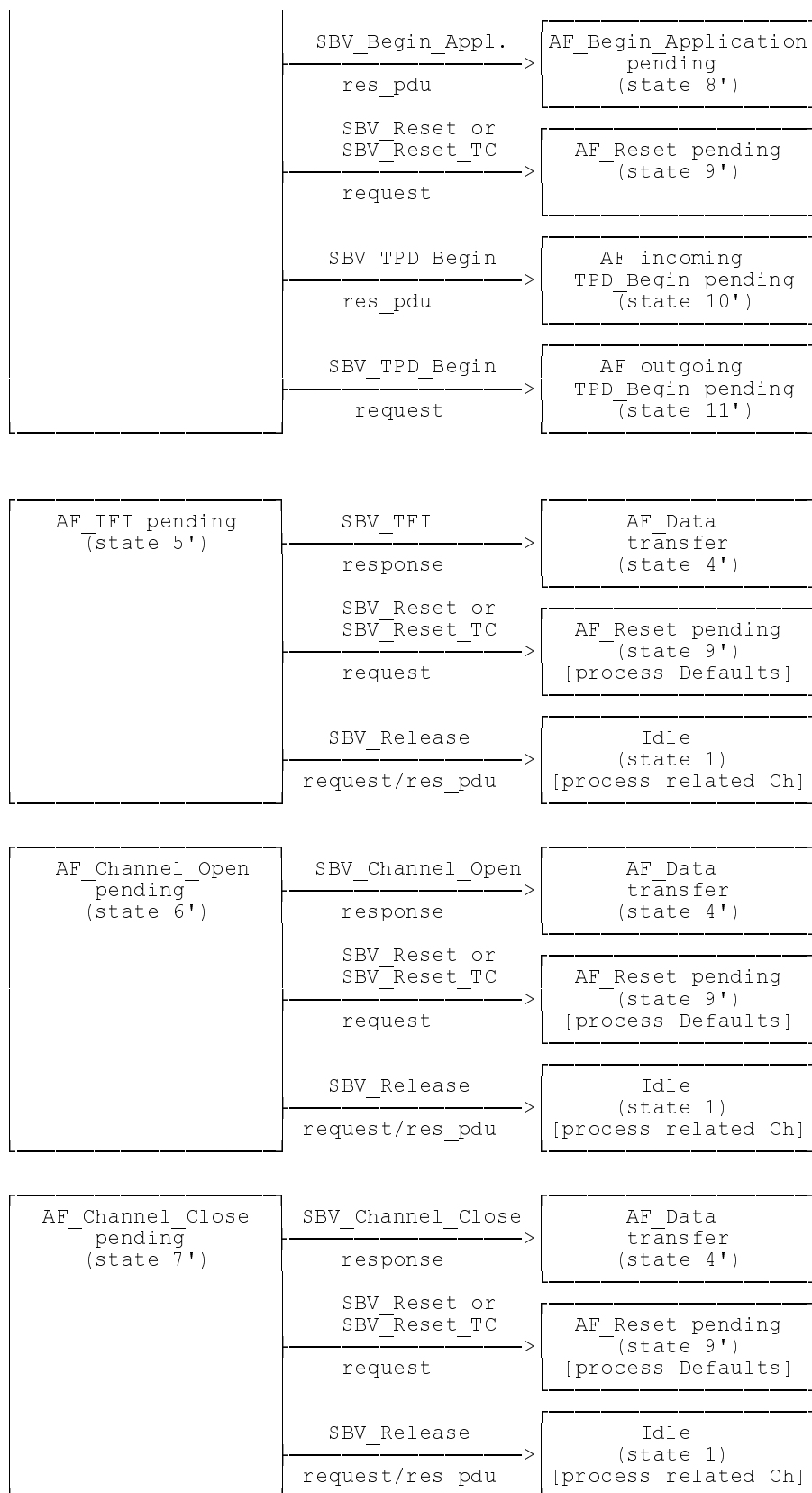


Figure F.4: AF connected (continued)

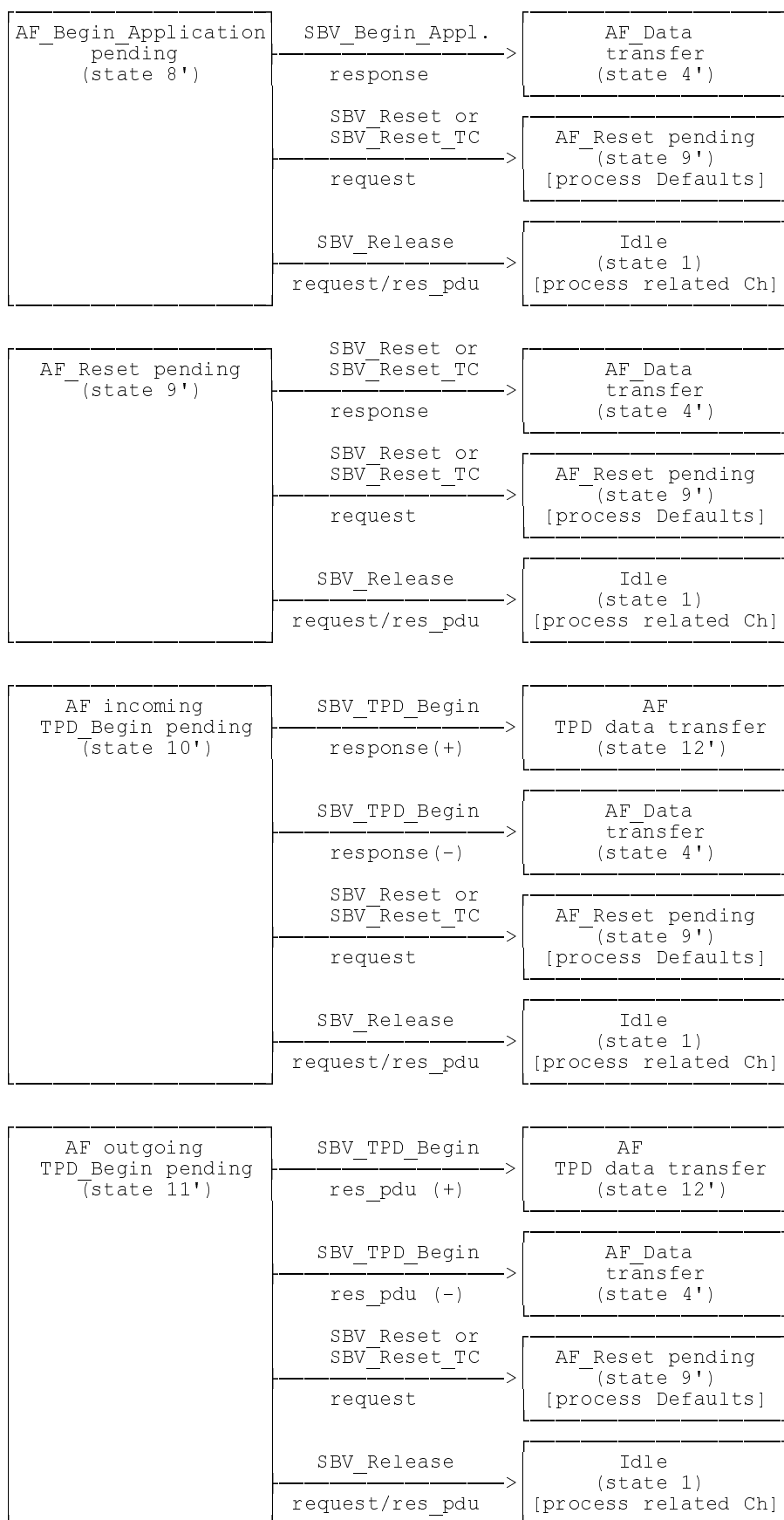
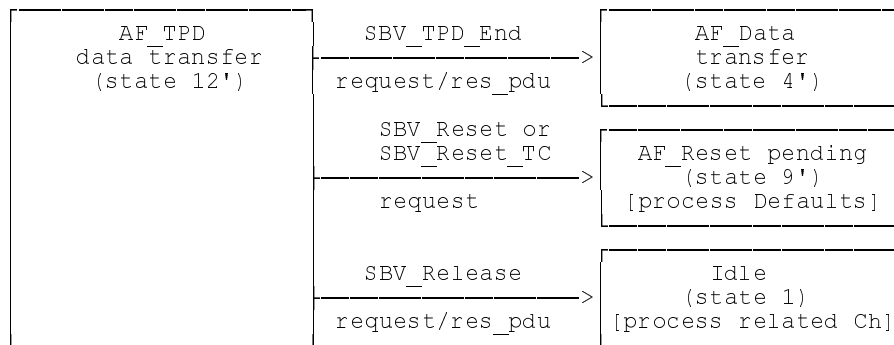


Figure F.4: AF connected (continued)

**Figure F.4: AF connected (concluded)**

Annex G (normative): SBV state tables

This annex gives the state tables of the SBV protocol as defined by ETS 300 223 [2] and ETS 300 079 [3], respectively, but does not define any aspect of that protocol itself.

The different actions associated with the different state transitions are not shown here.

The notes given hereafter form part of the tables contained in this annex.

NOTE 1: In case of any discrepancy between the base standard and the state diagram the base standard takes precedence over the state diagram.

NOTE 2: SBV state machine returns into the same (4') state, but x29 state machine is in a pending state until SBV_Param_Indication PDU is received.

NOTE 3: SBV state machine returns into the same (4) state, but the service primitive SBV_Param_Indication request has made x29 state machine return into its basic state.

NOTE 4: If Role Reversal is negotiated on, jump to Access Function table (state 4').

NOTE 5: SBV state machine returns into the same (4) state, but x29 state machine is in a pending state until the service primitive SBV_Param_Indication request is invoked.

NOTE 6: If the corresponding service is not supported, the state machine returns to state 4 (resp. 4') after issuing a TC_Error PDU.

NOTE 7: If Role Reversal is negotiated on, jump to Terminal Function table (state 4).

NOTE 8: SBV state machine returns into the same (4') state, but the receipt of a SBV_Param_Indication PDU has made x29 state machine return into its basic state.

G.1 Terminal Function state tables

G.1.1 Terminal Function Service events

Table G.1

while in the state:	Idle	Outgoing channel pending	TF_data transfer ready	TF_TFI pending	TF_Channel open pending	TF_Channel close pending	TF_Begin appli. pending	TF_Reset pending	Outgoing TPD_Begin pending	Incoming TPD_Begin pending	TPD data transfer
	state 1	state 2	state 4	state 5	state 6	state 7	state 8	state 9	state 10	state 11	state 12
Occurs the event:											
SBV_Establish request	-> 2										
SBV_Release request		-> 1	-> 1	-> 1	-> 1	-> 1	-> 1	-> 1	-> 1	-> 1	-> 1
SBV_Reset(orTC) response								-> 4			
SBV_VTX_Data request			-> 4								
SBV_Param_4_In d. req.			-> 4 (note 2)								
SBV_TFI response				-> 4							
SBV_Ch.Open response					-> 4						
SBV_Ch.Close response						-> 4					

(continued)

Table G.1 (concluded)

while in the state:	Idle	Outgoing channel pending	TF_data transfer ready	TF_TFI pending	TF_Channel open pending	TF_Channel close pending	TF_Begin appli. pending	TF_Reset pending	Outgoing TPD_Begin pending	Incoming TPD_Begin pending	TPD data transfer
Occurs the event:	state 1	state 2	state 4	state 5	state 6	state 7	state 8	state 9	state 10	state 11	state 12
SBV_Ch.Error request			-> 4								
SBV_Beg.Appli request			-> 8								
SBV_End.Appli request			-> 4								
SBV_End.Immed.request			-> 4								
SBV_TPD_Begin request			-> 10								
SBV_TPD_Begin response +ve										- 12	
SBV_TPD_Begin response -ve										-> 4	
SBV_TPD_End request			-> 4								-> 4
SBV_Remote_Echo request			-> 4								
SBV_Escape request			-> 4								

G.1.2 Terminal Function Protocol events

Table G.2

while in the state:	Idle	Outgoing channel pending	TF_data transfer ready	TF_TFI pending	TF_Channel open pending	TF_Channel close pending	TF_Begin appli. pending	TF_Reset pending	Outgoing TPD_Begin pending	Incoming TPD_Begin pending	TPD data transfer
	state 1	state 2	state 4	state 5	state 6	state 7	state 8	state 9	state 10	state 11	state 12
Occurs the event:											
SBV_Establish response PDU		-> 4 or 4' (note 3)									
SBV_Release request PDU		-> 1	-> 1	-> 1	-> 1	-> 1	-> 1	-> 1	-> 1	-> 1	-> 1
SBV_Reset(orTC) request PDU			-> 9	-> 9	-> 9	-> 9	-> 9	-> 9	-> 9	-> 9	-> 9
SBV_VTX_Data request PDU			-> 4								
SBV_Set_Par req. PDU			-> 4 (note 4)								
SBV_Read_Par req. PDU			-> 4 (note 4)								
SBV_S.R_Par req. PDU			-> 4 (note 4)								
SBV_TFI request PDU			-> 5								

(continued)

Table G.2 (concluded)

while in the state:	Idle	Outgoing channel pending	TF_data transfer ready	TF_TFI pending	TF_Channel open pending	TF_Channel close pending	TF_Begin appli. pending	TF_Reset pending	Outgoing TPD_Begin pending	Incoming TPD_Begin pending	TPD data transfer
Occurs the event:	state 1	state 2	state 4	state 5	state 6	state 7	state 8	state 9	state 10	state 11	state 12
SBV_TC_Error PDU			-> 4				-> 4		-> 4		
SBV_Ch.Open request PDU			-> 6 or 4 (note 5)								
SBV_Ch.Close request PDU			-> 7								
SBV_Beg.Appli response PDU							-> 4				
SBV_TPD_Begin request PDU			-> 11 or 4 (note 5)								
SBV_TPD_Begin resp. PDU +ve									-> 12		
SBV_TPD_Begin resp. PDU -ve									-> 4		
SBV_TPD_End request PDU			-> 4								-> 4
SBV_DFK request PDU			-> 4								
SBV_Escape request PDU			-> 4								

G.2. Access Function state tables

G.2.1 Access Function Service events

Table G.3

while in the state:	Idle	Incoming channel pending	TF_data transfer ready	TF_TFI pending	TF_Channel open pending	TF_Channel close pending	TF_Begin appli. pending	TF_Reset pending	Incoming TPD_Begin pending	Outgoing TPD_Begin pending	TPD data transfer
	state 1	state 3'	state 4'	state 5'	state 6'	state 7'	state 8'	state 9'	state 10'	state 11'	state 12'
Occurs the event:											
SBV_Establish response		-> 4' or 4 (note 6)									
SBV_Release request		-> 1	-> 1	-> 1	-> 1	-> 1	-> 1	-> 1	-> 1	-> 1	-> 1
SBV_Reset(orTC) request			-> 9'	-> 9'	-> 9'	-> 9'	-> 9'	-> 9'	-> 9'	-> 9'	-> 9'
SBV_VTX_Data request			-> 4'								
SBV_Set_Par request			-> 4' (note 1)								
SBV_Read_Par request			-> 4' (note 1)								
SBV_S.R_Par request			-> 4' (note 1)								
SBV_TFI request			-> 5'								

(continued)

Table G.3 (concluded)

while in the state:	Idle	Incoming channel pending	TF_data transfer ready	TF_TFI pending	TF_Channel open pending	TF_Channel close pending	TF_Begin appli. pending	TF_Reset pending	Incoming TPD_Begin pending	Outgoing TPD_Begin pending	TPD data transfer
Occurs the event:	state 1	state 3'	state 4'	state 5'	state 6'	state 7'	state 8'	state 9'	state 10'	state 11'	state 12'
SBV_Ch.Open request			-> 6'								
SBV_Ch.Close request			-> 7'								
SBV_Beg.Appli response							-> 4'				
SBV_TPD_Begin request			-> 11'								
SBV_TPD_Begin response +ve									-> 12'		
SBV_TPD_Begin response -ve									-> 4'		
SBV_TPD_End request			-> 4'								-> 4'
SBV_DFK request			-> 4'								
SBV_Escape request			-> 4'								

G.2.2 Access Function Protocol events

Table G.4

while in the state:	Idle	Incoming channel pending	TF_data transfer ready	TF_TFI pending	TF_Channel open pending	TF_Channel close pending	TF_Begin appli. pending	TF_Reset pending	Outgoing TPD_Begin pending	Incoming TPD_Begin pending	TPD data transfer
Occurs the event:	state 1	state 3'	state 4'	state 5'	state 6'	state 7'	state 8'	state 9'	state 10'	state 11'	state 12'
SBV_Establish request PDU	-> 3'										
SBV_Release request PDU		-> 1	-> 1	-> 1	-> 1	-> 1	-> 1	-> 1	-> 1	-> 1	-> 1
SBV_Reset(orTC) response PDU								-> 4'			
SBV_VTX_Data request PDU			-> 4'								
SBV_Param_Ind PDU			-> 4' (note 7)								
SBV_TFI response PDU				-> 4'							
SBV_TC_Error PDU			-> 4'	-> 4'	-> 4'	-> 4'		-> 4'	-> 4'	-> 4'	
SBV_Ch.Open response PDU					-> 4'						

(continued)

Table G.4 (concluded)

while in the state:	Idle	Incoming channel pending	TF_data transfer ready	TF_TFI pending	TF_Channel open pending	TF_Channel close pending	TF_Begin appli. pending	TF_Reset pending	Outgoing TPD_Begin pending	Incoming TPD_Begin pending	TPD data transfer
Occurs the event:	state 1	state 3'	state 4'	state 5'	state 6'	state 7'	state 8'	state 9'	state 10'	state 11'	state 12'
SBV_Ch.close response PDU						-> 4'					
SBV_Ch.Error PDU			-> 4'								
SBV_Beg.Appli response PDU			-> 8'								
SBV_End.Appli request PDU			-> 4'								
SBV_End.Immed. request PDU			-> 4'								
SBV_TPD_Begin request PDU			-> 10' or 4' (note 5)								
SBV_TPD_Begin resp. PDU +ve										-> 12'	
SBV_TPD_Begin resp. PDU -ve										-> 4'	
SBV_TPD_End request PDU			-> 4'								-> 4'
SBV_Remote_Echo request PDU			-> 4'								
SBV_Escape request PDU			-> 4'								

Annex H (normative): BIS for SBV over ISDN circuit switched DTE/DTE (ETS 300 079)

The present document uses ETS 300 223 [2] terminology to define conformance testing for the SBV protocol. This protocol is (in principal) identical to the SBV protocol definition given by ETS 300 079 [3]. However:

- ETS 300 079 [3] currently does not make use of the BIS;
- ETS 300 079 [3] does not contain the protocol elements SBV_Reset_TC, SBV_End__Immediate, SBV_Remote_Echo.

This annex is normative within the context of the SBV ATS. It contains information necessary to apply the conformance testing of the SBV protocol defined by the present document to equipment conforming to ETS 300 079 [3], related to the fact that ETS 300 079 [3] does not make use of the BIS. In other words, this annex defines the BIS service interface (upon which the TTCN ATS events and actions are based) out of the lower layer protocol elements referred to in ETS 300 079 [3].

NOTE: Some text contained in this annex is the text contained in ETS 300 079 [3] with some modifications, where necessary. This annex might serve as input in case of an amendment of ETS 300 079 [3].

H.1 Normative references

In addition to the normative references given in ETS 300 223 [2], the following normative references are used for the purpose of this annex.

- | | |
|------|---|
| [H1] | CCITT Recommendation X.25 (1988): "Interface between data terminal equipment (DTE) and data circuit-terminating equipment (DCE) for terminals operating in the packet mode and connected to public data networks by dedicated circuit". |
| [H2] | CCITT Recommendation X.75 (1984): "Packet-switched signalling system between public networks providing data transmission services". |
| [H3] | ETS 300 011 (1992): "Integrated Services Digital Network (ISDN); Primary rate user-network interface, Layer 1 specification and test principles". |
| [H4] | ETS 300 012 (1992): "Integrated Services Digital Network (ISDN); Basic user-network interface, Layer 1 specification and test principles". |
| [H5] | ETS 300 080 (1992): "Integrated Services Digital Network (ISDN); ISDN lower layer protocols for telematic terminals". |
| [H6] | ETS 300 102-1 (1990): "Integrated Services Digital Network (ISDN); User-network interface layer 3, Specifications for basic call control". |
| [H7] | ETS 300 125 (1991): "Integrated Services Digital Network (ISDN); User-network interface data link layer specification, Application of CCITT Recommendations Q.920/I.440 and Q.921/I.441". |
| [H8] | ISO 7776: "Information processing systems - Data communications - High-level data link control procedures - Description of the X.25 LAPB-compatible DTE compatible DTE data link procedures". |

H.2 Access network scenario

Figure H.1 below illustrates the access network scenario for the ISDN DTE/DTE case of connection. The ISDN provides for an end-to-end circuit-switched link between the Terminal Function and the Access Function.

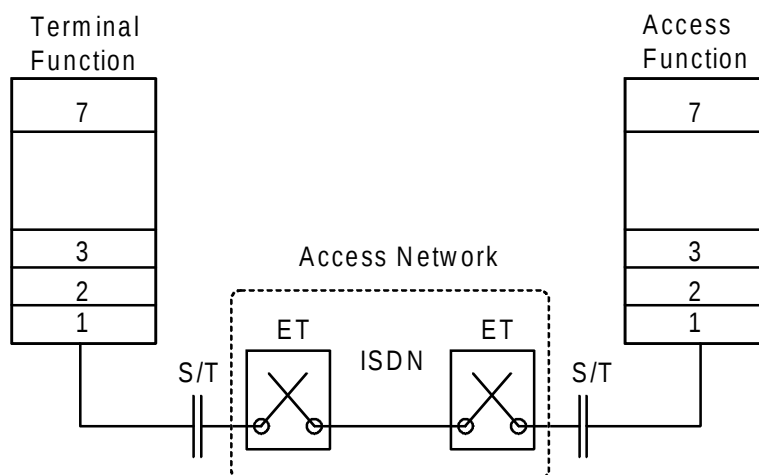


Figure H.1: Access Network scenario

H.3 Protocol pillar

The protocol pillar used below the BIS for the DTE/DTE case of connection is given in figure H.2.

Layer	BIS (note 1)	
	D-channel	B-channel
3	TS 300 102-1 [H6] (Q.931)	ISO/IEC 8208 [17]
2	ETS 300 125 [H7] (Q.921)	X.75 [H2] (NOTE 2) or ISO 7776 [H8]
1	ETS 300 011 [H3] (I.431) or ETS 300 012 [H4] (I.430)	

NOTE 1: The BIS takes care of the relationship between In-Band and Out-of-Band protocol pillars, if an Out-of-Band protocol is used.

NOTE 2: CCITT Recommendation X.75 [H2], as modified in ETS 300 080 [H5].

Figure H.2: Protocol Pillar

The lower layer (layer 1 to layer 3) protocols are as specified in ETS 300 080 [H5] for the DTE/DTE connection using ISDN circuit mode. This annex gives additional application rules.

H.4 Bearer Independent Service (BIS) definition

Clause 11 of ETS 300 223 [2] shall apply with the following additional rules:

- Out-of-Band reads D-Channel and In-Band reads B-Channel;
- the BIS-user-data abstract parameter of a BIS-N-CONNECT primitive (see ETS 300 223 [2], subclause 11.4.1) contains a part mapped onto B-Channel X.25 Called Address field;
- the Called Address parameter of a BIS-N-CONNECT primitive (see ETS 300 223 [2], subclause 11.4.1) is mapped onto (Channel D) ISDN Called Address.

H.5 Use of BIS

The SBV parameter IB_Called_Address is mapped onto BIS-user-data parameter of a BIS-N-CONNECT primitive, and corresponds to the B-Channel CCITT Recommendation X.25 [H.1] Called Address field.

In-Band addressing is not used.

H.6 Lower layers

H.6.1 Co-ordination between D-channel and B-channel

As the present document cannot make reference to the Connection Oriented Network Service (CONS), it is not possible to base a description of the co-ordination function on ETS 300 080 [H5].

H.6.2 Layer 3 D-channel protocol

H.6.2.1 The access protocol

Subclause 6.1 of ETS 300 080 [H5] shall apply without any additional rule.

H.6.2.2 Terminal selection and compatibility checking

Subclause 6.2 of ETS 300 080 [H5] shall apply without any additional rule.

H.6.2.3 Service specific use of supplementary services

Subclause 6.3 of ETS 300 080 [H5] shall apply. In addition, the following supplementary services may be used optionally:

- Subaddressing (SUB);
- User-to-User Signalling (UUS) Service 1;
- Call Deflection (CD) in combination with UUS Service 1.

H.6.2.4 Call Progress Signals

Call Progress Signals may be handled locally by the terminal.

H.6.3 Layer 3 B-channel protocol

Subclause 7.2 of ETS 300 080 [H5] shall apply with the following additional rules:

- the mapping in accordance with ISO/IEC 8878 does not apply for ISDN syntax-based Videotex;
- subclause 7.2.11 of ETS 300 080 [H5] "Encoding of NSAP Addresses" does not apply.

H.6.4 Layer 2 D-channel protocol

Clause 5 of ETS 300 080 [H5] shall apply without any additional rule.

H.6.5 Layer 2 B-channel protocol

Subclause 7.1 of ETS 300 080 [H5] shall apply without any additional rule.

H.6.6 Layer 1 protocol

Clause 4 of ETS 300 080 [H5] shall apply without any additional rule.

Annex J (informative): Scope of conformance testing of SBV protocol

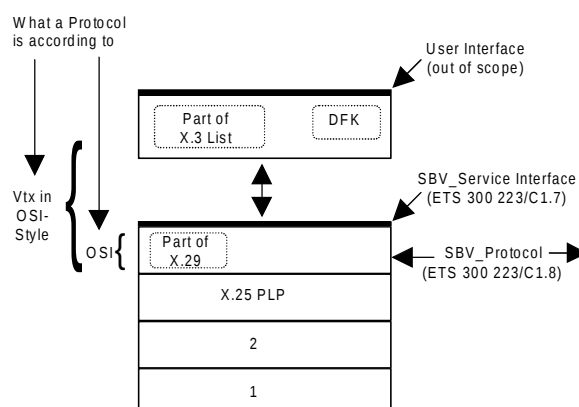


Figure J.1: Common SBV protocol Pillar

The objective of conformance testing is to ensure a certain degree of compatibility between different implementations of one or several standards.

ISO 9646 "OSI conformance testing methodology and framework", Parts 1 [4], 2 [5], 3 [6] and 5 [7], defines conformance testing for OSI protocols. According to ISO 7498 [16], a protocol is a set of rules and formats (semantics and syntactic) which determines the communication behaviour of entities of a certain layer in the performance of functions of that layer (see ISO 9646-1 [4], subclause 5.2.1.10). The informative annex B of ISO 9646-1 [4] deals with the "Applicability of the test methods to OSI protocols". It is recognized that application standards "may specify non-protocol conformance requirements which have to be achieved as result of protocol exchanges. However, these requirements should be kept quite distinct from the normal protocol conformance requirements. Testing of non-protocol conformance requirements will, in general, require application-specific test methods, and therefore fall outside the scope of ISO 9646 [4].

The SBV application layer protocol is, intentionally, not an OSI protocol, even if the method to describe the protocol follows the OSI concept. Therefore, it cannot be a surprise that applying an OSI methodology like conformance testing to a non-OSI protocol might require some modifications of the methodology.

As a matter of fact, the SBV application layer protocol standard(s) (part of ETS 300 079 [3] and ETS 300 223 [2]) define more than just the protocol. Not only the communication between a Terminal Function and an Access Function, but also some applicative matters and processing activities ("real effects") in a Videotex equipment is within the scope of these ETSs. For instance, the SBV_DFK service or the use of some CCITT Recommendation X.3 [8] parameters is defined. Those definitions include rules on how to handle user input, e.g. forwarding conditions; the use of some CCITT Recommendation X.3 [8] parameters is associated with an effect on the behaviour of the equipment, e.g. echoing.

As far as these items are concerned, testing the protocol (in the OSI sense) would mean just to test whether the protocol used to exchange information related to those items is used in accordance with the ETS. It would not check, e.g. whether the setting of a forwarding condition, or of an echo rule, leads to proper equipment behaviour.

EWOS/ETSI PT 5 on "OSI Conformance Testing Methodology and Procedures in Europe" in its Technical Report identifies as an unstable methodology area, the so called "Real Effects Testing" and gives a high level of priority to solve that problem (see annex D, clause 6 of their report). For further action within European standardization they recommend (among other things):

- to leave the responsibility for testing real effects to the group that define the tests;
- to take care to define a test purpose for "each real effect" of those real effects to be conformance tested.

As it is currently an open issue how a method for this area should appear, the conclusion made for the present document is:

- this version for the SBV protocol deals with strict SBV protocol matters where protocol is understood as given by the OSI definition. Later versions of the present document might extend the scope;
- areas lying beyond the scope of strict protocol conformance testing are identified;
- the test suite structure reflects these aspects by means of additional branches. However, to structure these additional branches is left open for a version of the present document having an extended scope.

NOTE: In case of testing real effects, like forwarding conditions or echo rules, access to the upper layer interface of the IUT* (which is the real effect tests equivalent to the IUT defined by ISO 9646 [4] to [7] for protocol tests) is needed to specify test cases. To give an example: when the forwarding condition is set to be the character <CR> a test case might check whether the user data send by means of SBV_VTX_Data would be split up after a <CR> in that data.

In the remote test method, a test case has no access to the upper service interface of the IUT (see figure J.2); specifying the data to be put into the user data field of a service primitive at the upper layer interface of the IUT is impossible.

An adequate test method for real effect tests might be derived from the ISO 9646 [4] to [7] distributed test method. The distributed test method provides access to the Abstract Service Primitives (ASPs) of the upper layer of the IUT via an upper tester (see figure J.3). The upper tester is nothing more than the requirement that it is possible to describe the mapping of the ASPs onto the interface of the system containing the IUT.

In case of testing real effects of Videotex equipment, to give such a mapping on the IUT* interface should always be possible without causing any extra costs.

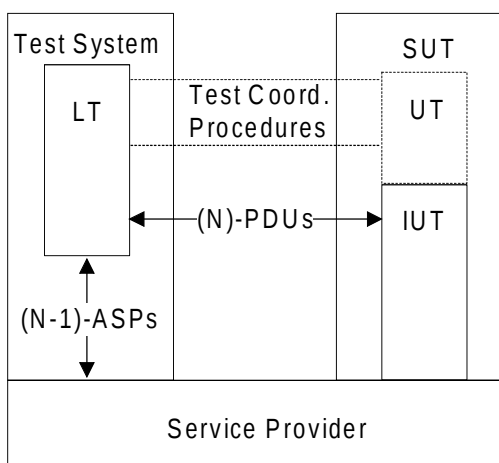


Figure J.2: The Remote (Single layer) Test Method

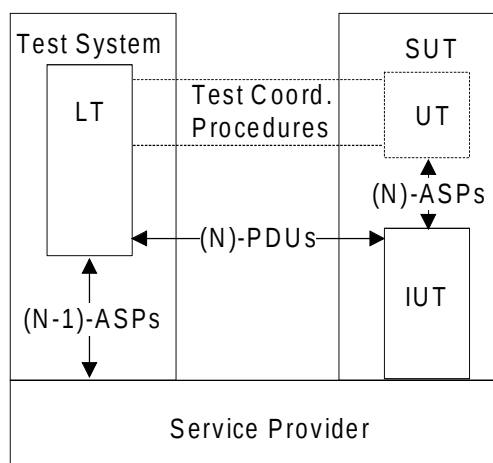


Figure J.3: The Distributed (Single layer) Test Method

Annex K (informative): CTS-2 Triple-X conformance testing

It appears to be very difficult for an ETS to make reference to an CTS-2 document. A standard can make reference to those documents only which are publicly available. The status of a C document is of more private nature. From CTS-2 on, contracts between CEC and CTS members have a clause stating that CTS results must be available for standardization bodies. That, however, only means that the result can be adopted by ETSI if ETSI wants to adopt it. CEC already requested ETSI to adopt the CTS-2 triple-X conformance test suite. But, TC-TE rejected to do so (see TE/OS/TD5, annex 2) and CEC withdrew the proposal. CEN/CENELEC's position is not known in detail. But, it appears that CEN/CENELEC is not going to do something in this area. All together, there is little hope to see the CTS-2 triple test suite eventually gaining a "publicly available" status.

In the case of syntax-based Videotex, a Terminal Function acts partly as a PAD which is defined by CCITT Recommendations X.28, X.3 [8] and X.29 [9], often called "triple-X". On the other hand, an Access Function acts partly as a packet mode DTE as defined by those Recommendations.

ENV 41901 defines profiles for triple-X. CTS-2/3X/TR/3 provides for a ATS and a PICS proforma for those triple-X profiles. The intention of this annex is to identify those test cases which apply for the SBV protocol as well. Some general remarks, given hereafter, need to be taken into account, when applying the test cases to SBV protocol.

- 1) CTS-2 ATS is not given in TTCN.
- 2) The CTS-2 Triple-X ATS assumes both sides of a PAD to be accessible via a connector. This would not be the case in most of the implementations of an SBV Terminal Function or SBV Access Function. Thus, a general method for replacement of e.g. TT1 (start-stop mode side connector) and Signals/Messages going to or coming from the start-stop mode DTE has to be given when that ATS is used.
- 3) Some test cases have, with respect to SBV protocol, a reasonable test purpose but the test itself makes use of features being not available in case of SBV protocol. Thus, some tests need some modification for they are applicable to SBV protocol. It might even occur that some tests are no longer practically feasible, e.g. when the CTS-2 version uses XON/XOFF to control the timing.
- 4) CTS-2/3X/TR/3 provides for tests of a PAD. These files provide for different tests depending on the ENV 41901 option in use. Unfortunately, these options do not contain the 1988 triple-X versions used by the SBV base standards. It is assumed, that the 1988 versions are, with respect to the items addressed by the ATS, compatible with their predecessors.
- 5) Some test cases might be redundant, e.g. when data forwarding on receipt of a PAD message is tested for a SET and a READ and a SET&READ message. It may be enough to check data forwarding just for one PAD message.
- 6) There are no specific tests for the extended CCITT Recommendation X.3 [8] Parameters. Test cases for the (hopefully) temporary requirement to indicate these extended parameters as being private may disappear with the time.

K.1 Terminal Function related Test Cases

CTS-2/3X/TR/3, files DTM31A to DTM34 provide for tests of a PAD.

K.1.1 DTM31A

Table K.1

Test Case	Test Purpose y: SBV protocol c: change n/a: not applicable	Test y: ok c: change	Comment
3.1	-		X.29(88) is not mentioned.
3.1.1	n/a		TF never receives incoming calls.
3.1.2	n/a		TF never receives incoming calls.
3.1.3	y	y	eq2 SBV_VTX_Data.
3.1.4	y	y	eq2 SBV_VTX_Data.
3.1.5	?	?	Nothing is said about the D-bit. Appears to be X.25 specific.
3.1.6	y	c	eq2 SBV_Set_Param, but RR may be additional; Test: Parameter 7 is not available.
3.1.7	y	?	valid for SBV_Param_Indication.
3.1.8	y	c	Test: Parameter 5 is not available; some timers might be needed.
3.1.9	y	y	
3.1.10	y	c	Change reference to X.28 into reference to the Terminal Model. Test: Parameter 7 is not available.
3.1.11	y		
3.1.11.1	y	n	Test: BREAK not available.
3.1.11.2	y	n	Test: PAD Recall not available.
3.1.11.3	y	c	Test: Parameter 7 is not available.
3.1.12	n/a		note
3.1.13	n/a		note
3.1.14	n/a		note
3.1.15	n/a		Interrupt not used.
3.1.15.1	n/a		Interrupt not used.
3.1.15.2	n/a		Interrupt not used.
3.1.16	n/a		Interrupt not used.
3.1.17	???		contradicts the way SBV_Reset is defined!
3.1.18	y (?)	y	also SBV_Set_Param, possibly.
3.1.19	y	c	works fine with XON/XOFF.
SET:			
3.1.20	y	y	eq2 SBV_Set_Param
3.1.21	y	y	eq2 SBV_Set_Param
3.1.22	y	c	parameter 1 not available
3.1.23	y	c	works fine with XON/XOFF, parameter 10 not available.
3.1.24	y	c	parameter 1 not available
SET_READ:			
3.1.25	y	c	parameter 8 not available
3.1.26	y	y	
3.1.27	y	c	works fine with XON/XOFF, parameters 5,9,10 not available.
3.1.28	y	y	
3.1.29	y	c	eq2 SBV_Set_Read_Param; parameter 1 not available.
3.1.30	y	c	works fine with XON/XOFF, parameter 10 not available.
3.1.31	y	c	Parameter 1 not available.

Table K.1 (concluded)

READ:

Test Case	Test Purpose y: SBV protocol c: change n/a: not applicable	Test y: ok c: change	Comment
3.1.32	y (?)	y	
3.1.33	y	c	works fine with XON/XOFF, parameter 10 not available.
3.1.34	y	c	other parameters.
3.1.35	y	c	parameter 6 not available.
3.1.36	y	c	works fine with XON/XOFF, parameter 10 not available.
3.1.37	y	c	parameter 6 not available.
NOTE: To increase clarity, the following PAD messages should be excluded by the SBV base standards: Invitation to clear (00/01) Indication of break (00/03) Reselection (00/07)			

K.1.2 DTM31B

Table K.2

Test Case	Test Purpose y: SBV protocol c: change n/a: not applicable	Test y: ok c: change	Comment
3.1.38	n/a	-	This does not occur with the reduced set of parameters in the SBV protocol. However, this might be a test case to test the interaction of DFK and triple-X forwarding conditions.
3.1.39	y ?	(c)	Depends on the preferred reaction of the IUT (see SBV standards subclause 10.2.4 -> PICS question); at least the test description is not correct, but the test might be acceptable.
3.1.40	y ?	(c)	Depends on the preferred reaction of the IUT (see SBV standards subclause 10.2.4 -> PICS question); at least the test description is not correct.
3.1.41	y ?	(c)	Depends on the preferred reaction of the IUT (see SBV standards subclause 10.2.4 -> PICS question); at least the test description is not correct.
3.1.42	y ?	(c)	Depends on the preferred reaction of the IUT (see SBV standards subclause 10.2.4 -> PICS question); at least the test description is not correct.
3.1.43	y ?	(c)	Depends on the preferred reaction of the IUT (see SBV standards subclause 10.2.4 -> PICS question); at least the test description is not correct.
3.1.44	y ?	(c)	Depends on the preferred reaction of the IUT (see SBV standards subclause 10.2.4 -> PICS question); at least the test description is not correct.
3.1.45	y ?	(c)	Depends on the preferred reaction of the IUT (see SBV standards subclause 10.2.4 -> PICS question); at least the test description is not correct.
3.1.46	?	?	missing in CTS document.
3.1.47	?	?	missing in CTS document.
"private" (extended) parameters:			
3.1.48	y	c	parameter 12 not available.
3.1.49	y	c	parameter 12 not available.
3.1.50	y	c	parameter 12 not available.
3.1.51	n/a	-	BIS always provides for complete octets.
3.1.52	y	y	test not precise enough.
3.1.53	y	y	test not precise enough.
3.1.54	n/a	-	BIS always provides for complete octets.
3.1.55	y	y	test not precise enough.
3.1.56	y	y	test not precise enough; max. length of a PAD message: PICS/PIXT question?
3.1.57	y	y	-
3.1.58	n/a	-	CUD is used different.
3.1.59	n/a	-	nothing said about the "bit-order".
3.1.60	n/a	-	nothing said about the "bit-order".
3.1.61	n/a	-	test not necessary; max. length of a PAD message should always be enough.
3.1.62	?	?	missing in CTS document.
3.1.62.1	y	c	parameter 8 not available.
3.1.62.2	n/a	-	parameter reference > 127 not used.
3.1.63	y	c	parameter 1 not available.
3.1.64	y	c	parameter 1 not available.
3.1.65	y	c	parameter 1 not available.
3.1.66	n/a	-	parameter reference > 127 not used.
3.1.67	n/a	-	parameter reference > 127 not used.
3.1.68	n/a	-	parameter reference > 127 not used.
3.1.69	y	c	parameter 4 not available.
3.1.70	y	c	parameter 4 not available.
3.1.71	y	c	parameter 4 not available.

K.1.3 DTM32

NOTE 1: Strictly speaking, the use of the 1988 versions of CCITT Recommendations belongs to this subclause.

NOTE 2: The use of SBV protocol, e.g. over an ISDN, belongs to this subclause.

Ref: 1.2

PAD/DCE X.28 does not apply; the use of a dummy network may be useful

Ref: 1.3

?

Ref: 1.4

general comment.

Table K.3

Test Case	Test Purpose y: SBV protocol c: change n/a: not applicable	Test y: ok c: change	Comment
3.2.1	c	?	SBV does not support all ESSENTIAL parameters.
3.2.2	c	?	SBV does not support all ESSENTIAL parameters.
3.2.3	c	?	SBV does not support all ESSENTIAL parameters.
3.2.4	c	?	SBV does not support all ESSENTIAL parameters.

K.1.4 DTM33A

Table K.4

Test Case	Test Purpose y: SBV protocol c: change n/a: not applicable	Test y: ok c: change	Comment
3.3	c	-	Table 5 does not apply.
3.3.1	n/a	-	parameter 1 not available.
3.3.1.1	n/a	-	parameter 1 not available.
3.3.1.2	n/a	-	parameter 1 not available.
3.3.1.3	n/a	-	parameter 1 not available.
3.3.2	y	-	extension for optional values required.
3.3.2.1	y	c	parameters 1,5,12 not available.
3.3.2.2	y	c	parameters 1,5,9,12,14,20 not available.
3.3.3	c (y)	-	as there are more mandatory (and optional) values, parameter combination may force to have more test cases.
3.3.3.1	y	c	parameters 1,12 not available.
3.3.3.2	y	y	
3.3.3.3	y	y	
3.3.3.4	y	y	
3.3.3.5	y	y	
3.3.3.6	y	y	
3.3.4	c (y)	-	as there are more mandatory values, more test cases might be needed.
3.3.4.1	y	y	
3.3.4.2	y	y	
3.3.4.3	y	y	
3.3.4.4	y	c	SBV allows to change 50 msec to "as soon as possible" (subclause 10.2)
3.3.4.5	y	y	even, if 1 is a mandatory value.
3.3.5	n/a	-	parameter 5 not available.
3.3.5.1	n/a	-	parameter 5 not available.
3.3.5.2	n/a	-	parameter 5 not available.
3.3.5.3	n/a	-	parameter 5 not available.
3.3.5.4	n/a	-	parameter 5 not available.
3.3.5.5	n/a	-	parameter 5 not available.
3.3.5.6	n/a	-	parameter 5 not available.
3.3.6	n/a	-	parameter 6 not available.
3.3.6.1	n/a	-	parameter 6 not available.
3.3.6.2	n/a	-	parameter 6 not available.
3.3.6.3	n/a	-	parameter 6 not available.
3.3.7	n/a	-	parameter 7 not available.
3.3.7.1	n/a	-	parameter 7 not available.
3.3.7.2	n/a	-	parameter 7 not available.
3.3.7.3	n/a	-	parameter 7 not available.
3.3.7.4	n/a	-	parameter 7 not available.
3.3.7.5	n/a	-	parameter 7 not available.
3.3.7.6	n/a	-	parameter 7 not available.
3.3.8	n/a	-	parameter 8 not available.
3.3.9	n/a	-	parameter 9 not available.
3.3.9.1	n/a	-	parameter 9 not available.
3.3.9.2	n/a	-	parameter 9 not available.
3.3.9.3	n/a	-	parameter 9 not available.
3.3.9.4	n/a	-	parameter 9 not available.
3.3.9.5	n/a	-	parameter 9 not available.
3.3.10	n/a	-	parameter 10 not available.
3.3.10.1	n/a	-	parameter 10 not available.
3.3.10.2	n/a	-	parameter 10 not available.
3.3.10.3	n/a	-	parameter 10 not available.
3.3.10.4	n/a	-	parameter 10 not available.
3.3.11	c (y)	c	SBV protocol 'misuses' this parameter.

Table K.4 (concluded)

Test Case	Test Purpose y: SBV protocol c: change n/a: not applicable	Test y: ok c: change	Comment
3.3.12	n/a	-	parameter 12 not available.
3.3.12.1	n/a	-	parameter 12 not available.
3.3.12.2	n/a	-	parameter 12 not available.
3.3.12.3	n/a	-	parameter 12 not available.

K.1.5 DTM33B

SBV protocol does not make use of one of these additional parameters. Therefore, all test cases from 3.3.13 to 3.3.22 (including the subtests) do not apply for SBV protocol testing.

K.1.6 DTM34

Table K.5

Test Case	Test Purpose y: SBV protocol c: change n/a: not applicable	Test y: ok c: change	Comment
3.4.1	y	c	T.50 is not enough.
3.4.2	n/a	-	parameter 21 not available.
3.4.3	-	-	missing.
3.4.3.1	y	y	part of SBV Establish.
3.4.3.2	n/a	-	TF never receives calls.
3.4.3.3	n/a	-	TF never receives calls.
3.4.4	n/a	-	SBV VTX Data does not use T.50.
3.4.5	n/a	-	SBV VTX Data does not use T.50.
3.4.6	n/a	-	parameter 11 is 'misused' by SBV protocol.
3.4.7	n/a	-	layer 1 issue.
3.4.8	n/a	-	layer 1 issue.

K.2 Access Function related Test Cases

CTS-2/3X/TR/3, files DTM4 and DTM5 provide for tests of a packet mode DTE.

K.2.1 DTM4

Table K.6

Test Case	Test Purpose y: SBV protocol c: change n/a: not applicable	Test y: ok c: change	Comment
4.1	c	-	X.29(88) is not mentioned.
4.1.1	-	-	missing.
4.1.1.1	c	(y)	eq2 SBV_VTX_Data.
4.1.1.2	y	y	eq2 SBV_VTX_Data.
4.1.2	-	-	missing.
4.1.2.1	y	y	eq2 SBV_VTX_Data.
4.1.2.2	y	y	eq2 SBV_VTX_Data.
4.1.3	-	-	missing.
4.1.3.1	y	c	eq2 SBV_Read_Param and SBV_Param_Ind; parameter 1 not available.
4.1.3.2	y	c	eq2 SBV_Read_Param, ... and SBV_Param_Ind; parameter 1 not available.
4.1.3.3	y	c	eq2 SBV_Read_Param, ... and SBV_Param_Ind; parameter 1 not available.
4.1.3.4	n/a	-	INVITATION TO CLEAR not used.
4.1.4	y	c	eq2 SBV_Read_Param, ... and SBV_Param_Ind; parameter 1 not available.
4.1.5	-	-	missing.
4.1.5.1	n/a	-	BREAK not used.
4.1.5.1	n/a	-	BREAK not used.
4.1.6	-	-	missing.
4.1.6.1	y	c	test not precise enough; max. length of a PAD message: PICS/PIXT question? parameter 1 not available.
4.1.6.2	y	c	test not precise enough; max. length of a PAD message: PICS/PIXT question? parameter 1 not available.
4.1.6.3	y	c	test not precise enough; max. length of a PAD message: PICS/PIXT question? parameter 1 not available.
4.1.7	y	c	parameter 1 not available.
4.1.8	n/a	-	not used.
4.2	-	-	missing.
4.2.1	n/a	-	purpose partly covered by SBV_Reset.
4.2.2	-	-	missing.
4.2.2.1	n/a	-	purpose partly covered by SBV_Reset.
4.2.2.2	n/a	-	purpose partly covered by SBV_Reset.
4.3	-	-	missing.
4.3.1	n/a	-	AF never issues a CALL REQUEST.
4.3.2	n/a	-	purpose partly covered by SBV_Reset.
4.3.3	n/a	-	purpose partly covered by SBV_Reset.
4.4	n/a	-	sub-options not used.
4.4.1	n/a	-	sub-options not used.
4.4.2	n/a	-	sub-options not used.
4.4.3	n/a	-	sub-options not used.
4.4.4	n/a	-	sub-options not used.
4.4.5	n/a	-	sub-options not used.
4.4.6	n/a	-	sub-options not used.
4.4.7	n/a	-	sub-options not used.
4.4.8	n/a	-	sub-options not used.
4.4.9	n/a	-	sub-options not used.
4.5	-	-	missing.

4.5.1	n/a	-	parameter 5 not available.
4.5.2	n/a	-	parameter 5 not available.
4.6	-	-	missing.
4.6.1	(y)	(y)	BIS related.
4.6.2	(y)	(y)	BIS related.
4.7	-	-	missing.
4.7.1	n/a	-	AF never issues a CALL REQUEST.
4.7.2	y	y	part of SBV_Establish.
4.8	-	-	missing.
4.8.1	n/a	-	T.50 not used in SBV_VTX_Data.
4.8.2	n/a	-	T.50 not used in SBV_VTX_Data.
4.9	n/a	-	layer 1 issue.

K.2.2 DTM5

This file contains X.25 related test cases. It is therefore outside the scope of the present document.

Annex L (informative): Bibliography

The following text are referenced within the present document in an informative manner. EWOS/ETSI Project Team No 5 (1991); "Technical Report, Conformance Classification Scheme: A report on semantics and recommended syntax for PICS proformas, IPRL and other ICS proformas for end-systems protocols and protocol profiles".

For the purposes of the present document, the following informative references are given.

ETR 021 (1991): "Advanced Testing Methods (ATM); Tutorial on protocol conformance testing (Especially OSI standards and profiles)".

ISO 8878: "Information processing systems - Data communications - Use of X.25 to provide the OSI connection-mode network service".

ENV 41901: "Information systems interconnection - X.29 mode procedures between a packet mode DTE or a PAD and a PAD via a public or private X.25 packet switched network or ISO/IEC 8208 packet level entity and ISO 7776 link level entity. X.3 character-mode access via a public or private PAD attached to an X.25 packet switched network or ISO/IEC 8208 packet level entity and ISO 7776 link level entity X.28 character-mode access via a telephonic circuit or data circuit to a PAD".

CCITT Recommendation X.25: "Interface between data terminal equipment (DTE) and data circuit-terminating equipment (DCE) for terminals operating in the packet mode and connected to public data networks by dedicated circuit".

CCITT Recommendation X.28: "DTE/DCE interface for a start-stop mode data terminal equipment accessing the packet assembly/disassembly facility (PAD) in a public data network situated in the same country".

CCITT Recommendation T.50: "International Alphabet No.5".

History

Document history		
Edition 1	May 1993	Publication as I-ETS 300 236
V1.2.1	August 1997	One-step Approval Procedure OAP 9748: 1997-08-01 to 1997-11-28