

**Access and Terminals (AT);  
Short Message Service (SMS) for PSTN/ISDN;  
Test Suites for SMS User Based Solution;  
Part 9: Test Suite Structure and Test Purposes (TSS&TP)  
user side for functional tests Protocol 2**

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## Foreword

This ETSI Standard (ES) has been produced by ETSI Technical Committee Access and Terminals (AT).

The present document is part 9 of a multi-part deliverable. Full details of the entire series can be found in part 1 [11].

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# 1 Scope

The present document provides test suite structure and test purposes for Functional tests for a Terminal Equipment implementing the Short Message Service (SMS) for PSTN/ISDN, UBS Protocol 2 according to ES 201 912 [1].

Basic ISDN or PSTN call procedures apply in order to establish a circuit-switched band connection between such Terminal Equipment and an SM-SC. Tests for these procedures are outside the scope of the present document, although some parameters related to these procedures are used (e.g. SME subaddressing). UBS2 terminals send and receive Data Link messages in the voice-band connection using the FSK signalling as defined in EN 300 659-2 [3] and ES 200 778-2 [6]. Tests for the FSK signalling are outside the scope of the present document. Tests for Data Link Layer have been treated in ES 202 912-5 [12].

Terminal Equipment implementing the Short Message Service (SMS) for PSTN/ISDN according to UBS Protocol 2 are required to implement the Transfer Layer according to ES 201 912 [1]. The Remote Single Layer Embedded Test Method (see ISO/IEC 9646-2 [9]) is used for the UBS Protocol 2 Transfer layer.

Figure 1 gives an overview of the reference architecture used for the UBS Protocol 2 operation. Figure 2 shows the configuration used for testing.

ISO/IEC 9646-1 [8] and ISO/IEC 9646-2 [9] are used as the basis for the test specification methodology.

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# 2 References

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

- References are either specific (identified by date of publication and/or edition number or version number) or non-specific.
- For a specific reference, subsequent revisions do not apply.
- For a non-specific reference, the latest version applies.

Referenced documents which are not found to be publicly available in the expected location might be found at <http://docbox.etsi.org/Reference>.

- [1] ETSI ES 201 912 (V1.1.1): "Access and Terminals (AT); Short Message Service (SMS) for PSTN/ISDN; Short Message Communication between a fixed network Short Message Terminal Equipment and a Short Message Service Centre".
- [2] ETSI EN 300 659-1 (V1.3.1): "Access and Terminals (AT); Analogue access to the Public Switched Telephone Network (PSTN); Subscriber line protocol over the local loop for display (and related) services; Part 1: On-hook data transmission".
- [3] ETSI EN 300 659-2 (V1.3.1): "Access and Terminals (AT); Analogue access to the Public Switched Telephone Network (PSTN); Subscriber line protocol over the local loop for display (and related) services; Part 2: Off-hook data transmission".
- [4] ETSI EN 300 659-3 (V1.3.1): "Access and Terminals (AT); Analogue access to the Public Switched Telephone Network (PSTN); Subscriber line protocol over the local loop for display (and related) services; Part 3: Data link message and parameter codings".
- [5] ETSI ES 200 778-1 (V1.2.2): "Access and Terminals (AT); Analogue access to the Public Switched Telephone Network (PSTN); Protocol over the local loop for display and related services; Terminal equipment requirements; Part 1: On-hook data transmission".
- [6] ETSI ES 200 778-2 (V1.2.2): "Access and Terminals (AT); Analogue access to the Public Switched Telephone Network (PSTN); Protocol over the local loop for display and related services; Terminal equipment requirements; Part 2: Off-hook data transmission".

- [7] ETSI ES 202 912-4 (V1.1.1): "Access and Terminals (AT); Short Message Service (SMS) for PSTN/ISDN Test Suites for SMS User Based Solution; Part 4: Protocol Implementation Conformance Statement (PICS) proforma specification user side for Data Link Layer Protocol 2".
- [8] ISO/IEC 9646-1: "Information technology - Open Systems Interconnection - Conformance testing methodology and framework - Part 1: General concepts".
- [9] ISO/IEC 9646-2: "Information technology - Open Systems Interconnection - Conformance testing methodology and framework - Part 2: Abstract Test Suite specification".
- [10] ISO/IEC 3166-1: "Codes for the representation of names of countries and their subdivisions - Part 1: Country codes".
- [11] ETSI ES 202 912-1 (V1.1.1): "Access and Terminals (AT); Short Message Service (SMS) for PSTN/ISDN; Test Suites for SMS User Based Solution; Part 1: Protocol Implementation Conformance Statement (PICS) proforma specification user side for Data Link Layer (DLL) Protocol 1".
- [12] ETSI ES 202 912-5 (V1.1.1): "Access and Terminals (AT); Short Message Service (SMS) for PSTN/ISDN Test Suites for SMS User Based Solution; Part 5: Test Suite Structure and Test Purposes (TSS & TP) user side for Data Link Layer (DLL) Protocol 2".

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## 3 Definitions and abbreviations

### 3.1 Definitions

For the purposes of the present document, the following terms and definitions apply:

**incoming VB-connection:** VB-connection initiated by an SM-SC

**inopportune behaviour (of the tester):** The tester sends a message which is not expected by the IUT under the current circumstances (state).

**invalid behaviour (of the tester):** abbreviated form of "syntactically invalid behaviour", i.e. the tester sends a message where the presence or contents of one or more parameters or fields does not conform to the requirements

**originator (of an SM):** SM-TE sending an SM to another SM-TE

**outgoing VB-connection:** VB-connection initiated by an SM-TE

**Peer (entities):** SM-TE and SM-SC for which a voice-band connection exists or is pending are considered as peers

**SMS call:** an outgoing call established by the SM-TE to the SM-SC in order to submit an SM or an incoming call established by the SM-SC to the SM-TE in order to deliver an SM (in this case the CLI used to establish the call contains the address of the SM-SC stored in the SM-TE).

**Valid behaviour (tests):** The tester behaves according to the protocol.

NOTE: Timeout tests normally belong to the valid tests.

**VB-connection:** Voice-Band connection between two peers

NOTE 1: A Voice-band connection is considered to be completed or established, when the basic call control procedures, performed according to the type of network access the SM-TE is connected to (i.e. PSTN or BRA ISDN or PRA ISDN), are completed and the voice-band connection is ready for FSK frame transfer.

NOTE 2: In order to establish an incoming VB-connection, the CLI information has to be previously provided to the terminal equipment. The way of providing CLI (e.g. by DTMF or FSK signalling and using a data transmission associated with ringing or not, etc..., in the case of PSTN) is out of the scope of the present document.

**VB-Initiator:** entity (SM-TE or SM-SC) initiating a voice-band connection to the peer entity

**VB-Responder:** entity (SM-TE or SM-SC) having received a voice-band connection attempt from the peer entity

## 3.2 Abbreviations

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

ASP	Abstract Service Primitive
ATS	Abstract Test Suite
CLI	Calling Line Identification (information)
DLL	Data Link Layer
DTMF	Dual Tone Multi-Frequency
FSK	Frequency Shift Keying
INV	Subgroup extension for "Invalid Behaviour" tests
ISDN	Integrated Services Digital Network
ISO	International Standard Organization
IUT	Implementation Under Test
LT	Lower Tester
LTS	Lower Test System

NOTE: Part of the Test System performing basic signalling procedures to establish a VB-connection and to transmit and receive FSK frames.

PDU	Protocol Data Unit
PICS	Protocol Implementation Conformance Statement
PIXIT	Protocol Implementation eXtra Information for Testing
PSTN	Public Switched Telephone Network
SM	Short Message(s)
SME	Short Message Entity
SMS	Short Message Service
SM-SC	Short Message Service Centre
SM-TE	Short Message Terminal Equipment
SUT	System Under Test
TL	Transfer Layer
TP	Test Purpose
TSS	Test Suite Structure
TSS&TP	Test Suite Structure and Test Purposes
TTCN	Tree and Tabular Combined Notation
UBS	User Based Solution
UT	Upper Tester
VAL	Subgroup extension for "Valid Behaviour" tests
VB	Voice-band

## 4 Configuration assumed for the test specification

Figure 2, ES 201 912 [1] shows the general principle of short message transfer, which consist in a SM submission phase and a SM delivery phase, which is repeated schematically in figure 1.

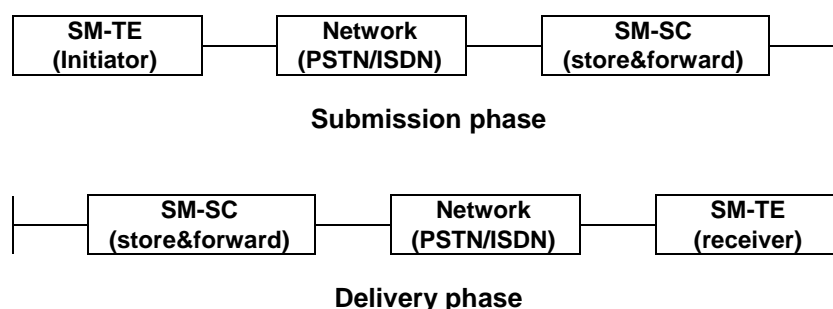


Figure 1: Short Message transfer - General Principle

In the tests specified in the present document, the SM-TE will be tested as an SM originator as well as a SM receiver. No different test configurations are defined for the two different roles the SM-TE take in the two phases. The test configuration shown in figure 2 therefore reflects each of the two phases of figure 1, with some necessary additions.

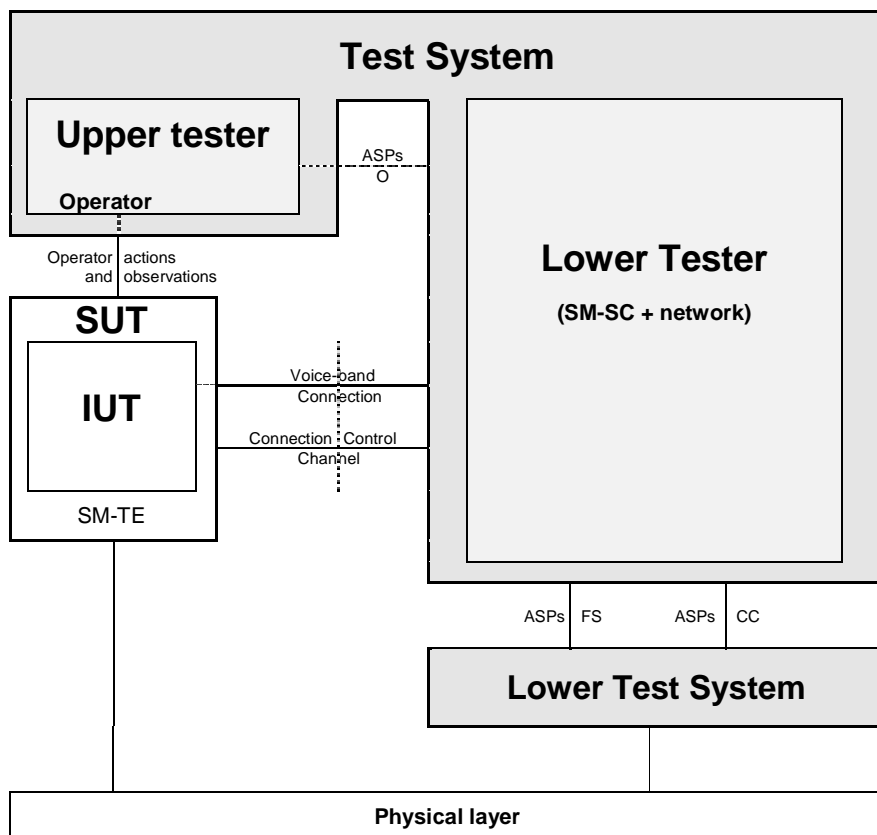


Figure 2: UBS2 test configuration

Explanations:

- 1) The SUT is an SM-TE.
- 2) The Test Method used here is the "Remote Single Layer Embedded" Test Method (see ISO/IEC 9646-1 [8]).
- 3) The IUT is the Transfer Layer implementation of the SM-TE.
- 4) The test system represents the network to which the SUT is attached, and the SM-SC. Correspondingly the SM-TE is physically connected to the test system as if it were connected to a real network.
- 5) The test system carries an Upper Tester and a Lower Tester. The Upper Tester is realized by an operator, controlling and observing the SUT. The test coordination between Lower Tester and the Upper Tester is performed via ASPs at PCO O.
- 6) Conceptually SUT and Lower Tester are connected by two channels:
  - a) the voice-band channel, and
  - b) the signalling control channel.
- 7) Virtually the Lower Tester communicates with the SUT via two PCOs:
  - a) **FS**  
At this PCO the Lower Tester sends and receives FSK frames conceptually exchanged between SM-TE and SM-SC (which are transported over the voice-band channel). The Lower Tester has also to implement DLL messages, timers and procedures, according to the DLL protocol. Appropriate ASPs are applied to use the DLL services for the transfer of TL messages. The DLL procedures required in each test are not explicitly mentioned in the test formulation.



b) **CC**

At this PCO the Lower Tester takes the actions of initiating and supervising connection control. The actions are realized by appropriate ASPs (see clause 6.3), while the actual transfer of signalling messages over the CC channel is not subject of this test specification.

Ringling signals are conceptually associated to the CC channel in this testing scheme. This is done to keep the FS PCO free from any signals except for FSK frames conceptually exchanged between SM-TE and SM-SC.

The same principle applies to the transfer of CLI: in the case where CLI has to be transported via FSK signalling, it is done via PCO CC. It is a matter for the test system to distinguish between these different ways of using FSK signalling.

---

## 5 Test purposes development

### 5.1 Introduction

A TP is defined for one or several conformance requirements to be tested. It is expected, that each TP will result in a test case keeping the same name, specified in an ATS based on the present document.

### 5.2 Source of test purpose specifications

The test purposes are based on the requirements made in ES 201 912 [1].

Requirements can be classified in "static" requirements and "dynamic" requirements. In the test purpose description tables of the present document, only the "dynamic" requirements of ES 201 912 [1] are referred to.

NOTE: The conformance requirements of ES 201 912 [1], "static" and "dynamic", are collected in ES 202 912-4 [7] (UBS2 PICS), but the PICS tables items are not referred to in the present document.

### 5.3 Restrictions and requirements not being tested

ES 201 912 [1] contains requirements for SM-TEs by direct specification and by reference to other standards. In particular, ES 201 912 [1] refers to the standards dealing with FSK signalling: EN 300 659-1 [2], EN 300 659-2 [3], EN 300 659-3 [4], ES 200 778-1 [5] and ES 200 778-2 [6].

It is not the intention of the present document to test Physical Layer aspects of FSK signalling.

According to ES 201 912 [1] SM-TEs are attached to PSTN or ISDN networks and perform basic call control procedures according to the type of the network access to establish a voice-band connection between the SM-TE and the SM-SC.

It is not within the scope of the present document to test any signalling associated with basic call control procedures. It is a matter of the test system implementing these tests to install and perform the appropriate procedures.

The initiation and supervision of these procedures is realized in the present document by specific ASPs (see clause 6.3).

According to ES 201 912 [1] the network, i.e. the tester implementing the tests specified here, has to provide the CLI of the SM-SC to the called SM-TE. When the network is a PSTN, CLI can be provided by DTMF signalling or by FSK signalling. It is also a matter of the test system to implement and use the method appropriate for the SM-TE and the network access type.

Only requirements that can be verified by inspection of the UBS Protocol 2 Transfer Layer messages transferred over the voice-band channel are related to test purposes, in coordination with the ASPs necessary for terminal control via an operator and ASPs controlling voice-band connections and CLI provision.

## 5.4 Grouping of test purposes

ES 201 912 [1] specifies requirements for the SM-TE functional behaviour and for the format and contents of the TL messages, sent and received by the SM-TE, accordingly to the different cases. The tests are grouped in two main categories:

1. outgoing SMS call related tests, and
2. incoming SMS call related tests.

For the outgoing SMS call group, one subgroup has been defined dealing with TL ("TL format and contents") and containing the subgroups "Submit message" and "Submit message reception".

For the incoming SMS call group, the following subgroups have been defined: "SME subaddressing", "SM reception", "TL format and contents" (containing the subgroups "Valid" and "Invalid"), "Status report reception", "Public Key" (containing the subgroups "Valid" and "Invalid") and "Memory full".

Detailed information on the test groups and subgroups can be found in clause 6.2.

## 5.5 Test purpose naming convention

The present document is created together with other similar TSS&TP documents, dealing also with UBS Protocol 1 (UBS1) instead of UBS Protocol 2 (UBS2) and DLL instead of Functional tests (see ES 201 912 [1]).

Therefore the Test purpose naming convention refers also to protocol and layer.

TP names are composed as follows:

Identifier := <Protocol>\_<Layer>\_<group structure>\_<nn>

Where:

<Protocol> = **UBS2**, <Layer> = **FT** and <nn> is a 2-digit sequential number, starting from **01** for each subgroup.

<group structure> is composed of sub-identifiers according to the subgroup structure of the group.

EXAMPLE:

UBS2\_FT\_OUT\_TL\_SUBMIT\_01

In this case **OUT** refers to group "Outgoing call", **TL** represents subgroup "Transfer Layer" and **SUBMIT** refers to subgroup "Submit".

For details on groups and subgroups see table 1, clause 6.2.

## 5.6 Method used for developing test purposes

The development of the test purposes has been performed according to the following actions:

- 1) Using the PICS in ES 202 912-4 [7], identify all clauses of ES 201 912 [1] containing "dynamics" requirements and identify these requirements.
- 2) Determine the requirements not to be tested and identify them (see clause 5.3).
- 3) Define the test purposes structure (see clause 6.2).
- 4) Regarding that the structure is based on the procedures defined in ES 201 912 [1] and that valid and invalid test purposes have to be defined: identify the general requirements on invalid messages and take them into account for all procedures, as far as applicable.
- 5) The MSCs in annex B of ES 201 912 [1] are taken into account.
- 6) The method chosen for the presentation of the test purposes is described in clause 5.7. The method should enable an easy and systematic transition from the test purposes to a TTCN ATS.

## 5.7 Method used for test purpose description

A TP is described using a table as shown in the following example. The item names appearing in the left column of the example table are present in each TP table.

The right column of the example table contains *descriptive text* and example entries. The descriptive text is in italics, while example entries are in **bold text**.

The rows "**Purpose**", "**Requirem. Ref.**" and "**Selection Expr.**" contain normative contents, the rows "**Preamble**", "**Test description**", "**Pass criteria**" and "**Postamble**" contain just informative contents (the same information, expressed in the TTCN formalism, appear as normative in the .GR file related to the ATS document corresponding to the present document).

<b>Test Purpose identifier like CON_OUT_EST_VB_01</b>	
<b>Purpose:</b>	<Textual description of the purpose to be achieved>
<b>Requirem. ref.:</b>	Reference to one or more clauses of ES 201 912 [1], containing a requirement which is tested in connection with the current test purpose. References to standards other than ES 201 912 [1] are added if appropriate. Since ES 201 912 [1] is the basic standard on which this test specification relies, the first paragraph of the "Requirem. ref." cell contains only clause numbers, without identifying the standard explicitly. Whenever a reference to another standards are necessary, a new paragraph is added, identifying the standard, followed by a colon and then clause numbers as for ES 201 912 [1]. <b>Example:</b> 6.3.2.1, table 5; B.1.4.1 EN 300 659-2 [3], clause 7.3.1
<b>Selection Expr.:</b>	When an entry is present here, it denotes a selection expression (see clause 6.6), specifying a <b>condition for the applicability</b> of this test purpose. If there is no entry, the test purpose is unconditionally applicable. Note that selection expressions can also be defined for a <b>whole group of test purposes</b> , i.e. outside a test purpose table.
<b>Preamble:</b>	Name of a preamble leading to a condition or state, where the test purpose can be verified.
<b>Test description:</b>	Sequence of events intending to lead to the verification of the test purpose. A TTCN-like notation is used (see clause 6.5). Note that unexpected events are not shown here.
<b>Pass criteria:</b>	Special indication of an event (or several events), an "ignore"-behaviour or specific received parameter value(s), being essential for the verification of the test purpose. This can be a copy of one or more lines of the "Test description", or can be a textual explanation.
<b>Postamble:</b>	<b>None</b> or name of a postamble leading to the IDLE condition of the IUT (no VB connection exists).

## 6 Test purposes presentation and environment specification

### 6.1 Introduction

After the definition of the **Test Suite Structure**, a suitable environment has to be created in order to formulate the test purpose descriptions properly (i.e. referring to elements of this environment). Apart from this, the environment is specified to support a **systematic transition** from the test purposes to the TTCN ATS. This is e.g. taken into account in the naming conventions and "atomic phrases" used in the descriptions. "**Test parameters**" and other objects have been collected during the test purposes development, which will find their entry in the ATS, with few modifications, e.g. as **TS Parameters**.

## 6.2 Test Suite Structure (TSS)

Table 1 shows the structure of the UBS2 Functional tests Test Suite, as well as the TP group identifiers and the number of test purposes produced, per subgroup and in total.

**Table 1: Test suite structure for Functional tests for UBS2**

Group	Subgroup	Subgroup	Group Identifier	Count
Outgoing SMS call	TL format and contents	Submit message	UBS2_FT_OUT_TL_SUBMIT	17
		Submit Report reception	UBS2_FT_OUT_TL_SUBREP	9
Incoming SMS call	SME subaddressing		UBS2_FT_INC_SUBADDR	2
	SM reception		UBS2_FT_INC_SMRECEPTION	6
	TL format and contents	Valid	UBS2_FT_INC_TL_VAL	8
		Invalid	UBS2_FT_INC_TL_INV	4
	Status report reception		UBS2_FT_INC_STATUSREP	2
	Public Key	Valid	UBS2_FT_INC_PUKEY_VAL	1
		Invalid	UBS2_FT_INC_PUKEY_INV	1
Memory full		UBS2_FT_INC_MEM	2	
<b>Total:</b>				<b>52</b>

## 6.3 Abstract Service Primitives

Three classes of ASPs are defined, according to the PCOs at which they operate (see figure 2):

**PCO**      **ASP class**

O:            ASPs related to the operator (Upper Tester),

FS:          ASPs for SM-related to the transmission and reception of TL messages via DLL messages, and

CC:          ASPs related to connection control.

Table 2 describes the general functions of the ASPs operating at the 3 PCOs. Detailed descriptions of the ASPs together with their parameters follow.

**Table 2: List of ASPs**

PCO	ASP Name	Direction	Description
O	OUTGOING_CALL_req	LT->UT	Make the SM-TE initiate a VB connection to the SM-SC in order to send an SM.
	OUTG_SM_TE_STATUS_req	LT->UT	Request the user to send an SM-TE_STATUS message when the "memory full" condition has ceased to exist (if automatic sending of SM-TE_STATUS message under these circumstances is not implemented).
	SUBM_RESULT_VERIF_req	LT->UT	Request the user to verify if the SM-TE indicates the acceptance or rejection of the submitted SM.
	SUBM_RESULT_VERIF_conf	UT->LT	Indication by the user if the SM-TE has indicated the acceptance or rejection of the submitted SM.
	DISPL_INF_VERIF_req	LT->UT	Request the user to verify the sequence of text characters of the received SM (it may also be used to request the user to verify that a SM replacement has occurred).
	DISPL_INF_VERIF_conf	UT->LT	Indication by the user if the text displayed by the SM-TE is the expected text (and, in case of a SM replacement, if the second received SM has replaced the first one).
	STAT_REP_INF_VERIF_req	LT->UT	Request the user to verify whether the information contained in the received SMS_STATUS_REP message and concerning the outcome at the recipient of an SM previously sent is made available to the user.

PCO	ASP Name	Direction	Description
	STAT_REP_INF_VERIF_conf	UT->LT	Indication by the user that the information contained in the received SMS_STATUS_REP message and concerning the outcome at the recipient of an SM previously sent is made available to the user.
	STAT_REP_NOTIF_NUM_VERIF_req	LT->UT	Request the user to verify that the "Notification number" received in an SMS_STATUS_REP message is made available to the user.
	STAT_REP_NOTIF_NUM_VERIF_conf	UT->LT	Indication by the user that the "Notification number" received in an SMS_STATUS_REP message is made available to the user.
	SM_Reception_req	LT->UT	Request the user to check if the incoming SM has been received by the SM-TE (see note).
	SM_Reception_conf	UT->LT	Indication by the user if the incoming SM has been received by the SM-TE (see note).
	SM_Reception2_req	LT->UT	Request the user to check if two incoming SMs within the same SMS call have been received by the SM-TE.
	SM_Reception2_conf	UT->LT	Indication by the user if two incoming SMs within the same SMS call have been received by the SM-TE.
	PUBL_KEY_PASSWD_req	LT->UT	Request the user to verify that an SM received with a public key corresponding to one of the values stored in the SM-TE, can be read when the appropriate password is entered.
	PUBL_KEY_PASSWD_conf	UT->LT	Indication by the user that an SM received with a public key corresponding to one of the values stored in the SM-TE, can be read when the appropriate password is entered.
	EMPTY_MEM_req	LT->UT	Request the user to delete the SMs stored in the SM-TE to make the SM-TE memory again available.
	EMPTY_MEM_ind	UT->LT	Indicates that the SM-TE does not contain anymore stored SMs.
CC	INC_CALL_req	LT->LTS	Make the Lower Test System initiate the basic call control procedures for an incoming call, to establish a VB connection from the SM-SC to the SM-TE.
	INC_CALL_conf	LTS->LT	The Lower Test System confirms that the requested basic call control procedures for an incoming call have been successfully completed and the VB connection to the SM-TE is established, or that the connection attempt was not successful.
	OUTG_CALL_ind	LTS->LT	Indication that the SM-TE has initiated the basic call control procedures for an outgoing call.
	OUTG_CALL_resp	LT->LTS	Response to the Lower Test System that the basic call control procedures for an outgoing call have to be completed or refused.
CC	CALL_RELEASE_ind	LTS->LT	Indication from the Lower Test System that the VB connection has been released by the SM-TE.
	CALL_RELEASE_req	LT->LTS	Request the Lower Test System to release the VB connection.
FS	TRANSFER_INFO_MT_req	LT->LTS	Request the Lower Test System to transfer an SMS_DELIVERY TL message or an SMS_STATUS_REP TL message, via the DLL_SMS_INFO-MT message, to the IUT on the established VB connection.
	TRANSFER_ACK_req	LT->LTS	Request the Lower Test System to transfer an SMS_SUBMIT_REP TL message, via the DLL_SMS_ACK1 message or the DLL_SMS_ACK0 message, to the IUT on the established VB connection.
	TRANSFER_SUBMIT_ind	LTS->LT	Indication that the IUT has sent an SMS_SUBMIT TL message to the tester on the established VB connection.
	TRANSFER_SM_TE_STA_ind	LTS->LT	Indication that the IUT has sent an SM-TE_STATUS TL message to the tester on the established VB connection.
	TRANSFER_DELIV_REP_ind	LTS->LT	Indication that the IUT has sent an SMS_DELIVERY_REP TL message to the tester on the established VB connection.
NOTE:	Depending on the kind of the received short message and the terminal implementation the received SM could be stored or displayed or used just to change the terminal settings or state, or to make the terminal perform an action, etc...		

Tables 3 to 31 contain the descriptions of the ASPs used in the present document, including the ASP parameters (if any) and the kinds of values these may assume. No ASP parameter is optional.

**Default values** are indicated for most of the ASP parameters. The meaning of "Default value" is:

- If the ASP is applied in a TP behaviour description and no value is indicated explicitly for an ASP parameter, then the application of the default value is assumed. Whenever a value is explicitly indicated for an ASP parameter, this value replaces the default value (at this instance of ASP application).

**Table 3: OUTGOING\_CALL\_req ASP and its parameters**

<b>ASP Name:</b> OUTGOING_CALL_req		
<b>PCO:</b> O		
<b>Direction:</b> LT->UT		
<b>Description:</b> Make the SM-TE initiate a VB connection to the SM-SC in order to send an SM.		
Parameter	Default value	Description
MEDIAID	"SMS"	Media Identifier <b>"SMS"</b> : the SM to be submitted is addressed to an SM-TE. <b>"FAX"</b> : the SM to be submitted is addressed to a FAX. <b>"E-mail"</b> : the SM to be submitted is addressed to an electronic mailbox. <b>"ConvMail"</b> : the SM to be submitted is intended to be delivered as Conventional Mail. <b>"TELEGRAM"</b> : the SM to be submitted is intended to be delivered as TELEGRAM. <b>"VOICE"</b> : the SM to be submitted is intended to be delivered as vocal message. <b>"DATA"</b> : the SM to be submitted is intended to contain Data instead of a text message. <b>"ANY"</b> : the SM to be submitted can assume any of the format corresponding to the different Media Identifier values.
SMREPL	FALSE	SM Replace indication <b>TRUE</b> : the SM to be submitted contains a SM Replace indication. The Replace Short Message Type parameter value must be equal to the value specified in TSPX_SM_REPL_RX1. <b>FALSE</b> : the SM to be submitted can contain or not a SM Replace indication. If the Replace Short Message Type parameter is present it can contain any value.
VALPERIOD	FALSE	Validity Period indication <b>TRUE</b> : the SM to be submitted contains a Validity Period indication. The Validity Period parameter value must be equal to the value specified in TSPX_VALID_PERIOD_RX1. <b>FALSE</b> : the SM to be submitted can contain or not a Validity Period indication. If the Validity Period parameter is present it can contain any value.
STATUSREPREQ	2	Status Report request indication <b>0</b> : <b>"Status report not required"</b> (the SM to be submitted contains a status report request) <b>1</b> : <b>"Status report via SMS required"</b> (the SM to be submitted does not contain a status report request) <b>2</b> : the SM to be submitted can contain or not a status report request (see note 2).
CLIR	FALSE	CLIR request indication <b>TRUE</b> : the SM to be submitted contains a CLI privacy request. <b>FALSE</b> : the SM to be submitted can contain or not a CLI privacy request.
DISPLAYINF	0	SM text <b>0</b> : the SM to be submitted contains any text. <b>1</b> : the SM to be submitted contains the following text: "the quick brown fox jumps over the lazy dog".

<b>ASP Name:</b> OUTGOING_CALL_req		
<b>PCO:</b> O		
<b>Direction:</b> LT->UT		
<b>Description:</b> Make the SM-TE initiate a VB connection to the SM-SC in order to send an SM.		
Parameter	Default value	Description
PUKEY	FALSE	Public Key <b>TRUE:</b> the SM to be submitted contains the Public Key. The Public Key parameter value must be equal to the value specified in TSPX_PUBL_KEY_RX1. <b>FALSE:</b> the SM to be submitted can contain or not a Public Key. If the Public Key parameter is present it can contain any value.
SMEID	TSPX_SME_ID	Subaddress of the calling SME.
CLD_TEI	"FE"h	Destination SME (Terminal Equipment Identity) selection (see note 1): <b>a)</b> Do not choose a value ("FF"h) <b>b)</b> Choose any value or do not choose a value ("FE"h) <b>c)</b> Choose a particular allowed value ("01"h .. "09"h)
SCADDR	TSPX_SC_ADDR_OUTG	Address of the SM-SC to be called.
NOTE 1: There are 3 possibilities to instruct the user with respect to Destination SME selection: In a) the user is requested not to explicitly choose an SME value (i.e. the default value "01"h will be transferred). In b) the user is requested either not to explicitly choose an SME value or to choose any allowed value (the tester will not check the received value). In c) the user is requested to explicitly choose the indicated value ("01"h .. "09"h).		
NOTE 2: If a Status Report Request must be requested or not requested for an SMS_SUBMIT TL message containing a particular Media Identifier value, e.g. "FAX" or E-mail (see clause B.2.1.1), then this ASP Parameter value is ignored and the request is treated as required for the specific message format.		

**Table 4: OUTG\_SM\_TE\_STATUS\_req ASP and its parameters**

<b>ASP Name:</b> OUTG_SM_TE_STATUS_req		
<b>PCO:</b> O		
<b>Direction:</b> LT->UT		
<b>Description:</b> Request the user to send an SM-TE_STATUS message when the "memory full" condition has ceased to exist (if automatic sending of SM-TE_STATUS message under these circumstances is not implemented).		
Parameter	Default value	Description
<b>Comments:</b>		

Table 5: SUBM\_RESULT\_VERIF\_req ASP and its parameters

<b>ASP Name:</b> SUBM_RESULT_VERIF_req		
<b>PCO:</b> O		
<b>Direction:</b> LT->UT		
<b>Description:</b> Request the user to verify if the SM-TE indicates the acceptance or rejection of the submitted SM.		
Parameter	Default value	Description
SUBM_RES	"Confirm"	<p>Submission result indication</p> <p><b>0: "Confirm"</b> (the display or some other terminal indicator indicates that the submitted SM was accepted by the SM-SC)</p> <p><b>1: "Reject (Generic)"</b> (the display or some other terminal indicator indicates that the submitted SM was rejected by the SM-SC. The rejection cause, if indicated too, is a generic TL error).</p> <p><b>2: "Reject (E-mail address)"</b> (the display or some other terminal indicator indicates that the submitted SM was rejected by the SM-SC. The rejection cause, if indicated too, is a syntax error in the E-mail address).</p> <p><b>3: "Reject (Message too long)"</b> (the display or some other terminal indicator indicates that the submitted SM was rejected by the SM-SC. The rejection cause, if indicated too, is a rejection for overrun).</p> <p><b>4: "Reject (wrong parameter)"</b> (the display or some other terminal indicator indicates that the submitted SM was rejected by the SM-SC. The rejection cause, if indicated too, is a rejection for wrong parameter contents).</p> <p><b>5: "Reject (unwanted or missing parameter)"</b> (the display or some other terminal indicator indicates that the submitted SM was rejected by the SM-SC. The rejection cause, if indicated too, is a rejection for unwanted or missing parameter).</p> <p><b>6: "Reject (feature not available)"</b> (the display or some other terminal indicator indicates that the submitted SM was rejected by the SM-SC. The rejection cause, if indicated too, is a rejection for required feature not available at the SM-SC).</p> <p><b>7: "Reject (feature not active)"</b> (the display or some other terminal indicator indicates that the submitted SM was rejected by the SM-SC. The rejection cause, if indicated too, is a rejection for required feature not active at the SM-SC).</p> <p><b>8: "Reject (destination SM-TE missing)"</b> (the display or some other terminal indicator indicates that the submitted SM was rejected by the SM-SC. The rejection cause, if indicated too, is a rejection for destination SM-TE missing).</p>
<b>Comments:</b>		

Table 6: SUBM\_RESULT\_VERIF\_conf ASP and its parameters

<b>ASP Name:</b> SUBM_RESULT_VERIF_conf		
<b>PCO:</b> O		
<b>Direction:</b> UT->LT		
<b>Description:</b> Indication by the user if the SM-TE has indicated the acceptance or rejection of the submitted SM.		
Parameter	Default value	Description
SUBM_RES	0	<p>Submission result indication</p> <p><b>0:</b> the display or some other terminal indicator indicates the expected SM submission result.</p> <p><b>1:</b> the display or some other terminal indicator indicates an SM submission result different from the expected one.</p>
<b>Comments:</b>		



Table 7: DISPL\_INF\_VERIF\_req ASP and its parameters

<b>ASP Name:</b> DISPL_INF_VERIF_req		
<b>PCO:</b> 0		
<b>Direction:</b> LT->UT		
<b>Description:</b> Request the user to verify the sequence of text characters of the received SM (it may also be used to request the user to verify that a SM replacement has occurred).		
Parameter	Default value	Description
TXT	"the quick brown fox jumps over the lazy dog"	Text expected to be displayed on the receiving SM-TE
REPINFO	0	<b>0:</b> do not check for any replacement <b>1:</b> verify that the latest SM has replaced the previously received SM. <b>2:</b> verify that the latest SM has not replaced the previously received SM.
<b>Comments:</b>		

Table 8: DISPL\_INF\_VERIF\_conf ASP and its parameters

<b>ASP Name:</b> DISPL_INF_VERIF_conf		
<b>PCO:</b> 0		
<b>Direction:</b> UT->LT		
<b>Description:</b> Indication by the user if the text displayed by the SM-TE is the expected text (and, in case of a SM replacement, if the second received SM has replaced the first one).		
Parameter	Default value	Description
VERIF_IND	0	Text verification indication <b>0:</b> the SM-TE displays the expected SM text, specified in the parameter TXT of the DISPL_INF_VERIF_req ASP. <b>1:</b> the SM-TE displays a SM text different from the expected one, specified in the parameter TXT of the DISPL_INF_VERIF_req ASP.
<b>Comments:</b>		

Table 9: STAT\_REP\_INF\_VERIF\_req ASP and its parameters

<b>ASP Name:</b> STAT_REP_INF_VERIF_req		
<b>PCO:</b> 0		
<b>Direction:</b> LT->UT		
<b>Description:</b> Request the user to verify whether the information contained in the received SMS_STATUS_REP message and concerning the outcome at the recipient of an SM previously sent is made available to the user.		
Parameter	Default value	Description
<b>Comments:</b>		

Table 10: STAT\_REP\_INF\_VERIF\_conf ASP and its parameters

<b>ASP Name:</b> STAT_REP_INF_VERIF_conf		
<b>PCO:</b> 0		
<b>Direction:</b> UT->LT		
<b>Description:</b> Indication by the user that the information contained in the received SMS_STATUS_REP message and concerning the outcome at the recipient of an SM previously sent is made available to the user.		
Parameter	Default value	Description
VERIF_IND	0	Status report indication <b>0:</b> the information about the outcome at the recipient of an SM previously sent is available to the user. <b>1:</b> the information about the outcome at the recipient of an SM previously sent is not available to the user.
<b>Comments:</b>		

**Table 11: STAT\_REP\_NOTIF\_NUM\_VERIF\_req ASP and its parameters**

<b>ASP Name:</b>	STAT_REP_NOTIF_NUM_VERIF_req	
<b>PCO:</b>	0	
<b>Direction:</b>	LT->UT	
<b>Description:</b>	Request the user to verify that the "Notification number" received in an SMS_STATUS_REP message is made available to the user.	
<b>Parameter</b>	<b>Default value</b>	<b>Description</b>
<b>Comments:</b>		

**Table 12: STAT\_REP\_NOTIF\_NUM\_VERIF\_conf ASP and its parameters**

<b>ASP Name:</b>	STAT_REP_NOTIF_NUM_VERIF_conf	
<b>PCO:</b>	0	
<b>Direction:</b>	UT->LT	
<b>Description:</b>	Indication by the user that the "Notification number" received in an SMS_STATUS_REP message is made available to the user.	
<b>Parameter</b>	<b>Default value</b>	<b>Description</b>
VERIF_IND	0	Notification number indication 0: the information about the notification number is available to the user. 1: the information about the notification number is not available to the user.
<b>Comments:</b>		

**Table 13: SM\_Reception\_req ASP and its parameters**

<b>ASP Name:</b>	SM_Reception_req	
<b>PCO:</b>	0	
<b>Direction:</b>	LT->UT	
<b>Description:</b>	Request the user to check if the incoming SM has been received by the SM-TE.	
<b>Parameter</b>	<b>Default value</b>	<b>Description</b>
<b>Comments:</b>		

**Table 14: SM\_Reception\_conf ASP and its parameters**

<b>ASP Name:</b>	SM_Reception_conf	
<b>PCO:</b>	0	
<b>Direction:</b>	UT->LT	
<b>Description:</b>	Indication by the user if the incoming SM has been received in the SM-TE.	
<b>Parameter</b>	<b>Default value</b>	<b>Description</b>
RECEPT_IND	0	SM reception indication 0: the incoming SM has been received by the SM-TE. 1: the incoming SM has not been received by the SM-TE.
<b>Comments:</b>		

**Table 15: SM\_Reception2\_req ASP and its parameters**

<b>ASP Name:</b>	SM_Reception2_req	
<b>PCO:</b>	0	
<b>Direction:</b>	LT->UT	
<b>Description:</b>	Request the user to check if two incoming SMs within the same SMS call have been received by the SM-TE.	
<b>Parameter</b>	<b>Default value</b>	<b>Description</b>
<b>Comments:</b>		

**Table 16: SM\_Reception2\_conf ASP and its parameters**

<b>ASP Name:</b> SM_Reception2_conf		
<b>PCO:</b> 0		
<b>Direction:</b> UT->LT		
<b>Description:</b> Indication by the user if two incoming SMS within the same SMS call have been received in the SM-TE.		
Parameter	Default value	Description
RECEPT_IND	0	SM reception indication <b>0:</b> the two incoming SMS within the same SMS call have been received by the SM-TE. <b>1:</b> the two incoming SMS within the same SMS call have not been received in the SM-TE.
<b>Comments:</b>		

**Table 17: PUBL\_KEY\_PASSWD\_req ASP and its parameters**

<b>ASP Name:</b> PUBL_KEY_PASSWD_req		
<b>PCO:</b> 0		
<b>Direction:</b> LT->UT		
<b>Description:</b> Request the user to verify that an SM received with a public key corresponding to one of the values stored in the SM-TE, can be read when the associated defined password is entered.		
Parameter	Default value	Description
<b>Comments:</b>		

**Table 18: PUBL\_KEY\_PASSWD\_conf ASP and its parameters**

<b>ASP Name:</b> PUBL_KEY_PASSWD_conf		
<b>PCO:</b> 0		
<b>Direction:</b> UT->LT		
<b>Description:</b> Indication by the user that an SM received with a public key corresponding to one of the values stored in the SM-TE, can be read when the associated defined password is entered.		
Parameter	Default value	Description
ACC_IND	0	Protected SM access indication <b>0:</b> the received SM can be accessed when the appropriate defined password is entered. <b>1:</b> the received SM can be accessed without entering the appropriate defined password.
<b>Comments:</b>		

**Table 19: EMPTY\_MEM\_req ASP and its parameters**

<b>ASP Name:</b> EMPTY_MEM_req		
<b>PCO:</b> 0		
<b>Direction:</b> LT->UT		
<b>Description:</b> Request the user to delete the SMS stored in the SM-TE to make the SM-TE memory again available.		
Parameter	Default value	Description
<b>Comments:</b> This ASP is used in situations where the memory is completely exhausted, and also in situations where part of the memory is available.		

Table 20: EMPTY\_MEM\_ind ASP and its parameters

<b>ASP Name:</b> EMPTY_MEM_ind		
<b>PCO:</b> O		
<b>Direction:</b> UT->LT		
<b>Description:</b> Indicates that the SM-TE does not contain anymore stored SMs.		
Parameter	Default value	Description
MANUALSTA	FALSE	<b>TRUE:</b> As a result of deleting SMs stored in the SM-TE, the SM-TE indicates that <b>manual</b> initiation of an SM-TE_STATUS message indicating "message memory resources are available" is required (see also Test Parameters TSPX_SM_TE_STATUS_CALL and TSPX_AUTOMATIC_SM_TE_STATUS_CALL). <b>FALSE:</b> All other cases.
<b>Comments:</b> The ASP is issued as a response to ASP EMPTY_MEM_req, except when the SM-TE <b>automatically</b> sends an SM-TE_STATUS message as a result of deleting SMs stored in the SM-TE. In this case the receipt by the tester of the SM-TE_STATUS message indicating "message memory resources are available" replaces the EMPTY_MEM_ind ASP.		

Table 21: INC\_CALL\_req ASP and its parameters

<b>ASP Name:</b> INC_CALL_req		
<b>PCO:</b> CC		
<b>Direction:</b> LT->LTS		
<b>Description:</b> Make the Lower Test System initiate the basic call control procedures for an incoming call, to establish a VB connection from the SM-SC to the SM-TE.		
Parameter	Default value	Description
BCAP	FALSE	SM-TE Capability <b>TRUE:</b> the SM-TE is requested to send the SM-TE_CAPABILITY message when establishing the data Link. <b>FALSE:</b> the SM-TE may send the SM-TE_CAPABILITY message when establishing the Data Link or not.
CLDTE	TSPX_CLD_TE	Address of the SM-TE to be called.
SCADDR	TSPX_SC_ADDR_INC	Address of the calling SM-SC.
SMEID	TSPX_SME_ID	Subaddress of the called SME.
<b>Comments:</b>		

Table 22: INC\_CALL\_conf ASP and its parameters

<b>ASP Name:</b> INC_CALL_conf		
<b>PCO:</b> CC		
<b>Direction:</b> LTS->LT		
<b>Description:</b> The Lower Test System confirms that the requested basic call control procedures for an incoming call have been successfully completed and the VB connection to the SM-TE is established and also that the DLL_SMS_EST message or the DLL_SMS_ACK0 message containing the SM-TE CAPABILITY TL message has been received, or confirms that the connection attempt was not successful.		
Parameter	Default value	Description
ESTCONF	TRUE	<b>TRUE</b> if the requested VB connection to the SM-TE/SME has been successfully established and the DLL_SMS_EST message or the DLL_SMS_ACK0 message containing the SM-TE CAPABILITY TL message has been received. Otherwise <b>FALSE</b> .
<b>Comments:</b>		

**Table 23: OUTG\_CALL\_ind ASP and its parameters**

<b>ASP Name:</b> OUTG_CALL_ind		
<b>PCO:</b> CC		
<b>Direction:</b> LTS->LT		
<b>Description:</b> Indication that the SM-TE has initiated the basic call control procedures for an outgoing call.		
Parameter	Default value	Description
SCADDR	TSPX_SC_ADDR_OUTG	Address of the called SM-SC.
SMEID	TSPX_SME_ID	Subaddress of the calling SME.
<b>Comments:</b>		

**Table 24: OUTG\_CALL\_resp ASP and its parameters**

<b>ASP Name:</b> OUTG_CALL_resp		
<b>PCO:</b> CC		
<b>Direction:</b> LT->LTS		
<b>Description:</b> Response to the Lower Test System that the basic call control procedures for an outgoing call have to be completed or refused. If the value is TRUE the VB connection is completed and the DLL_SMS_EST message is sent.		
Parameter	Default value	Description
ESTRESP	TRUE	TRUE if the outgoing call is to be accepted, otherwise FALSE.
<b>Comments:</b>		

**Table 25: CALL\_RELEASE\_ind ASP and its parameters**

<b>ASP Name:</b> CALL_RELEASE_ind		
<b>PCO:</b> CC		
<b>Direction:</b> LTS->LT		
<b>Description:</b> Indication from the Lower Test System that the VB connection has been released by the SM-TE.		
Parameter	Default value	Description
<b>Comments:</b> No confirmation is issued by the tester. It is a matter of the test system to complete the release procedures. The LTS shall not issue this ASP when the tester has issued a CALL_RELEASE_req before on the same VB connection.		

**Table 26: CALL\_RELEASE\_req ASP and its parameters**

<b>ASP Name:</b> CALL_RELEASE_req		
<b>PCO:</b> CC		
<b>Direction:</b> LT->LTS		
<b>Description:</b> Request the Lower Test System to release the VB connection to the SM-TE.		
Parameter	Default value	Description
<b>Comments:</b> No confirmation is expected by the LT from the LTS. The LTS shall complete the release procedures when receiving this ASP. When this ASP is received by the LTS after VB release has been signalled by the SM-TE (release collision), the LTS shall continue the VB release as if no CALL_RELEASE_req were received.		

Table 27: TRANSFER\_INFO\_MT\_req ASP and its parameters

<b>ASP Name:</b> TRANSFER_INFO_MT_req		
<b>PCO:</b> FS		
<b>Direction:</b> LT->LTS		
<b>Description:</b> Request the Lower Test System to transfer an SMS_DELIVERY TL message or an SMS_STATUS_REP TL message, via the DLL_SMS_INFO-MT message, to the IUT on the established VB connection.		
Parameter	Default value	Description
TL_LENGTH_IND	TRUE	<b>TRUE:</b> the TL message is sent with the correct TL message length (i.e. the TL message length value corresponds to the number of transmitted TL message bytes, not considering the two bytes of the TL message length itself). <b>FALSE:</b> the TL message is sent with a wrong TL message length (i.e. the TL message length value does not correspond to the number of transmitted TL message bytes, not considering the two bytes of the TL message length itself).
PDU	-	DLL_SMS_INFO-MT message to be transmitted, containing the SMS_DELIVERY TL message or the SMS_STATUS_REP TL message as specified in clause 6.4.
<b>Comments:</b>		

Table 28: TRANSFER\_ACK\_req ASP and its parameters

<b>ASP Name:</b> TRANSFER_ACK_req		
<b>PCO:</b> FS		
<b>Direction:</b> LT->LTS		
<b>Description:</b> Request the Lower Test System to transfer an SMS_SUBMIT_REP TL message, via the DLL_SMS_ACK1 message or the DLL_SMS_ACK0 message, to the IUT on the established VB connection.		
Parameter	Default value	Description
TL_LENGTH_IND	TRUE	<b>TRUE:</b> the TL message is sent with the correct TL message length (i.e. the TL message length value corresponds to the number of transmitted TL message bytes, not considering the two bytes of the TL message length itself). <b>FALSE:</b> the TL message is sent with a wrong TL message length (i.e. the TL message length value does not correspond to the number of transmitted TL message bytes, not considering the two bytes of the TL message length itself).
PDU	-	DLL_SMS_ACK1 message or DLL_SMS_ACK0 to be transmitted, containing the SMS_SUBMIT_REP TL message as specified in clause 6.4.
<b>Comments:</b>		

**Table 29: TRANSFER\_SUBMIT\_ind ASP and its parameters**

<b>ASP Name:</b> TRANSFER_SUBMIT_ind		
<b>PCO:</b> FS		
<b>Direction:</b> LTS->LT		
<b>Description:</b> Indication that the IUT has sent an SMS_SUBMIT TL message, via the DLL_SMS_INFO-MO message, to the tester on the established VB connection.		
Parameter	Default value	Description
PDU	-	Received TL message as specified in clause 6.4. (see note)
<b>Comments:</b>		
NOTE: The received TL message is only passed to the LT by the LTS if the content of the "TL message length" (two octets) is consistent with the actual length of the received message (i.e. if the TL message length value corresponds to the number of received TL message bytes, not considering the two bytes of the TL message length itself). If TL message received by the LTS is not correct with respect to this feature, this will lead to a timeout in the test, because the message is not received by the LT. It is a matter of the test system to indicate errors related to this feature.		

**Table 30: TRANSFER\_SM\_TE\_STA\_ind ASP and its parameters**

<b>ASP Name:</b> TRANSFER_SM_TE_STA_ind		
<b>PCO:</b> FS		
<b>Direction:</b> LTS->LT		
<b>Description:</b> Indication that the IUT has sent an SM-TE_STATUS TL message, via the DLL_SMS_INFO-STA message, to the tester on the established VB connection.		
Parameter	Default value	Description
PDU	-	Received TL message as specified in clause 6.4. (see note)
<b>Comments:</b>		
NOTE: The received TL message is only passed to the LT by the LTS if the content of the "TL message length" (two octets) is consistent with the actual length of the received message (i.e. if the TL message length value corresponds to the number of received TL message bytes, not considering the two bytes of the TL message length itself). If TL message received by the LTS is not correct with respect to this feature, this will lead to a timeout in the test, because the message is not received by the LT. It is a matter of the test system to indicate errors related to this feature.		

**Table 31: TRANSFER\_DELIV\_REP\_ind ASP and its parameters**

<b>ASP Name:</b> TRANSFER_DELIV_REP_ind		
<b>PCO:</b> FS		
<b>Direction:</b> LTS->LT		
<b>Description:</b> Indication that the IUT has sent an SMS_DELIVERY_REP TL message, via the DLL_SMS_ACK1 message or the DLL_SMS_ACK0 message, to the tester on the established VB connection.		
Parameter	Default value	Description
PDU	-	Received TL message as specified in clause 6.4. (see note)
<b>Comments:</b>		
NOTE: The received TL message is only passed to the LT by the LTS if the content of the "TL message length" (two octets) is consistent with the actual length of the received message (i.e. if the TL message length value corresponds to the number of received TL message bytes, not considering the two bytes of the TL message length itself). If TL message received by the LTS is not correct with respect to this feature, this will lead to a timeout in the test, because the message is not received by the LT. It is a matter of the test system to indicate errors related to this feature.		

## 6.4 Use of UBS2 TL messages (PDUs)

### 6.4.1 UBS2 TL messages

Table 32 lists the UBS2 TL messages used in the present document.

**Table 32: List of UBS2 Transfer Layer messages**

Message name	Purpose description
SMS_SUBMIT	Used by the SM-TE for SM submission to the SM-SC.
SMS_DELIVERY	Used by the SM-SC for SM delivery to the SM-TE.
SMS_SUBMIT_REP	Used by the SM-SC for reporting to the SM-TE the confirmation or the rejection of the submitted SM.
SMS_DELIVERY_REP	Used by the SM-TE for reporting to the SM-SC the confirmation or the rejection of the delivered SM.
SM-TE_STATUS	Used by the SM-TE for informing the SM-SC about its new status.
SMS_STATUS_REP	Used by the SM-SC to inform the sender of the outcome of a short message at the recipient.
SM-TE_CAPABILITY	Used by the SM-TE for informing the SM-SC about its capabilities.

These message names will be used (without abbreviation) in the TP textual descriptions and TP behaviour descriptions.

The UBS2 Transfer Layer messages and their parameters together with the parameters' statuses (Mandatory, Optional) are defined in defined in clause B.2.1 of ES 201 912 [1]. These definitions are not repeated here, with the exception of messages "SMS\_SUBMIT" and "SMS\_DELIVERY": for these messages different formats are defined in ES 201 912 [1], depending on the value of the "Media Identifier" parameter.

Tables 33 and 34 combine the different formats, and the column under "**Parameter applicable to Media Identifiers**" defines the applicability of the parameter of each row to the different "Media Identifier" parameter values. The status entries "Mandatory" or "Optional" in the third column are only valid (for a given "SMS\_SUBMIT" and "SMS\_DELIVERY" message) when the parameter is applicable, according to the second column.

**Table 33: General SMS\_SUBMIT message parameter list**

Parameter name	Parameter applicable to Media Identifiers	Status
Media Identifier	"SMS", "VOICE", "MAIL/TELEGRAM", "FAX", "E-mail", "DATA"	Mandatory
Firmware Version	"SMS", "VOICE", "MAIL/TELEGRAM", "FAX", "E-mail", "DATA"	Mandatory
SMS Provider Identifier	"SMS", "VOICE", "MAIL/TELEGRAM", "FAX", "E-mail", "DATA"	Mandatory
Display Information	"SMS", "VOICE", "MAIL/TELEGRAM", "FAX", "E-mail"	Mandatory
Data Information	"DATA"	Mandatory
Calling Terminal Identity	"SMS", "VOICE", "MAIL/TELEGRAM", "FAX", "E-mail", "DATA"	Mandatory
Called Line identity	"SMS", "VOICE", "FAX", "DATA"	Mandatory
Called Terminal Identity	"SMS", "VOICE", "DATA"	Mandatory
Mail Address	"MAIL/TELEGRAM", "E-mail"	Mandatory
Fax Recipient Name	"FAX"	Mandatory
Notify	"SMS", "VOICE", "MAIL/TELEGRAM", "FAX", "E-mail", "DATA"	Mandatory
Public Key	"SMS", "VOICE", "DATA"	Optional
Replace Short Message Type	"SMS", "VOICE", "DATA"	Optional
Validity-Period	"SMS", "VOICE", "MAIL/TELEGRAM", "FAX", "E-mail", "DATA"	Optional



Table 34: General SMS\_DELIVERY message parameter list

Parameter name	Parameter applicable to Media Identifiers	Status
Media Identifier	"SMS", "E-mail", "DATA"	Mandatory
Firmware Version	"SMS", "E-mail", "DATA"	Mandatory
SMS Provider Identifier	"SMS", "E-mail", "DATA"	Mandatory
Display Information	"SMS", "E-mail"	Mandatory
Data Information	"DATA"	Mandatory
Date and Time	"SMS", "E-mail", "DATA"	Mandatory
Mail Address	"E-mail"	Mandatory
Calling Line Identity (CLI)	"SMS", "DATA"	Mandatory (NOTE)
Reason for Absence of CLI	"SMS", "DATA"	Mandatory (NOTE)
Calling Terminal Identity	"SMS", "DATA"	Optional
Public Key	"SMS", "DATA"	Optional
Replace Short Message Type	"SMS", "VOICE", "DATA"	Optional
NOTE: Either parameter "Calling Line Identity (CLI)" or parameter "Reason for Absence of CLI" is present, when both parameters are applicable (for Media Identifiers "SMS" and "DATA").		

## 6.4.2 UBS2 Transfer Layer message parameters and their default values

In the TP behaviour descriptions UBS2 Transfer Layer messages will be transmitted and received, and an information must be given what parameters are present and what values the parameter fields have. Considering the fact that there is a large number of parameters and fields, **default values** are defined for the parameter fields in table 35, separately for the transmit (TX) and the receive (RX) direction, as seen from the perspective of the tester.

When a parameter is only applicable for the TX direction or only for the RX direction, the "default value" fields for the opposite direction are marked "N/A" (not applicable).

All parameters have a "**parameter name**" field and a "**parameter length**" field. No default values are indicated for these fields, i.e. all default values are related to fields contained in the parameter contents following the "parameter length" field.

NOTE: Inside the TP behaviour a value for the "parameter length" field is only indicated, when it is the intention of the TP to send a parameter with a length incompatible with the actual contents length (if applicable).

The following kinds of default value indications are possible:

- a) Test Parameter (e.g. TSPX\_CLD\_TEI\_RX1; see table 36);
- b) mnemonic field code values defined in the parameter tables in clause B.2.2 in annex B of ES 201 912 [1] (e.g. value "**message memory resources not available**" for the "**Memory availability**" field in the "**SM-TE Resources**" parameter);
- c) "-" or "OMIT"  
when a field is optional: to indicate omission of this field;
- d) "?"  
to indicate any value compatible with the field definition inside the parameter definition (only RX direction);
- e) "\*"
  - when a field is optional: to indicate omission of this field or any value compatible with the field definition inside the parameter definition (only RX direction);
- f) "N/A" ("not applicable").

Table 35: UBS2 Transfer Layer messages parameter fields

Parameter	Field(s)	TX default value	RX default value
Bearer Capability	SM Replace Service	N/A	?
	More Messages Receiving in one connection	N/A	?
	Display Code Set Extension	N/A	?
	E-Mail media implementation	N/A	?
	Data media implementation	N/A	?
	Display or Data Information Length implementation	N/A	?
	TE Memory	N/A	?
	TE Language	N/A	?
	Reserved	N/A	*
Called Line identity	CLDI digits	N/A	TSPX_CLDI_RX1
Called Terminal Identity	Terminal Equipment Identity	N/A	TSPX_CLD_TEI_RX1
Calling Line Identity (CLI)	Calling Line Identity digits	TSPX_CLGI_TX1	N/A
Calling Terminal Identity	Terminal Equipment Identity	TSPX_TEI_TX1	TSPX_TEI_RX1
Data Information	Data Information bytes	TSPX_DAT_INFO_TX1	TSPX_DAT_INFO_RX1
Date and Time	Date and Time information (month+day+hour+minute)	TSPX_DATE_TIME_TX1	N/A
Display Information	Display Information contents	TSPX_DISPL_TX1	?
Fax Recipient Name	Fax Recipient Destination Name	TSPX_FAX_RECIP_TX1	TSPX_FAX_RECIP_RX1
Firmware Version	Firmware/software revision	TSPX_SOFT_REV_TX1	TSPX_SOFT_REV_RX1
	Product code	TSPX_PROD_CODE_TX1	TSPX_PROD_CODE_RX1
	Manufacturer code	TSPX_MANUF_CODE_TX1	TSPX_MANUF_CODE_RX1
Mail Address	Mail Address characters	TSPX_MAIL_ADDR_TX1	TSPX_MAIL_ADDR_RX1
Media Identifier	Media Identifier code	"SMS"	"SMS"
Notify	status report information	"successfully delivered message notification"	?
	notification number	notification number received in the related SMS_SUBMIT message	?
Public Key	Public Key characters	TSPX_PUBL_KEY_TX1	?
Reason for Absence of CLI	Reason	"not available"	?
Replace Short Message Type	Replace information	"Short Message Type 1"	?
Response Type	Response Type code	"CONFIRM"	"CONFIRM"
SMS Provider Identifier	SM Service Provider code	TSPX_PROV_CODE_TX1	TSPX_PROV_CODE_RX1
SM-TE Resources	Terminal Equipment status code	N/A	"message memory resources are available"
Validity-Period	Validity Period contents	N/A	?

### 6.4.3 How to interpret messages, parameters and their field values

When exchanging TL messages in the TP descriptions, information must be given on the presence and contents of parameters in these messages. The description given below is based on the following facts:

- 1) For the SMS\_SUBMIT and the SMS\_DELIVERY messages, either the "Media Identifier code" is explicitly indicated or the default value "SMS" applies. Using tables 33 and 34 (or equivalently tables B.2.1 to B.2.9 in ES 201 912 [1]), a status (presence condition) is defined for each applicable parameter in these messages.
- 2) For the other TL messages, the parameter presence conditions are defined in the tables B.2.10 to B.2.14 in annex B of ES 201 912 [1].
- 3) Default values for parameter fields are specified in table 35.
- 4) Some bit fields in the parameter format tables in clause B.2.2 of ES 201 912 [1] are indicated to be "for future use". The tester transmits "0" bits for these fields, except that a specific TP requires different values. Any bit values, "0" or "1", are accepted from the IUT.

The following principles apply for the presentation of messages to be **transmitted by the tester**:

- a) When a parameter applicable to the message is not explicitly indicated, and its status is "Mandatory", it is included in the message and transmitted with its default field values.
- b) When a parameter applicable to the message is not explicitly indicated, and its status is "Optional", it is **not** included in the message.
- c) When a parameter applicable to the message is indicated to be "present" (independent of the parameter's status), it is included in the message and transmitted with its default field values.
- d) When a parameter applicable to the message is indicated in some other way than "present", then at least one field value must be explicitly specified for this parameter. The parameter is included in the message and transmitted with the specified field value(s), all other field values (if there are any) being transmitted with their default values.

The following principle applies for the presentation of messages to be **received from the IUT**:

- i) When a parameter applicable to the message is not explicitly indicated, and its status is "Mandatory", it is required to be included in the message and is expected to be received with its default field values.
- ii) When a parameter applicable to the message is not explicitly indicated, and its status is "Optional", it is **not** required to be included in the message. When it is present, it is accepted with any field values being compatible with the field specifications.
- iii) When a "Mandatory" parameter applicable to the message is indicated to be "present", it is required to be included in the message and is expected to be received with its default field values.

NOTE: It is clearly not necessary to specify the presence of a "Mandatory" parameter, but there may be reasons to emphasize it.

- iv) When an "Optional" parameter applicable to the message is indicated to be "present", it is required to be included in the message and is expected to be received with any field values being compatible with the field specifications.
- v) When a parameter applicable to the message is indicated in some other way than "present", then at least one field value must be explicitly specified for this parameter. The parameter is expected to be included in the message, having the specified field value(s), while all other field values (if there are any) are only accepted with their default values.

Examples can be found in clause 6.5.

#### 6.4.4 Unexpected TL messages

The SM-TE may optionally send the SM-TE\_CAPABILITY message when receiving an incoming call. In those TPs where there is no relation indicated to the "Bearer Capability" parameter, the SM-TE\_CAPABILITY message is treated as an "unexpected allowed message", i.e. it is accepted without evaluation of its contents. The message is not explicitly shown then in the TP descriptions.

No other TL messages are treated as an "unexpected allowed message".

### 6.5 Behaviour notation

This clause describes the principles used when filling the "**Test description**" entry of the TP tables (see sample in clause 5.7) and the behaviour notation of preambles and postambles.

The notation used to describe the trees containing the required operations and signalling control primitives, is a TTCN-like notation, showing what is sent (character !) and received (character ?) by the tester (playing the role of the SM-SC).

ASPs are sent as shown in the following TTCN-like form:

O!OUTGOING\_CALL\_req

where **O** denotes the PCO used with the ASP, **!** denotes "transmission" and the **ASP name** follows.

Since default values have been defined for the ASP parameters, parameter values are only indicated when they differ from the default value.

EXAMPLE 1:

O!OUTGOING\_CALL\_req(MEDIAID = DATA)

In this case an SM of type "DATA" is requested to be transmitted by the SM-TE (instead of default type "SMS").

The same principle applies for received ASPs, the symbol **!** being replaced by **?**.

EXAMPLE 2:

CC?OUTG\_CALL\_ind

In this case the LT receives an indication from the LTS that there is an incoming call from the SM-TE (being requested at the SM-TE as in example 1).

There is one important exception for the presentation of ASPs:

To increase the readability, ASP names TRANSFER\_INFO-MT\_req, TRANSFER\_ACK\_req, TRANSFER\_SUBMIT\_ind, TRANSFER\_SM\_TE\_STA\_ind and TRANSFER\_DELIV\_REP\_ind are normally not shown. It is assumed that:

- the SMS\_DELIVERY and SMS\_STATUS\_REP messages are transferred using the **TRANSFER\_INFO-MT\_req** ASP;
- the SMS\_SUBMIT\_REP message is transferred using the **TRANSFER\_ACK\_req** ASP;
- the SMS\_SUBMIT message is received using the **TRANSFER\_SUBMIT\_ind** ASP;
- the SMS\_DELIVERY\_REP message is received using the **TRANSFER\_DELIV\_REP\_ind** ASP;
- the SM-TE\_STATUS message is received by the **TRANSFER\_SM\_TE\_STA\_ind** ASP.

NOTE: The SM\_TE\_CAPABILITY message is received by the **INC\_CALL\_conf** ASP.

TL message names are directly used instead for transmission and reception.

Examples for TL message transmission and reception:

EXAMPLE 3:

FS!SMS\_DELIVERY

The SMS\_DELIVERY is transmitted in the format defined by "Media Identifier" = "SMS". All mandatory parameters are transmitted with their default values. No optional parameter is included.

EXAMPLE 4:

FS!SMS\_DELIVERY(Media Identifier = SMS)

This has the same effect as the previous example, since the "Media Identifier" parameter is indicated with value "SMS", which is the default value.

EXAMPLE 5:

FS?SMS\_SUBMIT(Validity-Period = "present")

The SMS\_SUBMIT message is expected in the format defined by "Media Identifier" = "SMS" (default). All mandatory parameters are expected with their default values. Optional parameters may be present, but optional parameter Validity-Period is required to be present, where the Validity Period contents (1 octet) may have any value.

Preambles and Postambles:

The description of Preambles and Postamble starts with an **Objective** definition.

The behaviour description ends with the preamble or postamble name. Between start and end the notation is as described above for "**Test description**".

Each preamble shows the state from where it starts (idle or a different state reached by the execution of another preamble), then it shows the operations executed in this preamble and finally the state or configuration reached, using the notation described above.

Each test purpose description shows the state from where it starts by identifying a preamble.

Other:

When the tester expects a reaction from the IUT following the transmission of a PDU or ASP, the start of an "**acknowledgement timer**" is assumed, but normally not indicated in the test description.

Notes are put into the behaviour descriptions whenever it appears to be necessary.

## 6.6 Parametrization and selection

**NOTE:** During the TSS&TP development Test Parameters have been collected in table 36 and 37. Test Parameter names starting with "TSPX" are used for test parametrization and will correspond to PIXIT items, TS Parameter names starting with "TSPC" are used for selection and normally correspond to PICS items. Only Test Parameters referred to in the TP description tables appear here. It is assumed that the Test Parameters defined here will be transformed into TTCN "Test Suite Parameters" in an ATS based on this TSS&TP, presumably in a one-to-one fashion.

Table 36 shows the Test Parameters that are necessary to parameterize the test descriptions to the necessary extent. They will normally appear as ASP parameter values or PDU field contents. It is also possible that they appear in [] brackets as qualifiers for different branches of behaviour (see clause 6.5).

Table 36 specifies the Test Parameter **name**, its **type** (normally a string, integer or Boolean type) and the **explanation** what it is used for.

**Table 36: Test Parameters used for parametrization (associated with PIXIT items)**

Test Parameter name	Type	Description
TSPX_SM_TE_STATUS_CALL	BOOLEAN	The value is TRUE if the SM-TE, when leaving the "Memory Full" state following the deletion by the user of one or more SMs stored, is able to establish an outgoing call to the SM-SC, either automatically or under a user indication, sending the SM-TE_STATUS message. Otherwise the value is FALSE.
TSPX_AUTOMATIC_SM_TE_STATUS_CALL	BOOLEAN	The parameter is applicable only if the value of the test parameter TSPX_SM_TE_STATUS_CALL is TRUE. The value of the TSPX_AUTOMATIC_SM_TE_STATUS_CALL parameter is TRUE if the SM-TE, when leaving the "Memory Full" state, automatically establishes an outgoing call to the SM-SC sending the SM-TE_STATUS message (i.e. without waiting for a user indication before establishing such an outgoing call). Otherwise the value is FALSE.
TSPX_CLD_TE	IA5String	Address of the SUT to be called from the SM-SC to establish the VB connection.
TSPX_SC_ADDR_OUTG	IA5String	Address of the SM-SC to be called by the SUT and stored in the SUT.
TSPX_SC_ADDR_INC	IA5String	Address of the SM-SC from which the SUT can receive SMs, stored in the SUT.

Test Parameter name	Type	Description
TSPX_SME_ID	OCTETSTRING(1)	Subaddress of an SME defined/set in the SUT (referred to as SME1). This is the default SME subaddress.
TSPX_SME_ID_UNDEFINED	OCTETSTRING(1)	Subaddress value which does not correspond to an SME defined/set in the SUT.
TSPX_CLD_TEI_RX1	OCTETSTRING(1)	Called Terminal Identity value the tester receives from the IUT. The value must be between 01h and 09h. See table B.2.28 in ES 201 912 [1].
TSPX_CLDI_RX1	IA5String	Called Line Identity digits the tester receives from the IUT. See table B.2.25 in ES 201 912 [1].
TSPX_CLGI_TX1	IA5String	Calling Line Identity (CLI) digits the tester sends to the IUT. See table B.2.22 in ES 201 912 [1].
TSPX_DAT_INFO_RX1	OCTETSTRING	Data Information bytes the tester receives from the IUT. See table B.2.36 in ES 201 912 [1].
TSPX_DAT_INFO_TX1	OCTETSTRING	Data Information bytes the tester sends to the IUT. See table B.2.36 in ES 201 912 [1].
TSPX_DATE_TIME_TX1	OCTETSTRING(8)	Date and Time octets the tester sends to the IUT. Month, day, hour and minute digits (2 for each element) are contained in this order. See table B.2.21 in ES 201 912 [1].
TSPX_DISPL_TX1	IA5String	Standard Display Information characters the tester sends to the IUT in the first SMS_DELIVERY message during a VB connection. Only those characters of tables B.2.19 and B.2.20 in ES 201 912 [1] are allowed. See table B.2.18 in ES 201 912 [1].
TSPX_DISPL_TX2	IA5String	Standard Display Information characters the tester sends to the IUT in the second SMS_DELIVERY message during a VB connection. Only those characters of tables B.2.19 and B.2.20 in ES 201 912 [1] are allowed. See table B.2.18 in ES 201 912 [1].
TSPX_DISPL_TX3	IA5String	Standard Display Information characters the tester sends to the IUT in the SMS_STATUS_REP message during a VB connection. Only those characters of tables B.2.19 and B.2.20 in ES 201 912 [1] are allowed. See table B.2.18 in ES 201 912 [1].
TSPX_MAX_TEXT_LEN	OCTETSTRING(2)	Maximum number of text characters contained in an incoming SMS the SM-TE can receive and store. The number is encoded as an octet string of length 2 as shown in table B.2.33 in ES 201 912 [1] for octets 5 and 6.
TSPX_MAX_TEXT_CONTENTS	IA5String	Text of TSPX_MAX_TEXT_LEN characters to be sent by the tester, if TSPX_MAX_TEXT_LEN has not the default value of 640 characters.
TSPX_MAX_TEXT_CONTENTS_640	IA5String	Text of 640 characters (default maximum length) to be sent by the tester.
TSPX_GREATER_MAX_TEXT	IA5String	Text of length greater than TSPX_MAX_TEXT_LEN characters to be sent by the tester.
TSPX_TE_LANGUAGE	OCTETSTRING(2)	Language code according to ISO/IEC 3166-1 [10] set by the SM-TE in the TE Language field of the Bearer Capability parameter. See table B.2.33 in ES 201 912 [1].
TSPX_FAX_RECIP_RX1	IA5String	Fax Recipient Name characters the tester receives from the IUT. See table B.2.26 in ES 201 912 [1].

Test Parameter name	Type	Description
TSPX_FAX_RECIP_TX1	IA5String	Fax Recipient Name characters the tester sends to the IUT. See table B.2.26 in ES 201 912 [1].
TSPX_MAIL_ADDR_RX1	IA5String	Mail Address characters the tester receives from the IUT. See table B.2.27 in ES 201 912 [1].
TSPX_MAIL_ADDR_TX1	IA5String	Mail Address characters the tester sends to the IUT. See table B.2.27 in ES 201 912 [1].
TSPX_MANUF_CODE_RX1	OCTETSTRING(1)	Firmware Version manufacturer code the tester receives from the IUT. See table B.2.16 in ES 201 912 [1].
TSPX_MANUF_CODE_TX1	OCTETSTRING(1)	Firmware Version manufacturer code the tester sends to the IUT. See table B.2.16 in ES 201 912 [1].
TSPX_PROD_CODE_RX1	OCTETSTRING(1)	Firmware Version product code the tester receives from the IUT. See table B.2.16 in ES 201 912 [1].
TSPX_PROD_CODE_TX1	OCTETSTRING(1)	Firmware Version product code the tester sends to the IUT. See table B.2.16 in ES 201 912 [1].
TSPX_PROV_CODE_RX1	OCTETSTRING(3)	SM Service Provider identifier code the tester receives from the IUT. See table B.2.17 in ES 201 912 [1].
TSPX_PROV_CODE_TX1	OCTETSTRING(3)	SM Service Provider identifier code the tester sends to the IUT. See table B.2.17 in ES 201 912 [1].
TSPX_PUBL_KEY_RX1	IA5String	Public Key characters the tester receives from the IUT. See table B.2.30 in ES 201 912 [1].
TSPX_PUBL_KEY_TX1	IA5String	Public Key characters the tester sends to the IUT, corresponding to one of the Public Keys defined in the receiving SM-TE. See table B.2.30 in ES 201 912 [1].
TSPX_PUBL_KEY_TX2	IA5String	Public Key characters the tester sends to the IUT, not corresponding to any of the Public Keys defined in the receiving SM-TE. See table B.2.30 in ES 201 912 [1].
TSPX_SOFT_REV_RX1	OCTETSTRING(4)	Firmware version, Firmware/software revision code the tester receives from the IUT. See table B.2.16 in ES 201 912 [1].
TSPX_SOFT_REV_TX1	OCTETSTRING(4)	Firmware version, Firmware/software revision code the tester sends to the IUT. See table B.2.16 in ES 201 912 [1].
TSPX_TEI_RX1	HEXSTRING(1)	Calling Terminal Equipment Identity the tester receives from the IUT. See table B.2.24 in ES 201 912 [1].
TSPX_TEI_TX1	HEXSTRING(1)	Calling Terminal Equipment Identity value the tester sends to the IUT. See table B.2.24 in ES 201 912 [1].
TSPX_VALID_PERIOD_RX1	OCTETSTRING(1)	Validity Period value the tester receives from the IUT. See table B.2.35 in ES 201 912 [1].
TSPX_SM_REPL_RX1	OCTETSTRING(1)	Replace Short Message Type value the tester receives from the IUT. See table B.2.35 in ES 201 912 [1].
TSPX_NUM_SMSs_MEM_FULL	INTEGER	Minimum number of SMS-DELIVER messages of 160 text characters ("the quick brown fox jumps over the lazy dog 012345678 the quick brown fox jumps over the lazy dog 012345678 the quick brown fox jumps over the lazy dog 01234567") to be sent by the tester in order to make the SM-TE enter the "Memory Full" state.

Test Parameter name	Type	Description
TSPX_NUM_REATTEMPTS	INTEGER	Number of automatic reattempts the SM-TE makes to submit an SM, when the SM-SC always returns an SMS-SUBMIT-REPORT message indicating a submission failure. The first submission attempt (started by ASP OUTGOING_CALL_req) is not counted as a "retry". The value shall consequently be 0, if the SM-TE does not perform an automatic retry at all.
<b>Comments:</b>		

Table 37 shows the Test Parameters that are necessary to formulate the selection conditions as Boolean expressions. Table 37 specifies the Test Parameter name (Boolean type), and the explanation when it is TRUE or FALSE. These Test Parameters normally correspond to optional PICS items.

**Table 37: Test Parameters used for selection**

Test Parameter name	Description
TSPC_BEARER_CAP	TRUE if the SM-TE supports the SM-TE_CAPABILITY TL message. Otherwise FALSE.
TSPC_BEARER_CAP_DATA	TRUE if the SM-TE is able to receive SMs containing Data instead of a text message. Otherwise FALSE.
TSPC_BEARER_CAP_DISP_CS_EXT	TRUE if the SM-TE sets bit 2 of the Services Field byte of the "Bearer Capability" parameter in the SM-TE_CAPABILITY TL message to "1" (Display Code Set extension supported). Otherwise FALSE.
TSPC_BEARER_CAP_EMAIL	TRUE if the SM-TE is able to receive an SM originated by an electronic mailbox. Otherwise FALSE.
TSPC_BEARER_CAP_MORE_SMS	TRUE if the SM-TE is able to receive at least two SMs within the same SMS call. Otherwise FALSE.
TSPC_BEARER_CAP_REPLACE	TRUE if the SM-TE is able to replace a previously received SM with a new SM of the same type. Otherwise FALSE.
TSPC_CLI_PRIVACY	TRUE if the SM-TE is able to set the bit 4 of the "Calling Terminal Identity" parameter value in the SMS_SUBMIT TL message to "1" (requesting CLI privacy). Otherwise FALSE.
TSPC_OUTG_SM_REPLACE	TRUE if the SM-TE sends an SMS_SUBMIT TL message containing the "Replace Short Message Type" parameter, when the SM to be sent is supposed to contain an SM Replace indication. Otherwise FALSE.
TSPC_OUTG_TO_CONV_MAIL	TRUE if the SM-TE supports SM submission to be delivered as conventional mail. Otherwise FALSE.
TSPC_OUTG_DATA	TRUE if the SM-TE supports submission of SMs containing DATA. Otherwise FALSE.
TSPC_OUTG_TO_EMAIL	TRUE if the SM-TE supports SM submission to be delivered as E-mail. Otherwise FALSE.
TSPC_OUTG_FAX	TRUE if the SM-TE supports SM submission to be delivered as FAX. Otherwise FALSE.
TSPC_OUTG_SM_TE	TRUE if the SM-TE supports SM submission to be delivered as SM. Otherwise FALSE.
TSPC_OUTG_TELEGRAM	TRUE if the SM-TE supports SM submission to be delivered as TELEGRAM. Otherwise FALSE.



Test Parameter name	Description
TSPC_OUTG_VOICE	TRUE if the SM-TE supports SM submission to be delivered as vocal message. Otherwise FALSE.
TSPC_ADD_PUBLIC_KEY	TRUE if the SM-TE supports the adding of a Public Key to protect the SM to be sent. Otherwise FALSE.
TSPC_INFORM_USER_POS	TRUE if the SM-TE, after having received an SMS_SUBMIT_REP TL message, with "Response Type" parameter value "Confirm" in response to an SMS_SUBMIT TL message, gives an indication of the positive submission result to the user. Otherwise FALSE.
TSPC_INFORM_USER_NEG	TRUE if the SM-TE, after having received an SMS_SUBMIT_REP TL message, with "Response Type" parameter with one of the "Reject" values in response to an SMS_SUBMIT TL message, gives an indication of the negative submission result to the user. Otherwise FALSE.
TSPC_SM_TE_STATUS	TRUE if the SM-TE, in the "Memory Full" state, after the deletion by the user of one or more SMSs stored in the SM-TE, requests the delivery of new SMSs stored in the SM-SC (i.e. establishes automatically or after a user indication an SMS call to the SM-SC and sends the SM-TE_STATUS TL message. Otherwise FALSE.
TSPC_STATUS_REP_REQ	TRUE if the SM-TE is able to send an SMS_SUBMIT TL message containing the Notify parameter with value "Status report via SMS required". Otherwise FALSE.
TSPC_VALIDITY_PERIOD	TRUE if the SM-TE supports the inclusion of the "Validity Period" parameter and the user-specified setting of the "Validity Period" in the SMS_SUBMIT TL message sent by the SM-TE. Otherwise FALSE.
TSPC_INC_NOTIFICATION_NUMBER	TRUE if the SM-TE, after having received an SMS_STATUS_REP TL message containing the notification number (in the "Notify" parameter), makes this information available to the user when reading the SM. Otherwise FALSE.
<b>Comments:</b>	

Table 38 shows the selection conditions formulated as BOOLEAN expressions. Table 38 specifies the **Selection expression ID** or **name**, the Boolean Expression, and a verbose description when a TP carrying this Selection Expression is applicable for execution with an IUT or not. In its simplest form, the Boolean Expression just refers to a (Boolean) Test Parameter associated with a PICS item. Combinations using Boolean operators like **AND**, **OR** or **NOT** are also allowed.

**Table 38: Selection expressions**

Selection expression ID	Expression	Description
Sel_BearerCap	TSPC_BEARER_CAP	Selects a TP in case that the SM-TE supports the SM-TE_CAPABILITY TL message.
Sel_BearerCapData	TSPC_BEARER_CAP_DATA	Selects a TP in case that the SM-TE is able to receive SMSs containing Data instead of a text message.
Sel_BearerCapDisplayCodeSetExt	TSPC_BEARER_CAP_DISP_CS_EXT	Selects a TP in case that the SM-TE sets bit 2 of the Services Field byte of the "Bearer Capability" parameter in the SM-TE_CAPABILITY TL message to "1" (Display Code Set extension supported).
Sel_BearerCapEmail	TSPC_BEARER_CAP_EMAIL	Selects a TP in case that the SM-TE is able to receive an SM originated by an electronic mailbox.

Selection expression ID	Expression	Description
Sel_BearerCapMoreSMS	TSPC_BEARER_CAP_MORE_SMS	Selects a TP in case that the SM-TE is able to receive two SMS within the same SMS call.
Sel_BearerCapSMReplace	TSPC_BEARER_CAP_REPLACE	Selects a TP in case that the SM-TE replaces a previously received SM with a new SM of the same type.
Sel_CliPrivacyReq	TSPC_CLI_PRIVACY	Selects a TP in case that the SM-TE sets the bit 4 of the "Calling Terminal Identity" parameter value in the SMS_SUBMIT TL message to "1" (requesting CLI privacy).
Sel_OutgSMReplace	TSPC_OUTG_SM_TE AND TSPC_OUTG_SM_REPLACE	Selects a TP in case that the SM-TE sends an SMS_SUBMIT TL message containing the "Replace Short Message Type" parameter, when the SM to be sent is supposed to contain an SM Replace indication.
Sel_OutgToConvMail	TSPC_OUTG_TO_CONV_MAIL	Selects a TP in case that the SM-TE supports SM submission to be delivered as conventional mail.
Sel_OutgToData	TSPC_OUTG_DATA	Selects a TP in case that the SM-TE supports submission of SMS containing DATA.
Sel_OutgToEmail	TSPC_OUTG_TO_EMAIL	Selects a TP in case that the SM-TE supports SM submission to be delivered as E-mail.
Sel_OutgToFax	TSPC_OUTG_FAX	Selects a TP in case that the SM-TE supports SM submission to be delivered as FAX.
Sel_OutgToSM_TE	TSPC_OUTG_SM_TE	Selects a TP in case that the SM-TE supports SM submission to be delivered as SM.
Sel_OutgToTelegram	TSPC_OUTG_TELEGRAM	Selects a TP in case that the SM-TE supports SM submission to be delivered as TELEGRAM.
Sel_OutgToVoice	TSPC_OUTG_VOICE	Selects a TP in case that the SM-TE supports SM submission to be delivered as vocal message.
Sel_PublicKey	TSPC_OUTG_SM_TE AND TSPC_ADD_PUBLIC_KEY	Selects a TP in case that the SM-TE supports the adding of a Public Key to protect the SM to be sent.
Sel_InformUserSubmissPos	TSPC_INFORM_USER_POS	Selects a TP in case that the SM-TE, after having received an SMS_SUBMIT_REP TL message, with "Response Type" parameter value "Confirm" in response to an SMS_SUBMIT TL message, gives an indication of the positive submission result to the user.
Sel_InformUserSubmissNeg	TSPC_INFORM_USER_NEG	Selects a TP in case that the SM-TE, after having received an SMS_SUBMIT_REP TL message, with "Response Type" parameter with one of the "Reject" values in response to an SMS_SUBMIT TL message, gives an indication of the negative submission result to the user.

Selection expression ID	Expression	Description
Sel_SmTeStatus	TSPC_SM_TE_STATUS	Selects a TP in case that the SM-TE, in the "Memory Full" state, after the deletion by the user of one or more SMs stored in the SM-TE, requests the delivery of new SMs stored in the SM-SC (i.e. establishes automatically or after a user indication an SMS call to the SM-SC and sends the SM-TE_STATUS TL message.
Sel_StatusRepReq	TSPC_OUTG_SM_TE AND TSPC_STATUS_REP_REQ	Selects a TP in case that the SM-TE sends an SMS_SUBMIT TL message containing the Notify parameter with value "Status report via SMS required", if the user has requested a status report for an SM addressed to an SM-TE.
Sel_ValidityPeriod	TSPC_OUTG_SM_TE AND TSPC_VALIDITY_PERIOD	Selects a TP in case that the SM-TE supports the inclusion of the "Validity Period" parameter and the user-specified setting of the "Validity Period" in the SMS_SUBMIT TL message sent by the SM-TE.
Sel_IncNotificationNumber	TSPC_INC_NOTIFICATION_NUMBER	Selects a TP in case that the SM-TE, after having received an SMS_STATUS_REP TL message containing the notification number (in the "Notify" parameter), makes this information available to the user when reading the SM.
Sel_ResponseRejectEmail	Sel_InformUserSubmissNeg AND Sel_OutgToEmail	Selects a TP in case that the SM-TE supports SM submission to be delivered as E-mail, and, after having received an SMS_SUBMIT_REP TL message, with "Response Type" parameter value "Reject (E-mail address)" in response to an SMS_SUBMIT TL message to be delivered as an E-mail, gives an indication of the negative submission result to the user.
<b>Comments:</b>		

## 6.8 States

IUT States names are occasionally and informally used as in annex B of ES 201 912 [1].

## 6.9 Treatment of the "Memory Full" state in the submission phase

In case the SM-TE does not allow the submission of an SM because the SM-TE has entered the "Memory Full" state and this state is not required/expected in the current test, the test should be run again, after having made the necessary operations to free the memory (if the SM-TE has been implemented so as to establish a call afterwards to the SM-SC in order to send an SM-TE\_STATUS message automatically or under a user indication, it must be waited for the end of this operations before running again the test).

## 6.10 Preambles

### 6.10.1 PRE\_INIT

**Objective:** The preamble has the formal objective to initialize the terminal and test equipment before attempting the next VB connection and DLL connection. A particular behaviour is not associated with this preamble. It is assumed however, that at the end of this preamble no VB connection exists.

### 6.10.2 PRE\_CLEAR\_MEM

**Objective:** To make sure that all the memory is available at the beginning of test cases.

PRE\_CLEAR\_MEM

+PRE\_INIT

O!EMPTY\_MEM\_req

[TSPX\_SM\_TE\_STATUS\_CALL AND TSPX\_AUTOMATIC\_SM\_TE\_STATUS\_CALL]

CC?OUTG\_CALL\_ind

CC!OUTG\_CALL\_resp

FS?SM-TE\_STATUS(SM-TE Resources = "message memory resources are available")

FS!SMS\_SUBMIT\_REP(Response Type = "CONFIRM")

CC?CALL\_RELEASE\_ind

Wait a while

O?EMPTY\_MEM\_ind(MANUALSTA = FALSE)

NOTE 1: If the SM-TE, before the O!EMPTY\_MEM\_req ASP, was not in the "Memory Full" state, the operator indicates to the tester that the memory is cleared and no SM-TE\_STATUS procedure is performed.

[TSPX\_SM\_TE\_STATUS\_CALL AND (NOT TSPX\_AUTOMATIC\_SM\_TE\_STATUS\_CALL)]

O?EMPTY\_MEM\_ind(MANUALSTA = TRUE)

NOTE 2: The operator indicates to the tester that the memory is cleared and that he will initiate the SM-TE\_STATUS procedure manually after the O!OUTG\_SM\_TE\_STATUS\_req ASP.

O!OUTG\_SM\_TE\_STATUS\_req

CC?OUTG\_CALL\_ind

CC!OUTG\_CALL\_resp

FS?SM-TE\_STATUS(SM-TE Resources = "message memory resources are available")

FS!SMS\_SUBMIT\_REP(Response Type = "CONFIRM")

CC?CALL\_RELEASE\_ind

Wait a while

O?EMPTY\_MEM\_ind(MANUALSTA = FALSE)

NOTE 3: If the SM-TE, before the O!EMPTY\_MEM\_req ASP, was not in the "Memory Full" state, the operator indicates to the tester that the memory is cleared and no SM-TE\_STATUS procedure is performed.

[NOT TSPX\_SM\_TE\_STATUS\_CALL]

O?EMPTY\_MEM\_ind

PRE\_CLEAR\_MEM

### 6.10.3 PRE\_MEM\_FULL

**Objective:** To make the SM-TE enter the "Memory Full" state, such that no incoming SM can be stored, a standardized text of length 160 characters is delivered to the SM-TE repeatedly.

PRE\_MEM\_FULL

+PRE\_INIT

Set COUNTER=0

While (COUNTER < TSPX\_NUM\_SMs\_MEM\_FULL)

Set COUNTER=COUNTER+1

CC!INC\_CALL\_req

CC?INC\_CALL\_conf

FS!SMS\_DELIVERY (Display Information = "the quick brown fox jumps over the lazy dog 012345678 the quick brown fox jumps over the lazy dog 012345678 the quick brown fox jumps over the lazy dog 01234567")

FS?SMS\_DELIVERY\_REP (Response Type = ?)

CC!CALL\_RELEASE\_req

Wait a while

End While

PRE\_MEM\_FULL

### 6.10.4 PRE\_OUTG\_MEDIAID\_ANY

**Objective:** To let the SM-TE submit an SM with any Media Identifier value.

PRE\_OUTG\_MEDIAID\_ANY

+PRE\_INIT

O!OUTGOING\_CALL\_req(MEDIAID = ANY)

CC?OUTG\_CALL\_ind

CC!OUTG\_CALL\_resp

FS?SMS\_SUBMIT(Media Identifier = ANY)

PRE\_OUTG\_MEDIAID\_ANY

## 6.11 Postambles

### 6.11.1 General

The following postamble is used to ensure that the VB connection is released at the end of a TP. In this postamble the tester is the initiator (of the release).

In case the IUT does not release when it is expected to do so, it is assumed that the tester will ultimately initiate the release. However this is not shown.

In some cases the release can already occur in the TP body. In this case the use of the postamble is not intended to repeat release signalling.

### 6.11.2 POST\_TESTER\_RELEASE\_VB

**Objective:** Release of the VB connection by the tester, independently of what the status of the DLL connection is and who is the originator of the call.

POST\_TESTER\_RELEASE\_VB

CC!CALL\_RELEASE\_req

POST\_TESTER\_RELEASE\_VB

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## 7 Test purpose descriptions

### 7.1 Test purposes for Outgoing SMS call

#### 7.1.1 Test purposes for Transfer Layer Formats and Contents

<b>UBS2_FT_OUT_TL_SUBMIT_01</b>	
<b>Purpose:</b>	Verify that the SM-TE, if the SM is addressed to an SM-TE, sends an SMS_SUBMIT TL message containing, after the two bytes expressing the TL message length, the following parameters in the following order: Media Identifier (with value "SMS"), Firmware Version, SMS Provider Identifier, Display Information, Calling Terminal Identity, Called Line Identity, Called Terminal Identity and Notify. After these parameters the parameters: Public Key, Replace Short Message Type and Validity Period may be present. Verify also that the SMS_SUBMIT TL message does not contain other parameters.
<b>Requirements refs:</b>	B.2.1.1, table B.2.1
<b>Selection Cond.:</b>	Sel_OutgToSM_TE
<b>Preamble:</b>	PRE_INIT
<b>Test description:</b>	O!OUTGOING_CALL_req(MEDIAID = SMS) CC?OUTG_CALL_ind CC!OUTG_CALL_resp FS?SMS_SUBMIT(Media Identifier = "SMS") (see note) FS!SMS_SUBMIT_REP(Response Type = "CONFIRM")
<b>Pass criteria:</b>	SMS_SUBMIT TL message received, where the Media Identifier is "SMS", all mandatory parameters are present, any optional parameters may be present and the order of received parameters is as specified in the protocol. No other parameter is present.
<b>Postamble:</b>	POST_TESTER_RELEASE_VB
<b>NOTE:</b>	The requirements on the presence of parameters are implicitly posed by the PDU presentation conventions defined in clause 6.4.

<b>UBS2_FT_OUT_TL_SUBMIT_02</b>	
<b>Purpose:</b>	Verify that the SM-TE, if the SM is addressed to a FAX, sends an SMS_SUBMIT TL message containing, after the two bytes expressing the TL message length, the following parameters in the following order: Media Identifier (with value "FAX"), Firmware Version, SMS Provider Identifier, Display Information, Calling Terminal Identity, Called Line Identity, Fax Recipient Name and Notify (with value "Status report via SMS required"). After these parameters the Validity Period parameter may be present. Verify also that the SMS_SUBMIT TL message does not contain other parameters.
<b>Requirements refs:</b>	B.2.1.1, table B.2.4
<b>Selection Cond.:</b>	Sel_OutgToFax
<b>Preamble:</b>	PRE_INIT
<b>Test description:</b>	O!OUTGOING_CALL_req(MEDIAID = FAX) CC?OUTG_CALL_ind CC!OUTG_CALL_resp FS?SMS_SUBMIT(Media Identifier = "FAX", Notify = "status report via SMS required") (see note) FS!SMS_SUBMIT_REP(Response Type = "CONFIRM")
<b>Pass criteria:</b>	SMS_SUBMIT TL message received, where the Media Identifier is "FAX", all mandatory parameters are present, the status report request indicator value is "status report via SMS required", any optional parameters may be present and the order of received parameters is as specified in the protocol. No other parameter is present.
<b>Postamble:</b>	POST_TESTER_RELEASE_VB
<b>NOTE:</b>	The requirements on the presence of parameters are implicitly posed by the PDU presentation conventions defined in clause 6.4.

<b>UBS2_FT_OUT_TL_SUBMIT_03</b>	
<b>Purpose:</b>	Verify that the SM-TE, if the SM is addressed to an electronic mailbox, sends an SMS_SUBMIT TL message containing, after the two bytes expressing the TL message length, the following parameters in the following order: Media Identifier (with value "E-Mail"), Firmware Version, SMS Provider Identifier, Display Information, Calling Terminal Identity, Mail Address and Notify (with value "Status report not required" and Notification number equal to 0). After these parameters the Validity Period parameter may be present. Verify also that the SMS_SUBMIT TL message does not contain other parameters.
<b>Requirements refs:</b>	B.2.1.1, table B.2.5
<b>Selection Cond.:</b>	Sel_OutgToEmail
<b>Preamble:</b>	PRE_INIT
<b>Test description:</b>	O!OUTGOING_CALL_req(MEDIAID = E-Mail) CC?OUTG_CALL_ind CC!OUTG_CALL_resp FS?SMS_SUBMIT(Media Identifier = "E-Mail", Notify = "status report not required", Notification number = 0) (see note) FS!SMS_SUBMIT_REP(Response Type = "CONFIRM")
<b>Pass criteria:</b>	SMS_SUBMIT TL message received, where the Media Identifier is "E-Mail", all mandatory parameters are present, the status report request indicator value is "status report not required", any optional parameters may be present and the order of received parameters is as specified in the protocol. No other parameter is present.
<b>Postamble:</b>	POST_TESTER_RELEASE_VB
<b>NOTE:</b>	The requirements on the presence of parameters are implicitly posed by the PDU presentation conventions defined in clause 6.4.

<b>UBS2_FT_OUT_TL_SUBMIT_04</b>	
<b>Purpose:</b>	Verify that the SM-TE, if the SM is intended to be delivered as conventional mail, sends an SMS_SUBMIT TL message containing, after the two bytes expressing the TL message length, the following parameters in the following order: Media Identifier (with value "Conventional MAIL"), Firmware Version, SMS Provider Identifier, Display Information, Calling Terminal Identity, Mail Address and Notify (with value "Status report not required" and Notification number equal to 0). After these parameters the Validity Period parameter may be present. Verify also that the SMS_SUBMIT TL message does not contain other parameters.
<b>Requirements refs:</b>	B.2.1.1, table B.2.3
<b>Selection Cond.:</b>	Sel_OutgToConvMail
<b>Preamble:</b>	PRE_INIT
<b>Test description:</b>	O!OUTGOING_CALL_req(MEDIAID = Conventional MAIL) CC?OUTG_CALL_ind CC!OUTG_CALL_resp FS?SMS_SUBMIT(Media Identifier = "Conventional MAIL", Notify = "status report not required", Notification number = 0) (see note) FS!SMS_SUBMIT_REP(Response Type = "CONFIRM")
<b>Pass criteria:</b>	SMS_SUBMIT TL message received, where the Media Identifier is "Conventional MAIL", all mandatory parameters are present, the status report request indicator value is "status report not required", any optional parameters may be present and the order of received parameters is as specified in the protocol. No other parameter is present.
<b>Postamble:</b>	POST_TESTER_RELEASE_VB
<b>NOTE:</b>	The requirements on the presence of parameters are implicitly posed by the PDU presentation conventions defined in clause 6.4.

<b>UBS2_FT_OUT_TL_SUBMIT_05</b>	
<b>Purpose:</b>	Verify that the SM-TE, if the SM is intended to be delivered as telegram, sends an SMS_SUBMIT TL message containing, after the two bytes expressing the TL message length, the following parameters in the following order: Media Identifier (with value "TELEGRAM"), Firmware Version, SMS Provider Identifier, Display Information, Calling Terminal Identity, Mail Address and Notify (with value "Status report not required" and Notification number equal to 0). After these parameters the Validity Period parameter may be present. Verify also that the SMS_SUBMIT TL message does not contain other parameters.
<b>Requirements refs:</b>	B.2.1.1, table B.2.3
<b>Selection Cond.:</b>	Sel_OutgToTelegram
<b>Preamble:</b>	PRE_INIT
<b>Test description:</b>	O!OUTGOING_CALL_req(MEDIAID = TELEGRAM) CC?OUTG_CALL_ind CC!OUTG_CALL_resp FS?SMS_SUBMIT(Media Identifier = "TELEGRAM", Notify = "status report not required", Notification number = 0) (see note) FS!SMS_SUBMIT_REP(Response Type = "CONFIRM")
<b>Pass criteria:</b>	SMS_SUBMIT TL message received, where the Media Identifier is "TELEGRAM", all mandatory parameters are present, the status report request indicator value is "status report not required", any optional parameters may be present and the order of received parameters is as specified in the protocol. No other parameter is present.
<b>Postamble:</b>	POST_TESTER_RELEASE_VB
<b>NOTE:</b>	The requirements on the presence of parameters are implicitly posed by the PDU presentation conventions defined in clause 6.4.



<b>UBS2_FT_OUT_TL_SUBMIT_06</b>	
<b>Purpose:</b>	Verify that the SM-TE, if the SM is intended to be delivered as vocal message, sends an SMS_SUBMIT TL message containing, after the two bytes expressing the TL message length, the following parameters in the following order: Media Identifier (with value "VOICE"), Firmware Version, SMS Provider Identifier, Display Information, Calling Terminal Identity, Called Line Identity, Called Terminal Identity and Notify. After these parameters the parameters: Public Key, Replace Short Message Type and Validity Period may be present. Verify also that the SMS_SUBMIT TL message does not contain other parameters.
<b>Requirements refs:</b>	B.2.1.1, table B.2.2
<b>Selection Cond.:</b>	Sel_OutgToVoice
<b>Preamble:</b>	PRE_INIT
<b>Test description:</b>	O!OUTGOING_CALL_req(MEDIAID = VOICE) CC?OUTG_CALL_ind CC!OUTG_CALL_resp FS?SMS_SUBMIT(Media Identifier = "VOICE") (see note) FS!SMS_SUBMIT_REP(Response Type = "CONFIRM")
<b>Pass criteria:</b>	SMS_SUBMIT TL message received, where the Media Identifier is "VOICE", all mandatory parameters are present, any optional parameters may be present and the order of received parameters is as specified in the protocol. No other parameter is present.
<b>Postamble:</b>	POST_TESTER_RELEASE_VB
<b>NOTE:</b>	The requirements on the presence of parameters are implicitly posed by the PDU presentation conventions defined in clause 6.4.

<b>UBS2_FT_OUT_TL_SUBMIT_07</b>	
<b>Purpose:</b>	Verify that the SM-TE, if the SM contains Data instead of a text message, sends an SMS_SUBMIT TL message containing, after the two bytes expressing the TL message length, the following parameters in the following order: Media Identifier (with value "DATA"), Firmware Version, SMS Provider Identifier, Data Information, Calling Terminal Identity, Called Line Identity, Called Terminal Identity and Notify. After these parameters the parameters: Public Key, Replace Short Message Type and Validity Period may be present. Verify also that the SMS_SUBMIT TL message does not contain other parameters.
<b>Requirements refs:</b>	B.2.1.1, table B.2.6
<b>Selection Cond.:</b>	Sel_OutgToData
<b>Preamble:</b>	PRE_INIT
<b>Test description:</b>	O!OUTGOING_CALL_req(MEDIAID = DATA) CC?OUTG_CALL_ind CC!OUTG_CALL_resp FS?SMS_SUBMIT(Media Identifier = "DATA") (see note) FS!SMS_SUBMIT_REP(Response Type = "CONFIRM")
<b>Pass criteria:</b>	SMS_SUBMIT TL message received, where the Media Identifier is "DATA", all mandatory parameters are present, any optional parameters may be present and the order of received parameters is as specified in the protocol. No other parameter is present.
<b>Postamble:</b>	POST_TESTER_RELEASE_VB
<b>NOTE:</b>	The requirements on the presence of parameters are implicitly posed by the PDU presentation conventions defined in clause 6.4.

<b>UBS2_FT_OUT_TL_SUBMIT_08</b>	
<b>Purpose:</b>	Verify that the SM-TE, in the "Memory Full" state, after the deletion by the user of one or more SMs stored in the SM-TE requests the delivery of new SMs stored in the SM-SC (i.e. establishes automatically or after a user indication an SMS call to the SM-SC and sends the SM-TE_STATUS TL message containing the following parameters in the following order: Firmware Version, SMS Provider Identifier, Calling Terminal Identity and SM-TE Resources (with value: "message memory resources are available").
<b>Requirements refs:</b>	B.2.1.6, table B.2.13
<b>Selection Cond.:</b>	Sel_SmTeStatus
<b>Preamble:</b>	PRE_MEM_FULL
<b>Test description:</b>	O!EMPTY_MEM_req [TSPX_SM_TE_STATUS_CALL AND TSPX_AUTOMATIC_SM_TE_STATUS_CALL] CC?OUTG_CALL_ind CC!OUTG_CALL_resp FS?SM-TE_STATUS(SM-TE Resources = "message memory resources are available") FS!SMS_SUBMIT_REP(Response Type = "CONFIRM") CC?CALL_RELEASE_ind [TSPX_SM_TE_STATUS_CALL AND (NOT TSPX_AUTOMATIC_SM_TE_STATUS_CALL)] O?EMPTY_MEM_ind(MANUALSTA = TRUE) O!OUTG_SM_TE_STATUS_req CC?OUTG_CALL_ind CC!OUTG_CALL_resp FS?SM-TE_STATUS(SM-TE Resources = "message memory resources are available") FS!SMS_SUBMIT_REP(Response Type = "CONFIRM") CC?CALL_RELEASE_ind
<b>Pass criteria:</b>	SM-TE_STATUS message received, all mandatory parameters are present, the SM-TE Resources value is "message memory resources are available" and the order of received parameters is as specified in the protocol. No other parameter is present.
<b>Postamble:</b>	None

<b>UBS2_FT_OUT_TL_SUBMIT_09</b>	
<b>Purpose:</b>	Verify that, if the SM to be sent contains an SM Replace indication, the SM-TE sends an SMS_SUBMIT TL message containing the "Replace Short Message Type" parameter.
<b>Requirements refs:</b>	B.2.1.1, table B.2.1
<b>Selection Cond.:</b>	Sel_OutgSMReplace
<b>Preamble:</b>	PRE_INIT
<b>Test description:</b>	O!OUTGOING_CALL_req(MEDIAID = ANY, SMREPL = TRUE) (see note) CC?OUTG_CALL_ind CC!OUTG_CALL_resp FS?SMS_SUBMIT(Media Identifier = (SMS or VOICE or DATA), Replace Short Message Type indicator = ?) FS!SMS_SUBMIT_REP(Response Type = "CONFIRM")
<b>Pass criteria:</b>	The SM received has Media Identifier value SMS or VOICE or DATA and contains the "Replace Short Message Type" parameter with any Replace Short Message Type parameter value.
<b>Postamble:</b>	POST_TESTER_RELEASE_VB
<b>NOTE:</b> Applicable Media Identifiers are only SMS, VOICE and DATA.	

<b>UBS2_FT_OUT_TL_SUBMIT_10</b>	
<b>Purpose:</b>	Verify that, if the user indicates the Validity Period of the SM to be sent, the value chosen by the user corresponds to the "Validity Period" parameter value in the SMS_SUBMIT TL message sent by the SM-TE.
<b>Requirements refs:</b>	B.2.1.1, table B.2.1
<b>Selection Cond.:</b>	Sel_ValidityPeriod
<b>Preamble:</b>	PRE_INIT
<b>Test description:</b>	O!OUTGOING_CALL_req(MEDIAID = ANY, VALPERIOD = TRUE) CC?OUTG_CALL_ind CC!OUTG_CALL_resp FS?SMS_SUBMIT(Media Identifier = ANY, Validity-Period = TSPX_VALID_PERIOD_RX1) FS!SMS_SUBMIT_REP(Response Type = "CONFIRM")
<b>Pass criteria:</b>	The SM received contains the "Validity-Period" parameter with value equal to TSPX_VALID_PERIOD_RX1, which contains the validity period requested to be entered by the user in the encoded form defined in table B.2.35 of ES 201 912 [1].
<b>Postamble:</b>	POST_TESTER_RELEASE_VB

<b>UBS2_FT_OUT_TL_SUBMIT_11</b>	
<b>Purpose:</b>	Verify that the value chosen by the user for the destination SME corresponds to the "Called Terminal Identity" parameter value in the SMS_SUBMIT TL message sent by the SM-TE.
<b>Requirements refs:</b>	Clauses 6.5.7 and B.2.2.12, table B.2.28
<b>Selection Cond.:</b>	
<b>Preamble:</b>	PRE_INIT
<b>Test description:</b>	O!OUTGOING_CALL_req(MEDIAID = "SMS" or "VOICE" or "DATA" , CLD_TEI = TSPX_CLD_TEI_RX1) CC?OUTG_CALL_ind CC!OUTG_CALL_resp FS?SMS_SUBMIT(Media Identifier = "SMS" or "VOICE" or "DATA" , Called Terminal Equipment Identity = TSPX_CLD_TEI_RX1) FS!SMS_SUBMIT_REP(Response Type = "CONFIRM")
<b>Pass criteria:</b>	The SM received contains the "Called Terminal Identity" parameter with Called Terminal Equipment Identity value equal to TSPX_CLD_TEI_RX1, which is the Called Terminal Equipment Identity requested to be entered by the user.
<b>Postamble:</b>	POST_TESTER_RELEASE_VB

<b>UBS2_FT_OUT_TL_SUBMIT_12</b>	
<b>Purpose:</b>	Verify that, in case the user does not choose any value for the destination SME, the Called Terminal Equipment Identity field inside the "Called Terminal Identity" parameter value in the SMS_SUBMIT TL message sent by the SM-TE is set to "1" (default value).
<b>Requirements refs:</b>	Clauses 6.5.7 and B.2.2.12, table B.2.28
<b>Selection Cond.:</b>	
<b>Preamble:</b>	PRE_INIT
<b>Test description:</b>	O!OUTGOING_CALL_req(MEDIAID = "SMS" or "VOICE" or "DATA" , CLD_TEI = "Do not choose a value ("FF"h)") CC?OUTG_CALL_ind CC!OUTG_CALL_resp FS?SMS_SUBMIT(Media Identifier = "SMS" or "VOICE" or "DATA" , Called Terminal Equipment Identity = "1"h) FS!SMS_SUBMIT_REP(Response Type = "CONFIRM")
<b>Pass criteria:</b>	The SM received contains the Called Terminal Equipment Identity field inside the "Called Terminal Identity" parameter with value equal to "1"h (Called Terminal Equipment Identity sent by default).
<b>Postamble:</b>	POST_TESTER_RELEASE_VB

<b>UBS2_FT_OUT_TL_SUBMIT_13</b>	
<b>Purpose:</b>	Verify that the SM-TE, if the user has requested a status report for an SM addressed to an SM-TE, sends an SMS_SUBMIT TL message with Notify parameter value: "Status report via SMS required" and a Notification number value N (less than 8192), and if the user has requested afterwards a status report for a second SM addressed to an SM-TE, sends an SMS_SUBMIT TL message with Notify parameter value: "Status report via SMS required" and a Notification number value N+1 (0 if N = 8191).
<b>Requirements refs:</b>	Clauses 6.5.7 and B.2.1.1, table B.2.1; B.2.2.13, table B.2.29
<b>Selection Cond.:</b>	Sel_StatusRepReq
<b>Preamble:</b>	PRE_INIT
<b>Test description:</b>	<p>O!OUTGOING_CALL_req(MEDIAID = SMS, STATUSREPREQ = 1)  CC?OUTG_CALL_ind  CC!OUTG_CALL_resp  FS?SMS_SUBMIT(Media Identifier = SMS, Notify = "status report via SMS required", Notification number)  (see note 1)  FS!SMS_SUBMIT_REP(Response Type = "CONFIRM")  CC?CALL_RELEASE_ind  O!EMPTY_MEM_req  [TSPX_SM_TE_STATUS_CALL AND TSPX_AUTOMATIC_SM_TE_STATUS_CALL]  CC?OUTG_CALL_ind  CC!OUTG_CALL_resp  FS?SM-TE_STATUS(SM-TE Resources = "message memory resources are available")  FS!SMS_SUBMIT_REP(Response Type = "CONFIRM")  CC?CALL_RELEASE_ind  O?EMPTY_MEM_ind(MANUALSTA = FALSE)  (see note 2)  [TSPX_SM_TE_STATUS_CALL AND (NOT TSPX_AUTOMATIC_SM_TE_STATUS_CALL)]  O?EMPTY_MEM_ind(MANUALSTA = TRUE)  (see note 3)  O!OUTG_SM_TE_STATUS_req  CC?OUTG_CALL_ind  CC!OUTG_CALL_resp  FS?SM-TE_STATUS(SM-TE Resources = "message memory resources are available")  FS!SMS_SUBMIT_REP(Response Type = "CONFIRM")  CC?CALL_RELEASE_ind  O?EMPTY_MEM_ind(MANUALSTA = FALSE)  (see note 4)  [NOT TSPX_SM_TE_STATUS_CALL]  O?EMPTY_MEM_ind  O!OUTGOING_CALL_req(MEDIAID = SMS, STATUSREPREQ = 1)  CC?OUTG_CALL_ind  CC!OUTG_CALL_resp  FS?SMS_SUBMIT(Media Identifier = SMS, Notify = "status report via SMS required",  (Notification number +1) modulo 8192)  (see note 5)  FS!SMS_SUBMIT_REP(Response Type = "CONFIRM")</p>
<b>Pass criteria:</b>	Two SMS_SUBMIT TL messages received, where the status report request indicator value is "status report via SMS required" and the Notification number value of the second SMS_SUBMIT is equal to the notification number of the first SMS_SUBMIT plus 1 modulo 8192
<b>Postamble:</b>	POST_TESTER_RELEASE_VB
<p>NOTE 1: The notification number is saved.  NOTE 2: If the SM-TE, before the O!EMPTY_MEM_req ASP, was not in the "Memory Full" state, the operator indicates to the tester that the memory is cleared and no SM TE_STATUS procedure is performed.  NOTE 3: The operator indicates to the tester that the memory is cleared and that he will initiate the SM-TE_STATUS procedure manually after the O!OUTG_SM_TE_STATUS_req ASP.  NOTE 4: If the SM-TE, before the O!EMPTY_MEM_req ASP, was not in the "Memory Full" state, the operator indicates to the tester that the memory is cleared and no SM TE_STATUS procedure is performed.  NOTE 5: the notification number is equal to the previously saved notification number plus 1 modulo 8192.</p>	

<b>UBS2_FT_OUT_TL_SUBMIT_14</b>	
<b>Purpose:</b>	Verify that the SM-TE, if the user has not requested a status report for an SM addressed to an SM-TE, sends an SMS_SUBMIT TL message with Notify parameter value: "Status report not required" and a Notification number value 0.
<b>Requirements refs:</b>	Clauses 6.5.7 and B.2.1.1, table B.2.1; B.2.2.13, table B.2.29
<b>Selection Cond.:</b>	
<b>Preamble:</b>	PRE_INIT
<b>Test description:</b>	O!OUTGOING_CALL_req(MEDIAID = SMS, STATUSREPREQ = 0) CC?OUTG_CALL_ind CC!OUTG_CALL_resp FS?SMS_SUBMIT(Media Identifier = SMS, Notify = "status report not required", Notification number =0) FS!SMS_SUBMIT_REP(Response Type = "CONFIRM")
<b>Pass criteria:</b>	SMS_SUBMIT TL message received, where the status report request indicator value is "status report not required" and the Notification number value is 0.
<b>Postamble:</b>	POST_TESTER_RELEASE_VB

<b>UBS2_FT_OUT_TL_SUBMIT_15</b>	
<b>Purpose:</b>	Verify that, if the user has requested, while composing the SM, the CLI privacy, the bit 4 of the "Calling Terminal Identity" parameter value in the SMS_SUBMIT TL message sent by the SM-TE is set to "1".
<b>Requirements refs:</b>	Clauses 6.5.5 and B.2.2.8, table B.2.24
<b>Selection Cond.:</b>	Sel_CliPrivacyReq
<b>Preamble:</b>	PRE_INIT
<b>Test description:</b>	O!OUTGOING_CALL_req(MEDIAID = ANY, CLIR = TRUE) CC?OUTG_CALL_ind CC!OUTG_CALL_resp FS?SMS_SUBMIT(Media Identifier = ANY, Privacy = "1"b) FS!SMS_SUBMIT_REP(Response Type = "CONFIRM")
<b>Pass criteria:</b>	SMS_SUBMIT TL message received, where any defined Media Identifier may be used, and the Privacy value (bit 4 of the "Calling Terminal Identity" parameter value) is "1".
<b>Postamble:</b>	POST_TESTER_RELEASE_VB

<b>UBS2_FT_OUT_TL_SUBMIT_16</b>	
<b>Purpose:</b>	Verify that, in case the SM is addressed to an SM-TE, the text characters typed by the user are coded accordingly to the reference character table and put as the Display Information parameter content into the SMS_SUBMIT TL message sent by the SM-TE.
<b>Requirements refs:</b>	B.2.1.1, table B.2.1, B.2.24, tables B.2.18 and B.2.19
<b>Selection Cond.:</b>	Sel_OutgToSM_TE
<b>Preamble:</b>	PRE_INIT
<b>Test description:</b>	O!OUTGOING_CALL_req(MEDIAID = ANY, DISPLAYINF = 1) CC?OUTG_CALL_ind CC!OUTG_CALL_resp FS?SMS_SUBMIT(Media Identifier = ANY, Display Information = "the quick brown fox jumps over the lazy dog") FS!SMS_SUBMIT_REP(Response Type = "CONFIRM")
<b>Pass criteria:</b>	SMS_SUBMIT TL message received, where any defined Media Identifier may be used, and the Display Information is "the quick brown fox jumps over the lazy dog", which has been requested to be entered by the user.
<b>Postamble:</b>	POST_TESTER_RELEASE_VB

<b>UBS2_FT_OUT_TL_SUBMIT_17</b>	
<b>Purpose:</b>	Verify that, if the user adds a Public Key to protect the SM to be sent, the value chosen by the user corresponds to the "Public Key" parameter value in the SMS_SUBMIT TL message sent by the SM-TE.
<b>Requirements refs:</b>	6.5.7 and B.2.2.14, table B.2.30
<b>Selection Cond.:</b>	Sel_PublicKey
<b>Preamble:</b>	PRE_INIT
<b>Test description:</b>	O!OUTGOING_CALL_req(MEDIAID = ANY, PUKEY = TRUE) CC?OUTG_CALL_ind CC!OUTG_CALL_resp FS?SMS_SUBMIT(Media Identifier = ANY, Public Key = TSPX_PUBL_KEY_RX1) FS!SMS_SUBMIT_REP(Response Type = "CONFIRM")
<b>Pass criteria:</b>	SMS_SUBMIT TL message received, where any defined Media Identifier may be used, and the "Public Key" parameter is present with public key value equal to TSPX_PUBL_KEY_RX1, which has been requested to be used.
<b>Postamble:</b>	POST_TESTER_RELEASE_VB

<b>UBS2_FT_OUT_TL_SUBREP_01</b>	
<b>Purpose:</b>	Verify that the SM-TE, after having received an SMS_SUBMIT_REP TL message, with "Response Type" parameter value "Confirm", in response to an SMS_SUBMIT TL message, gives an indication to the user that the SM sent was accepted by the SM-SC.
<b>Requirements refs:</b>	B.2.1.4, table B.2.11, B.2.2.16, table B.2.32, B.2.1.1
<b>Selection Cond.:</b>	Sel_InformUserSubmissPos
<b>Preamble:</b>	PRE_OUTG_MEDIAID_ANY
<b>Test description:</b>	FS!SMS_SUBMIT_REP(Response Type = "CONFIRM") CC?CALL_RELEASE_ind O!SUBM_RESULT_VERIF_req(SUBM_RES = "CONFIRM") O?SUBM_RESULT_VERIF_conf(SUBM_RES = 0)
<b>Pass criteria:</b>	The operator confirms that the "accepted" indication was provided to the user.
<b>Postamble:</b>	None

<b>UBS2_FT_OUT_TL_SUBREP_02</b>	
<b>Purpose:</b>	Verify that the SM-TE, after having received an SMS_SUBMIT_REP TL message, with "Response Type" parameter value "Reject (Generic)", in response to an SMS_SUBMIT TL message, gives an indication to the user that the SM sent was rejected by the SM-SC (in case the terminal makes several submission attempts, verify that the indication is given to the user at least after the end of the last attempt). Verify also that the rejection cause, if indicated too, is correct.
<b>Requirements refs:</b>	B.2.1.4, table B.2.11; B.2.2.16, table B.2.32; B.2.1.1, table B.2.5
<b>Selection Cond.:</b>	Sel_InformUserSubmissNeg
<b>Preamble:</b>	PRE_OUTG_MEDIAID_ANY
<b>Test description:</b>	FS!SMS_SUBMIT_REP(Response Type = "REJECT (Generic)") Number-of-actual-reattempts = 0 While Number-of-actual-reattempts < TSPX_NUM_REATTEMPTS CC?CALL_RELEASE_ind CC?OUTG_CALL_ind CC!OUTG_CALL_resp FS?SMS-SUBMIT(same as received for the first time) FS!SMS-SUBMIT-REPORT(Response Type = "REJECT (Generic)") Increase Number-of-actual-reattempts by 1 End While CC?CALL_RELEASE_ind O!SUBM_RESULT_VERIF_req(SUBM_RES = "REJECT (Generic)") O?SUBM_RESULT_VERIF_conf(SUBM_RES = 0)
<b>Pass criteria:</b>	The operator confirms that an indication was provided to the user that the SM sent was rejected by the SM-SC. The operator confirms also, if a rejection cause is provided to the user, that the indicated cause is compatible with the rejection reason "REJECT (Generic)".
<b>Postamble:</b>	None

<b>UBS2_FT_OUT_TL_SUBREP_03</b>	
<b>Purpose:</b>	Verify that the SM-TE, after having received an SMS_SUBMIT_REP TL message, with "Response Type" parameter value "Reject (E-mail address)", in response to an SMS_SUBMIT TL message with "Media Identifier" parameter value equal to "E-mail", gives an indication to the user that the SM sent was rejected by the SM-SC (in case the terminal makes several submission attempts, verify that the indication is given to the user at least after the end of the last attempt). Verify also that the rejection cause, if indicated too, is correct.
<b>Requirements refs:</b>	B.2.1.4, table B.2.11; B.2.2.16, table B.2.32; B.2.1.1, table B.2.5
<b>Selection Cond.:</b>	Sel_ResponseRejectEmail
<b>Preamble:</b>	PRE_INIT
<b>Test description:</b>	O!OUTGOING_CALL_req(MEDIAID = E-Mail) CC?OUTG_CALL_ind CC!OUTG_CALL_resp FS?SMS_SUBMIT(Media Identifier = E-Mail) FS!SMS_SUBMIT_REP(Response Type = "REJECT (E-mail address)") Number-of-actual-reattempts = 0 While Number-of-actual-reattempts < TSPX_NUM_REATTEMPTS CC?CALL_RELEASE_ind CC?OUTG_CALL_ind CC!OUTG_CALL_resp FS?SMS-SUBMIT(same as received for the first time) FS!SMS-SUBMIT-REPORT(Response Type = "REJECT (E-mail address)") Increase Number-of-actual-reattempts by 1 End While CC?CALL_RELEASE_ind O!SUBM_RESULT_VERIF_req(SUBM_RES = "REJECT (E-mail address)") O?SUBM_RESULT_VERIF_conf(SUBM_RES = 0)
<b>Pass criteria:</b>	The operator confirms that an indication was provided to the user that the SM sent was rejected by the SM-SC. The operator confirms also, if a rejection cause is provided to the user, that the indicated cause is compatible with the rejection reason "REJECT (E-mail address)".
<b>Postamble:</b>	None

<b>UBS2_FT_OUT_TL_SUBREP_04</b>	
<b>Purpose:</b>	Verify that the SM-TE, after having received an SMS_SUBMIT_REP TL message, with "Response Type" parameter value "Reject (Message too long)", in response to an SMS_SUBMIT TL message, gives an indication to the user that the SM sent was rejected by the SM-SC (in case the terminal makes several submission attempts, verify that the indication is given to the user at least after the end of the last attempt). Verify also that the rejection cause, if indicated too, is correct.
<b>Requirements refs:</b>	B.2.1.4, table B.2.11; B.2.2.16, table B.2.32; B.2.1.1
<b>Selection Cond.:</b>	Sel_InformUserSubmissNeg
<b>Preamble:</b>	PRE_OUTG_MEDIAID_ANY
<b>Test description:</b>	FS!SMS_SUBMIT_REP(Response Type = "REJECT (Message too long)") Number-of-actual-reattempts = 0 While Number-of-actual-reattempts < TSPX_NUM_REATTEMPTS CC?CALL_RELEASE_ind CC?OUTG_CALL_ind CC!OUTG_CALL_resp FS?SMS-SUBMIT(same as received for the first time) FS!SMS-SUBMIT-REPORT(Response Type = "REJECT (Message too long)") Increase Number-of-actual-reattempts by 1 End While CC?CALL_RELEASE_ind O!SUBM_RESULT_VERIF_req(SUBM_RES = "REJECT (Message too long)") O?SUBM_RESULT_VERIF_conf(SUBM_RES = 0)
<b>Pass criteria:</b>	The operator confirms that an indication was provided to the user that the SM sent was rejected by the SM-SC. The operator confirms also, if a rejection cause is provided to the user, that the indicated cause is compatible with the rejection reason "REJECT (Message too long)".
<b>Postamble:</b>	None

<b>UBS2_FT_OUT_TL_SUBREP_05</b>	
<b>Purpose:</b>	Verify that the SM-TE, after having received an SMS_SUBMIT_REP TL message, with "Response Type" parameter value "Reject (wrong parameter)", in response to an SMS_SUBMIT TL message, gives an indication to the user that the SM sent was rejected by the SM-SC (in case the terminal makes several submission attempts, verify that the indication is given to the user at least after the end of the last attempt). Verify also that the rejection cause, if indicated too, is correct.
<b>Requirements refs:</b>	B.2.1.4, table B.2.11; B.2.2.16, table B.2.32; B.2.1.1
<b>Selection Cond.:</b>	Sel_InformUserSubmissNeg
<b>Preamble:</b>	PRE_OUTG_MEDIAID_ANY
<b>Test description:</b>	FS!SMS_SUBMIT_REP(Response Type = REJECT (wrong parameter)) Number-of-actual-reattempts = 0 While Number-of-actual-reattempts < TSPX_NUM_REATTEMPTS CC?CALL_RELEASE_ind CC?OUTG_CALL_ind CC!OUTG_CALL_resp FS?SMS-SUBMIT(same as received for the first time) FS!SMS-SUBMIT-REPORT(Response Type = "REJECT (wrong parameter)") Increase Number-of-actual-reattempts by 1 End While CC?CALL_RELEASE_ind O!SUBM_RESULT_VERIF_req(SUBM_RES = "REJECT (wrong parameter)") O?SUBM_RESULT_VERIF_conf(SUBM_RES = 0)
<b>Pass criteria:</b>	The operator confirms that an indication was provided to the user that the SM sent was rejected by the SM-SC. The operator confirms also, if a rejection cause is provided to the user, that the indicated cause is compatible with the rejection reason "REJECT (wrong parameter)".
<b>Postamble:</b>	None

<b>UBS2_FT_OUT_TL_SUBREP_06</b>	
<b>Purpose:</b>	Verify that the SM-TE, after having received an SMS_SUBMIT_REP TL message, with "Response Type" parameter value "Reject (unwanted or missing parameter)", in response to an SMS_SUBMIT TL message, gives an indication to the user that the SM sent was rejected by the SM-SC (in case the terminal makes several submission attempts, verify that the indication is given to the user at least after the end of the last attempt). Verify also that the rejection cause, if indicated too, is correct.
<b>Requirements refs:</b>	B.2.1.4, table B.2.11; B.2.2.16, table B.2.32; B.2.1.1
<b>Selection Cond.:</b>	Sel_InformUserSubmissNeg
<b>Preamble:</b>	PRE_OUTG_MEDIAID_ANY
<b>Test description:</b>	FS!SMS_SUBMIT_REP(Response Type = "REJECT (unwanted or missing parameter)") Number-of-actual-reattempts = 0 While Number-of-actual-reattempts < TSPX_NUM_REATTEMPTS CC?CALL_RELEASE_ind CC?OUTG_CALL_ind CC!OUTG_CALL_resp FS?SMS-SUBMIT(same as received for the first time) FS!SMS-SUBMIT-REPORT(Response Type = "REJECT (unwanted or missing parameter)") Increase Number-of-actual-reattempts by 1 End While CC?CALL_RELEASE_ind O!SUBM_RESULT_VERIF_req(SUBM_RES = "REJECT (unwanted or missing parameter)") O?SUBM_RESULT_VERIF_conf(SUBM_RES = 0)
<b>Pass criteria:</b>	The operator confirms that an indication was provided to the user that the SM sent was rejected by the SM-SC. The operator confirms also, if a rejection cause is provided to the user, that the indicated cause is compatible with the rejection reason "REJECT (unwanted or missing parameter)".
<b>Postamble:</b>	None



<b>UBS2_FT_OUT_TL_SUBREP_07</b>	
<b>Purpose:</b>	Verify that the SM-TE, after having received an SMS_SUBMIT_REP TL message, with "Response Type" parameter value "Reject (feature not available)", in response to an SMS_SUBMIT TL message, gives an indication to the user that the SM sent was rejected by the SM-SC (in case the terminal makes several submission attempts, verify that the indication is given to the user at least after the end of the last attempt). Verify also that the rejection cause, if indicated too, is correct.
<b>Requirements refs:</b>	B.2.1.4, table B.2.11; B.2.2.16, table B.2.32; B.2.1.1
<b>Selection Cond.:</b>	Sel_InformUserSubmissNeg
<b>Preamble:</b>	PRE_OUTG_MEDIAID_ANY
<b>Test description:</b>	FS!SMS_SUBMIT_REP(Response Type = "REJECT (feature not available)") Number-of-actual-reattempts = 0 While Number-of-actual-reattempts < TSPX_NUM_REATTEMPTS CC?CALL_RELEASE_ind CC?OUTG_CALL_ind CC!OUTG_CALL_resp FS?SMS-SUBMIT(same as received for the first time) FS!SMS-SUBMIT-REPORT(Response Type = "REJECT (feature not available)") Increase Number-of-actual-reattempts by 1 End While CC?CALL_RELEASE_ind O!SUBM_RESULT_VERIF_req(SUBM_RES = "REJECT (feature not available)") O?SUBM_RESULT_VERIF_conf(SUBM_RES = 0)
<b>Pass criteria:</b>	The operator confirms that an indication was provided to the user that the SM sent was rejected by the SM-SC. The operator confirms also, if a rejection cause is provided to the user, that the indicated cause is compatible with the rejection reason "REJECT (feature not available)".
<b>Postamble:</b>	None

<b>UBS2_FT_OUT_TL_SUBREP_08</b>	
<b>Purpose:</b>	Verify that the SM-TE, after having received an SMS_SUBMIT_REP TL message, with "Response Type" parameter value "Reject (feature not active)", in response to an SMS_SUBMIT TL message, gives an indication to the user that the SM sent was rejected by the SM-SC (in case the terminal makes several submission attempts, verify that the indication is given to the user at least after the end of the last attempt). Verify also that the rejection cause, if indicated too, is correct.
<b>Requirements refs:</b>	B.2.1.4, table B.2.11; B.2.2.16, table B.2.32; B.2.1.1
<b>Selection Cond.:</b>	Sel_InformUserSubmissNeg
<b>Preamble:</b>	PRE_OUTG_MEDIAID_ANY
<b>Test description:</b>	FS!SMS_SUBMIT_REP(Response Type = "REJECT (feature not active)") Number-of-actual-reattempts = 0 While Number-of-actual-reattempts < TSPX_NUM_REATTEMPTS CC?CALL_RELEASE_ind CC?OUTG_CALL_ind CC!OUTG_CALL_resp FS?SMS-SUBMIT(same as received for the first time) FS!SMS-SUBMIT-REPORT(Response Type = "REJECT (feature not active)") Increase Number-of-actual-reattempts by 1 End While CC?CALL_RELEASE_ind O!SUBM_RESULT_VERIF_req(SUBM_RES = "REJECT (feature not active)") O?SUBM_RESULT_VERIF_conf(SUBM_RES = 0)
<b>Pass criteria:</b>	The operator confirms that an indication was provided to the user that the SM sent was rejected by the SM-SC. The operator confirms also, if a rejection cause is provided to the user, that the indicated cause is compatible with the rejection reason "REJECT (feature not active)".
<b>Postamble:</b>	None

<b>UBS2_FT_OUT_TL_SUBREP_09</b>	
<b>Purpose:</b>	Verify that the SM-TE, after having received an SMS_SUBMIT_REP TL message, with "Response Type" parameter value "Reject (destination SMS terminal equipment missing)", in response to an SMS_SUBMIT TL message, gives an indication to the user that the SM sent was rejected by the SM-SC (in case the terminal makes several submission attempts, verify that the indication is given to the user at least after the end of the last attempt). Verify also that the rejection cause, if indicated too, is correct.
<b>Requirements refs:</b>	B.2.1.4, table B.2.11; B.2.2.16, table B.2.32; B.2.1.1
<b>Selection Cond.:</b>	Sel_InformUserSubmissNeg
<b>Preamble:</b>	PRE_OUTG_MEDIAID_ANY
<b>Test description:</b>	FS!SMS_SUBMIT_REP(Response Type = "REJECT (destination SMS terminal equipment missing)") Number-of-actual-reattempts = 0 While Number-of-actual-reattempts < TSPX_NUM_REATTEMPTS CC?CALL_RELEASE_ind CC?OUTG_CALL_ind CC!OUTG_CALL_resp FS?SMS-SUBMIT(same as received for the first time) FS!SMS-SUBMIT-REPORT(Response Type = "REJECT (destination SMS terminal equipment missing)") Increase Number-of-actual-reattempts by 1 End While CC?CALL_RELEASE_ind O!SUBM_RESULT_VERIF_req(SUBM_RES = "REJECT (destination SMS terminal equipment missing)") O?SUBM_RESULT_VERIF_conf(SUBM_RES = 0)
<b>Pass criteria:</b>	The operator confirms that an indication was provided to the user that the SM sent was rejected by the SM-SC. The operator confirms also, if a rejection cause is provided to the user, that the indicated cause is compatible with the rejection reason "REJECT (destination SMS terminal equipment missing)".
<b>Postamble:</b>	None

## 7.2 Test purposes for Incoming SMS Call

### 7.2.1 Test purposes for Incoming SME Subaddressing

<b>UBS2_FT_INC_SUBADDR_01</b>	
<b>Purpose:</b>	Verify that, if the Called SME Subaddress value contained in the CLI information sent to establish the SMS call is different from the values of each SME defined in the receiving SM-TE, the SM-TE does not accept the SMS call.
<b>Requirements refs:</b>	Clauses 6.2.2 and 6.5.6, table 9
<b>Selection Cond.:</b>	
<b>Preamble:</b>	PRE_INIT
<b>Test description:</b>	CC!INC_CALL_req(SMEID = TSPX_SME_ID_UNDEFINED) Wait some seconds to ensure that the SM-TE does not accept the SMS call.
<b>Pass criteria:</b>	The VB connection is not established
<b>Postamble:</b>	None

<b>UBS2_FT_INC_SUBADDR_02</b>	
<b>Purpose:</b>	Verify that, if the Called SME Subaddress value contained in the CLI information sent to establish the SMS call is equal to one of the SME values defined in the receiving SM-TE, the SM-TE accepts the SMS call.
<b>Requirements refs:</b>	Clauses 6.2.2 and 6.5.6, table 9
<b>Selection Cond.:</b>	
<b>Preamble:</b>	PRE_INIT
<b>Test description:</b>	CC!INC_CALL_req CC?INC_CALL_conf
<b>Pass criteria:</b>	The VB connection is established
<b>Postamble:</b>	POST_TESTER_RELEASE_VB

## 7.2.2 Test purposes for Incoming SMS Call Reception

<b>UBS2_FT_INC_SMRECEPTION_01</b>	
<b>Purpose:</b>	Verify that the SM-TE correctly receives an SM originated by an SM-TE.
<b>Requirements refs:</b>	B.2.1.2, table B.2.7
<b>Selection Cond.:</b>	
<b>Preamble:</b>	PRE_CLEAR_MEM
<b>Test description:</b>	CC!INC_CALL_req CC?INC_CALL_conf (see note) FS!SMS_DELIVERY(Media Identifier = "SMS") FS?SMS_DELIVERY_REP CC!CALL_RELEASE_req O!SM_Reception_req O?SM_Reception_conf
<b>Pass criteria:</b>	The operator confirms that the new SM has been received by the SM-TE.
<b>Postamble:</b>	None
<b>NOTE:</b> The SM-TE_CAPABILITY message can be received in the CC?INC_CALL_conf ASP.	

<b>UBS2_FT_INC_SMRECEPTION_02</b>	
<b>Purpose:</b>	Verify that the SM-TE correctly receives an SM originated by an electronic mailbox.
<b>Requirements refs:</b>	B.2.1.2, table B.2.8
<b>Selection Cond.:</b>	Sel_BearerCapEmail
<b>Preamble:</b>	PRE_CLEAR_MEM
<b>Test description:</b>	CC!INC_CALL_req(BCAP=TRUE) CC?INC_CALL_conf FS?SM_TE_CAPABILITY(Bearer Capability(E-Mail media implementation="E-mail media implemented")) FS!SMS_DELIVERY(Media Identifier = "E-mail") FS?SMS_DELIVERY_REP CC!CALL_RELEASE_req O!SM_Reception_req O?SM_Reception_conf
<b>Pass criteria:</b>	The incoming SM is received by the SM-TE.
<b>Postamble:</b>	None

<b>UBS2_FT_INC_SMRECEPTION_03</b>	
<b>Purpose:</b>	Verify that the SM-TE correctly receives an SM containing Data instead of a text message.
<b>Requirements refs:</b>	B.2.1.2, table B.2.9
<b>Selection Cond.:</b>	Sel_BearerCapData
<b>Preamble:</b>	PRE_CLEAR_MEM
<b>Test description:</b>	CC!INC_CALL_req(BCAP=TRUE) CC?INC_CALL_conf FS?SM_TE_CAPABILITY(Bearer Capability(Data media implementation="Data media implemented")) FS!SMS_DELIVERY(Media Identifier = "DATA") FS?SMS_DELIVERY_REP CC!CALL_RELEASE_req O!SM_Reception_req O?SM_Reception_conf
<b>Pass criteria:</b>	The incoming SM is received by the SM-TE
<b>Postamble:</b>	None

<b>UBS2_FT_INC_SMRECEPTION_04</b>	
<b>Purpose:</b>	Verify that the SM-TE replaces a previously received SM with a new SM of the same type.
<b>Requirements refs:</b>	B.2.2.18, table B.2.34
<b>Selection Cond.:</b>	Sel_BearerCapSMReplace
<b>Preamble:</b>	PRE_CLEAR_MEM
<b>Test description:</b>	CC!INC_CALL_req(BCAP=TRUE) CC?INC_CALL_conf FS?SM_TE_CAPABILITY(Bearer Capability(SM Replace Service="SM Replace Service implemented")) FS!SMS_DELIVERY(Display Information = "Short message to be replaced", Replace Short Message Type = "Short Message Type 1") FS?SMS_DELIVERY_REP CC!CALL_RELEASE_req O!DISPL_INF_VERIF_req(TXT= "Short message to be replaced") O?DISPL_INF_VERIF_conf Wait a while CC!INC_CALL_req(BCAP=TRUE) CC?INC_CALL_conf FS?SM_TE_CAPABILITY(Bearer Capability(SM Replace Service="SM Replace Service implemented")) FS!SMS_DELIVERY(Display Information = "Replacing Short message", Replace Short Message Type = "Short Message Type 1") FS?SMS_DELIVERY_REP CC!CALL_RELEASE_req O!DISPL_INF_VERIF_req(TXT= "Replacing Short message", REPINFO= 1) O?DISPL_INF_VERIF_conf
<b>Pass criteria:</b>	The operator confirms that the first SM has been received with the specified text, and the second SM has been received with the specified text, replacing the first SM.
<b>Postamble:</b>	None

<b>UBS2_FT_INC_SMRECEPTION_05</b>	
<b>Purpose:</b>	Verify that the SM-TE correctly receives two SMS within the same SMS call.
<b>Requirements refs:</b>	6.2.2, paragraph 5
<b>Selection Cond.:</b>	Sel_BearerCapMoreSMS
<b>Preamble:</b>	PRE_CLEAR_MEM
<b>Test description:</b>	CC!INC_CALL_req(BCAP=TRUE) CC?INC_CALL_conf FS?SM_TE_CAPABILITY(Bearer Capability(More Messages Receiving in one connection="More Messages Receiving in one connection implemented")) FS!SMS_DELIVERY(Media Identifier = "SMS") FS?SMS_DELIVERY_REP FS!SMS_DELIVERY(Media Identifier = "SMS", TSPX_DISPL_TX2) FS?SMS_DELIVERY_REP CC!CALL_RELEASE_req O!SM_Reception2_req O?SM_Reception2_conf
<b>Pass criteria:</b>	The two SMS are received by the SM-TE.
<b>Postamble:</b>	None

<b>UBS2_FT_INC_SMRECEPTION_06</b>	
<b>Purpose:</b>	Verify that the SM-TE correctly receives an SM in which the number of text characters is equal to the maximum number of text characters that the SM-TE can receive.
<b>Requirements refs:</b>	B.2.2.17
<b>Selection Cond.:</b>	
<b>Preamble:</b>	PRE_CLEAR_MEM
<b>Test description:</b>	CC!INC_CALL_req CC?INC_CALL_conf [Either] FS?SM_TE_CAPABILITY(Bearer Capability(Display or Data Information Length implementation=TSPX_MAX_TEXT_LEN)) FS!SMS_DELIVERY(Display Information = TSPX_MAX_TEXT_CONTENTS) FS?SMS_DELIVERY_REP CC!CALL_RELEASE_req O!SM_Reception_req O?SM_Reception_conf [Or] FS!SMS_DELIVERY(Display Information = TSPX_MAX_TEXT_CONTENTS_640) FS?SMS_DELIVERY_REP CC!CALL_RELEASE_req O!SM_Reception_req O?SM_Reception_conf
<b>Pass criteria:</b>	The incoming SM is received by the SM-TE
<b>Postamble:</b>	None

### 7.2.3 Test purposes for Incoming SMS Call TL Formats and Contents

<b>UBS2_FT_INC_TL_VAL_01</b>	
<b>Purpose:</b>	Verify that the SM-TE sends an SMS_DELIVERY_REP TL message containing the "Response Type" parameter with value "Confirm", in response to a correct SMS_DELIVERY TL message with "Media identifier" parameter value equal to "SMS".
<b>Requirements refs:</b>	B.2.1.5, table B.2.12; B.2.2.16, table B.2.32; B.2.1.2
<b>Selection Cond.:</b>	
<b>Preamble:</b>	PRE_CLEAR_MEM
<b>Test description:</b>	CC!INC_CALL_req CC?INC_CALL_conf (see note) FS!SMS_DELIVERY(Media Identifier = "SMS") FS?SMS_DELIVERY_REP(Response Type = "CONFIRM")
<b>Pass criteria:</b>	SMS_DELIVERY_REP message received with value "Confirm".
<b>Postamble:</b>	POST_TESTER_RELEASE_VB
<b>NOTE:</b>	The SM-TE_CAPABILITY message can be received in the CC?INC_CALL_conf ASP.

<b>UBS2_FT_INC_TL_VAL_02</b>	
<b>Purpose:</b>	Verify that the SM-TE, receiving an SMS_DELIVERY TL message in which the Display Information value is the sequence of bytes: «74h 68h 65h 20h 71h 75h 69h 63h 6Bh 20h 62h 72h 6Fh 77h 6Eh 20h 66h 6Fh 78h 20h 6Ah 75h 6Dh 70h 73h 20h 6Fh 76h 65h 72h 20h 74h 68h 65h 20h 6Ch 61h 7Ah 79h 20h 64h 6Fh 67h», displays to the user, when reading the SM, the following text: "the quick brown fox jumps over the lazy dog".
<b>Requirements refs:</b>	Clauses B.2.1.2 and B.2.2.4, tables B.2.18 and B.2.19
<b>Selection Cond.:</b>	
<b>Preamble:</b>	PRE_CLEAR_MEM
<b>Test description:</b>	CC!INC_CALL_req CC?INC_CALL_conf Note: The SM-TE_CAPABILITY message can be received in the CC?INC_CALL_conf ASP FS!SMS_DELIVERY(Display Information = TSPX_DISPL_TX1) FS?SMS_DELIVERY_REP CC!CALL_RELEASE_req O!DISPL_INF_VERIF_req O?DISPL_INF_VERIF_conf
<b>Pass criteria:</b>	The received SM text displayed when reading the SM is the following: "the quick brown fox jumps over the lazy dog".
<b>Postamble:</b>	None

<b>UBS2_FT_INC_TL_VAL_03</b>	
<b>Purpose:</b>	Verify that the bit 3 of the Services Field byte of the "Bearer Capability" parameter in the SM-TE_CAPABILITY TL message sent by the SM-TE is set to "1" (reception of SMs originated by an electronic mailbox).
<b>Requirements refs:</b>	B.2.2.17, table B.2.33; B.2.1.7, table B.2.14
<b>Selection Cond.:</b>	Sel_BearerCapEmail
<b>Preamble:</b>	PRE_INIT
<b>Test description:</b>	CC!INC_CALL_req(BCAP=TRUE) CC?INC_CALL_conf FS?SM_TE_CAPABILITY(Bearer Capability(E-Mail media implementation="E-mail media implemented"))
<b>Pass criteria:</b>	SM-TE_CAPABILITY TL message received with bit 3 of the Services Field byte of the "Bearer Capability" parameter set to "1" (reception of SMs originated by an electronic mailbox).
<b>Postamble:</b>	POST_TESTER_RELEASE_VB

<b>UBS2_FT_INC_TL_VAL_04</b>	
<b>Purpose:</b>	Verify that the bit 4 of the Services Field byte of the "Bearer Capability" parameter in the SM-TE_CAPABILITY TL message sent by the SM-TE is set to "1" (reception of SMs containing Data instead of a text message).
<b>Requirements refs:</b>	B.2.2.17, table B.2.33; B.2.1.7, table B.2.14
<b>Selection Cond.:</b>	Sel_BearerCapData
<b>Preamble:</b>	PRE_INIT
<b>Test description:</b>	CC!INC_CALL_req(BCAP=TRUE) CC?INC_CALL_conf FS?SM_TE_CAPABILITY(Bearer Capability(Data media implementation="Data media implemented"))
<b>Pass criteria:</b>	SM-TE_CAPABILITY TL message received with bit 4 of the Services Field byte of the "Bearer Capability" parameter set to "1" (reception of SMs containing Data instead of a text message).
<b>Postamble:</b>	POST_TESTER_RELEASE_VB

<b>UBS2_FT_INC_TL_VAL_05</b>	
<b>Purpose:</b>	Verify that the bit 0 of the Services Field byte of the "Bearer Capability" parameter in the SM-TE_CAPABILITY TL message sent by the SM-TE is set to "1" (SM Replace service supported).
<b>Requirements refs:</b>	B.2.2.17, table B.2.33; B.2.1.7, table B.2.14
<b>Selection Cond.:</b>	Sel_BearerCapSMReplace
<b>Preamble:</b>	PRE_INIT
<b>Test description:</b>	CC!INC_CALL_req(BCAP=TRUE) CC?INC_CALL_conf FS?SM_TE_CAPABILITY(Bearer Capability(SM Replace Service="SM Replace Service implemented"))
<b>Pass criteria:</b>	SM-TE_CAPABILITY TL message received with bit 0 of the Services Field byte of the "Bearer Capability" parameter set to "1" (SM Replace service supported).
<b>Postamble:</b>	POST_TESTER_RELEASE_VB

<b>UBS2_FT_INC_TL_VAL_06</b>	
<b>Purpose:</b>	Verify that the bit 1 of the Services Field byte of the "Bearer Capability" parameter in the SM-TE_CAPABILITY TL message sent by the SM-TE is set to "1" (More Messaging Receiving in one connection service supported).
<b>Requirements refs:</b>	B.2.2.17, table B.2.33; B.2.1.7, table B.2.14
<b>Selection Cond.:</b>	Sel_BearerCapMoreSMs
<b>Preamble:</b>	PRE_INIT
<b>Test description:</b>	CC!INC_CALL_req(BCAP=TRUE) CC?INC_CALL_conf FS?SM_TE_CAPABILITY(Bearer Capability(More Messages Receiving in one connection="More Messages Receiving in one connection implemented"))
<b>Pass criteria:</b>	SM-TE_CAPABILITY TL message received with bit 0 of the Services Field byte of the "Bearer Capability" parameter set to "1" (More Messaging Receiving in one connection service supported).
<b>Postamble:</b>	POST_TESTER_RELEASE_VB

<b>UBS2_FT_INC_TL_VAL_07</b>	
<b>Purpose:</b>	Verify that the bit 2 of the Services Field byte of the "Bearer Capability" parameter in the SM-TE_CAPABILITY TL message sent by the SM-TE is set to "1" (Display Code Set extension supported).
<b>Requirements refs:</b>	B.2.2.17, table B.2.33; B.2.1.7, table B.2.14
<b>Selection Cond.:</b>	Sel_BearerCapDisplayCodeSetExt
<b>Preamble:</b>	PRE_INIT
<b>Test description:</b>	CC!INC_CALL_req(BCAP=TRUE) CC?INC_CALL_conf FS?SM_TE_CAPABILITY(Bearer Capability(Display Code Set Extension = "Display Code Set extension implemented"))
<b>Pass criteria:</b>	SM-TE_CAPABILITY TL message received with bit 0 of the Services Field byte of the "Bearer Capability" parameter set to "1" (Display Code Set extension supported).
<b>Postamble:</b>	POST_TESTER_RELEASE_VB

<b>UBS2_FT_INC_TL_VAL_08</b>	
<b>Purpose:</b>	Verify that the SM-TE correctly displays the character "^" if the Display Information parameter in the received SMS_DELIVERY TL message contains the sequence 1Bh 14h.
<b>Requirements refs:</b>	B.2.2.4, tables B.2.18, B.2.19 and B.2.20
<b>Selection Cond.:</b>	Sel_BearerCapDisplayCodeSetExt
<b>Preamble:</b>	PRE_CLEAR_MEM
<b>Test description:</b>	CC!INC_CALL_req(BCAP=TRUE) CC?INC_CALL_conf FS?SM_TE_CAPABILITY(Bearer Capability(Display Code Set Extension = "Display Code Set extension implemented")) FS!SMS_DELIVERY(Display Information = "1B14"O) FS?SMS_DELIVERY_REP CC!CALL_RELEASE_req O!DISPL_INF_VERIF_req O?DISPL_INF_VERIF_conf
<b>Pass criteria:</b>	The received SM text displayed when reading the SM is the following: "^".
<b>Postamble:</b>	None

<b>UBS2_FT_INC_TL_INV_01</b>	
<b>Purpose:</b>	Verify that the SM-TE, if it receives an SMS_DELIVERY TL message (with "Media identifier" parameter value equal to "SMS") in which the TL message length value is wrong, rejects the SM (i.e. sends an SMS_DELIVERY_REP TL message containing the "Response Type" parameter with value "Reject (Generic)" or "Reject (Message too long)" or "Reject (Unwanted or missing parameter)" or "Reject (wrong parameter)").
<b>Requirements refs:</b>	B.2.1.2 table B.2.7, 6.3.3.1, B.2.1.5 table B.2.12, B.2.2.16 table B.2.32
<b>Selection Cond.:</b>	
<b>Preamble:</b>	PRE_CLEAR_MEM
<b>Test description:</b>	CC!INC_CALL_req CC?INC_CALL_conf Note: The SM-TE_CAPABILITY message can be received in the CC?INC_CALL_conf ASP FS!TRANSFER_INFO_MT_req(TL_LENGTH_IND = FALSE, PDU = SMS_DELIVERY(Media Identifier = "SMS")) FS?SMS_DELIVERY_REP(Response Type = "REJECT(Generic)" or "REJECT(Message too long)" or "REJECT (unwanted or missing parameter)" or "REJECT (wrong parameter)") CC!CALL_RELEASE_req
<b>Pass criteria:</b>	SMS_DELIVERY_REP message received with Response Type parameter value equal to "Reject (Generic)" or "Reject (Message too long)" or "Reject (Unwanted or missing parameter)" or "Reject (wrong parameter)".
<b>Postamble:</b>	None

<b>UBS2_FT_INC_TL_INV_02</b>	
<b>Purpose:</b>	Verify that the SM-TE, if it receives an SMS_DELIVERY TL message (with "Media identifier" parameter value equal to "SMS") in which the "Display Information" parameter name is set to "83h" instead of the correct value "13h", rejects the SM (i.e. sends an SMS_DELIVERY_REP TL message containing the "Response Type" parameter with value "Reject (unwanted or missing parameter)").
<b>Requirements refs:</b>	B.2.1.2, table B.2.7; B.2.2.4, table B.2.18; B.2.1.5, table B.2.12; B.2.2.16, table B.2.32
<b>Selection Cond.:</b>	
<b>Preamble:</b>	PRE_CLEAR_MEM
<b>Test description:</b>	CC!INC_CALL_req CC?INC_CALL_conf (see note) FS!SMS_DELIVERY(Unknown parameter (ID = "83"h, contents = TSPX_DISPL_TX1)) FS?SMS_DELIVERY_REP(Response Type = "REJECT (unwanted or missing parameter)") CC!CALL_RELEASE_req
<b>Pass criteria:</b>	SMS_DELIVERY_REP message received with Response Type parameter value equal to "Reject (Unwanted or missing parameter)".
<b>Postamble:</b>	None
NOTE: The SM-TE_CAPABILITY message can be received in the CC?INC_CALL_conf ASP.	

<b>UBS2_FT_INC_TL_INV_03</b>	
<b>Purpose:</b>	Verify that the SM-TE, if it receives an SMS_DELIVERY TL message (with "Media identifier" parameter value equal to "SMS") in which the "Media Identifier" parameter length is set to "00h00h", rejects the SM (i.e. sends an SMS_DELIVERY_REP TL message containing the "Response Type" parameter with value "Reject (wrong parameter)").
<b>Requirements refs:</b>	B.2.1.2, table B.2.7; B.2.2.4, table B.2.18; B.2.1.5, table B.2.12; B.2.2.16, table B.2.32
<b>Selection Cond.:</b>	
<b>Preamble:</b>	PRE_CLEAR_MEM
<b>Test description:</b>	CC!INC_CALL_req CC?INC_CALL_conf (see note) FS!SMS_DELIVERY(Media Identifier Length="0000"h) FS?SMS_DELIVERY_REP(Response Type = "REJECT (wrong parameter)") CC!CALL_RELEASE_req
<b>Pass criteria:</b>	SMS_DELIVERY_REP message received with Response Type parameter value equal to "Reject (wrong parameter)".
<b>Postamble:</b>	None
NOTE: The SM-TE_CAPABILITY message can be received in the CC?INC_CALL_conf ASP.	

<b>UBS2_FT_INC_TL_INV_04</b>	
<b>Purpose:</b>	Verify that the SM-TE, if it receives an SMS_DELIVERY TL message (with "Media identifier" parameter value equal to "SMS") in which the "Display Information" parameter is missing, rejects the SM (i.e. sends an SMS_DELIVERY_REP TL message containing the "Response Type" parameter with value "Reject (Unwanted or missing parameter)").
<b>Requirements refs:</b>	B.2.1.2 table B.2.7, B.2.2.4 table B.2.18, B.2.1.5 table B.2.12, B.2.2.16 table B.2.32
<b>Selection Cond.:</b>	
<b>Preamble:</b>	PRE_CLEAR_MEM
<b>Test description:</b>	CC!INC_CALL_req CC?INC_CALL_conf (see note) FS!SMS_DELIVERY(Display information missing) FS?SMS_DELIVERY_REP(Response Type = "REJECT (unwanted or missing parameter)") CC!CALL_RELEASE_req
<b>Pass criteria:</b>	SMS_DELIVERY_REP message received with Response Type parameter value equal to "Reject (Unwanted or missing parameter)".
<b>Postamble:</b>	None
NOTE: The SM-TE_CAPABILITY message can be received in the CC?INC_CALL_conf ASP.	



## 7.2.4 Test purposes for Incoming SMS Call Status Report Reception

<b>UBS2_FT_INC_STATUSREP_01</b>	
<b>Purpose:</b>	Verify that the SM-TE, after having received an SMS_STATUS_REP TL message containing the information concerning the outcome of an SM previously sent at the recipient, makes this information available to the user.
<b>Requirements refs:</b>	B.2.1.3, table B.2.10; B.2.2.4, table B.2.18; B.2.2.13, table B.2.29
<b>Selection Cond.:</b>	Sel_StatusRepReq
<b>Preamble:</b>	PRE_INIT
<b>Test description:</b>	<p>O!OUTGOING_CALL_req(MEDIAID = SMS, STATUSREPREQ = 1)  CC?OUTG_CALL_ind  CC!OUTG_CALL_resp  FS?SMS_SUBMIT(Media Identifier = SMS, Notify = "status report via SMS required", Notification number)  (See note 1)  FS!SMS_SUBMIT_REP(Response Type = "CONFIRM")  CC?CALL_RELEASE_ind  O!EMPTY_MEM_req  [TSPX_SM_TE_STATUS_CALL AND TSPX_AUTOMATIC_SM_TE_STATUS_CALL]    CC?OUTG_CALL_ind    CC!OUTG_CALL_resp    FS?SM-TE_STATUS(SM-TE Resources = "message memory resources are available")    FS!SMS_SUBMIT_REP(Response Type = "CONFIRM")    CC?CALL_RELEASE_ind    Wait a while    O?EMPTY_MEM_ind(MANUALSTA = FALSE)  (see note 2)  [TSPX_SM_TE_STATUS_CALL AND (NOT TSPX_AUTOMATIC_SM_TE_STATUS_CALL)]    O?EMPTY_MEM_ind(MANUALSTA = TRUE)  (see note 3)    O!OUTG_SM_TE_STATUS_req    CC?OUTG_CALL_ind    CC!OUTG_CALL_resp    FS?SM-TE_STATUS(SM-TE Resources = "message memory resources are available")    FS!SMS_SUBMIT_REP(Response Type = "CONFIRM")    CC?CALL_RELEASE_ind    Wait a while    O?EMPTY_MEM_ind(MANUALSTA = FALSE)  (See note 4)  [NOT TSPX_SM_TE_STATUS_CALL]    O?EMPTY_MEM_ind    CC!INC_CALL_req    CC?INC_CALL_conf  Note: The SM-TE_CAPABILITY message can be received in the CC?INC_CALL_conf ASP    FS!SMS_STATUS_REP(Display Information = TSPX_DISPL_TX3, Notification number)  (see note 5)    FS?SMS_DELIVERY_REP    CC!CALL_RELEASE_req    O!STAT_REP_INF_VERIF_req    O?STAT_REP_INF_VERIF_conf</p>
<b>Pass criteria:</b>	The information concerning the outcome at the recipient of an SM previously sent by the SM-TE is available to the user.
<b>Postamble:</b>	None
<p>NOTE 1: The notification number is saved.  NOTE 2: If the SM-TE, before the O!EMPTY_MEM_req ASP, was not in the "Memory Full" state, the operator indicates to the tester that the memory is cleared and no SM-TE_STATUS procedure is performed.  NOTE 3: The operator indicates to the tester that the memory is cleared and that he will initiate the SM-TE_STATUS procedure manually after the O!OUTG_SM_TE_STATUS_req ASP.  NOTE 4: If the SM-TE, before the O!EMPTY_MEM_req ASP, was not in the "Memory Full" state, the operator indicates to the tester that the memory is cleared and no SM-TE_STATUS procedure is performed.  NOTE 5: the notification number sent is equal to the one received in the SMS_SUBMIT message.</p>	

<b>UBS2_FT_INC_STATUSREP_02</b>	
<b>Purpose:</b>	Verify that the SM-TE, after having received an SMS_STATUS_REP TL message containing the notification number (in the "Notify" parameter), makes this information available to the user.
<b>Requirements refs:</b>	B.2.1.3, table B.2.10; B.2.2.13, table B.2.29
<b>Selection Cond.:</b>	Sel_IncNotificationNumber
<b>Preamble:</b>	PRE_INIT
<b>Test description:</b>	<p>O!OUTGOING_CALL_req(MEDIAID = SMS, STATUSREPREQ = 1)  CC?OUTG_CALL_ind  CC!OUTG_CALL_resp  FS?SMS_SUBMIT(Media Identifier = SMS, Notify = "status report via SMS required", Notification number)  (see note 1)  FS!SMS_SUBMIT_REP(Response Type = "CONFIRM")  CC?CALL_RELEASE_ind  O!EMPTY_MEM_req  [TSPX_SM_TE_STATUS_CALL AND TSPX_AUTOMATIC_SM_TE_STATUS_CALL]    CC?OUTG_CALL_ind    CC!OUTG_CALL_resp    FS?SM-TE_STATUS(SM-TE Resources = "message memory resources are available")    FS!SMS_SUBMIT_REP(Response Type = "CONFIRM")    CC?CALL_RELEASE_ind    Wait a while    O?EMPTY_MEM_ind(MANUALSTA = FALSE)  (see note 2)  [TSPX_SM_TE_STATUS_CALL AND (NOT TSPX_AUTOMATIC_SM_TE_STATUS_CALL)]    O?EMPTY_MEM_ind(MANUALSTA = TRUE)  (see note 3)    O!OUTG_SM_TE_STATUS_req    CC?OUTG_CALL_ind    CC!OUTG_CALL_resp    FS?SM-TE_STATUS(SM-TE Resources = "message memory resources are available")    FS!SMS_SUBMIT_REP(Response Type = "CONFIRM")    CC?CALL_RELEASE_ind    Wait a while    O?EMPTY_MEM_ind(MANUALSTA = FALSE)  (see note 4)  [NOT TSPX_SM_TE_STATUS_CALL]    O?EMPTY_MEM_ind    CC!INC_CALL_req    CC?INC_CALL_conf    FS!SMS_STATUS_REP(Display Information = TSPX_DISPL_TX3, Notification number)  (see note 5)    FS?SMS_DELIVERY_REP    CC!CALL_RELEASE_req    O!STAT_REP_NOTIF_NUM_VERIF_req    O?STAT_REP_NOTIF_NUM_VERIF_conf</p>
<b>Pass criteria:</b>	The information concerning the notification number is available to the user.
<b>Postamble:</b>	None
<p>NOTE 1: The notification number is saved.  NOTE 2: If the SM-TE, before the O!EMPTY_MEM_req ASP, was not in the "Memory Full" state, the operator indicates to the tester that the memory is cleared and no SM-TE_STATUS procedure is performed.  NOTE 3: The operator indicates to the tester that the memory is cleared and that he will initiate the SM-TE_STATUS procedure manually after the O!OUTG_SM_TE_STATUS_req ASP.  NOTE 4: If the SM-TE, before the O!EMPTY_MEM_req ASP, was not in the "Memory Full" state, the operator indicates to the tester that the memory is cleared and no SM-TE_STATUS procedure is performed.  NOTE 5: the notification number sent is equal to the one received in the SMS_SUBMIT message.</p>	

## 7.2.5 Test purposes for Incoming SMS Call Public Key

<b>UBS2_FT_INC_PUKEY_VAL_01</b>	
<b>Purpose:</b>	Verify that the SM-TE, if it receives an SM containing the Public Key parameter with a value corresponding to one of the values stored in the SM-TE, allows the user to access the received SM only after having entered the associated Password, if defined.
<b>Requirements refs:</b>	6.5.6, paragraph 3 and 4
<b>Selection Cond.:</b>	
<b>Preamble:</b>	PRE_CLEAR_MEM
<b>Test description:</b>	CC!INC_CALL_req CC?INC_CALL_conf (see note) FS!SMS_DELIVERY(Public Key = TSPX_PUBL_KEY_TX1) FS?SMS_DELIVERY_REP CC!CALL_RELEASE_req O!PUBL_KEY_PASSWD_req O?PUBL_KEY_PASSWD_conf
<b>Pass criteria:</b>	The sent SM is made accessible in the SM-TE after having entered the defined associated Password.
<b>Postamble:</b>	None
<b>NOTE:</b>	The SM-TE_CAPABILITY message can be received in the CC?INC_CALL_conf ASP.

<b>UBS2_FT_INC_PUKEY_INV_01</b>	
<b>Purpose:</b>	Verify that the SM-TE, if it receives an SM containing the Public Key parameter with a value which does not correspond to one of the values stored in the SM-TE, rejects the SM (i.e. sends an SMS_DELIVERY_REP TL message containing the "Response Type" parameter with value "Reject (Key)").
<b>Requirements refs:</b>	6.5.6, paragraph 3
<b>Selection Cond.:</b>	
<b>Preamble:</b>	PRE_CLEAR_MEM
<b>Test description:</b>	CC!INC_CALL_req CC?INC_CALL_conf (see note) FS!SMS_DELIVERY(Public Key = TSPX_PUBL_KEY_TX2) FS?SMS_DELIVERY_REP(Response Type = "REJECT(Key)") CC!CALL_RELEASE_req
<b>Pass criteria:</b>	SMS_DELIVERY_REP message received with Response Type parameter value equal to "Reject (Key)".
<b>Postamble:</b>	None
<b>NOTE:</b>	The SM-TE_CAPABILITY message can be received in the CC?INC_CALL_conf ASP.

## 7.2.6 Test purposes for Incoming Call Memory Full

<b>UBS2_FT_INC_MEM_01</b>	
<b>Purpose:</b>	Verify that the SM-TE, in the "Memory Full" state, rejects an incoming SM of the same size as the last SM, which caused the "Memory Full" state (i.e. sends the SMS_DELIVERY_REP TL message containing the "Response Type" parameter with value "Reject (Memory)" and discards the SM).
<b>Requirements refs:</b>	6.5.3
<b>Selection Cond.:</b>	
<b>Preamble:</b>	PRE_MEM_FULL
<b>Test description:</b>	CC!INC_CALL_req CC?INC_CALL_conf (see note 1) FS!SMS_DELIVERY(Media Identifier = "SMS", Display Information = "the quick brown fox jumps over the lazy dog 012345678 the quick brown fox jumps over the lazy dog 012345678 the quick brown fox jumps over the lazy dog 01234567") (see note 2) FS?SMS_DELIVERY_REP(Response Type = "REJECT(Memory)") CC!CALL_RELEASE_req O!SM_Reception_req O?SM_Reception_conf(RECEPT_IND = 1)
<b>Pass criteria:</b>	The sent SM is discarded by the SM-TE.
<b>Postamble:</b>	None
NOTE 1: The SM-TE_CAPABILITY message can be received in the CC?INC_CALL_conf ASP.	
NOTE 2: The SMS_DELIVERY message must have the same size as the last SM, which caused the "Memory Full" state, used in the preamble.	

<b>UBS2_FT_INC_MEM_02</b>	
<b>Purpose:</b>	Verify that the SM-TE, in the "Memory Full" state, after the deletion by the user of the SMs stored in the SM-TE receives a new incoming SM.
<b>Requirements refs:</b>	6.5.3
<b>Selection Cond.:</b>	
<b>Preamble:</b>	PRE_MEM_FULL
<b>Test description:</b>	O!EMPTY_MEM_req [TSPX_SM_TE_STATUS_CALL AND TSPX_AUTOMATIC_SM_TE_STATUS_CALL] CC?OUTG_CALL_ind CC!OUTG_CALL_resp FS?SM-TE_STATUS(SM-TE Resources = "message memory resources are available") FS!SMS_SUBMIT_REP(Response Type = "CONFIRM") CC?CALL_RELEASE_ind Wait a while [TSPX_SM_TE_STATUS_CALL AND (NOT TSPX_AUTOMATIC_SM_TE_STATUS_CALL)] O?EMPTY_MEM_ind(MANUALSTA = TRUE) O!OUTG_SM_TE_STATUS_req CC?OUTG_CALL_ind CC!OUTG_CALL_resp FS?SM-TE_STATUS(SM-TE Resources = "message memory resources are available") FS!SMS_SUBMIT_REP(Response Type = "CONFIRM") CC?CALL_RELEASE_ind Wait a while [NOT TSPX_SM_TE_STATUS_CALL] O?EMPTY_MEM_ind CC!INC_CALL_req CC?INC_CALL_conf Note: The SM-TE_CAPABILITY message can be received in the CC?INC_CALL_conf ASP FS!SMS_DELIVERY(Media Identifier = "SMS") FS?SMS_DELIVERY_REP(Response Type = "CONFIRM") CC!CALL_RELEASE_req O!SM_Reception_req O?SM_Reception_conf
<b>Pass criteria:</b>	The sent SM is received by the SM-TE.
<b>Postamble:</b>	None

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## Annex A (informative): Bibliography

ISO/IEC 9646-7: "Information technology - Open Systems Interconnection - Conformance testing methodology and framework - Part 7: Implementation Conformance Statements".

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## History

<b>Document history</b>		
V1.1.1	December 2002	Membership Approval Procedure    MV 20030207: 2002-12-10 to 2003-02-07
V1.1.1	February 2003	Publication