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Test Suite Overview

Test Suite Structure

Suite Name	: NMDS_LE
Standards Ref	: EN 301 141−1 [1]
PICS Ref	: EN 301 141−2 [2]
PIXIT Ref	:
Test Method(s)	: Remote test method applying the Embedded variant of the Remote test method.
Comments	: EN 301 141−8: ATS forNMDS Network layer testing at the Local Exchange (LE) side.

Version: 01
Date:30.08.2000

This ATS is based on EN 301 141−1 [1] , EN 300 324−1 [2] and aligns with the principles in the ISO/IEC 9646−3.

The ATS contains test cases based on the test purposes described in the EN 301 141−5 [5]. The test cases cover the procedures described in EN 301 141−1 [1] only. The ATS covers the protocol functions of the Network layer of the LE−side of a NMDS interface.

Concerning the PSTN protocol testing only the procedures defined in EN 301 141−1 and EN 300 324−1 are covered by the tests defined in this ATS. An IUT however might have also implemented a national specific PSTN protocol part. This requires that the tester generates messages containing national specific optional PSTN information elements, otherwise the IUT would not act on messages according to the PSTN protocol procedure definition. For this purpose all national specific optional information of the PSTN messages are discribed in PIXITs, what allows to adapt the ATS for any V5 IUT. However this does not provide a comprehensive test of the national PSTN protocol mapping specification which is outside the scope of this ATS. As the tests use PSTN messages containing optional information elements according to national specifications, the test result is only valid for the implemented national mapping of the NMDS PSTN protocol.

This ATS does not cover tests related to functions of the bearer channel. Those functions should be tested in conjunction with testing of the national PSTN protocol mapping specification. There are no requirements concerning network layer test for ISDN−BA.

The ATS conventions applied for the development of this ATS are defined in Clause 6. The ATS conventions will help to understand the test suite structure and TP implementation in this ATS. For any later maintenance or further development of this ATS these ATS conventions shall be considered to avoid any inconsistency.

Required information about the NMDS IUT (LE):

In order to perform the test scheduls, the equipment supplier shall provide for the IUT information regarding the implementation of the protocol within the LE, i.e. the PICS (EN 301 141−2) and information regarding the configuration of the IUT, i.e. the PIXIT (Annex B).

Required data configuration of the NMDS IUT (LE):

To test the Network entity of the IUT (LE) a particular IUT data configuration is assumed to avoid complicated test case layout. Depending on the services supported by the IUT, three IUT data configurations are considered:

– ISDN−BA user ports supported (EN 301 141−2 [2], index M.1)
– PSTN ports supported (EN 301 141−2 [2], index M.2)
– ISDN−BA user ports and PSTN ports supported

Port provisioning:

The ISDN port shall be provisioned for a non−automatic ISDN terminal for point to point connection over a single data link.
– If PSTN applications are provisioned, only one PSTN port shall be provisioned.

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Test Suite Structure

Comments **:** ...
In case other configurations are provisioned, it might be possible that events occur which are not considered in an ATS.

Test Group Reference	Selection Ref	Test Group Objective	Page Nr
PSTN/	PSTN_PORT_PROV	All tests in the PSTN protocol (NMDS_LE/PSTN) test group are intended to verify as thoroughly as possible the various procedures of the LE_PSTN_protocol entity.	
PSTN/Valid/		Pre–defined state transitions are considered as valid. The test purpose in the valid behaviour test sub group cover as far as reasonable the verification of the normal and exceptional procedures of the various FSMs. A valid test is a test where the message sequence and the message contents is considered as valid (no MDU–error_indication shall be indicated).	
PSTN/Valid/LE1/			
PSTN/Valid/LE2/			
PSTN/Valid/LE4/			
PSTN/Valid/LE5/			
PSTN/Inopportune/		This test group is intended to verify that the IUT is able to react properly in case an inopportune protocol event occurs. Such an event is syntactically correct but occurs when it is not expected and an error indication is caused. All messages sent to the IUT are valid messages.	
PSTN/Inopportune/LE1/			
PSTN/Inopportune/LE2/			
PSTN/Inopportune/LE4/			
PSTN/Syntactically_invalid/		This test sub group is intended to verify that the IUT is able to react properly having received an invalid PDU. An invalid PDU is defined as a syntactically incorrect message and therefore a MDU–error_indication is caused.	
PSTN/Syntactically_invalid/LE1/			
PSTN/Syntactically_invalid/LE4/			
PSTN/Timers/		Different timers and counters are defined to supervise the various state transitions. This test sub groups is intended to verify that the FSM is reacting properly to an expiry of one of the timers or a counter mismatch.	
PSTN/Timers/LE1/			

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Test Suite Structure			
Test Group Reference	**Selection Ref**	**Test Group Objective**	**Page Nr**
PSTN/Timers/LE2/ PSTN/Timers/LE4/ PSTN/Timers/LE5/ ISDN/ ISDN/valid/ ISDN/Syntactically_invalid/ ISDN/Timers/	ISDN_PORT_AND_SPECIFIC_SET_IMPL	All tests in the ISDN protocol (NMDS_LE/ISDN) test group are intended to verify as thoroughly as possible the various procedures the maintenance status enquiry of the ISDN interface.	
Detailed Comments :			

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Test Case Index				
Test Group Reference	**Test Case Id**	**Selection Ref**	**Description**	**Page Nr**
PSTN/Valid/LE1/	TCP_S1_V_01			
PSTN/Valid/LE1/	TCP_S1_V_02			
PSTN/Valid/LE1/	TCP_S1_V_03			
PSTN/Valid/LE1/	TCP_S1_V_04	SPECIFIC_PSTN_MESSAGES_USED_AND_IMPL_EVENT		
PSTN/Valid/LE1/	TCP_S1_V_05	SPECIFIC_PSTN_MESSAGES_USED_AND_IMPL_EVENT		
PSTN/Valid/LE1/	TCP_S1_V_06	SPECIFIC_PSTN_MESSAGES_USED_AND_IMPL_EVENT		
PSTN/Valid/LE2/	TCP_S2_V_01	ORIGINATING_CALL_PRIORITY		
PSTN/Valid/LE2/	TCP_S2_V_02	TERMINATING_CALL_PRIORITY		
PSTN/Valid/LE2/	TCP_S2_V_03			
PSTN/Valid/LE2/	TCP_S2_V_04			
PSTN/Valid/LE2/	TCP_S2_V_05			
PSTN/Valid/LE2/	TCP_S2_V_06			
PSTN/Valid/LE2/	TCP_S2_V_07	ADDR_7FFF_ACCEPTED		
PSTN/Valid/LE2/	TCP_S2_V_08	ADDR_7FFF_ONLY_MAINT		
PSTN/Valid/LE2/	TCP_S2_V_09	ADDR_RESERVED_IGNORE		
PSTN/Valid/LE2/	TCP_S2_V_10	ADDR_RESERVED_DISC		
PSTN/Valid/LE2/	TCP_S2_V_11	SPECIFIC_PSTN_MESSAGES_USED_AND_IMPL_EVENT		
PSTN/Valid/LE2/	TCP_S2_V_12	SPECIFIC_PSTN_MESSAGES_USED_AND_IMPL_EVENT		
PSTN/Valid/LE4/	TCP_S4_V_01			
PSTN/Valid/LE4/	TCP_S4_V_02	IMPLICIT_EVENT_PSTN_SIGNAL		
PSTN/Valid/LE4/	TCP_S4_V_03			
PSTN/Valid/LE4/	TCP_S4_V_04			
PSTN/Valid/LE4/	TCP_S4_V_05			
PSTN/Valid/LE4/	TCP_S4_V_06	ADDR_7FFF_ONLY_MAINT		
PSTN/Valid/LE4/	TCP_S4_V_07		ADDR_7FFF_ACCEPTED	
PSTN/Valid/LE4/	TCP_S4_V_08	ADDR_RESERVED_DISC		
PSTN/Valid/LE4/	TCP_S4_V_09	ADDR_RESERVED_IGNORE		
PSTN/Valid/LE4/	TCP_S4_V_10	SPECIFIC_PSTN_MESSAGES_USED_AND_IMPL_EVENT		
PSTN/Valid/LE4/	TCP_S4_V_11	SPECIFIC_PSTN_MESSAGES_USED_AND_IMPL_EVENT		

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Test Case Index				
Test Group Reference	**Test Case Id**	**Selection Ref**	**Description**	**Page Nr**
PSTN/Valid/LE4/	TCP_S4_V_12	ADDR_RESERVED_IGN ORE_SPECIFIC_IMPL		
PSTN/Valid/LE4/	TCP_S4_V_13	ADDR_RESERVED_DIS C_SPECIFIC_IMPL		
PSTN/Valid/LE5/	TCP_S5_V_01			
PSTN/Valid/LE5/	TCP_S5_V_02			
PSTN/Valid/LE5/	TCP_S5_V_03			
PSTN/Valid/LE5/	TCP_S5_V_04			
PSTN/Valid/LE5/	TCP_S5_V_05			
PSTN/Valid/LE5/	TCP_S5_V_06			
PSTN/Valid/LE5/	TCP_S5_V_07			
PSTN/Valid/LE5/	TCP_S5_V_08	SPECIFIC_PSTN_MESS AGES_USED_AND_IMP L_EVENT		
PSTN/Valid/LE5/	TCP_S5_V_09	SPECIFIC_PSTN_MESS AGES_USED_AND_IMP L_EVENT		
PSTN/Inopportune/LE1/	TCP_S1_I_01			
PSTN/Inopportune/LE1/	TCP_S1_I_02			
PSTN/Inopportune/LE1/	TCP_S1_I_03			
PSTN/Inopportune/LE1/	TCP_S1_I_04			
PSTN/Inopportune/LE1/	TCP_S1_I_05			
PSTN/Inopportune/LE1/	TCP_S1_I_06			
PSTN/Inopportune/LE1/	TCP_S1_I_07			
PSTN/Inopportune/LE1/	TCP_S1_I_08			
PSTN/Inopportune/LE1/	TCP_S1_I_09			
PSTN/Inopportune/LE2/	TCP_S2_I_01			
PSTN/Inopportune/LE2/	TCP_S2_I_02			
PSTN/Inopportune/LE2/	TCP_S2_I_03			
PSTN/Inopportune/LE2/	TCP_S2_I_04			
PSTN/Inopportune/LE2/	TCP_S2_I_05			
PSTN/Inopportune/LE2/	TCP_S2_I_06			
PSTN/Inopportune/LE2/	TCP_S2_I_07			
PSTN/Inopportune/LE4/	TCP_S4_I_01			
PSTN/Inopportune/LE4/	TCP_S4_I_02			
PSTN/Inopportune/LE4/	TCP_S4_I_03			
PSTN/Inopportune/LE4/	TCP_S4_I_04			
PSTN/Inopportune/LE4/	TCP_S4_I_05			
PSTN/Inopportune/LE4/	TCP_S4_I_06			
PSTN/Inopportune/LE4/	TCP_S4_I_07			
PSTN/Syntactically_invali d/LE1/	TCP_S1_S_01			
PSTN/Syntactically_invali d/LE1/	TCP_S1_S_02			
PSTN/Syntactically_invali d/LE1/	TCP_S1_S_03			
PSTN/Syntactically_invali d/LE1/	TCP_S1_S_04			

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Test Case Index				
Test Group Reference	**Test Case Id**	**Selection Ref**	**Description**	**Page Nr**
PSTN/Syntactically_invalid/LE1/	TCP_S1_S_05			
PSTN/Syntactically_invalid/LE1/	TCP_S1_S_06			
PSTN/Syntactically_invalid/LE1/	TCP_S1_S_07			
PSTN/Syntactically_invalid/LE1/	TCP_S1_S_08			
PSTN/Syntactically_invalid/LE1/	TCP_S1_S_09	SPECIFIC_PSTN_MESSAGES_USED_AND_IMPL_EVENT		
PSTN/Syntactically_invalid/LE4/	TCP_S4_S_01			
PSTN/Syntactically_invalid/LE4/	TCP_S4_S_02			
PSTN/Syntactically_invalid/LE4/	TCP_S4_S_03			
PSTN/Syntactically_invalid/LE4/	TCP_S4_S_04			
PSTN/Syntactically_invalid/LE4/	TCP_S4_S_05			
PSTN/Syntactically_invalid/LE4/	TCP_S4_S_06			
PSTN/Timers/LE1/	TCP_S1_T_01			
PSTN/Timers/LE1/	TCP_S1_T_02			
PSTN/Timers/LE1/	TCP_S1_T_03			
PSTN/Timers/LE1/	TCP_S1_T_04	SPECIFIC_PSTN_MESSAGES_USED_AND_IMPL_EVENT		
PSTN/Timers/LE2/	TCP_S2_T_01			
PSTN/Timers/LE2/	TCP_S2_T_02			
PSTN/Timers/LE4/	TCP_S4_T_01	IMPLICIT_EVENT_PSTN_SIGNAL		
PSTN/Timers/LE4/	TCP_S4_T_02	IMPLICIT_EVENT_PSTN_SIGNAL		
PSTN/Timers/LE4/	TCP_S4_T_03			
PSTN/Timers/LE4/	TCP_S4_T_04	IMPLICIT_EVENT_PSTN_SIGNAL		
PSTN/Timers/LE4/	TCP_S4_T_05			
PSTN/Timers/LE4/	TCP_S4_T_06			
PSTN/Timers/LE4/	TCP_S4_T_07			
PSTN/Timers/LE5/	TCP_S5_T_01			
PSTN/Timers/LE5/	TCP_S5_T_02			
ISDN/valid/	TCI_Sx_V_01			
ISDN/valid/	TCI_Sx_V_02			
ISDN/valid/	TCI_Sx_V_03			
ISDN/Syntactically_invalid/	TCI_Sx_S_01			
ISDN/Timers/	TCI_Sx_T_01			
Detailed Comments :				

Test Step Index			
Test Step Group Reference	**Test Step Id**	**Description**	**Page Nr**
state_transitions/PSTN_protocol/	STEP_PSTN_LEx_1	Any state – null ––> LEx – LE1	
state_transitions/PSTN_protocol/	STEP_PSTN_LE1_2		
state_transitions/PSTN_protocol/	STEP_PSTN_LE1_4		
state_transitions/PSTN_protocol/	STEP_PSTN_LE4_5		
preambles/	Preamble_pstn_le1		
preambles/	Preamble_pstn_le2		
preambles/	Preamble_pstn_le4		
preambles/	Preamble_pstn_le5		
preambles/	Preamble_isdn		
postambles/	Postamble_pstn		
postambles/	Postamble_isdn		
status_verification/	STEP_CHECK_PSTN_STATE_LE 1		
status_verification/	STEP_CHECK_PSTN_STATE_LE 2		
status_verification/	STEP_CHECK_PSTN_STATE_LE 4		
status_verification/	STEP_CHECK_PSTN_STATE_LE 5		
com_test_steps/	STEP_REC_DISC_CPL		
implicit_events/	STEP_PSTN_INVOKE_DIAL		
implicit_events/	STEP_PSTN_INVOKE_ON_HOOK		
Detailed Comments :			

Default Index			
Default Group Reference	**Default Id**	**Description**	**Page Nr**
PSTN/	DEF_PSTN_PRE		
PSTN/	DEF_PSTN_BODY		
PSTN/	DEF_PSTN_POST		
ISDN/	DEF_ISDN		
Detailed Comments :			

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Declarations Part

Simple Type Definitions

Type Name	Type Definition	Type Encoding	Comments
B_4	BITSTRING[4]		
O_1	OCTETSTRING[1]		
O_2	OCTETSTRING[2]		
O_3	OCTETSTRING[3]		
Detailed Comments :			

Structured Type Definition

Type Name : pstn_cause
Encoding Variation :
Comments : Ref.: EN 300 324–1, 13.4.7.9, fig. 29

Element Name	Type Definition	Field Encoding	Comments
info_element_id	O_1		
length	O_1		
cause_type	O_1		
diagnostic_message_type	O_1		
diagnostic_information_element	O_1		
Detailed Comments :			

Structured Type Definition

Type Name : pstn_seq_num
Encoding Variation :
Comments : Ref.: EN 300 324–1, 13.4.7.1, fig. 20

Element Name	Type Definition	Field Encoding	Comments
info_element_id	O_1		
length	O_1		
sequence_number	O_1		
Detailed Comments :			

Structured Type Definition

Type Name : pstn_state
Encoding Variation :
Comments : Ref.: EN 300 324–1, 13.4.6.3, fig. 17

Element Name	Type Definition	Field Encoding	Comments
spare	B_4		'1001'B
state	B_4		
Detailed Comments :			

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Structured Type Definition		
Type Name : pstn_steady_signal		
Encoding Variation :		

Encoding Variation :

Comments : Ref.: EN 300 324–1, 13.4.7.4, fig. 23

Element Name	Type Definition	Field Encoding	Comments
info_element_id	O_1		
length	O_1		
steady_signal	O_1		

Detailed Comments :

Structured Type Definition		

Type Name : pstn_gw_status_rq

Encoding Variation :

Comments : Ref.: EN 301 141–1, 7.3.1

Element Name	Type Definition	Field Encoding	Comments
code	O_1		'11010000'B

Detailed Comments :

Structured Type Definition		

Type Name : isdn_uni_status_rq

Encoding Variation :

Comments : Ref.: EN 301 141–1, 7.3.1

Element Name	Type Definition	Field Encoding	Comments
code	O_1		'11010001'B

Detailed Comments :

Structured Type Definition		

Type Name : pstn_gw_status_resp

Encoding Variation :

Comments : Ref.: EN 301 141–1, 7.3.1

Element Name	Type Definition	Field Encoding	Comments
info_element_id	O_1		
length	O_1		
status_gw	O_1		

Detailed Comments :

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Structured Type Definition			
Type Name **:** isdn_uni_status_resp			
Encoding Variation :			
Comments **:** Ref.: EN 301 141–1, 7.3.1			
Element Name	**Type Definition**	**Field Encoding**	**Comments**
info_element_id	O_1		
length	O_1		
status_uni	O_1		
Detailed Comments :			

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Test Suite Operation Definition
Operation Name : TSO_INTEGER_TO_SN(integer_par:INTEGER)
Result Type   : O_1   **Comments   :**
Description
The Test Suite Operation TSO_INTEGER_TO_SN shall convert a INTEGER value to a sequence number. If the value of the sequence number (SN) is 127 value shall be reseted to zero. The 8. (most significant) bit of the returned octetstring shall always be 1. Operation is used with PSTN and Protection Sequence Number IEs.
Detailed Comments :

Test Suite Parameter Declarations			
Parameter Name	**Type**	**PICS/PIXIT Ref**	**Comments**
TSPC_ISDNBA	BOOLEAN	PICS A.1.1	EN 301 141–2, table A.4
TSPC_PSTN	BOOLEAN	PICS A.1.2	EN 301 141–2, table A.4
TSPC_SPECIFIC_PSTN	BOOLEAN	PICS A.3.1	Does the IUT support specific PSTN message set. EN 301 141–2, table A.3
TSPC_SPECIFIC_ISDN	BOOLEAN	PICS A.3.2	Does the IUT support specific ISDN message set. EN 301 141–2, table A.3
TSPC_ADDR_7FFF_ACCE PTED	BOOLEAN	PICS A.4.1	TRUE if the IUT accept 7fff address in all messages EN 301 141–2, table A.4
TSPC_ADDR_7FFF_ONLY _MAINT	BOOLEAN	PICS A.4.2	TRUE if the IUT accept 7fff address only in maintenance messages EN 301 141–2, table A.4
TSPC_ADDR_RESERVED_ IGNORE	BOOLEAN	PICS A.4.3	TRUE if the IUT ignores messages with l3addr = reserved value . EN 301 141–2, table A.4
TSPC_ADDR_RESERVED_ DISC	BOOLEAN	PICS A.4.4	TRUE if the IUT disconnect on messages with l3addr = reserved value . EN 301 141–2, table A.4
TSPX_PSTN_L3ADDR	O_2	PIXIT B1	First Layer 3 address to be sent to the IUT. (eg B–channel 1)
TSPX_PSTN_L3ADDR_2N D	O_2	PIXIT B1	Second Layer 3 address to be sent to the IUT.(eg B–channel 2)
TSPX_PSTN_L3ADDR_RE SERVED	O_2	PIXIT B1	Layer 3 address considered as reserved according to EN 301 141–1 table 11 to be sent to the IUT.
TSPX_IMPLICIT_EVENT_P STN	BOOLEAN	PIXIT B5	Are implicit events supported by the test configuration for PSTN? NOTE1
TSPX_IMPLICIT_EVENT_P STN_SIGNAL	BOOLEAN	PIXIT B5	Are implicit events supported by the test configuration for PSTN SIGNAL message? NOTE1
TSPX_IMPLICIT_EVENT_M AINTENANCE	BOOLEAN	PIXIT B5	Are implicit events supported by the test configuration for Maintenance specific messages? NOTE1
TSPX_IMPLICIT_EVENT_IS DN_SPECIFIC	BOOLEAN	PIXIT B5	Are implicit events supported by the test configuration for ISDN Maintenance specific messages? NOTE1
TSPX_PSTN_COND_INFO _EST	OCTETSTRING	PIXIT B4 EN 300 324–1 [2], table 5 NOTE2	Conditional information of the received ESTABLISH message, length [1..13]

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Test Suite Parameter Declarations			
Parameter Name	**Type**	**PICS/PIXIT Ref**	**Comments**
TSPX_PSTN_COND_INFO _EST_SEND	OCTETSTRING	PIXIT B4 EN 300 324–1 [2], table 5 NOTE2	Conditional information of the ESTABLISH message, length [1..13] , conditional part is different in the messages sent by tester
TSPX_PSTN_COND_INFO _EST_4_REP_OPT_IE	OCTETSTRING	PIXIT B4 EN 300 324–1 [2], table 5, subclause 13.5.2.5 NOTE3	Conditional information of the ESTABLISH message. The conditional part shall contain 4 repeated conditional IE which are valid for the IUT to be tested.
TSPX_PSTN_COND_INFO _EST_ONE_INCORR_CON D_IE	OCTETSTRING	PIXIT B4 EN 300 324–1 [2], table 5, subclause 13.5.2.9 NOTE3	Conditional information of the ESTABLISH message. The conditional part shall contain one incorrect conditional IE.
TSPX_PSTN_COND_INFO _EST_ONE_UNSPEC_IE	OCTETSTRING	PIXIT B4 EN 300 324–1 [2], table 5, subclause 13.5.2.7 NOTE3	Conditional information of the ESTABLISH message. The conditional part shall contain one unspecified IE.
TSPX_PSTN_COND_INFO _EST_TWO_DIFF_COND_I E	OCTETSTRING	PIXIT B4 EN 300 324–1 [2], table 5, subclause 13.5.2.11 NOTE3	Conditional information of the ESTABLISH message. The conditional part shall contain two different conditional IEs.
TSPX_PSTN_OPT_INFO_E ST_ACK	OCTETSTRING	PIXIT B4 EN 300 324–1 [2], table 6 NOTE2	Optional information of ESTABLISH ACK message, length [1..9]
TSPX_PSTN_COND_INFO _SIGNAL_DIGIT1	OCTETSTRING	PIXIT B4 EN 300 324–1 [2], table 7 NOTE2	Conditional information of a SIGNAL message which is sent from the AN to the LE and which represents the line signal of digit 1.
TSPX_PSTN_COND_INFO _SIGNAL_DIGIT2	OCTETSTRING	PIXIT B4 EN 300 324–1 [2], table 7 NOTE2	Conditional information of a SIGNAL message which is sent from the AN to the LE and which represents the line signal of digit 2.
TSPX_PSTN_COND_INFO _SIGNAL_DIGIT3	OCTETSTRING	PIXIT B4 EN 300 324–1 [2], table 7 NOTE2	Conditional information of a SIGNAL message which is sent from the AN to the LE and which represents the line signal of digit 3.
TSPX_PSTN_COND_INFO _SIGNAL_LE	OCTETSTRING	PIXIT B4 EN 300 324–1 [2], table 7 NOTE2	Conditional information of a SIGNAL message which is sent from the LE to the AN. The conditional information has to be specified according to the national specific PSTN implementation.
TSPX_PSTN_TERMINATIN G_CALL_PRIORITY	BOOLEAN	PIXIT B4 EN 300 324–1 [2], 13.5.3.3	Terminating calls have priority, if originating calls have priority this parameter shall no be set.
TSPX_TIMER_T01_max	INTEGER	PIXIT B2 EN 300 347–1 [1], table 46	Timer T01_max value in milli seconds. (1200 ms)

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Test Suite Parameter Declarations			
Parameter Name	**Type**	**PICS/PIXIT Ref**	**Comments**
TSPX_TIMER_T02_max	INTEGER	PIXIT B2 EN 300 347–1 [1], table 46	Timer T02_max value in milli seconds. (1200 ms)
TSPX_TIMER_T1_max	INTEGER	PIXIT B2 EN 300 347–1 [1], table 46	Timer T1_max value in milli seconds. (2400 ms)
TSPX_TIMER_T3_max	INTEGER	PIXIT B2 EN 300 347–1 [1], table 46	Timer T3_max value in milli seconds. (2400 ms)
TSPX_TIMER_T4_max	INTEGER	PIXIT B2 EN 300 347–1 [1], table 46	Timer T4_max value in milli seconds. (2400 ms)
TSPX_TIMER_Tm_max	INTEGER	PIXIT B2 EN 301 141–1 [1], table 10	Timer Tm_max value in seconds. (10 s)
TSPX_TIMER_AC_short	INTEGER	PIXIT B2	Timer T_AC_short value in milli seconds. (1000 ms)
TSPX_TIMER_AC_long	INTEGER	PIXIT B2	Timer T_AC_long value in seconds. (60 s)
TSPX_SUBSCRIBER_NUMBER	IA5String	PIXIT B1	Subscriber number for NMDS subscriber, used for invoking ESTABLISH message.
Detailed Comments : NOTE1: The parameter TSPX_IMPLICIT_EVENT defines if implicit send events are supported by the IUT (procedures to provoke the mph_ and fe_ events). The parameter is only used for the selection criterias. For automatic testing of the IUT it is possible to deselect test cases which need manual operations (implicit events) by not setting TSPX_IMPLICIT_EVENT. NOTE2: The optional national specific part of a PSTN message shall be coded according to the national PSTN specifications to which the PSTN application of the IUT shall conform. NOTE3: The PSTN messages which contain invalid optional information shall be coded according to the national PSTN specifications but the optional information shall be modified according to EN 300 324–1 [2], subclause 13.5.2.			

Test Case Selection Expression Definitions		
Expression Name	**Selection Expression**	**Comments**
IMPLICIT_EVENT_PSTN_SIGNAL	TSPX_IMPLICIT_EVENT_PSTN_SIGNAL	PSTN test or test group which uses implicit events for SIGNAL message(s).
ISDN_PORT_AND_SPECIFIC_SET_IMPL	TSPC_ISDNBA AND TSPC_SPECIFIC_ISDN AND TSPX_IMPLICIT_EVENT_ISDN_SPECIFIC	
PSTN_PORT_PROV	TSPC_PSTN	Ref: DE/SPS−3003.3−2 [3] Clause 5.1.6
SPECIFIC_PSTN_MESSAGES_USED_AND_IMPL_EVENT	TSPC_SPECIFIC_PSTN AND TSPX_IMPLICIT_EVENT_MAINTENANCE	The Specific PSTN message set feature is implemented in the IUT and provokable by implicit event.
TERMINATING_CALL_PRIORITY	TSPX_PSTN_TERMINATING_CALL_PRIORITY	In case of a path collision the terminating call shall have priority. Ref: EN 300 324−1 [2], 13.5.3.3
ORIGINATING_CALL_PRIORITY	NOT TSPX_PSTN_TERMINATING_CALL_PRIORITY	In case of a path collision the originating call shall have priority. Ref: EN 300 324−1 [2], 13.5.3.3
ADDR_7FFF_ACCEPTED	TSPC_ADDR_7FFF_ACCEPTED	TRUE if the IUT accept 7fff address in all messages EN 301 141−2, table A.4
ADDR_7FFF_ONLY_MAINT	TSPC_ADDR_7FFF_ONLY_MAINT	TRUE if the IUT accept 7fff address only in maintenance messages EN 301 141−2, table A.4
ADDR_RESERVED_IGNORE	TSPC_ADDR_RESERVED_IGNORE	TRUE if the IUT ignores messages with l3addr = reserved value . EN 301 141−2, table A.4
ADDR_RESERVED_IGNORE_SPECIFIC_IMPL	TSPC_ADDR_RESERVED_IGNORE AND TSPC_SPECIFIC_PSTN AND TSPX_IMPLICIT_EVENT_MAINTENANCE	TRUE if the IUT ignores messages with l3addr = reserved value . EN 301 141−2, table A.4
ADDR_RESERVED_DISC_SPECIFIC_IMPL	TSPC_ADDR_RESERVED_DISC AND TSPC_SPECIFIC_PSTN AND TSPX_IMPLICIT_EVENT_MAINTENANCE	TRUE if the IUT ignores messages with l3addr = reserved value . EN 301 141−2, table A.4
ADDR_RESERVED_DISC	TSPC_ADDR_RESERVED_DISC	TRUE if the IUT disconnect on messages with l3addr = reserved value . EN 301 141−2, table A.4
Detailed Comments :		

Test Suite Constant Declarations			
Constant Name	**Type**	**Value**	**Comments**
N01	INTEGER	1	Counter related to the PORT CONTROL ACK message. EN 300 324–1[1], table 61 NOTE1
N02	INTEGER	1	Counter related to the COMMON CONTROL ACK message. EN 300 324–1[1], table 62 NOTE1
N3	INTEGER	2	Counter related to the DISCONNECT message. EN 300 324–1[1], clause 13, table 28 NOTE2
N4	INTEGER	2	Counter related to the STATUS ENQUIRY message. EN 300 324–1[1], clause 13, table 28 NOTE2
TSC_BI_COM_CTRL_L3_ADDR	O_2	'FCE2'O	Invalid L3adddr for messages addressed to the common control protocol entity. EN 300 324–1 [2], fig. 33
TSC_BI_METY_PSTN_INVALID	O_1	'0F'O	Invalid PSTN protocol message type. EN 300 324–1 [2], table 16
TSC_BI_PERFORM_GRAD_IE_UNSPEC	O_1	'60'O	performance grading IE containing an unspecified EI. EN 300 324–1 [2], fig.35
TSC_BI_PERFORM_GRAD_IE_INVALID	O_1	'EF'O	Invalid performance grading IE. EN 300 324–1 [2], fig.35
TSC_BI_V5_PD	O_1	'49'O	Invalid V5 protocol discriminator. EN 300 324–1 [2], table 14
TSC_IE_UNSPEC	O_1	'8F'O	Unspecified IE. EN 300 324–1 [2], table 51
TSC_IEI_CAUSE	O_1	'13'O	IEI of cause. EN 300 324–1 [2], table 17
TSC_IEI_SEQ_NUM	O_1	'00'O	IEI of sequence–number. EN 300 324–1 [2], table 17
TSC_METY_DISC	O_1	'08'O	DISCONNECT message type. EN 300 324–1 [2], table 16
TSC_METY_DISC_CPL	O_1	'09'O	DISCONNECT COMPLETE message type. EN 300 324–1 [2], table 16
TSC_METY_EST	O_1	'00'O	ESTABLISH message type. EN 300 324–1 [2], table 16
TSC_METY_EST_ACK	O_1	'01'O	ESTABLISH ACK message type. EN 300 324–1 [2], table 16

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Test Suite Constant Declarations			
Constant Name	**Type**	**Value**	**Comments**
TSC_METY_PROTOCOL_PARAMETER	O_1	'0E'O	PROTOCOL PARAMETER message type. EN 300 324–1 [2], table 16
TSC_METY_SIGNAL	O_1	'02'O	SIGNAL message type. EN 300 324–1 [2], table 16
TSC_METY_SIGNAL_ACK	O_1	'03'O	SIGNAL ACK message type. EN 300 324–1 [2], table 16
TSC_METY_STATUS	O_1	'0D'O	STATUS message type EN 300 324–1 [2], table 16
TSC_METY_STATUS_ENQ	O_1	'0C'O	STATUS ENQUIRY message type. EN 300 324–1 [2], table 16
TSC_PERFORM_GRADE_NORMAL	O_1	'E0'O	Performance grading IE: normal grade. EN 300 324–1 [2], table 52
TSC_PSTN_CAUSE_MESSAGE_NOT_COMPATIBLE_WITH_PATH_STATE	O_1	'8B'O	Cause: message not compatible with path state. EN 300 324–1 [2], table 26
TSC_PSTN_CAUSE_RSP_TO_STATUS_ENQ	O_1	'80'O	Cause: response to status enquiry. EN 300 324–1 [2], table 26
TSC_PSTN_STATE_AN1	B_4	'0001'B	PSTN FSM state: AN1. EN 300 324–1 [2], table 20
TSC_PSTN_STATE_AN2	B_4	'0010'B	PSTN FSM state: AN2. EN 300 324–1 [2], table 20
TSC_PSTN_STATE_AN3	B_4	'0011'B	PSTN FSM state: AN3. EN 300 324–1 [2], table 20
TSC_PSTN_STATE_AN4	B_4	'0100'B	PSTN FSM state: AN4. EN 300 324–1 [2], table 20
TSC_PSTN_STATE_AN5	B_4	'0101'B	PSTN FSM state: AN5. EN 300 324–1 [2], table 20
TSC_PSTN_STATE_AN7	B_4	'0111'B	PSTN FSM state: AN7. EN 300 324–1 [2], table 20
TSC_V5_PD	O_1	'48'O	V5 protocol discriminator. EN 300 324–1 [2], table 14
TSC_STGW_0	O_1	'80'O	No CPE present
TSC_STGW_1	O_1	'81'O	CPE present
TSC_STGW_2	O_1	'82'O	Test unavailable
TSC_STUNI_0	O_1	'80'O	No S/T present
TSC_STUNI_1	O_1	'81'O	S/T present
TSC_STUNI_2	O_1	'82'O	Test unavailable
TSC_ISDN_REQ	O_1	'D1'O	ISDN UNI status request code
TSC_PSTN_REQ	O_1	'D0'O	PSTN gateway status request code
TSC_IEI_PSTN_GW_RESP	O_1	'1E'O	PSTN gateway status request code IE
TSC_IEI_ISDN_UNI_RESP	O_1	'1F'O	ISDN uni status request code IE
TSC_PSTN_L3ADDR_ZERO	O_2	'0100'O	L3addr equal to zero
TSC_PSTN_L3ADDR_7FFF	O_2	'7FFF'O	L3addr equal to 7FFF

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Test Suite Constant Declarations			
Constant Name	**Type**	**Value**	**Comments**
TSC_PSTN_L3ADDR_B1	O_2	'0101'O	L3addr equal to B1
TSC_PSTN_L3ADDR_B2	O_2	'0110'O	L3addr equal to B2

Detailed Comments : NOTE1: The counters N01 and N02 are not directly defined in the EN 300 324−1 [2], but table 61 and table 62 describe the case where T01 respective T02 expires a first and a second time. N01 and N02 are related to this description. As only after the first expiry of T01 or T02 the last message will be re−sent, N01 and N02 have the value one.

NOTE2: The counters N3 and N4 are not directly defined in the EN 300 324−1 [2], but table 28 describes the case where T3 respective T4 expires a first, a second and a third time. N3 and N4 are related to this description, their value is two.

Test Suite Variable Declarations			
Variable Name	**Type**	**Value**	**Comments**
TSV_PSTN_OUT_OF_SERV ICE	BOOLEAN	FALSE	Variable is set when PSTN FSM is in Out Of Service state.
TSV_TE_DIALED	BOOLEAN	FALSE	Used with ASP te_dial_pstn to control sending of ASP te_on_hook_pstn
Detailed Comments :			

Test Case Variable Declarations			
Variable Name	**Type**	**Value**	**Comments**
R_COUNTER	INTEGER	0	Counter variable.
R_FLAG	BOOLEAN	FALSE	Flag used in REPEAT loops.
R_FLAG2	BOOLEAN	FALSE	Flag used in REPEAT loops.
S_R	INTEGER	0	Receive sequence variable S(R). EN 300 324–1 [2], 13.5.5.1.5
S_S	INTEGER	0	Send sequence variable S(S). EN 300 324–1 [2], 13.5.5.1.2
TCV_l3_addr	O_2	'0100'O	Layer 3 address IE. EN 300 324–1 [2],14.4.2.3
TCV_l3_addr_2nd	O_2	'0100'O	Layer 3 address IE. EN 300 324–1 [2],14.4.2.3
Detailed Comments :			

PCO Type Declarations		
PCO Type	**Role**	**Comments**
DSAP	LT	
PSTN_ACCESS	LT	
Detailed Comments :		

PCO Declarations			
PCO Name	**PCO Type**	**Role**	**Comments**
DLL	DSAP	LT	
T	PSTN_ACCESS	LT	
Detailed Comments :			

Timer Declarations			
Timer Name	**Duration**	**Unit**	**Comments**
T01_max	TSPX_TIMER_T01_max	ms	Ref: EN 300 324–1 [2], 14.4.4.7, table 58
T01_min	900	ms	Ref: EN 300 324–1 [2], 14.4.4.7, table 58
T02_max	TSPX_TIMER_T02_max	ms	Ref: EN 300 324–1 [2], 14.4.4.7, table 58
T02_min	900	ms	Ref: EN 300 324–1 [2], 14.4.4.7, table 58
T1_max	TSPX_TIMER_T1_max	ms	Ref: EN 300 324–1 [2], 13.6, table 28
T1_min	1800	ms	Ref: EN 300 324–1 [2], 13.6, table 28
T3_max	TSPX_TIMER_T3_max	ms	Ref: EN 300 324–1 [2], 13.6, table 28
T3_min	1800	ms	Ref: EN 300 324–1 [2], 13.6, table 28
T4_max	TSPX_TIMER_T4_max	ms	Ref: EN 300 324–1 [2], 13.6, table 28
T4_min	1800	ms	Ref: EN 300 324–1 [2], 13.6, table 28
Tr_min	4500	ms	Ref: EN 300 324–1 [2], 13.6, table 28
TR2_max	132	s	Ref: EN 300 324–1 [2], Annex C, table C.1
Tt_max	12	s	Ref: EN 300 324–1 [2], 13.6, table 28
Tt_min	9	s	Ref: EN 300 324–1 [2], 13.6, table 28
T_NOAC	5	s	Guard timer used if NO ACtion shall appear.
T_AC_long	TSPX_TIMER_AC_long	s	Watch dog timer if an ACtion from the IUT is expected after an undefined time period.
T_AC_short	TSPX_TIMER_AC_short	ms	Watch dog timer if an immidiate ACtion is expected from the IUT.
T_AC	10	s	Watch dog timer if ACtion is expected from the IUT.
Tm_max	TSPX_TIMER_Tm_max	s	Ref: EN 301 141–1 [1], table 10
Detailed Comments :			

ASP Type Definition		
ASP Name : dl_data_ind		
PCO Type : DSAP		
Comments : Ref: EN 300 324, subclause 10.3.1 and 10.3.2.3.		
Parameter Name	**Parameter Type**	**Comments**
user_data	PDU	1)
Detailed Comments : ASP definition of primitive received from the DSAP PCO. 1) The user_data of this ASP is defined as metatype PDU, thus this ASP can be used to send any type of PDU.		

ASP Type Definition		
ASP Name : dl_data_ind_est		
PCO Type : DSAP		
Comments : Ref: EN 300 402.		
Parameter Name	**Parameter Type**	**Comments**
user_data	pstn_est	1)
Detailed Comments : ASP definition of primitive received from the DSAP PCO. 1) The user_data of this ASP is defined as metatype PDU, thus this ASP can be used to send an establish PDU.		

ASP Type Definition		
ASP Name : dl_data_ind_est_ack		
PCO Type : DSAP		
Comments : Ref: EN 300 402.		
Parameter Name	**Parameter Type**	**Comments**
user_data	pstn_est_ack	1)
Detailed Comments : ASP definition of primitive received from the DSAP PCO. 1) The user_data of this ASP is defined as metatype PDU, thus this ASP can be used to send an establish ack PDU.		

ASP Type Definition		
ASP Name : dl_data_req		
PCO Type : DSAP		
Comments : Ref: EN 300 324, subclause 10.3.1 and 10.3.2.3.		
Parameter Name	**Parameter Type**	**Comments**
user_data	PDU	1)
Detailed Comments : ASP definition of primitive send to the DSAP PCO. 1) The user_data of this ASP is defined as metatype PDU, thus this ASP can be used to send any type of PDU.		

ASP Type Definition		
ASP Name : te_dial_pstn		
PCO Type : PSTN_ACCESS		
Comments : Action for making a call.		
Parameter Name	**Parameter Type**	**Comments**
SUBSCRIBER_NUMBER	IA5String	
Detailed Comments :		

ASP Type Definition		
ASP Name : te_on_hook_pstn		
PCO Type : PSTN_ACCESS		
Comments : Action for releasing a call.		
Parameter Name	**Parameter Type**	**Comments**
Detailed Comments :		

<table>
<tr><td colspan="4" align="center">**PDU Type Definition**</td></tr>
<tr><td colspan="4">**PDU Name**   : bi_pstn_signal_IE_out_of_seq</td></tr>
<tr><td colspan="4">**PCO Type**   : DSAP</td></tr>
<tr><td colspan="4">**Encoding Rule Name** :</td></tr>
<tr><td colspan="4">**Encoding Variation**   :</td></tr>
<tr><td colspan="4">**Comments**   : Ref.: EN 300 324–1, 13.3.3, table 7 and 13.5.2.4</td></tr>
<tr><td>**Field Name**</td><td>**Field Type**</td><td>**Field Encoding**</td><td>**Comments**</td></tr>
<tr><td>protocol_discriminator</td><td>O_1</td><td></td><td>m</td></tr>
<tr><td>layer_3_address</td><td>O_2</td><td></td><td>m</td></tr>
<tr><td>message_type</td><td>O_1</td><td></td><td>m</td></tr>
<tr><td>conditional_information</td><td>OCTETSTRING[0..25]</td><td></td><td>c, NOTE1</td></tr>
<tr><td>sequence_number</td><td>pstn_seq_num</td><td></td><td>m, NOTE1</td></tr>
<tr><td colspan="4">**Detailed Comments** : This SIGNAL PDU is used for BI tests (message which contains two IEs which are out of sequence).

NOTE1: The conditional information and the sequence number IE are out of sequence. The conditional information shall be valid and contain only one IE which is valid for the IUT.</td></tr>
</table>

<table>
<tr><td colspan="4" align="center">**PDU Type Definition**</td></tr>
<tr><td colspan="4">**PDU Name**   : bi_pstn_signal_ack_two_seq_num</td></tr>
<tr><td colspan="4">**PCO Type**   : DSAP</td></tr>
<tr><td colspan="4">**Encoding Rule Name** :</td></tr>
<tr><td colspan="4">**Encoding Variation**   :</td></tr>
<tr><td colspan="4">**Comments**   : Ref.: EN 300 324–1, 13.3.4, table 8</td></tr>
<tr><td>**Field Name**</td><td>**Field Type**</td><td>**Field Encoding**</td><td>**Comments**</td></tr>
<tr><td>protocol_discriminator</td><td>O_1</td><td></td><td>m</td></tr>
<tr><td>layer_3_address</td><td>O_2</td><td></td><td>m</td></tr>
<tr><td>message_type</td><td>O_1</td><td></td><td>m</td></tr>
<tr><td>sequence_number</td><td>pstn_seq_num</td><td></td><td>m</td></tr>
<tr><td>sequence_number2</td><td>pstn_seq_num</td><td></td><td>m</td></tr>
<tr><td colspan="4">**Detailed Comments** : This SIGNAL ACK PDU PDU is used for BI tests, (message which PDU contains two sequence numbers).</td></tr>
</table>

PDU Type Definition

PDU Name	: bi_pstn_signal_double_cond_IE		
PCO Type	: DSAP		
Encoding Rule Name :			
Encoding Variation :			
Comments	: Ref.: EN 300 324–1, 13.3.3, table 7 and 13.5.2.4		

Field Name	Field Type	Field Encoding	Comments
protocol_discriminator	O_1		m
layer_3_address	O_2		m
message_type	O_1		m
sequence_number	pstn_seq_num		m
conditional_information1	OCTETSTRING[0..25]		c
conditional_information2	OCTETSTRING[0..25]		c

Detailed Comments : This SIGNAL PDU is used for BI tests (message which contains two conditional IEs).

PDU Type Definition

PDU Name	: pstn_disc		
PCO Type	: DSAP		
Encoding Rule Name :			
Encoding Variation :			
Comments	: Ref.: EN 300 324–1, 13.3.7, table 11		

Field Name	Field Type	Field Encoding	Comments
protocol_discriminator	O_1		m
layer_3_address	O_2		m
message_type	O_1		m
steady_signal	pstn_steady_signal		o

Detailed Comments : DISCONNECT message

PDU Type Definition

PDU Name	: pstn_disc_cpl		
PCO Type	: DSAP		
Encoding Rule Name :			
Encoding Variation :			
Comments	: Ref.: EN 300 324–1, 13.3.8, table 12		

Field Name	Field Type	Field Encoding	Comments
protocol_discriminator	O_1		m
layer_3_address	O_2		m
message_type	O_1		m
steady_signal	pstn_steady_signal		o

Detailed Comments : DISCONNECT COMPLETE message

PDU Type Definition

PDU Name **:** pstn_est
PCO Type **:** DSAP
Encoding Rule Name :
Encoding Variation :
Comments **:** Ref.: EN 300 324–1, 13.3.1, table 5

Field Name	Field Type	Field Encoding	Comments
protocol_discriminator	O_1		m
layer_3_address	O_2		m
message_type	O_1		m
conditional_information	OCTETSTRING[0..13]		c, NOTE

Detailed Comments : ESTABLISH message

NOTE: This message format contains only the mandatory information as defined in EN 300 324–1 [2], 13.3.1, table 5. The connditional part is national dependent and defined as an OCTETSTRING. The conditional information shall be defined in a PIXIT.

PDU Type Definition

PDU Name **:** pstn_est_ack
PCO Type **:** DSAP
Encoding Rule Name :
Encoding Variation :
Comments **:** Ref.: EN 300 324–1, 13.3.2, table 6

Field Name	Field Type	Field Encoding	Comments
protocol_discriminator	O_1		m
layer_3_address	O_2		m
message_type	O_1		m
optional_information	OCTETSTRING[0..9]		o, NOTE

Detailed Comments : ESTABLISH ACK message

NOTE: This message format contains only the mandatory information like defined in EN 300 324–1 [2], 13.3.2, table 6. The optional part is national dependent and defined as an OCTETSTRING. The optional information shall be defined in a PIXIT.

PDU Type Definition			
PDU Name **:** pstn_protocol_parameter			
PCO Type **:** DSAP			
Encoding Rule Name :			
Encoding Variation **:**			
Comments **:** Ref.: EN 300 324–1, 13.3.9, table 13			
Field Name	**Field Type**	**Field Encoding**	**Comments**
protocol_discriminator	O_1		m
layer_3_address	O_2		m
message_type	O_1		m
sequence_number	pstn_seq_num		
conditional_information	OCTETSTRING[0..13]		c
Detailed Comments : PROTOCOL PARAMETER message ATTENTION: This message format contains only the mandatory information element like defined in EN 300 324–1 [2], 13.3.9, table 13. The conditional part is national dependent and defined as an OCTETSTRING.			

PDU Type Definition			
PDU Name **:** pstn_signal			
PCO Type **:** DSAP			
Encoding Rule Name :			
Encoding Variation **:**			
Comments **:** Ref.: EN 300 324–1, 13.3.3, table 7			
Field Name	**Field Type**	**Field Encoding**	**Comments**
protocol_discriminator	O_1		m
layer_3_address	O_2		m
message_type	O_1		m
sequence_number	pstn_seq_num		m
conditional_information	OCTETSTRING[0..25]		c
Detailed Comments : SIGNAL message ATTENTION: This message format contains only the mandatory information as defined in EN 300 324–1 [2], 13.3.3, table 7. The conditional part is national dependent and defined as an OCTETSTRING. The conditional information shall be defined in a PIXIT.			

PDU Type Definition

PDU Name : pstn_signal_ack
PCO Type : DSAP
Encoding Rule Name :
Encoding Variation :
Comments : Ref.: EN 300 324–1, 13.3.4, table 8

Field Name	Field Type	Field Encoding	Comments
protocol_discriminator	O_1		m
layer_3_address	O_2		m
message_type	O_1		m
sequence_number	pstn_seq_num		m

Detailed Comments : SIGNAL ACK message

PDU Type Definition

PDU Name : pstn_status
PCO Type : DSAP
Encoding Rule Name :
Encoding Variation :
Comments : Ref.: EN 300 324–1, 13.3.5, table 9

Field Name	Field Type	Field Encoding	Comments
protocol_discriminator	O_1		m
layer_3_address	O_2		m
message_type	O_1		m
state	pstn_state		m
cause	pstn_cause		m

Detailed Comments : STATUS message

PDU Type Definition

PDU Name : pstn_status_enq
PCO Type : DSAP
Encoding Rule Name :
Encoding Variation :
Comments : Ref.: EN 300 324–1, 13.3.6, table 10

Field Name	Field Type	Field Encoding	Comments
protocol_discriminator	O_1		m
layer_3_address	O_2		m
message_type	O_1		m

Detailed Comments : STATUS ENQUIRY message

PDU Type Definition			
PDU Name : MNT_status_enq			
PCO Type : DSAP			
Encoding Rule Name :			
Encoding Variation :			
Comments : Ref.: EN 301 141–1 subclause 7.3.1			
Field Name	**Field Type**	**Field Encoding**	**Comments**
protocol_discriminator	O_1		m
layer_3_address	O_2		m
message_type	O_1		m
ISDN_status_req	O_1		c
PSTN_status_req	O_1		c
Detailed Comments : STATUS ENQUIRY message for maintenance action.			

PDU Type Definition			
PDU Name : MNT_status			
PCO Type : DSAP			
Encoding Rule Name :			
Encoding Variation :			
Comments : Ref.: EN 301 141–1 subclause 7.3.1			
Field Name	**Field Type**	**Field Encoding**	**Comments**
protocol_discriminator	O_1		m
layer_3_address	O_2		m
message_type	O_1		m
ISDN_status_resp	isdn_uni_status_resp		C
PSTN_status_resp	pstn_gw_status_resp		C
Detailed Comments : STATUS message for maintenance action.			

III

Constraints Part

Structured Type Constraint Declaration

Constraint Name **:** Pstn_cause_mety(cause, diacnostic_message_type:O_1)

Structured Type **:** pstn_cause

Derivation Path **:**

Encoding Variation :

Comments **:** Base constraint of the cause IE wich contains the cause and the diagnostic message type identifier element.

Parameter:
cause: cause IE to report AN error condition
diacnostic_message_type: diagnostic message type identifier

Element Name	Element Value	Element Encoding	Comments
info_element_id	TSC_IEI_CAUSE		
length	'02'O		
cause_type	cause		
diagnostic_message_type	diacnostic_message_type		
diagnostic_information_elem ent	–		

Detailed Comments :

Structured Type Constraint Declaration

Constraint Name **:** Pstn_cause(cause:O_1)

Structured Type **:** pstn_cause

Derivation Path **:**

Encoding Variation :

Comments **:** Base constraint of the cause IE.

Parameter:
cause: cause IE to report AN error condition

Element Name	Element Value	Element Encoding	Comments
info_element_id	TSC_IEI_CAUSE		
length	'01'O		
cause_type	cause		
diagnostic_message_type	–		
diagnostic_information_elem ent	–		

Detailed Comments :

Structured Type Constraint Declaration			

Constraint Name : Pstn_state(state:B_4)

Structured Type : pstn_state

Derivation Path :

Encoding Variation :

Comments : Base constraint of the PSTN FSM state IE.

         Parameter:
         state: state of the PSTN signaling protocol entity

Element Name	Element Value	Element Encoding	Comments
spare	'1001'B		
state	state		

Detailed Comments :

Structured Type Constraint Declaration			

Constraint Name : Pstn_seq_num(sequence_number:INTEGER)

Structured Type : pstn_seq_num

Derivation Path :

Encoding Variation :

Comments : Base constraint of the sequence−number IE.
         1) The INTEGER value of the parameter sequence number is converted into a OCTETSTRING[1]
         format.

         Parameter:
         sequence_number: sequence−number used to number SIGNAL messages.

Element Name	Element Value	Element Encoding	Comments
info_element_id	TSC_IEI_SEQ_NUM		
length	'01'O		
sequence_number	TSO_INTEGER_TO_SN(sequence_number)		1

Detailed Comments :

Structured Type Constraint Declaration

Constraint Name   **:** Bl_pstn_seq_num_length_err(sequence_number:INTEGER)

Structured Type   **:** pstn_seq_num

Derivation Path   **:**

Encoding Variation :

Comments   **:** Base constraint of the sequence–number IE.
1) The length value is set to '00'O instaead of '01'O.
2) The INTEGER value of the parameter sequence number is converted into a OCTETSTRING[1] format.

Parameter:
sequence_number: sequence–number used to number SIGNAL messages.

Element Name	Element Value	Element Encoding	Comments
info_element_id	TSC_IEI_SEQ_NUM		
length	'00'O		1
sequence_number	TSO_INTEGER_TO_SN(sequence_number)		2

Detailed Comments :

Structured Type Constraint Declaration

Constraint Name   **:** Pstn_status_resp

Structured Type   **:** pstn_gw_status_resp

Derivation Path   **:**

Encoding Variation :

Comments   **:** Base constraint of the pstn gateway status response IE.

Element Name	Element Value	Element Encoding	Comments
info_element_id	TSC_IEI_PSTN_GW_RESP		
length	'01'O		
status_gw	TSC_STGW_1		

Detailed Comments :

Structured Type Constraint Declaration

Constraint Name   **:** Isdn_status_resp

Structured Type   **:** isdn_uni_status_resp

Derivation Path   **:**

Encoding Variation :

Comments   **:** Base constraint of the pstn gateway status response IE.

Element Name	Element Value	Element Encoding	Comments
info_element_id	TSC_IEI_ISDN_UNI_RESP		
length	'01'O		
status_uni	TSC_STUNI_1		

Detailed Comments :

ASP Constraint Declaration		
Constraint Name : Dl_data_req_pstn(user_data: PDU)		
ASP Type **:** dl_data_req		
Derivation Path **:**		
Comments **:** Ref: EN 300 324, subclause 10.3.1, 10.3.2.3.		
Parameter Name	**Parameter Value**	**Comments**
user_data	user_data	m
Detailed Comments : Base constraint of the ASP send to the DSAP PCO. Parameter: user_data: The user_data of this ASP is defined as metatype PDU, thus this ASP can be used to send any type of PDU.		

ASP Constraint Declaration		
Constraint Name : Dial_pstn(number:IA5String)		
ASP Type **:** te_dial_pstn		
Derivation Path **:**		
Comments **:** Action for making a call.		
Parameter Name	**Parameter Value**	**Comments**
SUBSCRIBER_NUMBER	number	
Detailed Comments :		

ASP Constraint Declaration		
Constraint Name : Dl_data_ind_pstn(user_data: PDU)		
ASP Type **:** dl_data_ind		
Derivation Path **:**		
Comments **:** Ref: EN 300 324, subclause 10.3.1, 10.3.2.3.		
Parameter Name	**Parameter Value**	**Comments**
user_data	user_data	m
Detailed Comments : Base constraint of the ASP received from the DSAP PCO. Parameter: user_data: The user_data of this ASP is defined as metatype PDU, thus this ASP can be used to receive any type of PDU.		

PDU Constraint Declaration

Constraint Name   : BI_pstn_est_invalid_mety
PDU Type   : pstn_est
Derivation Path   :
Encoding Rule Name :
Encoding Variation   :
Comments   : Ref.: EN 300 324–1, 13.3.1, table 5

Field Name	Field Value	Field Encoding	Comments
protocol_discriminator	TSC_V5_PD		
layer_3_address	TSC_PSTN_L3ADDR_ZERO		
message_type	TSC_BI_METY_PSTN_INVALID		
conditional_information	TSPX_PSTN_COND_INFO_EST_SEND		NOTE

Detailed Comments : Invalid message, ESTABLISH message whose mety is invalid.

NOTE: This PDU contains no fix defined optional information like defined in EN 300 324–1 [2], 13.3.1, table 5. The optional part is national dependent and defined in the PIXIT TSPX_PSTN_COND_INFO_EST.

PDU Constraint Declaration

Constraint Name   : BI_pstn_est_invalid_pd
PDU Type   : pstn_est
Derivation Path   :
Encoding Rule Name :
Encoding Variation   :
Comments   : Ref.: EN 300 324–1, 13.3.1, table 5

Field Name	Field Value	Field Encoding	Comments
protocol_discriminator	TSC_BI_V5_PD		
layer_3_address	TSC_PSTN_L3ADDR_ZERO		
message_type	TSC_METY_EST		
conditional_information	TSPX_PSTN_COND_INFO_EST_SEND		NOTE

Detailed Comments : Invalid message, ESTABLISH message whose protocol discriminator is not specified.

NOTE: This PDU contains no fix defined optional information like defined in EN 300 324–1 [2], 13.3.1, table 5. The optional part is national dependent and defined in the PIXIT TSPX_PSTN_COND_INFO_EST_SEND.

PDU Constraint Declaration

Constraint Name : BI_Mnt_status_PSTN
PDU Type : MNT_status
Derivation Path :
Encoding Rule Name :
Encoding Variation :
Comments :

Field Name	Field Value	Field Encoding	Comments
protocol_discriminator	TSC_BI_V5_PD		
layer_3_address	TSC_PSTN_L3ADDR_7FFF		
message_type	TSC_METY_STATUS		
ISDN_status_resp	–		C
PSTN_status_resp	Pstn_status_resp		C

Detailed Comments : constraint of the Maintenance STATUS ENQUIRY message.

PDU Constraint Declaration

Constraint Name : BI_Mnt_status_ISDN
PDU Type : MNT_status
Derivation Path :
Encoding Rule Name :
Encoding Variation :
Comments :

Field Name	Field Value	Field Encoding	Comments
protocol_discriminator	TSC_BI_V5_PD		
layer_3_address	TSC_PSTN_L3ADDR_7FFF		
message_type	TSC_METY_STATUS		
ISDN_status_resp	Isdn_status_resp		C
PSTN_status_resp	–		C

Detailed Comments : constraint of the Maintenance STATUS ENQUIRY message.

PDU Constraint Declaration

Constraint Name **:** BI_pstn_est_unprovisioned_l3addr
PDU Type **:** pstn_est
Derivation Path **:**
Encoding Rule Name :
Encoding Variation **:**
Comments **:** Ref.: EN 300 324−1, 13.3.1, table 5

Field Name	Field Value	Field Encoding	Comments
protocol_discriminator	TSC_V5_PD		
layer_3_address	TSPX_PSTN_L3ADDR_RE SERVED		
message_type	TSC_METY_EST		
conditional_information	TSPX_PSTN_COND_INFO _EST_SEND		NOTE

Detailed Comments : Invalid message, ESTABLISH message whose layer 3 address is not provisioned.

NOTE: This PDU contains no fix defined optional information like defined in EN 300 324−1 [2], 13.3.1, table 5. The optional part is national dependent and defined in the PIXIT TSPX_PSTN_COND_INFO_EST_SEND.

PDU Constraint Declaration

Constraint Name **:** BI_pstn_signal_ack_two_seq_num(m_r:INTEGER)
PDU Type **:** bi_pstn_signal_ack_two_seq_num
Derivation Path **:**
Encoding Rule Name :
Encoding Variation **:**
Comments **:** Ref.: EN 300 324−1, 13.3.4, table 8

Field Name	Field Value	Field Encoding	Comments
protocol_discriminator	TSC_V5_PD		
layer_3_address	TCV_l3_addr		
message_type	TSC_METY_SIGNAL		
sequence_number	Pstn_seq_num(m_r)		
sequence_number2	Pstn_seq_num(m_r)		

Detailed Comments : Invalid message, SIGNAL ACK message which contains two sequence number IEs.

Parameters:
m_r: receive sequence−number of the SIGNAL ACK message.

PDU Constraint Declaration			
Constraint Name : BI_pstn_signal_IE_out_of_seq(m_s:INTEGER; conditional_information: OCTETSTRING)			
PDU Type : bi_pstn_signal_IE_out_of_seq			
Derivation Path :			
Encoding Rule Name :			
Encoding Variation :			
Comments :			
Field Name	**Field Value**	**Field Encoding**	**Comments**
protocol_discriminator	TSC_V5_PD		
layer_3_address	TCV_l3_addr		
message_type	TSC_METY_SIGNAL		
conditional_information	conditional_information		
sequence_number	Pstn_seq_num(m_s)		
Detailed Comments : Invalid message, SIGNAL message which contains a sequence number and a conditional IE which are out of sequence. Parameters: sequence_number: sequence–number used to number SIGNAL messages. conditional_information: conditional information used in the SIGNAL message.			

PDU Constraint Declaration			
Constraint Name : BI_pstn_signal_no_se_num(conditional_information: OCTETSTRING)			
PDU Type : pstn_signal			
Derivation Path :			
Encoding Rule Name :			
Encoding Variation :			
Comments :			
Field Name	**Field Value**	**Field Encoding**	**Comments**
protocol_discriminator	TSC_V5_PD		
layer_3_address	TCV_l3_addr		
message_type	TSC_METY_SIGNAL		
sequence_number	–		
conditional_information	conditional_information		
Detailed Comments : Invalid message, SIGNAL message which contains no sequence number. Parameters: conditional_information: conditional information used in the SIGNAL message.			

PDU Constraint Declaration

Constraint Name : BI_pstn_signal_seq_num_length_err(m_s:INTEGER; conditional_information: OCTETSTRING)
PDU Type : pstn_signal
Derivation Path :
Encoding Rule Name :
Encoding Variation :
Comments :

Field Name	Field Value	Field Encoding	Comments
protocol_discriminator	TSC_V5_PD		
layer_3_address	TCV_l3_addr		
message_type	TSC_METY_SIGNAL		
sequence_number	BI_pstn_seq_num_length_err(m_s)		
conditional_information	conditional_information		

Detailed Comments : Invalid SIGNAL message whose sequence number length is invalid.

Parameters:
m_s: sequence−number used to number SIGNAL messages.
conditional_information: conditional information used in the SIGNAL message.

PDU Constraint Declaration

Constraint Name : BI_pstn_signal_double_cond_IE(m_s:INTEGER; conditional_information1,
conditional_information2: OCTETSTRING)
PDU Type : bi_pstn_signal_double_cond_IE
Derivation Path :
Encoding Rule Name :
Encoding Variation :
Comments :

Field Name	Field Value	Field Encoding	Comments
protocol_discriminator	TSC_V5_PD		
layer_3_address	TCV_l3_addr		
message_type	TSC_METY_SIGNAL		
sequence_number	Pstn_seq_num(m_s)		
conditional_information1	conditional_information1		
conditional_information2	conditional_information2		

Detailed Comments : Parameters:
sequence_number: sequence−number used to number SIGNAL messages.
conditional_information1: conditional information used in the SIGNAL message.
conditional_information2: conditional information used in the SIGNAL message.

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PDU Constraint Declaration

Constraint Name : BI_pstn_three_octets
PDU Type : pstn_est
Derivation Path :
Encoding Rule Name :
Encoding Variation :
Comments : Ref.: EN 300 324–1, 13.3.1, table 5

Field Name	Field Value	Field Encoding	Comments
protocol_discriminator	TSC_V5_PD		
layer_3_address	TSC_PSTN_L3ADDR_ZERO		
message_type	–		
conditional_information	–		NOTE

Detailed Comments : Invalid PSTN message, the message contains only the protocol discriminator and the L3 addr, thus the message is less than 4 octets (minimum length).

PDU Constraint Declaration

Constraint Name : Pstn_disc_s
PDU Type : pstn_disc
Derivation Path :
Encoding Rule Name :
Encoding Variation :
Comments : Ref.: EN 300 324–1, 13.3.7, table 11

Field Name	Field Value	Field Encoding	Comments
protocol_discriminator	TSC_V5_PD		
layer_3_address	TSC_PSTN_L3ADDR_ZERO		
message_type	TSC_METY_DISC		
steady_signal	–		NOTE

Detailed Comments : Base constraint of the DISCONNECT PDU.

NOTE: No value is defined for the steady_signal IE as this IE is not used in this ATS.

PDU Constraint Declaration

Constraint Name **:** Pstn_disc_r
PDU Type **:** pstn_disc
Derivation Path **:**
Encoding Rule Name :
Encoding Variation **:**
Comments **:** Ref.: EN 300 324–1, 13.3.7, table 11

Field Name	Field Value	Field Encoding	Comments
protocol_discriminator	TSC_V5_PD		
layer_3_address	TSC_PSTN_L3ADDR_ZERO		
message_type	TSC_METY_DISC		
steady_signal	*		

Detailed Comments : Base constraint of the DISCONNECT PDU.

PDU Constraint Declaration

Constraint Name **:** Pstn_disc_cpl_s
PDU Type **:** pstn_disc_cpl
Derivation Path **:**
Encoding Rule Name :
Encoding Variation **:**
Comments **:** Ref.: EN 300 324–1, 13.3.8, table 12

Field Name	Field Value	Field Encoding	Comments
protocol_discriminator	TSC_V5_PD		
layer_3_address	TSC_PSTN_L3ADDR_ZERO		
message_type	TSC_METY_DISC_CPL		
steady_signal	–		

Detailed Comments : Base constraint of the DISCONNECT COMPLETE PDU sent by the tester.

PDU Constraint Declaration

Constraint Name **:** Pstn_disc_cpl_r
PDU Type **:** pstn_disc_cpl
Derivation Path **:**
Encoding Rule Name :
Encoding Variation **:**
Comments **:** Ref.: EN 301 141–1 and EN 300 324–1, 13.3.8, table 12

Field Name	Field Value	Field Encoding	Comments
protocol_discriminator	TSC_V5_PD		
layer_3_address	TSC_PSTN_L3ADDR_ZERO		
message_type	TSC_METY_DISC_CPL		
steady_signal	*		

Detailed Comments : Base constraint of the DISCONNECT COMPLETE PDU received by the tester.

<table>
<tr><td colspan="4" align="center">**PDU Constraint Declaration**</td></tr>
<tr><td colspan="4">**Constraint Name** **:** Pstn_est_s
PDU Type **:** pstn_est
Derivation Path **:**
Encoding Rule Name :
Encoding Variation **:**
Comments **:** Ref.: EN 300 324–1, 13.3.1, table 5</td></tr>
<tr><td align="center">**Field Name**</td><td align="center">**Field Value**</td><td align="center">**Field Encoding**</td><td align="center">**Comments**</td></tr>
<tr><td>protocol_discriminator</td><td>TSC_V5_PD</td><td></td><td></td></tr>
<tr><td>layer_3_address</td><td>TSC_PSTN_L3ADDR_ZERO</td><td></td><td></td></tr>
<tr><td>message_type</td><td>TSC_METY_EST</td><td></td><td></td></tr>
<tr><td>conditional_information</td><td>TSPX_PSTN_COND_INFO_EST_SEND</td><td></td><td>NOTE</td></tr>
<tr><td colspan="4">**Detailed Comments** **:** Base constraint of the ESTABLISH PDU.

NOTE: This PDU contains no fixed defined conditional information as defined in EN 300 324–1 [2], 13.3.1, table 5. The conditional part is national dependent and defined in the PIXIT TSPX_PSTN_COND_INFO_EST_SEND.</td></tr>
</table>

<table>
<tr><td colspan="4" align="center">**PDU Constraint Declaration**</td></tr>
<tr><td colspan="4">**Constraint Name** **:** Pstn_est_r
PDU Type **:** pstn_est
Derivation Path **:**
Encoding Rule Name :
Encoding Variation **:**
Comments **:** Ref.: EN 300 324–1, 13.3.1, table 5</td></tr>
<tr><td align="center">**Field Name**</td><td align="center">**Field Value**</td><td align="center">**Field Encoding**</td><td align="center">**Comments**</td></tr>
<tr><td>protocol_discriminator</td><td>TSC_V5_PD</td><td></td><td></td></tr>
<tr><td>layer_3_address</td><td>(TSC_PSTN_L3ADDR_ZERO,TSC_PSTN_L3ADDR_B1,TSC_PSTN_L3ADDR_B2)</td><td></td><td></td></tr>
<tr><td>message_type</td><td>TSC_METY_EST</td><td></td><td></td></tr>
<tr><td>conditional_information</td><td>TSPX_PSTN_COND_INFO_EST</td><td></td><td>NOTE</td></tr>
<tr><td colspan="4">**Detailed Comments** **:** Base constraint of the ESTABLISH PDU.

NOTE: This PDU contains no fixed defined conditional information like defined in EN 300 324–1 [2], 13.3.1, table 5. The conditional part is national dependent and defined in the PIXIT TSPX_PSTN_COND_INFO_EST.</td></tr>
</table>

PDU Constraint Declaration

Constraint Name	: Pstn_est_cond_part(conditional_information:OCTETSTRING)
PDU Type	: pstn_est
Derivation Path	:
Encoding Rule Name	:
Encoding Variation	:
Comments	: Ref.: EN 300 324–1, 13.3.1, table 5

Field Name	Field Value	Field Encoding	Comments
protocol_discriminator	TSC_V5_PD		
layer_3_address	TSC_PSTN_L3ADDR_ZERO		
message_type	TSC_METY_EST		
conditional_information	conditional_information		NOTE

Detailed Comments : Base constraint of the ESTABLISH PDU whose conditional information is parametrized.

NOTE: This PDU contains no fixed defined conditional information as defined in EN 300 324–1 [2], 13.3.1, table 5. The conditional part is national dependent and shall be defined in the parameter conditional_information.

PDU Constraint Declaration

Constraint Name	: Pstn_est_ack_r
PDU Type	: pstn_est_ack
Derivation Path	:
Encoding Rule Name	:
Encoding Variation	:
Comments	: Ref.: EN 300 324–1, 13.3.2, table 6

Field Name	Field Value	Field Encoding	Comments
protocol_discriminator	TSC_V5_PD		
layer_3_address	(TSC_PSTN_L3ADDR_ZERO,TSC_PSTN_L3ADDR_B1,TSC_PSTN_L3ADDR_B2)		
message_type	TSC_METY_EST_ACK		
optional_information	TSPX_PSTN_OPT_INFO_EST_ACK		NOTE

Detailed Comments : Base constraint of the ESTABLISH ACK PDU.

NOTE: This PDU contains no fix defined optional information like defined in EN 300 324–1 [2], 13.3.2, table 6. The optional part is national dependent and defined in the PIXIT TSPX_PSTN_OPT_INFO_EST_ACK.

PDU Constraint Declaration

Constraint Name **:** Pstn_est_ack_addr(addr:O_2)
PDU Type **:** pstn_est_ack
Derivation Path **:**
Encoding Rule Name :
Encoding Variation **:**
Comments **:** Ref.: EN 300 324–1, 13.3.2, table 6

Field Name	Field Value	Field Encoding	Comments
protocol_discriminator	TSC_V5_PD		
layer_3_address	addr		
message_type	TSC_METY_EST_ACK		
optional_information	TSPX_PSTN_OPT_INFO_EST_ACK		NOTE

Detailed Comments : Base constraint of the ESTABLISH ACK PDU.

NOTE: This PDU contains no fix defined optional information like defined in EN 300 324–1 [2], 13.3.2, table 6. The optional part is national dependent and defined in the PIXIT TSPX_PSTN_OPT_INFO_EST_ACK.

PDU Constraint Declaration

Constraint Name **:** Pstn_est_ack
PDU Type **:** pstn_est_ack
Derivation Path **:**
Encoding Rule Name :
Encoding Variation **:**
Comments **:** Ref.: EN 300 324–1, 13.3.2, table 6

Field Name	Field Value	Field Encoding	Comments
protocol_discriminator	TSC_V5_PD		
layer_3_address	TCV_l3_addr		
message_type	TSC_METY_EST_ACK		
optional_information	TSPX_PSTN_OPT_INFO_EST_ACK		NOTE

Detailed Comments : Base constraint of the ESTABLISH ACK PDU.

NOTE: This PDU contains no fix defined optional information like defined in EN 300 324–1 [2], 13.3.2, table 6. The optional part is national dependent and defined in the PIXIT TSPX_PSTN_OPT_INFO_EST_ACK.

PDU Constraint Declaration

Constraint Name : Pstn_est_ack_s
PDU Type : pstn_est_ack
Derivation Path :
Encoding Rule Name :
Encoding Variation :
Comments : Ref.: EN 300 324–1, 13.3.2, table 6

Field Name	Field Value	Field Encoding	Comments
protocol_discriminator	TSC_V5_PD		
layer_3_address	TCV_l3_addr		
message_type	TSC_METY_EST_ACK		
optional_information	TSPX_PSTN_OPT_INFO_EST_ACK		NOTE

Detailed Comments : Base constraint of the ESTABLISH ACK PDU.

NOTE: This PDU contains no fix defined optional information like defined in EN 300 324–1 [2], 13.3.2, table 6. The optional part is national dependent and defined in the PIXIT TSPX_PSTN_OPT_INFO_EST_ACK.

PDU Constraint Declaration

Constraint Name : Pstn_protocol_parameter_r
PDU Type : pstn_protocol_parameter
Derivation Path :
Encoding Rule Name :
Encoding Variation :
Comments : Receipt constraint

Field Name	Field Value	Field Encoding	Comments
protocol_discriminator	TSC_V5_PD		
layer_3_address	TSPX_PSTN_L3ADDR		
message_type	TSC_METY_PROTOCOL_PARAMETER		
sequence_number	?		
conditional_information	*		

Detailed Comments : Base constraint of the PROTOCOL PARAMETER message.

PDU Constraint Declaration

Constraint Name   : Pstn_signal(m_s:INTEGER; conditional_information: OCTETSTRING)
PDU Type   : pstn_signal
Derivation Path   :
Encoding Rule Name :
Encoding Variation   :
Comments   :

Field Name	Field Value	Field Encoding	Comments
protocol_discriminator	TSC_V5_PD		
layer_3_address	TCV_l3_addr		
message_type	TSC_METY_SIGNAL		
sequence_number	Pstn_seq_num(m_s)		
conditional_information	conditional_information		

Detailed Comments : Base constraint of the SIGNAL message.

Parameters:
sequence_number: sequence–number used to number SIGNAL messages.
conditional_information: conditional information used in the SIGNAL message.

PDU Constraint Declaration

Constraint Name   : Pstn_signal_addr(addr:O_2;m_s:INTEGER; conditional_information: OCTETSTRING)
PDU Type   : pstn_signal
Derivation Path   :
Encoding Rule Name :
Encoding Variation   :
Comments   :

Field Name	Field Value	Field Encoding	Comments
protocol_discriminator	TSC_V5_PD		
layer_3_address	addr		
message_type	TSC_METY_SIGNAL		
sequence_number	Pstn_seq_num(m_s)		
conditional_information	conditional_information		

Detailed Comments : Base constraint of the SIGNAL message.

Parameters:
sequence_number: sequence–number used to number SIGNAL messages.
conditional_information: conditional information used in the SIGNAL message.

PDU Constraint Declaration

Constraint Name **:** Pstn_signal_ack(m_r:INTEGER)
PDU Type **:** pstn_signal_ack
Derivation Path **:**
Encoding Rule Name :
Encoding Variation **:**
Comments **:** Ref.: EN 300 324–1, 13.3.4, table 8

Field Name	Field Value	Field Encoding	Comments
protocol_discriminator	TSC_V5_PD		
layer_3_address	TCV_l3_addr		
message_type	TSC_METY_SIGNAL_ACK		
sequence_number	Pstn_seq_num(m_r)		

Detailed Comments : Base constraint of the SIGNAL ACK message.

Parameters:
m_r: receive sequence–number of the SIGNAL ACK message.

PDU Constraint Declaration

Constraint Name **:** Pstn_status_mety(state:B_4; cause: O_1;dmt:O_1)
PDU Type **:** pstn_status
Derivation Path **:**
Encoding Rule Name :
Encoding Variation **:**
Comments **:** Ref.: EN 300 324–1, 13.3.5, table 9

Field Name	Field Value	Field Encoding	Comments
protocol_discriminator	TSC_V5_PD		
layer_3_address	TSPX_PSTN_L3ADDR		
message_type	TSC_METY_STATUS		
state	Pstn_state(state)		
cause	Pstn_cause_mety(cause,dmt)		

Detailed Comments : Base constraint of the STATUS message.

Parameters:
state: state of the PSTN signaling protocol entity
cause: cause IE to report AN error condition

PDU Constraint Declaration

Constraint Name **:** Pstn_status(state:B_4; cause: O_1)
PDU Type **:** pstn_status
Derivation Path **:**
Encoding Rule Name :
Encoding Variation **:**
Comments **:** Ref.: EN 300 324–1, 13.3.5, table 9

Field Name	Field Value	Field Encoding	Comments
protocol_discriminator	TSC_V5_PD		
layer_3_address	TCV_l3_addr		
message_type	TSC_METY_STATUS		
state	Pstn_state(state)		
cause	Pstn_cause(cause)		

Detailed Comments : Base constraint of the STATUS message.

Parameters:
state: state of the PSTN signaling protocol entity
cause: cause IE to report AN error condition

PDU Constraint Declaration

Constraint Name **:** Pstn_status_enq
PDU Type **:** pstn_status_enq
Derivation Path **:**
Encoding Rule Name :
Encoding Variation **:**
Comments **:** Ref.: EN 300 324–1, 13.3.6, table 10

Field Name	Field Value	Field Encoding	Comments
protocol_discriminator	TSC_V5_PD		
layer_3_address	?		
message_type	TSC_METY_STATUS_ENQ		

Detailed Comments : Base constraint of the STATUS ENQUIRY message.

PDU Constraint Declaration

Constraint Name	: Mnt_status_enq_ISDN
PDU Type	: MNT_status_enq
Derivation Path	:
Encoding Rule Name	:
Encoding Variation	:
Comments	:

Field Name	Field Value	Field Encoding	Comments
protocol_discriminator	TSC_V5_PD		
layer_3_address	TSC_PSTN_L3ADDR_7FFF		
message_type	TSC_METY_STATUS_ENQ		
ISDN_status_req	TSC_ISDN_REQ		
PSTN_status_req	–		

Detailed Comments : constraint of the Maintenance STATUS ENQUIRY message.

PDU Constraint Declaration

Constraint Name	: Mnt_status_enq_PSTN
PDU Type	: MNT_status_enq
Derivation Path	:
Encoding Rule Name	:
Encoding Variation	:
Comments	:

Field Name	Field Value	Field Encoding	Comments
protocol_discriminator	TSC_V5_PD		
layer_3_address	TSC_PSTN_L3ADDR_7FFF		
message_type	TSC_METY_STATUS_ENQ		
ISDN_status_req	–		
PSTN_status_req	TSC_PSTN_REQ		

Detailed Comments : constraint of the Maintenance STATUS ENQUIRY message.

PDU Constraint Declaration

Constraint Name	: Mnt_status_ISDN
PDU Type	: MNT_status
Derivation Path	:
Encoding Rule Name	:
Encoding Variation	:
Comments	:

Field Name	Field Value	Field Encoding	Comments
protocol_discriminator	TSC_V5_PD		
layer_3_address	TSC_PSTN_L3ADDR_7FFF		
message_type	TSC_METY_STATUS		
ISDN_status_resp	Isdn_status_resp		C
PSTN_status_resp	–		C

Detailed Comments : constraint of the Maintenance STATUS ENQUIRY message.

PDU Constraint Declaration

Constraint Name : Mnt_status_PSTN
PDU Type : MNT_status
Derivation Path :
Encoding Rule Name :
Encoding Variation :
Comments :

Field Name	Field Value	Field Encoding	Comments
protocol_discriminator	TSC_V5_PD		
layer_3_address	TSC_PSTN_L3ADDR_7FFF		
message_type	TSC_METY_STATUS		
ISDN_status_resp	–		C
PSTN_status_resp	Pstn_status_resp		C

Detailed Comments : constraint of the Maintenance STATUS ENQUIRY message.

PDU Constraint Declaration

Constraint Name : Mnt_status_PSTN_addr(addr:O_2)
PDU Type : MNT_status
Derivation Path :
Encoding Rule Name :
Encoding Variation :
Comments :

Field Name	Field Value	Field Encoding	Comments
protocol_discriminator	TSC_V5_PD		
layer_3_address	addr		
message_type	TSC_METY_STATUS		
ISDN_status_resp	–		C
PSTN_status_resp	Pstn_status_resp		C

Detailed Comments : constraint of the Maintenance STATUS ENQUIRY message.

PDU Constraint Declaration

Constraint Name : Mnt_status_PSTN_inv
PDU Type : MNT_status
Derivation Path :
Encoding Rule Name :
Encoding Variation :
Comments :

Field Name	Field Value	Field Encoding	Comments
protocol_discriminator	TSC_V5_PD		
layer_3_address	TSC_PSTN_L3ADDR_7FFF		
message_type	TSC_METY_STATUS		
ISDN_status_resp	–		C
PSTN_status_resp	–		C

Detailed Comments : constraint of the Maintenance STATUS message not including the status response .

PDU Constraint Declaration			
Constraint Name : Mnt_status_ISDN_inv			
PDU Type : MNT_status			
Derivation Path :			
Encoding Rule Name :			
Encoding Variation :			
Comments :			
Field Name	**Field Value**	**Field Encoding**	**Comments**
protocol_discriminator	TSC_V5_PD		
layer_3_address	TSC_PSTN_L3ADDR_7FFF		
message_type	TSC_METY_STATUS		
ISDN_status_resp	–		C
PSTN_status_resp	–		C
Detailed Comments : constraint of the Maintenance STATUS ENQUIRY message.			

IV

Dynamic Part

<table>
<tr><td colspan="6" align="center">**Test Case Dynamic Behaviour**</td></tr>
<tr><td colspan="6">**Test Case Name** : TCP_S1_V_01</td></tr>
<tr><td colspan="6">**Group** : PSTN/Valid/LE1/</td></tr>
<tr><td colspan="6">**Purpose** : On receipt of a DISCONNECT message the IUT shall send a DISCONNECT COMPLETE message and remain in the PSTN_path_state LE1 (Null).</td></tr>
<tr><td colspan="6">**Configuration** :</td></tr>
<tr><td colspan="6">**Default** : DEF_PSTN_BODY</td></tr>
<tr><td colspan="6">**Comments** : Ref: EN 301 141−1 [1] and EN 300 324−1 [2], Clause 13, table 30 and Annex L.2.4.</td></tr>
<tr><td>**Nr**</td><td>**Label**</td><td>**Behaviour Description**</td><td>**Constraints Ref**</td><td>**Verdict**</td><td>**Comments**</td></tr>
<tr><td>1</td><td></td><td>+Preamble_pstn_le1</td><td></td><td></td><td></td></tr>
<tr><td>2</td><td></td><td>DLL ! dl_data_req START T3_max</td><td>Dl_data_req_pstn(Pstn_disc_s)</td><td></td><td>1</td></tr>
<tr><td>3</td><td>B1</td><td>DLL ? dl_data_ind CANCEL T3_max</td><td>Dl_data_ind_pstn(Pstn_disc_cpl_r)</td><td>(PASS)</td><td>2</td></tr>
<tr><td>4</td><td></td><td>+STEP_CHECK_PSTN_STATE_LE1</td><td></td><td></td><td>3</td></tr>
<tr><td>5</td><td></td><td>+Postamble_pstn</td><td></td><td></td><td></td></tr>
<tr><td colspan="6">**Detailed Comments** : 1) Sending of a DISCONNECT message.
2) Expected event, receipt of a DISCONNECT COMPLETE message.
3) Expected status, the IUT shall be in PSTN_path_state LE1.</td></tr>
</table>

<table>
<tr><td colspan="6" align="center">**Test Case Dynamic Behaviour**</td></tr>
<tr><td colspan="6">**Test Case Name** : TCP_S1_V_02</td></tr>
<tr><td colspan="6">**Group** : PSTN/Valid/LE1/</td></tr>
<tr><td colspan="6">**Purpose** : On receipt of a terminating call request (FE−establish_request) the IUT shall send the message ESTABLISH and enter the new PSTN_path_state LE2 (Path initiated by LE).</td></tr>
<tr><td colspan="6">**Configuration** :</td></tr>
<tr><td colspan="6">**Default** : DEF_PSTN_BODY</td></tr>
<tr><td colspan="6">**Comments** : Ref: EN 301 141−1 [1] and EN 300 324−1 [2], Clause 13, table 30 and Annex L.2.4.</td></tr>
<tr><td>**Nr**</td><td>**Label**</td><td>**Behaviour Description**</td><td>**Constraints Ref**</td><td>**Verdict**</td><td>**Comments**</td></tr>
<tr><td>1</td><td></td><td>+Preamble_pstn_le1</td><td></td><td></td><td></td></tr>
<tr><td>2</td><td></td><td>+STEP_PSTN_INVOKE_DIAL(TSPX_IMPLICIT_ EVENT_PSTN,TSPX_SUBSCRIBER_NUMBER)</td><td></td><td></td><td>1</td></tr>
<tr><td>3</td><td></td><td>START T_AC_long</td><td></td><td></td><td></td></tr>
<tr><td>4</td><td>B1</td><td>DLL ? dl_data_ind_est (TCV_l3_addr := dl_data_ind_est.user_data.layer_3_address) CANCEL T_AC_long</td><td>Dl_data_ind_est(Pstn_est_r)</td><td>(PASS)</td><td>2</td></tr>
<tr><td>5</td><td></td><td>+STEP_CHECK_PSTN_STATE_LE2</td><td></td><td></td><td>3</td></tr>
<tr><td>6</td><td></td><td>+Postamble_pstn</td><td></td><td></td><td></td></tr>
<tr><td colspan="6">**Detailed Comments** : 1) Implicit send message to invoke a sending of a FE−establish_request (terminating call request) message to the NWK entity (LE PSTN FSM).
2) Expected event, receipt of an ESTABLISH message.
3) Expected status, the IUT shall be in PSTN_path_state LE2.</td></tr>
</table>

Test Case Dynamic Behaviour

Test Case Name : TCP_S1_V_03

Group : PSTN/Valid/LE1/

Purpose : On receipt of the ESTABLISH message the IUT shall send the message ESTABLISH ACK and enter the new PSTN_path_state LE4 (Path active).

Configuration :

Default : DEF_PSTN_BODY

Comments : Ref: EN 301 141–1 [1] and EN 300 324–1 [2], Clause 13, table 30 and Annex L.2.4.

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+Preamble_pstn_le1			
2		DLL ! dl_data_req START T1_max	Dl_data_req_pstn(Pstn_est_cond_part (TSPX_PSTN_COND_INFO _EST_SEND))		1
3	B1	DLL ? dl_data_ind_est_ack (TCV_l3_addr := dl_data_ind_est_ack.user_data.layer_3_address) CANCEL T1_max	Dl_data_ind_est_ack(Pstn_est_ack_r)	(PASS)	2
4		+STEP_CHECK_PSTN_STATE_LE4			3
5		+Postamble_pstn			

Detailed Comments : 1) Sending of an ESTABLISH message.
2) Expected event, receipt of an ESTABLISH ACK message.
3) Expected status, the IUT shall be in PSTN_path_state LE4.

Test Case Dynamic Behaviour

Test Case Name : TCP_S1_V_04

Group : PSTN/Valid/LE1/

Purpose : On receipt of the MDL_maintenance_request (PSTN GW), the IUT shall send a MAINTENANCE STATUS ENQUIRY message with the IE PSTN gateway status request, and remain in the PSTN_path_state LE1 (Null).

Configuration :

Default : DEF_PSTN_BODY

Comments : Ref: EN 301 141–1 [1] and EN 300 324–1 [2], Clause 13, table 30 and Annex L.2.4.

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+Preamble_pstn_le1			
2		<IUT ! MNT_status_enq>	Mnt_status_enq_PSTN		1
3		START T_AC_long			
4		DLL ? dl_data_ind CANCEL T_AC_long	Dl_data_ind_pstn(Mnt_stat us_enq_PSTN)		2
5		+STEP_CHECK_PSTN_STATE_LE1			3
6		+Postamble_pstn			

Detailed Comments : 1) Implicit send message to invoke a sending of a MDL_maintenance request (PSTN GW) message to the NWK entity (LE PSTN FSM).
2) Expected event, receipt of an Maintenance status enquiry (PSTN) message.
3) Expected status, the IUT shall be in PSTN_path_state LE1.

Test Case Dynamic Behaviour

Test Case Name	: TCP_S1_V_05
Group	: PSTN/Valid/LE1/
Purpose	: On receipt of the MDL_maintenance_request(PSTN GW) , the IUT shall send a MAINTENANCE STATUS ENQUIRY message, and remain in the PSTN_path_state LE1 (Null). On receipt of a MAINTENANCE STATUS, the IUT sends no message and remain in the PSTN_path_state LE1 (Null).
Configuration	:
Default	: DEF_PSTN_BODY
Comments	: Ref: EN 301 141–1 [1] and EN 300 324–1 [2], Clause 13, table 30 and Annex L.2.4.

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+Preamble_pstn_le1			
2		<IUT ! MNT_status_enq>	Mnt_status_enq_PSTN		1
3		START T_AC_long			
4		DLL ? dl_data_ind CANCEL T_AC_long	Dl_data_ind_pstn(Mnt_status_enq_PSTN)	(PASS)	2
5		DLL ! dl_data_req START T_NOAC	Dl_data_req_pstn(Mnt_status_PSTN)		3
6		? TIMEOUT T_NOAC		(PASS)	
7		+STEP_CHECK_PSTN_STATE_LE1			4
8		+Postamble_pstn			

Detailed Comments : 1) Implicit send message to invoke a sending of a MDL_maintenance request (PSTN GW) message to the NWK entity (LE PSTN FSM). 2) Expected event, receipt of an Maintenance status enquiry (PSTN) message. 3) A valid STATUS message is sent to the IUT 4) Expected status, the IUT shall be in PSTN_path_state LE1.

Test Case Dynamic Behaviour

Test Case Name	**:** TCP_S1_V_06
Group	**:** PSTN/Valid/LE1/
Purpose	**:** On receipt of the MDL_maintenance_request (PSTN GW), the IUT shall send a PSTN MAINTENANCE STATUS ENQUIRY message. On receipt of a STATUS message (not including the IE PSTN GW status response) , the IUT sends no message. On time–out of timer Tm, the IUT shall repeat the PSTN MAINTENANCE STATUS ENQUIRY message
Configuration	**:**
Default	**:** DEF_PSTN_BODY
Comments	**:** Ref: EN 300 324–1 [2], Clause 13, table 30 and Annex L.2.4.

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+Preamble_pstn_le1			
2		<IUT ! MNT_status_enq>	Mnt_status_enq_PSTN		1
3		START T_AC_long			
4		DLL ? dl_data_ind CANCEL T_AC_long	Dl_data_ind_pstn(Mnt_status_enq_PSTN)	(PASS)	2
5		DLL ! dl_data_req START Tm_max	Dl_data_req_pstn(Mnt_status_PSTN_inv)		3
6		DLL ? dl_data_ind CANCEL Tm_max	Dl_data_ind_pstn(Mnt_status_enq_PSTN)	(PASS)	4
7		+Postamble_pstn			
8		? TIMEOUT Tm_max		(FAIL)	
9		+Postamble_pstn			

Detailed Comments : 1) Implicit send message to invoke a sending of a MDL_maintenance request (PSTN GW) message to the NWK entity (LE PSTN FSM).
2) Expected event, receipt of an Maintenance status enquiry (PSTN) message.
3) A invalid STATUS message is sent to the IUT
4) Expected event, receipt of arepeated Maintenance status enquiry (PSTN) message.

<table>
<tr><td colspan="6" align="center">**Test Case Dynamic Behaviour**</td></tr>
<tr><td colspan="6">**Test Case Name** : TCP_S2_V_01</td></tr>
<tr><td colspan="6">**Group** : PSTN/Valid/LE2/</td></tr>
<tr><td colspan="6">**Purpose** : On receipt of an ESTABLISH message the IUT shall send an ESTABLISH ACK message (if originating calls have priority) and enter the new PSTN_path_state LE4 (Path active).
The IUT shall stop timer T1 (IUT shall not repeat the ESTABLISH message).</td></tr>
<tr><td colspan="6">**Configuration** :</td></tr>
<tr><td colspan="6">**Default** : DEF_PSTN_BODY</td></tr>
<tr><td colspan="6">**Comments** : Ref: EN 301 141−1 [1] and EN 300 324−1 [2], Clause 13, table 30 and Annex L.2.4.</td></tr>
<tr><td>**Nr**</td><td>**Label**</td><td>**Behaviour Description**</td><td>**Constraints Ref**</td><td>**Verdict**</td><td>**Comments**</td></tr>
<tr><td>1</td><td></td><td>+Preamble_pstn_le2</td><td></td><td></td><td></td></tr>
<tr><td>2</td><td></td><td>DLL ! dl_data_req START T1_max</td><td>Dl_data_req_pstn(
Pstn_est_cond_part
(TSPX_PSTN_COND_INFO
_EST_SEND))</td><td></td><td>1</td></tr>
<tr><td>3</td><td>B1</td><td>DLL ? dl_data_ind_est_ack (TCV_l3_addr :=
dl_data_ind_est_ack.user_data.layer_3_address
)</td><td>Dl_data_ind_est_ack(
Pstn_est_ack_r)</td><td>(PASS)</td><td>2</td></tr>
<tr><td>4</td><td>B2</td><td>?TIMEOUT T1_max</td><td></td><td>(PASS)</td><td>3</td></tr>
<tr><td>5</td><td></td><td>+STEP_CHECK_PSTN_STATE_LE4</td><td></td><td></td><td>4</td></tr>
<tr><td>6</td><td></td><td>+Postamble_pstn</td><td></td><td></td><td></td></tr>
<tr><td colspan="6">**Detailed Comments** : 1) Sending of an ESTABLISH message.
2) Expected event, receipt of an ESTABLISH ACK message.
3) Expected behaviour, no event shall occure until the expiry of T1_max
4) Expected status, the IUT shall be in PSTN_path_state LE4.</td></tr>
</table>

<table>
<tr><td colspan="6" align="center">**Test Case Dynamic Behaviour**</td></tr>
<tr><td colspan="6">**Test Case Name** : TCP_S2_V_02</td></tr>
<tr><td colspan="6">**Group** : PSTN/Valid/LE2/</td></tr>
<tr><td colspan="6">**Purpose** : On receipt of an ESTABLISH message the IUT shall ignore the message (send no ESTABLISH ACK message) and remain in the PSTN_path_state LE2, if terminating calls have priority.</td></tr>
<tr><td colspan="6">**Configuration** :</td></tr>
<tr><td colspan="6">**Default** : DEF_PSTN_BODY</td></tr>
<tr><td colspan="6">**Comments** : Ref: EN 301 141−1 [1] and EN 300 324−1 [2], Clause 13, table 30 and Annex L.2.4.</td></tr>
<tr><td>**Nr**</td><td>**Label**</td><td>**Behaviour Description**</td><td>**Constraints Ref**</td><td>**Verdict**</td><td>**Comments**</td></tr>
<tr><td>1</td><td></td><td>+Preamble_pstn_le2</td><td></td><td></td><td></td></tr>
<tr><td>2</td><td></td><td>DLL ! dl_data_req</td><td>Dl_data_req_pstn(
Pstn_est_cond_part
(TSPX_PSTN_COND_INFO
_EST_SEND))</td><td></td><td>1</td></tr>
<tr><td>3</td><td></td><td>+STEP_CHECK_PSTN_STATE_LE2</td><td></td><td></td><td>2</td></tr>
<tr><td>4</td><td></td><td>+Postamble_pstn</td><td></td><td></td><td></td></tr>
<tr><td colspan="6">**Detailed Comments** : 1) Sending of an ESTABLISH message.
2) Expected status, the IUT shall be in PSTN_path_state LE2.</td></tr>
</table>

Test Case Dynamic Behaviour				
Test Case Name	: TCP_S2_V_03				
Group	: PSTN/Valid/LE2/				
Purpose	: On receipt of a DISCONNECT message the IUT shall send a DISCONNECT COMPLETE message and enter the new PSTN_path_state LE1 (Null). The IUT shall stop timer T1 (IUT shall not repeat the ESTABLISH message).				
Configuration	:				
Default	: DEF_PSTN_BODY				
Comments	: Ref: EN 301 141−1 [1] and EN 300 324−1 [2], Clause 13, table 30 and Annex L.2.4.				

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+Preamble_pstn_le2			
2		DLL ! dl_data_req START T3_max	Dl_data_req_pstn(Pstn_disc_s)		1
3	B1	DLL ? dl_data_ind CANCEL T3_max	Dl_data_ind_pstn(Pstn_disc_cpl_r)	(PASS)	2
4		START T1_max			
5	B2	?TIMEOUT T1_max		(PASS)	3
6		+STEP_CHECK_PSTN_STATE_LE1			4
7		+Postamble_pstn			

Detailed Comments : 1) Sending of a DISCONNECT message.
2) Expected event, receipt of a DISCONNECT COMPLETE message.
3) Expected behaviour, no event shall occure during T1_max.
4) Expected status, the IUT shall be in PSTN_path_state LE1.

Test Case Dynamic Behaviour				
Test Case Name	: TCP_S2_V_04				
Group	: PSTN/Valid/LE2/				
Purpose	: On receipt of a DISCONNECT COMPLETE message the IUT shall enter the new PSTN_path_state LE1 (Null). The IUT shall stop timer T1 (IUT shall not repeat the ESTABLISH message).				
Configuration	:				
Default	: DEF_PSTN_BODY				
Comments	: Ref: EN 301 141−1 [1] and EN 300 324−1 [2], Clause 13, table 30 and Annex L.2.4.				

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+Preamble_pstn_le2			
2		DLL ! dl_data_req	Dl_data_req_pstn(Pstn_disc_cpl_s)		1
3		START T1_max			
4	B1	?TIMEOUT T1_max		(PASS)	2
5		+STEP_CHECK_PSTN_STATE_LE1			3
6		+Postamble_pstn			

Detailed Comments : 1) Sending of a DISCONNECT COMPLETE message.
2) Expected behaviour, no event shall occure during T1_max.
3) Expected status, the IUT shall be in PSTN_path_state LE1.

		Test Case Dynamic Behaviour			

Test Case Name : TCP_S2_V_05

Group : PSTN/Valid/LE2/

Purpose : On receipt of an ESTABLISH ACK message the IUT shall enter the new PSTN_path_state LE4 (Path active).The IUT shall stop timer T1 (IUT shall not repeat the ESTABLISH message).

Configuration :

Default : DEF_PSTN_BODY

Comments : Ref: EN 301 141−1 [1] and EN 300 324−1 [2], Clause 13, table 30 and Annex L.2.4.

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+Preamble_pstn_le2			
2		DLL ! dl_data_req	Dl_data_req_pstn(Pstn_est_ack_s)		1
3		START T1_max			
4	B1	?TIMEOUT T1_max		(PASS)	2
5		+STEP_CHECK_PSTN_STATE_LE4			3
6		+Postamble_pstn			

Detailed Comments : 1) Sending of an ESTABLISH ACK message.
2) Expected behaviour, no event shall occure during T1_max.
3) Expected status, the IUT shall be in PSTN_path_state LE4.

		Test Case Dynamic Behaviour			

Test Case Name : TCP_S2_V_06

Group : PSTN/Valid/LE2/

Purpose : On receipt of an ESTABLISH ACK message with a valid L3addr (0, 1, 2) not equal to the one used in the ESTABLISH message sent,the IUT shall send a DISCONNECT message and enter the new PSTN_path_state LE5 (Disconnect request).

Configuration :

Default : DEF_PSTN_BODY

Comments : Ref: EN 301 141−1 [1]

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+Preamble_pstn_le2			
2		+select_channel			
3		DLL ! dl_data_req START T_AC_short	Dl_data_req_pstn(Pstn_est_ack_addr(TCV_l3 _addr_2nd))		1
4		DLL ? dl_data_ind CANCEL T_AC_short	Dl_data_ind_pstn(Pstn_disc_r)	(PASS)	2
5		+STEP_CHECK_PSTN_STATE_LE5			3
6		+Postamble_pstn			
		select_channel			
7		[TCV_l3_addr = TSC_PSTN_L3ADDR_ZERO]			
8		(TCV_l3_addr_2nd := TSC_PSTN_L3ADDR_B1)			
9		[TCV_l3_addr = TSC_PSTN_L3ADDR_B1]			
10		(TCV_l3_addr_2nd := TSC_PSTN_L3ADDR_B2)			
11		[TCV_l3_addr = TSC_PSTN_L3ADDR_B2]			
12		(TCV_l3_addr_2nd := TSC_PSTN_L3ADDR_B1)			

Detailed Comments : 1) Sending of an ESTABLISH ACK message.
2) Expected behaviour, a DISCONNECT message shall be sent by the IUT.
3) Expected status, the IUT shall be in PSTN_path_state LE5.

		Test Case Dynamic Behaviour			

Test Case Name : TCP_S2_V_07

Group : PSTN/Valid/LE2/

Purpose : On receipt of an ESTABLISH ACK message with a L3addr = 7fff , the IUT shall treat the message as valid, and enter the new PSTN_path_state LE4 (Path active).

Configuration :

Default : DEF_PSTN_BODY

Comments : Ref: EN 301 141–1 [1]

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+Preamble_pstn_le2			
2		DLL ! dl_data_req	Dl_data_req_pstn(Pstn_est_ack_addr(TSC_P STN_L3ADDR_7FFF))		1
3		START T1_max			
4		?TIMEOUT T1_max		(PASS)	2
5		+STEP_CHECK_PSTN_STATE_LE4			3
6		+Postamble_pstn			

Detailed Comments : 1) Sending of an ESTABLISH ACK message with l3addr set to 7FFF.
2) Expected behaviour, no event shall occure during T1_max.
3) Expected status, the IUT shall be in PSTN_path_state LE4.

		Test Case Dynamic Behaviour			

Test Case Name : TCP_S2_V_08

Group : PSTN/Valid/LE2/

Purpose : On receipt of an ESTABLISH ACK message with a L3addr = 7fff , the IUT shall send a DISCONNECT message and enter the new PSTN_path_state LE5 (Disconnect request).

Configuration :

Default : DEF_PSTN_BODY

Comments : Ref: EN 301 141–1 [1]

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+Preamble_pstn_le2			
2		DLL ! dl_data_req START T_AC_short	Dl_data_req_pstn(Pstn_est_ack_addr(TSC_P STN_L3ADDR_7FFF))		1
3		DLL ? dl_data_ind CANCEL T_AC_short	Dl_data_ind_pstn(Pstn_disc_r)	(PASS)	2
4		+STEP_CHECK_PSTN_STATE_LE5			3
5		+Postamble_pstn			

Detailed Comments : 1) Sending of an ESTABLISH ACK message with a l3address set to 7FFF.
2) Expected behaviour, a DISCONNECT message shall be sent by the IUT.
3) Expected status, the IUT shall be in PSTN_path_state LE5.

Test Case Dynamic Behaviour

Test Case Name : TCP_S2_V_09

Group : PSTN/Valid/LE2/

Purpose : On receipt of an ESTABLISH ACK message with a L3addr = reserved value (not equal to 0, 1, 2, 7fff) , the IUT shall ignore the message and remain in the PSTN_path_state LE2 (Path initiated by LE).

Configuration :

Default : DEF_PSTN_BODY

Comments : Ref: EN 301 141–1 [1]

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+Preamble_pstn_le2			
2		DLL ! dl_data_req	Dl_data_req_pstn(Pstn_est_ack_addr(TSPX_PSTN_L3ADDR_RESERVED))		1
3		START T_NOAC			
4	B1	?TIMEOUT T_NOAC		(PASS)	2
5		+STEP_CHECK_PSTN_STATE_LE2			3
6		+Postamble_pstn			

Detailed Comments : 1) Sending of an ESTABLISH ACK message with a l3address set to reserved value.
2) Expected behaviour, no event shall occure during T_noac.
3) Expected status, the IUT shall be in PSTN_path_state LE2.

Test Case Dynamic Behaviour

Test Case Name : TCP_S2_V_10

Group : PSTN/Valid/LE2/

Purpose : On receipt of an ESTABLISH ACK message with a L3addr = reserved value (not equal to 0, 1, 2, 7fff) , the IUT shall send a DISCONNECT message and enter the new PSTN_path_state LE5 (Disconnect request).

Configuration :

Default : DEF_PSTN_BODY

Comments : Ref: EN 301 141–1 [1]

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+Preamble_pstn_le2			
2		DLL ! dl_data_req START T_AC_short	Dl_data_req_pstn(Pstn_est_ack_addr(TSPX_PSTN_L3ADDR_RESERVED))		1
3		DLL ? dl_data_ind CANCEL T_AC_short	Dl_data_ind_pstn(Pstn_disc_r)	(PASS)	2
4		+STEP_CHECK_PSTN_STATE_LE5			3
5		+Postamble_pstn			

Detailed Comments : 1) Sending of an ESTABLISH ACK message.
2) Expected behaviour, a DISCONNECT message shall be sent by the IUT
3) Expected status, the IUT shall be in PSTN_path_state LE5.

Test Case Dynamic Behaviour

Test Case Name : TCP_S2_V_11

Group : PSTN/Valid/LE2/

Purpose : On receipt of the MDL_maintenance_request(PSTN GW) , the IUT shall send a MAINTENANCE STATUS ENQUIRY message with the IE PSTN gateway status request, and remain in the PSTN_path_state LE2 (Path initiated by LE).

Configuration :

Default : DEF_PSTN_BODY

Comments : Ref: EN 301 141−1 [1]

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+Preamble_pstn_le2			
2		<IUT ! MNT_status_enq>	Mnt_status_enq_PSTN		1
3		START T_AC_long			
4		DLL ? dl_data_ind CANCEL T_AC_long	DI_data_ind_pstn(Mnt_status_enq_PSTN)		2
5		+STEP_CHECK_PSTN_STATE_LE2			3
6		+Postamble_pstn			

Detailed Comments : 1) Implicit send message to invoke a sending of a MDL_maintenance request (PSTN GW) message to the NWK entity (LE PSTN FSM).
2) Expected event, receipt of an Maintenance status enquiry (PSTN) message.
3) Expected status, the IUT shall be in PSTN_path_state LE2.

Test Case Dynamic Behaviour

Test Case Name : TCP_S2_V_12

Group : PSTN/Valid/LE2/

Purpose : On receipt of the MDL_maintenance_request (PSTN GW) , the IUT shall send a MAINTENANCE STATUS ENQUIRY message, and remain in the PSTN_path_state LE2 (Path initiated by LE).

On receipt of a MAINTENANCE STATUS, the IUT sends no message and remain in the PSTN_path_state LE2 (Path initiated by LE).

Configuration :

Default : DEF_PSTN_BODY

Comments : Ref: EN 301 141−1 [1]

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+Preamble_pstn_le2			
2		<IUT ! MNT_status_enq>	Mnt_status_enq_PSTN		1
3		START T_AC_long			
4		DLL ? dl_data_ind CANCEL T_AC_long	DI_data_ind_pstn(Mnt_status_enq_PSTN)	(PASS)	2
5		DLL ! dl_data_req START T_NOAC	DI_data_req_pstn(Mnt_status_PSTN)		3
6		? TIMEOUT T_NOAC		(PASS)	
7		+STEP_CHECK_PSTN_STATE_LE2			4
8		+Postamble_pstn			

Detailed Comments : 1) Implicit send message to invoke a sending of a MDL_maintenance request (PSTN GW) message to the NWK entity (LE PSTN FSM).
2) Expected event, receipt of an Maintenance status enquiry (PSTN) message.
3) A valid STATUS message is sent to the IUT
4) Expected status, the IUT shall be in PSTN_path_state LE2.

		Test Case Dynamic Behaviour			

Test Case Name : TCP_S4_V_01

Group : PSTN/Valid/LE4/

Purpose : Verify that the IUT is able to acknowledge multiple SIGNAL messages.

On receipt of a SIGNAL message and time−out of Tr the IUT shall send a SIGNAL ACK message and shall not restart timer Tr (IUT shall not send additional SIGNAL ACK messages).

On receipt of two subsequent SIGNAL messages and time−out of Tr the IUT shall send a SIGNAL ACK message and remain in the PSTN_path_state LE4 (Path active).
The IUT shall not restart timer Tr (IUT shall not send additional SIGNAL_ACK messages).

Configuration :

Default : DEF_PSTN_BODY

Comments : Ref: EN 301 141−1 [1] and EN 300 324−1 [2], Clause 13, table 30 and Annex L.2.4.

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+Preamble_pstn_le4			
2		(S_R:=0, S_S:=0)			1
3		+LTS_one_signal_messages			2
4		+LTS_two_signal_messages			3
5		+STEP_CHECK_PSTN_STATE_LE4			4
6		+Postamble_pstn			
		LTS_one_signal_messages			
7		DLL ! dl_data_req (S_S := S_S + 1) START Tt_max	Dl_data_req_pstn(Pstn_signal(S_S, TSPX_PSTN_COND_INFO _SIGNAL_DIGIT1))		2.1
8	B1	DLL ? dl_data_ind CANCEL Tt_max, START T_NOAC	Dl_data_ind_pstn(Pstn_signal_ack(S_S))	(PASS)	2.2
9	B2	?TIMEOUT T_NOAC		(PASS)	2.3
		LTS_two_signal_messages			
10		DLL ! dl_data_req (S_S := S_S + 1) START Tt_max	Dl_data_req_pstn(Pstn_signal(S_S, TSPX_PSTN_COND_INFO _SIGNAL_DIGIT2))		3.1
11		DLL ! dl_data_req (S_S := S_S + 1)	Dl_data_req_pstn(Pstn_signal(S_S, TSPX_PSTN_COND_INFO _SIGNAL_DIGIT3))		3.2
12	B3	DLL ? dl_data_ind CANCEL Tt_max, START T_NOAC	Dl_data_ind_pstn(Pstn_signal_ack(S_S))	(PASS)	3.3
13	B4	?TIMEOUT T_NOAC		(PASS)	3.4

Detailed Comments : 1) Initialization of the sequence variables.
2) Procedure for sending one signal message.
3) Procedure for sending two signal messages.
4) Expected status, the IUT shall be in PSTN_path_state LE4.

LTS_one_signal_messages:
2.1) Sending of a SIGNAL message, S(S) is incremented by one.
2.2) Expected event, receipt of a SIGNAL ACK message (M(R) = S(S)).
2.3) Expected behaviour, no event shall occure during T_NOAC.

LTS_two_signal_messages:

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Test Case Dynamic Behaviour

Detailed Comments : ...

        3.1) Sending of a SIGNAL message, S(S) is incremented by one.

        3.2) Sending of a second SIGNAL message, S(S) is incremented by one.

        3.3) Expected event, receipt of a SIGNAL ACK message (M(R) = S(S)).

        3.4) Expected behaviour, no event shall occure during T_NOAC.

NOTE: Timer Tr is monitored by timer Tt_max as it is inpossible to test Tr from outside of the IUT due to unknown internal delays in the IUT.

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Test Case Dynamic Behaviour

Test Case Name : TCP_S4_V_02

Group : PSTN/Valid/LE4/

Purpose : Verify that the IUT is able to handle multiple SIGNAL ACK messages.

On receipt of a SIGNAL ACK message containing the correct sequence number IE after sending a SIGNAL message the IUT shall stop timer Tt (IUT shall not send a DISCONNECT message).

On receipt of a SIGNAL ACK message containing the correct sequence number IE after sending two SIGNAL messages the IUT shall stop timer Tt (IUT shall not send a DISCONNECT message).

On receipt of a SIGNAL ACK message acknowledging only one SIGNAL message after sending two SIGNAL messages the IUT shall restart Timer Tt.

On receipt of a SIGNAL ACK message acknowledging the last outstanding SIGNAL message the IUT shall remain in the PSTN_path_state LE4 (Path active).

The IUT shall stop timer Tt (IUT shall not send a DISCONNECT message).

Configuration :

Default : DEF_PSTN_BODY

Comments : Ref: EN 301 141–1 [1] and EN 300 324–1 [2], Clause 13, table 30 and Annex L.2.4.

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+Preamble_pstn_le4			
2		(S_R:=0, S_S:=0)			1
3		+LTS_one_signal_messages			2
4		+LTS_two_signal_messages			3
5		+LTS_two_signal_messages_single_ack			4
6		+Postamble_pstn			
		LTS_one_signal_messages			
7		<IUT ! pstn_signal>	Pstn_signal(S_R, TSPX_PSTN_COND_INFO _SIGNAL_LE)		2.1
8		START T_AC_long			
9		DLL ? dl_data_ind (S_R:=S_R+1) CANCEL T_AC_long, START Tt_max	Dl_data_ind_pstn(Pstn_signal(S_R, TSPX_PSTN_COND_INFO _SIGNAL_LE))		2.2
10		DLL ! dl_data_req	Dl_data_req_pstn(Pstn_signal_ack(S_R))		2.3
11	B1	?TIMEOUT Tt_max		(PASS)	2.4
		LTS_two_signal_messages			
12		<IUT ! pstn_signal>	Pstn_signal(S_R, TSPX_PSTN_COND_INFO _SIGNAL_LE)		3.1
13		<IUT ! pstn_signal>	Pstn_signal(S_R, TSPX_PSTN_COND_INFO _SIGNAL_LE)		3.2
14		START T_AC_long			

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		Test Case Dynamic Behaviour			
Nr	**Label**	**Behaviour Description**	**Constraints Ref**	**Verdict**	**Comments**
15		DLL ? dl_data_ind (S_R:=S_R+1) START Tt_max	DI_data_ind_pstn(Pstn_signal(S_R, TSPX_PSTN_COND_INFO _SIGNAL_LE))		3.3
16		DLL ? dl_data_ind (S_R:=S_R+1) CANCEL T_AC_long	DI_data_ind_pstn(Pstn_signal(S_R, TSPX_PSTN_COND_INFO _SIGNAL_LE))		3.4
17		DLL ! dl_data_req	DI_data_req_pstn(Pstn_signal_ack(S_R))		3.5
18	B2	?TIMEOUT Tt_max		(PASS)	3.6
		LTS_two_signal_messages_single_ack			
19		<IUT ! pstn_signal>	Pstn_signal(S_R, TSPX_PSTN_COND_INFO _SIGNAL_LE)		4.1
20		<IUT ! pstn_signal>	Pstn_signal(S_R, TSPX_PSTN_COND_INFO _SIGNAL_LE)		4.2
21		START T_AC_long			
22		DLL ? dl_data_ind (S_R:=S_R+1)	DI_data_ind_pstn(Pstn_signal(S_R, TSPX_PSTN_COND_INFO _SIGNAL_LE))		4.3
23		DLL ? dl_data_ind (S_R:=S_R+1) CANCEL T_AC_long	DI_data_ind_pstn(Pstn_signal(S_R, TSPX_PSTN_COND_INFO _SIGNAL_LE))		4.4
24		(S_R:=S_R−1)			4.5
25		DLL ! dl_data_req (S_R:=S_R+1) START Tr_min, START Tt_max	DI_data_req_pstn(Pstn_signal_ack(S_R))		4.6
26		?TIMEOUT Tr_min			4.7
27		DLL ! dl_data_req	DI_data_req_pstn(Pstn_signal_ack(S_R))		4.7
28	B3	?TIMEOUT Tt_max		(PASS)	4.8

Detailed Comments : 1) Initialization of the sequence variables.
        2) Procedure for sending one signal message.
        3) Procedure for sending two signal messages.
        4) Procedure for sending two signal messages with single acknowledgment of each pstn SIGNAL
        message.

        LTS_one_signal_messages:
        2.1) Implicit send message to invoke a sending of a FE−line_signal_request message to the NWK
        entity (LE PSTN FSM).
        2.2) Receipt of a SIGNAL message (M(S) = S(R)).
        2.3) Sending of a SIGNAL ACK message (M(R) = S(R)).
        2.4) Expected behaviour, no event shall occure during Tt_max.

        LTS_two_signal_messages:

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Test Case Dynamic Behaviour

Detailed Comments : ...

3.1) Implicit send message to invoke a sending of a FE−line_signal_request message to the NWK entity (LE PSTN FSM).
3.2) Second implicit send message to invoke a sending of a FE−line_signal_request message to the NWK entity (LE PSTN FSM).
3.3) Receipt of a SIGNAL message (M(S) = S(R)).
3.4) Second receipt of a SIGNAL message (M(S) = S(R)).
3.5) Sending of a SIGNAL ACK message (M(R) = S(R)).
3.6) Expected behaviour, no event shall occure during Tt_max.

LTS_two_signal_messages_single_ack:
4.1) Implicit send message to invoke a sending of a FE−line_signal_request message to the NWK entity (LE PSTN FSM).
4.2) Second implicit send message to invoke a sending of a FE−line_signal_request message to the NWK entity (LE PSTN FSM).
4.3) Receipt of a SIGNAL message (M(S) = S(R)).
4.4) Second receipt of a SIGNAL message (M(S) = S(R)).
4.5) Decrementing of S(R) to have the appropriate S(R) value for single acknowledgment of the two SIGNAL messages.
4.6) Sending of a SIGNAL ACK message (M(R) = S(R)) to acknowledge the first pstn SIGNAL message. Start of Tr and Tt.
4.7) On time−out of Tr_min sending of a SIGNAL ACK message (M(R) = S(R)) to acknowledge the second SIGNAL message.
4.8) Expected behaviour, no event shall occure until the expiry of Tt_max.

		Test Case Dynamic Behaviour			

Test Case Name : TCP_S4_V_03

Group : PSTN/Valid/LE4/

Purpose : On receipt of a SIGNAL message and a subsequent DISCONNECT message the IUT shall send a DISCONNECT COMPLETE message and enter the PSTN_path_state LE1 (Null).

The IUT shall stop timer Tr (IUT shall not send additional SIGNAL ACK messages).

Configuration :

Default : DEF_PSTN_BODY

Comments : Ref: EN 301 141–1 [1] and EN 300 324–1 [2], Clause 13, table 30 and Annex L.2.4.

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+Preamble_pstn_le4			
2		(S_R:=0, S_S:=0)			1
3		DLL ! dl_data_req (S_S := S_S + 1) START Tt_max	DI_data_req_pstn(Pstn_signal(S_S, TSPX_PSTN_COND_INFO _SIGNAL_DIGIT1))		2
4		DLL ! dl_data_req START T3_max	DI_data_req_pstn(Pstn_disc_s)		3
5	B1	DLL ? dl_data_ind CANCEL T3_max	DI_data_ind_pstn(Pstn_disc_cpl_r)	(PASS)	4
6	B2	?TIMEOUT Tt_max		(PASS)	5
7		+STEP_CHECK_PSTN_STATE_LE1			6
8		+Postamble_pstn			

Detailed Comments : 1) Initialization of the sequence variables.
2) Sending of a SIGNAL message.
3) Sending of a DISCONNECT message.
4) Expected event, receipt of a DISCONNECT COMPLETE message.
5) Expected behaviour, no event shall occure until the expiry of Tt_max.
6) Expected status, the IUT shall be in PSTN_path_state LE1.

		Test Case Dynamic Behaviour			

Test Case Name : TCP_S4_V_04

Group : PSTN/Valid/LE4/

Purpose : On receipt of a SIGNAL message and a subsequent DISCONNECT COMPLETE message the IUT shall enter the PSTN_path_state LE1 (Null).

The IUT shall stop timer Tr (IUT shall not send additional SIGNAL ACK messages).

Configuration :

Default : DEF_PSTN_BODY

Comments : Ref: EN 301 141–1 [1] and EN 300 324–1 [2], Clause 13, table 30 and Annex L.2.4.

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+Preamble_pstn_le4			
2		(S_R:=0, S_S:=0)			1
3		DLL ! dl_data_req (S_S := S_S + 1) START Tt_max	Dl_data_req_pstn(Pstn_signal(S_S, TSPX_PSTN_COND_INFO _SIGNAL_DIGIT1))		2
4		DLL ! dl_data_req	Dl_data_req_pstn(Pstn_disc_cpl_s)		3
5	B1	?TIMEOUT Tt_max		(PASS)	4
6		+STEP_CHECK_PSTN_STATE_LE1			5
7		+Postamble_pstn			

Detailed Comments : 1) Initialization of the sequence variables.
2) Sending of a SIGNAL message.
3) Sending of a DISCONNECT COMPLETE message.
4) Expected behaviour, no event shall occure until the expiry of Tt_max.
5) Expected status, the IUT shall be in PSTN_path_state LE1.

		Test Case Dynamic Behaviour			
Test Case Name	:	TCP_S4_V_05			
Group	:	PSTN/Valid/LE4/			
Purpose	:	On receipt of a SIGNAL message with a valid L3addr (0, 1, 2) not equal to the one in use ,the IUT shall send a DISCONNECT message and enter the new PSTN_path_state LE5 (Disconnect request).			
Configuration	:				
Default	:	DEF_PSTN_BODY			
Comments	:	Ref: EN 301 141–1 [1] and EN 300 324–1 [2], Clause 13, table 30 and Annex L.2.4.			

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+Preamble_pstn_le4			
2		(S_R:=0, S_S:=0)			1
3		+select_channel			
4		DLL ! dl_data_req (S_S := S_S + 1) START Tt_max	DI_data_req_pstn(Pstn_signal_addr(TCV_l3_addr_2nd, S_S, TSPX_PSTN_COND_INFO_SIGNAL_DIGIT1))		2
5		DLL ! dl_data_req	DI_data_req_pstn(Pstn_disc_cpl_s)		3
6	B1	?TIMEOUT Tt_max		(PASS)	4
7		+STEP_CHECK_PSTN_STATE_LE1			5
8		+Postamble_pstn			
		select_channel			
9		[TCV_l3_addr = TSC_PSTN_L3ADDR_ZERO]			
10		(TCV_l3_addr_2nd := TSC_PSTN_L3ADDR_B1)			
11		[TCV_l3_addr = TSC_PSTN_L3ADDR_B1]			
12		(TCV_l3_addr_2nd := TSC_PSTN_L3ADDR_B2)			
13		[TCV_l3_addr = TSC_PSTN_L3ADDR_B2]			
14		(TCV_l3_addr_2nd := TSC_PSTN_L3ADDR_B1)			

Detailed Comments : 1) Initialization of the sequence variables.
2) Sending of a SIGNAL message.
3) Sending of a DISCONNECT COMPLETE message.
4) Expected behaviour, no event shall occure until the expiry of Tt_max.
5) Expected status, the IUT shall be in PSTN_path_state LE1.

		Test Case Dynamic Behaviour			
Test Case Name		**:** TCP_S4_V_06			
Group		**:** PSTN/Valid/LE4/			
Purpose		**:** On receipt of an SIGNAL message with a L3addr = 7fff , the IUT shall send a DISCONNECT message and enter the new PSTN_path_state LE5 (Disconnect request).			
Configuration		**:**			
Default		**:** DEF_PSTN_BODY			
Comments		**:** Ref: EN 301 141–1 [1] and EN 300 324–1 [2], Clause 13, table 30 and Annex L.2.4.			
Nr	**Label**	**Behaviour Description**	**Constraints Ref**	**Verdict**	**Comments**
1		+Preamble_pstn_le4			
2		(S_R:=0, S_S:=0)			1
3		DLL ! dl_data_req (S_S := S_S + 1) START T_AC_short	Dl_data_req_pstn(Pstn_signal_addr(TSC_PSTN_L3ADDR_7FFF, S_S, TSPX_PSTN_COND_INFO_SIGNAL_DIGIT1))		2
4		DLL ? dl_data_ind CANCEL T_AC_short	Dl_data_ind_pstn(Pstn_disc_r)	(PASS)	2
5		+STEP_CHECK_PSTN_STATE_LE5			3
6		+Postamble_pstn			
Detailed Comments : 1) Sending of an SIGNAL message with a l3address set to 7FFF. 2) Expected behaviour, a DISCONNECT message shall be sent by the IUT. 3) Expected status, the IUT shall be in PSTN_path_state LE5.					

Test Case Dynamic Behaviour

Test Case Name	**:** TCP_S4_V_07				
Group	**:** PSTN/Valid/LE4/				
Purpose	**:** On receipt of an SIGNAL message with a L3addr = 7fff , the IUT shall treat the message as valid, and remain in the PSTN_path_state LE4 (Path active).				
Configuration	**:**				
Default	**:** DEF_PSTN_BODY				
Comments	**:** Ref: EN 301 141–1 [1] and EN 300 324–1 [2], Clause 13, table 30 and Annex L.2.4.				

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+Preamble_pstn_le4			
2		(S_R:=0, S_S:=0)			1
3		DLL ! dl_data_req (S_S := S_S + 1) START Tt_max	DI_data_req_pstn(Pstn_signal_addr(TSC_PSTN_L3ADDR_7FFF, S_S, TSPX_PSTN_COND_INFO _SIGNAL_DIGIT1))		2
4	B1	DLL ? dl_data_ind CANCEL Tt_max, START T_NOAC	DI_data_ind_pstn(Pstn_signal_ack(S_S))	(PASS)	3
5	B2	?TIMEOUT T_NOAC		(PASS)	
6		+STEP_CHECK_PSTN_STATE_LE4			4
7		+Postamble_pstn			

Detailed Comments : 1) Initialization of the sequence variables.
2) Sending of a SIGNAL message.
3) Expected SIGNAL ACK message.
4) Expected status, the IUT shall be in PSTN_path_state LE4.

Test Case Dynamic Behaviour

Test Case Name	**:** TCP_S4_V_08				
Group	**:** PSTN/Valid/LE4/				
Purpose	**:** On receipt of an SIGNAL message with a L3addr = reserved value (not equal to 0, 1, 2, 7fff) , the IUT shall send a DISCONNECT message and enter the new PSTN_path_state LE5 (Disconnect request).				
Configuration	**:**				
Default	**:** DEF_PSTN_BODY				
Comments	**:** Ref: EN 301 141–1 [1] and EN 300 324–1 [2], Clause 13, table 30 and Annex L.2.4.				

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+Preamble_pstn_le4			
2		(S_R:=0, S_S:=0)			
3		DLL ! dl_data_req (S_S := S_S + 1) START T_AC_short	DI_data_req_pstn(Pstn_signal_addr(TSPX_PSTN_L3ADDR_RESERVED, S_S, TSPX_PSTN_COND_INFO _SIGNAL_DIGIT1))		1
4		DLL ? dl_data_ind CANCEL T_AC_short	DI_data_ind_pstn(Pstn_disc_r)	(PASS)	2
5		+STEP_CHECK_PSTN_STATE_LE5			3
6		+Postamble_pstn			

Detailed Comments : 1) Sending of an SIGNAL message with a l3address set to reserved.
2) Expected behaviour, a DISCONNECT message shall be sent by the IUT.
3) Expected status, the IUT shall be in PSTN_path_state LE5.

		Test Case Dynamic Behaviour			

Test Case Name : TCP_S4_V_09

Group : PSTN/Valid/LE4/

Purpose : On receipt of an SIGNAL message with a L3addr = reserved value (not equal to 0, 1, 2, 7fff) , the IUT shall ignore the message and remain in the PSTN_path_state LE4 (Path active).

Configuration :

Default : DEF_PSTN_BODY

Comments : Ref: EN 301 141–1 [1]

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+Preamble_pstn_le4			
2		(S_R:=0, S_S:=0)			1
3		DLL ! dl_data_req (S_S := S_S + 1) START T_NOAC	Dl_data_req_pstn(Pstn_signal_addr(TSPX_PS TN_L3ADDR_RESERVED, S_S, TSPX_PSTN_COND_INFO _SIGNAL_DIGIT1))		2
4	B1	?TIMEOUT T_NOAC		(PASS)	2
5		+STEP_CHECK_PSTN_STATE_LE4			3
6		+Postamble_pstn			

Detailed Comments : 1) Initialization of the sequence variables.
2) Sending of a SIGNAL message.
3) Expected behaviour, no event shall occure until the expiry of T_NOAC.
4) Expected status, the IUT shall be in PSTN_path_state LE4.

		Test Case Dynamic Behaviour			

Test Case Name : TCP_S4_V_10

Group : PSTN/Valid/LE4/

Purpose : On receipt of the MDL_maintenance_request (PSTN GW), the IUT shall send a MAINTENANCE STATUS ENQUIRY message with the IE PSTN gateway status request, and remain in the PSTN_path_state LE4 (Path active).

Configuration :

Default : DEF_PSTN_BODY

Comments : Ref: EN 301 141–1 [1]

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+Preamble_pstn_le4			
2		<IUT ! MNT_status_enq>	Mnt_status_enq_PSTN		1
3		START T_AC_long			
4		DLL ? dl_data_ind CANCEL T_AC_long	Dl_data_ind_pstn(Mnt_stat us_enq_PSTN)		2
5		+STEP_CHECK_PSTN_STATE_LE4			3
6		+Postamble_pstn			

Detailed Comments : 1) Implicit send message to invoke a sending of a MDL_maintenance request (PSTN GW) message to the NWK entity (LE PSTN FSM).
2) Expected event, receipt of an Maintenance status enquiry (PSTN) message.
3) Expected status, the IUT shall be in PSTN_path_state LE4.

Test Case Dynamic Behaviour	

Test Case Name : TCP_S4_V_11

Group : PSTN/Valid/LE4/

Purpose : On receipt of the MDL_maintenance_request (PSTN GW), the IUT shall send a MAINTENANCE STATUS ENQUIRY message, and remain in the PSTN_path_state LE4 (Path active).

On receipt of a MAINTENANCE STATUS, the IUT sends no message and remain in the PSTN_path_state LE4 (Path active).

Configuration :

Default : DEF_PSTN_BODY

Comments : Ref: EN 301 141–1 [1] and EN 300 324–1 [2], Clause 13, table 30 and Annex L.2.4.

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+Preamble_pstn_le4			
2		<IUT ! MNT_status_enq>	Mnt_status_enq_PSTN		1
3		START T_AC_long			
4		DLL ? dl_data_ind CANCEL T_AC_long	Dl_data_ind_pstn(Mnt_status_enq_PSTN)	(PASS)	2
5		DLL ! dl_data_req START T_NOAC	Dl_data_req_pstn(Mnt_status_PSTN)		3
6		? TIMEOUT T_NOAC		(PASS)	
7		+STEP_CHECK_PSTN_STATE_LE4			4
8		+Postamble_pstn			

Detailed Comments : 1) Implicit send message to invoke a sending of a MDL_maintenance request (PSTN GW) message to the NWK entity (LE PSTN FSM).
2) Expected event, receipt of an Maintenance status enquiry (PSTN) message.
3) A valid STATUS message is sent to the IUT
4) Expected status, the IUT shall be in PSTN_path_state LE4.

		Test Case Dynamic Behaviour			

Test Case Name **:** TCP_S4_V_12

Group   **:** PSTN/Valid/LE4/

Purpose   **:** On receipt of the MDL_maintenance_request (PSTN GW), the IUT shall send a MAINTENANCE STATUS ENQUIRY message, and remain in the PSTN_path_state LE4 (Path active).

On receipt of a MAINTENANCE STATUS with a L3addr reserved value (not equal to 0, 1, 2, 7fff) , the IUT shall ignore the message and remain in the PSTN_path_state LE4 (Path active).

Configuration   **:**

Default   **:** DEF_PSTN_BODY

Comments   **:** Ref: EN 301 141–1 [1]

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+Preamble_pstn_le4			
2		<IUT ! MNT_status_enq>	Mnt_status_enq_PSTN		1
3		START T_AC_long			
4		DLL ? dl_data_ind CANCEL T_AC_long	Dl_data_ind_pstn(Mnt_status_enq_PSTN)	(PASS)	2
5		DLL ! dl_data_req START Tm_max	Dl_data_req_pstn(Mnt_status_PSTN_addr(TSPX_PSTN_L3ADDR_RESERVED))		3
6		DLL ? dl_data_ind CANCEL Tm_max	Dl_data_ind_pstn(Mnt_status_enq_PSTN)	(PASS)	4
7		+STEP_CHECK_PSTN_STATE_LE4			5
8		+Postamble_pstn			
9		? TIMEOUT Tm_max		(FAIL)	
10		+Postamble_pstn			

Detailed Comments : 1) Implicit send message to invoke a sending of a MDL_maintenance request (PSTN GW) message to the NWK entity (LE PSTN FSM).
2) Expected event, receipt of an Maintenance status enquiry (PSTN) message.
3) A STATUS message is sent with a l3addr set to reserved
4) A valid STATUS ENQUIRY message is repeated by the IUT
5) Expected status, the IUT shall be in PSTN_path_state LE4.

Test Case Dynamic Behaviour

Test Case Name : TCP_S4_V_13

Group : PSTN/Valid/LE4/

Purpose : On receipt of the MDL_maintenance_request (PSTN GW), the IUT shall send a MAINTENANCE STATUS ENQUIRY message, and remain in the PSTN_path_state LE4 (Path active).

On receipt of a MAINTENANCE STATUS with a L3addr reserved value (not equal to 0, 1, 2, 7fff) , the IUT shall send a DISCONNECT message and enter the new PSTN_path_state LE5 (Disconnect request).

Configuration :

Default : DEF_PSTN_BODY

Comments : Ref: EN 301 141−1 [1] and EN 300 324−1 [2], Clause 13, table 30 and Annex L.2.4.

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+Preamble_pstn_le4			
2		<IUT ! MNT_status_enq>	Mnt_status_enq_PSTN		1
3		START T_AC_long			
4		DLL ? dl_data_ind CANCEL T_AC_long	Dl_data_ind_pstn(Mnt_status_enq_PSTN)	(PASS)	2
5		DLL ! dl_data_req START T_AC_short	Dl_data_req_pstn(Mnt_status_PSTN_addr(TSPX_PSTN_L3ADDR_RESERVED))		3
6		DLL ? dl_data_ind CANCEL T_AC_short	Dl_data_ind_pstn(Pstn_disc_r)	(PASS)	4
7		+STEP_CHECK_PSTN_STATE_LE5			5
8		+Postamble_pstn			

Detailed Comments : 1) Implicit send message to invoke a sending of a MDL_maintenance request (PSTN GW) message to the NWK entity (LE PSTN FSM).
2) Expected event, receipt of an Maintenance status enquiry (PSTN) message.
3) A STATUS message is sent with a l3addr set to reserved
4) Expected behaviour, a DISCONNECT message shall be sent by the IUT.
5) Expected status, the IUT shall be in PSTN_path_state LE5.

Test Case Dynamic Behaviour

Test Case Name : TCP_S5_V_01

Group : PSTN/Valid/LE5/

Purpose : On receipt of a DISCONNECT COMPLETE message the IUT shall enter the new PSTN_path_state LE1 (Null).
The IUT shall stop timer T3 (IUT shall not send additional DISCONNECT messages).

Configuration :

Default : DEF_PSTN_BODY

Comments : Ref: EN 301 141−1 [1] and EN 300 324−1 [2], Clause 13, table 30 and Annex L.2.4.

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+Preamble_pstn_le5			
2		DLL ! dl_data_req	Dl_data_req_pstn(Pstn_disc_cpl_s)		1
3		START T3_max			
4	B1	?TIMEOUT T3_max		(PASS)	2
5		+STEP_CHECK_PSTN_STATE_LE1			3
6		+Postamble_pstn			

Detailed Comments : 1) Sending of a DISCONNECT COMPLETE message.
2) Expected behaviour, no event shall occure during T3_max
3) Expected status, the IUT shall be in PSTN_path_state LE1.

		Test Case Dynamic Behaviour			

Test Case Name : TCP_S5_V_02

Group : PSTN/Valid/LE5/

Purpose : On receipt of a DISCONNECT message the IUT shall enter the new PSTN_path_state LE1 (Null). The IUT shall stop timer T3 (IUT shall not send additional DISCONNECT messages).

Configuration :

Default : DEF_PSTN_BODY

Comments : Ref: EN 301 141–1 [1] and EN 300 324–1 [2], Clause 13, table 30 and Annex L.2.4.

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+Preamble_pstn_le5			
2		DLL ! dl_data_req	Dl_data_req_pstn(Pstn_disc_s)		1
3		START T3_max			
4	B1	?TIMEOUT T3_max		(PASS)	2
5		+STEP_CHECK_PSTN_STATE_LE1			3
6		+Postamble_pstn			

Detailed Comments : 1) Sending of a DISCONNECT message.
2) Expected behaviour, no event shall occure during T3_max.
3) Expected status, the IUT shall be in PSTN_path_state LE1.

		Test Case Dynamic Behaviour			

Test Case Name : TCP_S5_V_03

Group : PSTN/Valid/LE5/

Purpose : On receipt of an ESTABLISH message the IUT shall ignore the message and remain in the PSTN_path_state LE5 (Path Disconnect Request).

Configuration :

Default : DEF_PSTN_BODY

Comments : Ref: EN 301 141–1 [1] and EN 300 324–1 [2], Clause 13, table 30 and Annex L.2.4.

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+Preamble_pstn_le5			
2		DLL ! dl_data_req	Dl_data_req_pstn(Pstn_est_cond_part (TSPX_PSTN_COND_INFO _EST_SEND))		1
3		+STEP_CHECK_PSTN_STATE_LE5			2
4		+Postamble_pstn			

Detailed Comments : 1) Sending of an ESTABLISH message.
2) Expected status, the IUT shall be in PSTN_path_state LE5.

Test Case Dynamic Behaviour

Test Case Name	: TCP_S5_V_04
Group	: PSTN/Valid/LE5/
Purpose	: On receipt of an ESTABLISH ACK message the IUT shall ignore the message and remain in the PSTN_path_state LE5 (Path Disconnect Request).
Configuration	:
Default	: DEF_PSTN_BODY
Comments	: Ref: EN 301 141−1 [1] and EN 300 324−1 [2], Clause 13, table 30 and Annex L.2.4.

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+Preamble_pstn_le5			
2		DLL ! dl_data_req	Dl_data_req_pstn(Pstn_est_ack)		1
3		+STEP_CHECK_PSTN_STATE_LE5			2
4		+Postamble_pstn			

Detailed Comments : 1) Sending of an ESTABLISH ACK message.
2) Expected status, the IUT shall be in PSTN_path_state LE5.

Test Case Dynamic Behaviour

Test Case Name	: TCP_S5_V_05
Group	: PSTN/Valid/LE5/
Purpose	: On receipt of a SIGNAL message the IUT shall ignore the message and remain in the PSTN_path_state LE5 (Path Disconnect Request).
Configuration	:
Default	: DEF_PSTN_BODY
Comments	: Ref: EN 301 141−1 [1] and EN 300 324−1 [2], Clause 13, table 30 and Annex L.2.4.

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+Preamble_pstn_le5			
2		(S_S:=0)			1
3		DLL ! dl_data_req (S_S := S_S + 1)	Dl_data_req_pstn(Pstn_signal(S_S, TSPX_PSTN_COND_INFO _SIGNAL_DIGIT1))		2
4		+STEP_CHECK_PSTN_STATE_LE5			3
5		+Postamble_pstn			

Detailed Comments : 1) Initialization of the send sequence variable S(S).
2) Sending of a SIGNAL message.
3) Expected status, the IUT shall be in PSTN_path_state LE5.

Test Case Dynamic Behaviour

Test Case Name : TCP_S5_V_06

Group : PSTN/Valid/LE5/

Purpose : On receipt of a SIGNAL ACK message the IUT shall ignore the message and remain in the PSTN_path_state LE5 (Path Disconnect Request).

Configuration :

Default : DEF_PSTN_BODY

Comments : Ref: EN 301 141–1 [1] and EN 300 324–1 [2], Clause 13, table 30 and Annex L.2.4.

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+Preamble_pstn_le5			
2		(S_R:=0)			1
3		DLL ! dl_data_req	Dl_data_req_pstn(Pstn_signal_ack(S_R))		2
4		+STEP_CHECK_PSTN_STATE_LE5			3
5		+Postamble_pstn			

Detailed Comments : 1) Initialization of the send sequence variable S(S).
2) Sending of a SIGNAL ACK message.
3) Expected status, the IUT shall be in PSTN_path_state LE5.

Test Case Dynamic Behaviour

Test Case Name : TCP_S5_V_07

Group : PSTN/Valid/LE5/

Purpose : On receipt of a STATUS message the IUT shall ignore the message and remain in the PSTN_path_state LE5 (Path Disconnect Request).

Configuration :

Default : DEF_PSTN_BODY

Comments : Ref: EN 301 141–1 [1] and EN 300 324–1 [2], Clause 13, table 30 and Annex L.2.4.

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+Preamble_pstn_le5			
2		DLL ! dl_data_req	Dl_data_req_pstn(Pstn_status(TSC_PSTN_STATE_AN5, TSC_PSTN_CAUSE_RSP_ TO_STATUS_ENQ))		1
3		+STEP_CHECK_PSTN_STATE_LE5			2
4		+Postamble_pstn			

Detailed Comments : 1) Sending of a STATUS message.
2) Expected status, the IUT shall be in PSTN_path_state LE5.

<table>
<tr><td colspan="6" align="center">**Test Case Dynamic Behaviour**</td></tr>
<tr><td colspan="2">**Test Case Name**</td><td colspan="4">: TCP_S5_V_08</td></tr>
<tr><td colspan="2">**Group**</td><td colspan="4">: PSTN/Valid/LE5/</td></tr>
<tr><td colspan="2">**Purpose**</td><td colspan="4">: On receipt of the MDL_maintenance_request (PSTN GW) , the IUT shall send a MAINTENANCE STATUS ENQUIRY message with the IE PSTN gateway status request, and remain in the PSTN_path_state LE5 (Path Disconnect Request).</td></tr>
<tr><td colspan="2">**Configuration**</td><td colspan="4">:</td></tr>
<tr><td colspan="2">**Default**</td><td colspan="4">: DEF_PSTN_BODY</td></tr>
<tr><td colspan="2">**Comments**</td><td colspan="4">: Ref: EN 301 141−1 [1] .</td></tr>
<tr><td>**Nr**</td><td>**Label**</td><td>**Behaviour Description**</td><td>**Constraints Ref**</td><td>**Verdict**</td><td>**Comments**</td></tr>
<tr><td>1</td><td></td><td>+Preamble_pstn_le5</td><td></td><td></td><td></td></tr>
<tr><td>2</td><td></td><td><IUT ! MNT_status_enq></td><td>Mnt_status_enq_PSTN</td><td></td><td>1</td></tr>
<tr><td>3</td><td></td><td>START T_AC_long</td><td></td><td></td><td></td></tr>
<tr><td>4</td><td></td><td>DLL ? dl_data_ind CANCEL T_AC_long</td><td>DI_data_ind_pstn(Mnt_stat us_enq_PSTN)</td><td></td><td>2</td></tr>
<tr><td>5</td><td></td><td>+STEP_CHECK_PSTN_STATE_LE5</td><td></td><td></td><td>3</td></tr>
<tr><td>6</td><td></td><td>+Postamble_pstn</td><td></td><td></td><td></td></tr>
<tr><td colspan="6">**Detailed Comments :** 1) Implicit send message to invoke a sending of a MDL_maintenance request (PSTN GW) message to the NWK entity (LE PSTN FSM).
2) Expected event, receipt of an Maintenance status enquiry (PSTN) message.
3) Expected status, the IUT shall be in PSTN_path_state LE5.</td></tr>
</table>

<table>
<tr><td colspan="6" align="center">**Test Case Dynamic Behaviour**</td></tr>
<tr><td colspan="2">**Test Case Name**</td><td colspan="4">: TCP_S5_V_09</td></tr>
<tr><td colspan="2">**Group**</td><td colspan="4">: PSTN/Valid/LE5/</td></tr>
<tr><td colspan="2">**Purpose**</td><td colspan="4">: On receipt of the MDL_maintenance_request(PSTN GW) , the IUT shall send a MAINTENANCE STATUS ENQUIRY message, and remain in the PSTN_path_state LE1 (Null).

On receipt of a MAINTENANCE STATUS, the IUT sends no message and remain in the PSTN_path_state LE5 (Path Disconnect Request).</td></tr>
<tr><td colspan="2">**Configuration**</td><td colspan="4">:</td></tr>
<tr><td colspan="2">**Default**</td><td colspan="4">: DEF_PSTN_BODY</td></tr>
<tr><td colspan="2">**Comments**</td><td colspan="4">: Ref: EN 301 141−1 [1] and EN 300 324−1 [2], Clause 13, table 30 and Annex L.2.4.</td></tr>
<tr><td>**Nr**</td><td>**Label**</td><td>**Behaviour Description**</td><td>**Constraints Ref**</td><td>**Verdict**</td><td>**Comments**</td></tr>
<tr><td>1</td><td></td><td>+Preamble_pstn_le5</td><td></td><td></td><td></td></tr>
<tr><td>2</td><td></td><td><IUT ! MNT_status_enq></td><td>Mnt_status_enq_PSTN</td><td></td><td>1</td></tr>
<tr><td>3</td><td></td><td>START T_AC_long</td><td></td><td></td><td></td></tr>
<tr><td>4</td><td></td><td>DLL ? dl_data_ind CANCEL T_AC_long</td><td>DI_data_ind_pstn(Mnt_stat us_enq_PSTN)</td><td>(PASS)</td><td>2</td></tr>
<tr><td>5</td><td></td><td>DLL ! dl_data_req START T_NOAC</td><td>DI_data_req_pstn(Mnt_stat us_PSTN)</td><td></td><td>3</td></tr>
<tr><td>6</td><td></td><td>? TIMEOUT T_NOAC</td><td></td><td>(PASS)</td><td></td></tr>
<tr><td>7</td><td></td><td>+STEP_CHECK_PSTN_STATE_LE5</td><td></td><td></td><td>4</td></tr>
<tr><td>8</td><td></td><td>+Postamble_pstn</td><td></td><td></td><td></td></tr>
<tr><td colspan="6">**Detailed Comments :** 1) Implicit send message to invoke a sending of a MDL_maintenance request (PSTN GW) message to the NWK entity (LE PSTN FSM).
2) Expected event, receipt of an Maintenance status enquiry (PSTN) message.
3) A valid STATUS message is sent to the IUT
4) Expected status, the IUT shall be in PSTN_path_state LE5.</td></tr>
</table>

		Test Case Dynamic Behaviour			

Test Case Name : TCP_S1_I_01

Group : PSTN/Inopportune/LE1/

Purpose : On receipt of an ESTABLISH ACK message the IUT shall send a STATUS ENQUIRY message.

On receipt of a STATUS message containing the cause_type "response to status enquiry" and the state AN1 the IUT shall remain in the PSTN_path_state LE1 (Null).

Configuration :

Default : DEF_PSTN_BODY

Comments : Ref: EN 301 141−1 [1] and EN 300 324−1 [2], Clause 13, table 30 and Annex L.2.4.

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+Preamble_pstn_le1			
2		DLL ! dl_data_req START T_AC_short	Dl_data_req_pstn(Pstn_est_ack)		1
3	B1	DLL ? dl_data_ind CANCEL T_AC_short	Dl_data_ind_pstn(Pstn_status_enq)	(PASS)	2
4		DLL ! dl_data_req	Dl_data_req_pstn(Pstn_status(TSC_PSTN_STATE_AN1, TSC_PSTN_CAUSE_RSP_ TO_STATUS_ENQ))		3
5		+STEP_CHECK_PSTN_STATE_LE1			4
6		+Postamble_pstn			

Detailed Comments : 1) Sending of an ESTABLISH ACK message.
2) Expected event, receipt of a STATUS ENQUIRY message .
3) Sending of a STATUS message (state: AN1, cause: response to status enquiry).
4) Expected status, the IUT shall be in PSTN_path_state LE1.

		Test Case Dynamic Behaviour			

Test Case Name **:** TCP_S1_I_02

Group **:** PSTN/Inopportune/LE1/

Purpose **:** On receipt of a SIGNAL message the IUT shall send a STATUS ENQUIRY message.

On receipt of a STATUS message containing the cause_type "response to status enquiry" and the state AN1 the IUT shall remain in the PSTN_path_state LE1 (Null).

Configuration **:**

Default **:** DEF_PSTN_BODY

Comments **:** Ref: EN 301 141–1 [1] and EN 300 324–1 [2], Clause 13, table 30 and Annex L.2.4.

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+Preamble_pstn_le1			
2		(S_R:=0, S_S:=0)			1
3		DLL ! dl_data_req START T_AC_short	DI_data_req_pstn(Pstn_signal(S_S, TSPX_PSTN_COND_INFO _SIGNAL_DIGIT1))		2
4	B1	DLL ? dl_data_ind CANCEL T_AC_short	DI_data_ind_pstn(Pstn_status_enq)	(PASS)	3
5		DLL ! dl_data_req	DI_data_req_pstn(Pstn_status(TSC_PSTN_STATE_AN1, TSC_PSTN_CAUSE_RSP_ TO_STATUS_ENQ))		4
6		+STEP_CHECK_PSTN_STATE_LE1			5
7		+Postamble_pstn			

Detailed Comments : 1) Initialization of the sequence variables.
2) Sending of a SIGNAL message.
3) Expected event, receipt of a STATUS ENQUIRY message .
4) Sending of a STATUS message (state: AN1, cause: response to status enquiry).
5) Expected status, the IUT shall be in PSTN_path_state LE1.

		Test Case Dynamic Behaviour			

Test Case Name : TCP_S1_I_03

Group : PSTN/Inopportune/LE1/

Purpose : On receipt of a SIGNAL ACK message the IUT shall send a STATUS ENQUIRY message.

On receipt of a STATUS message containing the cause_type "response to status enquiry" and the state AN1 the IUT shall remain in the PSTN_path_state LE1 (Null).

Configuration :

Default : DEF_PSTN_BODY

Comments : Ref: EN 301 141−1 [1] and EN 300 324−1 [2], Clause 13, table 30 and Annex L.2.4.

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+Preamble_pstn_le1			
2		(S_R:=0, S_S:=0)			1
3		DLL ! dl_data_req START T_AC_short	Dl_data_req_pstn(Pstn_signal_ack(S_R))		2
4	B1	DLL ? dl_data_ind CANCEL T_AC_short	Dl_data_ind_pstn(Pstn_status_enq)	(PASS)	3
5		DLL ! dl_data_req	Dl_data_req_pstn(Pstn_status(TSC_PSTN_STATE_AN1, TSC_PSTN_CAUSE_RSP_ TO_STATUS_ENQ))		4
6		+STEP_CHECK_PSTN_STATE_LE1			5
7		+Postamble_pstn			

Detailed Comments : 1) Initialization of the sequence variables.
2) Sending of a SIGNAL ACK message.
3) Expected event, receipt of a STATUS ENQUIRY message .
4) Sending of a STATUS message (state: AN1, cause: response to status enquiry).
5) Expected status, the IUT shall be in PSTN_path_state LE1.

		Test Case Dynamic Behaviour			
Test Case Name	: TCP_S1_I_04				
Group	: PSTN/Inopportune/LE1/				
Purpose	: On receipt of a SIGNAL ACK message the IUT shall send a STATUS ENQUIRY message. On receipt of a STATUS message containing the cause_type "response to status enquiry" and the state AN2 the IUT shall remain in the PSTN_path_state LE1 (Null).				
Configuration	:				
Default	: DEF_PSTN_BODY				
Comments	: Ref: EN 301 141–1 [1] and EN 300 324–1 [2], Clause 13, table 30 and Annex L.2.4.				

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+Preamble_pstn_le1			
2		(S_R:=0, S_S:=0)			1
3		DLL ! dl_data_req START T_AC_short	DI_data_req_pstn(Pstn_signal_ack(S_R))		2
4	B1	DLL ? dl_data_ind CANCEL T_AC_short	DI_data_ind_pstn(Pstn_status_enq)	(PASS)	3
5		DLL ! dl_data_req	DI_data_req_pstn(Pstn_status(TSC_PSTN_STATE_AN2, TSC_PSTN_CAUSE_RSP_ TO_STATUS_ENQ))		4
6		+STEP_CHECK_PSTN_STATE_LE1			5
7		+Postamble_pstn			

Detailed Comments : 1) Initialization of the sequence variables. 2) Sending of a SIGNAL ACK message. 3) Expected event, receipt of a STATUS ENQUIRY message . 4) Sending of a STATUS message (state: AN2, cause: response to status enquiry). 5) Expected status, the IUT shall be in PSTN_path_state LE1.

		Test Case Dynamic Behaviour			
Test Case Name	**:** TCP_S1_I_05				
Group	**:** PSTN/Inopportune/LE1/				
Purpose	**:** On receipt of a SIGNAL ACK message the IUT shall send a STATUS ENQUIRY message. On receipt of a STATUS message containing the cause_type "response to status enquiry" and the state AN3 the IUT shall remain in the PSTN_path_state LE1 (Null).				
Configuration	**:**				
Default	**:** DEF_PSTN_BODY				
Comments	**:** Ref: EN 301 141–1 [1] and EN 300 324–1 [2], Clause 13, table 30 and Annex L.2.4.				
Nr	**Label**	**Behaviour Description**	**Constraints Ref**	**Verdict**	**Comments**
1		+Preamble_pstn_le1			
2		(S_R:=0, S_S:=0)			1
3		DLL ! dl_data_req START T_AC_short	Dl_data_req_pstn(Pstn_signal_ack(S_R))		2
4	B1	DLL ? dl_data_ind CANCEL T_AC_short	Dl_data_ind_pstn(Pstn_status_enq)	(PASS)	3
5		DLL ! dl_data_req	Dl_data_req_pstn(Pstn_status(TSC_PSTN_STATE_AN3, TSC_PSTN_CAUSE_RSP_ TO_STATUS_ENQ))		4
6		+STEP_CHECK_PSTN_STATE_LE1			5
7		+Postamble_pstn			
Detailed Comments	**:** 1) Initialization of the sequence variables. 2) Sending of a SIGNAL ACK message. 3) Expected event, receipt of a STATUS ENQUIRY message . 4) Sending of a STATUS message (state: AN3, cause: response to status enquiry). 5) Expected status, the IUT shall be in PSTN_path_state LE1.				

		Test Case Dynamic Behaviour			
Test Case Name		**:** TCP_S1_I_06			
Group		**:** PSTN/Inopportune/LE1/			
Purpose		**:** On receipt of a SIGNAL ACK message the IUT shall send a STATUS ENQUIRY message. On receipt of a STATUS message containing the cause_type "response to status enquiry" and the state AN4 the IUT shall remain in the PSTN_path_state LE1 (Null).			
Configuration		**:**			
Default		**:** DEF_PSTN_BODY			
Comments		**:** Ref: EN 301 141–1 [1] and EN 300 324–1 [2], Clause 13, table 30 and Annex L.2.4.			
Nr	**Label**	**Behaviour Description**	**Constraints Ref**	**Verdict**	**Comments**
1		+Preamble_pstn_le1			
2		(S_R:=0, S_S:=0)			1
3		DLL ! dl_data_req START T_AC_short	Dl_data_req_pstn(Pstn_signal_ack(S_R))		2
4	B1	DLL ? dl_data_ind CANCEL T_AC_short	Dl_data_ind_pstn(Pstn_status_enq)	(PASS)	3
5		DLL ! dl_data_req	Dl_data_req_pstn(Pstn_status(TSC_PSTN_STATE_AN4, TSC_PSTN_CAUSE_RSP_ TO_STATUS_ENQ))		4
6		+STEP_CHECK_PSTN_STATE_LE1			5
7		+Postamble_pstn			
Detailed Comments : 1) Initialization of the sequence variables. 2) Sending of a SIGNAL ACK message. 3) Expected event, receipt of a STATUS ENQUIRY message . 4) Sending of a STATUS message (state: AN4, cause: response to status enquiry). 5) Expected status, the IUT shall be in PSTN_path_state LE1.					

		Test Case Dynamic Behaviour			

Test Case Name **:** TCP_S1_I_07

Group **:** PSTN/Inopportune/LE1/

Purpose **:** On receipt of a SIGNAL ACK message the IUT shall send a STATUS ENQUIRY message.
On receipt of a STATUS message containing the cause_type "response to status enquiry" and the state AN5 the IUT shall send a DISCONNECT message and enter the new PSTN_path_state LE5 (Path disconnect request).

Configuration **:**

Default **:** DEF_PSTN_BODY

Comments **:** Ref: EN 301 141–1 [1] and EN 300 324–1 [2], Clause 13, table 30 and Annex L.2.4.

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+Preamble_pstn_le1			
2		(S_R:=0, S_S:=0)			1
3		DLL ! dl_data_req START T_AC_short	Dl_data_req_pstn(Pstn_signal_ack(S_R))		2
4	B1	DLL ? dl_data_ind CANCEL T_AC_short	Dl_data_ind_pstn(Pstn_status_enq)	(PASS)	3
5		DLL ! dl_data_req START T_AC_short	Dl_data_req_pstn(Pstn_status(TSC_PSTN_STATE_AN5, TSC_PSTN_CAUSE_RSP_ TO_STATUS_ENQ))		4
6	B2	DLL ? dl_data_ind CANCEL T_AC_short	Dl_data_ind_pstn(Pstn_disc_r)	(PASS)	5
7		+STEP_CHECK_PSTN_STATE_LE5			6
8		+Postamble_pstn			

Detailed Comments : 1) Initialization of the sequence variables.
2) Sending of a SIGNAL ACK message.
3) Expected event, receipt of a STATUS ENQUIRY message .
4) Sending of a STATUS message (state: AN5, cause: response to status enquiry).
5) Expected event, receipt of a DISCONNECT message.
6) Expected status, the IUT shall be in PSTN_path_state LE5.

Test Case Dynamic Behaviour

Test Case Name : TCP_S1_I_08

Group : PSTN/Inopportune/LE1/

Purpose : On receipt of a SIGNAL ACK message the IUT shall send a STATUS ENQUIRY message.
On receipt of a STATUS message containing the cause_type "response to status enquiry" and the state AN7 the IUT shall remain in the PSTN_path_state LE1 (Null).

Configuration :

Default : DEF_PSTN_BODY

Comments : Ref: EN 301 141–1 [1] and EN 300 324–1 [2], Clause 13, table 30 and Annex L.2.4.

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+Preamble_pstn_le1			
2		(S_R:=0, S_S:=0)			1
3		DLL ! dl_data_req START T_AC_short	DI_data_req_pstn(Pstn_signal_ack(S_R))		2
4	B1	DLL ? dl_data_ind CANCEL T_AC_short	DI_data_ind_pstn(Pstn_status_enq)	(PASS)	3
5		DLL ! dl_data_req	DI_data_req_pstn(Pstn_status(TSC_PSTN_STATE_AN7, TSC_PSTN_CAUSE_RSP_ TO_STATUS_ENQ))		4
6		+STEP_CHECK_PSTN_STATE_LE1			5
7		+Postamble_pstn			

Detailed Comments : 1) Initialization of the sequence variables.
2) Sending of a SIGNAL ACK message.
3) Expected event, receipt of a STATUS ENQUIRY message .
4) Sending of a STATUS message (state: AN7, cause: response to status enquiry).
5) Expected status, the IUT shall be in PSTN_path_state LE1.

Test Case Dynamic Behaviour

Test Case Name : TCP_S1_I_09

Group : PSTN/Inopportune/LE1/

Purpose : On receipt of a DISCONNECT COMPLETE message the IUT shall ignore the message and remain in the PSTN_path_state LE1 (Null).

Configuration :

Default : DEF_PSTN_BODY

Comments : Ref: EN 301 141–1 [1] and EN 300 324–1 [2], Clause 13, table 30 and Annex L.2.4.

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+Preamble_pstn_le1			
2		DLL ! dl_data_req	DI_data_req_pstn(Pstn_disc_cpl_s)		1
3		+STEP_CHECK_PSTN_STATE_LE1			2
4		+Postamble_pstn			

Detailed Comments : 1) Sending of a DISCONNECT COMPLETE message.
2) Expected status, the IUT shall be in PSTN_path_state LE1.

Test Case Dynamic Behaviour					
Test Case Name	**:** TCP_S2_I_01				
Group	**:** PSTN/Inopportune/LE2/				
Purpose	**:** On receipt of a SIGNAL message the IUT shall send a STATUS ENQUIRY message. On receipt of a STATUS message containing the cause_type "response to status enquiry" and the state AN1 the IUT shall remain in the PSTN_path_state LE2 (Path initiated by LE).				
Configuration	**:**				
Default	**:** DEF_PSTN_BODY				
Comments	**:** Ref: EN 301 141−1 [1] and EN 300 324−1 [2], Clause 13, table 30 and Annex L.2.4.				

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+Preamble_pstn_le2			
2		(S_R:=0, S_S:=0)			1
3		DLL ! dl_data_req START T_AC_short	Dl_data_req_pstn(Pstn_signal(S_S, TSPX_PSTN_COND_INFO _SIGNAL_DIGIT1))		2
4	B1	DLL ? dl_data_ind CANCEL T_AC_short	Dl_data_ind_pstn(Pstn_status_enq)	(PASS)	3
5		DLL ! dl_data_req	Dl_data_req_pstn(Pstn_status(TSC_PSTN_STATE_AN1, TSC_PSTN_CAUSE_RSP_ TO_STATUS_ENQ))		4
6		+STEP_CHECK_PSTN_STATE_LE2			5
7		+Postamble_pstn			

Detailed Comments : 1) Initialization of the sequence variables. 2) Sending of a SIGNAL message. 3) Expected event, receipt of a STATUS ENQUIRY message . 4) Sending of a STATUS message (state: AN1, cause: response to status enquiry). 5) Expected status, the IUT shall be in PSTN_path_state LE2.

		Test Case Dynamic Behaviour			

Test Case Name : TCP_S2_I_02

Group   : PSTN/Inopportune/LE2/

Purpose   : On receipt of a SIGNAL ACK message the IUT shall send a STATUS ENQUIRY message.

On receipt of a STATUS message containing the cause_type "response to status enquiry" and the state AN1 the IUT shall remain in the PSTN_path_state LE2 (Path initiated by LE).

Configuration   :

Default   : DEF_PSTN_BODY

Comments   : Ref: EN 301 141–1 [1] and EN 300 324–1 [2], Clause 13, table 30 and Annex L.2.4.

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+Preamble_pstn_le2			
2		(S_R:=0, S_S:=0)			1
3		DLL ! dl_data_req START T_AC_short	DI_data_req_pstn(Pstn_signal_ack(S_R))		2
4	B1	DLL ? dl_data_ind CANCEL T_AC_short	DI_data_ind_pstn(Pstn_status_enq)	(PASS)	3
5		DLL ! dl_data_req	DI_data_req_pstn(Pstn_status(TSC_PSTN_STATE_AN1, TSC_PSTN_CAUSE_RSP_ TO_STATUS_ENQ))		4
6		+STEP_CHECK_PSTN_STATE_LE2			5
7		+Postamble_pstn			

Detailed Comments : 1) Initialization of the sequence variables.
2) Sending of a SIGNAL ACK message.
3) Expected event, receipt of a STATUS ENQUIRY message .
4) Sending of a STATUS message (state: AN1, cause: response to status enquiry).
5) Expected status, the IUT shall be in PSTN_path_state LE2.

		Test Case Dynamic Behaviour			

Test Case Name : TCP_S2_I_03

Group : PSTN/Inopportune/LE2/

Purpose : On receipt of a SIGNAL ACK message the IUT shall send a STATUS ENQUIRY message.
On receipt of a STATUS message containing the cause_type "response to status enquiry" and the state AN2 the IUT shall remain in the PSTN_path_state LE2 (Path initiated by LE).

Configuration :

Default : DEF_PSTN_BODY

Comments : Ref: EN 301 141−1 [1] and EN 300 324−1 [2], Clause 13, table 30 and Annex L.2.4.

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+Preamble_pstn_le2			
2		(S_R:=0, S_S:=0)			1
3		DLL ! dl_data_req START T_AC_short	Dl_data_req_pstn(Pstn_signal_ack(S_R))		2
4	B1	DLL ? dl_data_ind CANCEL T_AC_short	Dl_data_ind_pstn(Pstn_status_enq)	(PASS)	3
5		DLL ! dl_data_req	Dl_data_req_pstn(Pstn_status(TSC_PSTN_STATE_AN2, TSC_PSTN_CAUSE_RSP_ TO_STATUS_ENQ))		4
6		+STEP_CHECK_PSTN_STATE_LE2			5
7		+Postamble_pstn			

Detailed Comments : 1) Initialization of the sequence variables.
2) Sending of a SIGNAL ACK message.
3) Expected event, receipt of a STATUS ENQUIRY message .
4) Sending of a STATUS message (state: AN2, cause: response to status enquiry).
5) Expected status, the IUT shall be in PSTN_path_state LE2.

		Test Case Dynamic Behaviour			

Test Case Name : TCP_S2_I_04

Group : PSTN/Inopportune/LE2/

Purpose : On receipt of a SIGNAL ACK message the IUT shall send a STATUS ENQUIRY message.
On receipt of a STATUS message containing the cause_type "response to status enquiry" and the state AN3 the IUT shall send a DISCONNECT message and enter the new PSTN_path_state LE5 (Path disconnect request).

Configuration :

Default : DEF_PSTN_BODY

Comments : Ref: EN 301 141–1 [1] and EN 300 324–1 [2], Clause 13, table 30 and Annex L.2.4.

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+Preamble_pstn_le2			
2		(S_R:=0, S_S:=0)			1
3		DLL ! dl_data_req START T_AC_short	DI_data_req_pstn(Pstn_signal_ack(S_R))		2
4	B1	DLL ? dl_data_ind CANCEL T_AC_short	DI_data_ind_pstn(Pstn_status_enq)	(PASS)	3
5		DLL ! dl_data_req START T_AC_short	DI_data_req_pstn(Pstn_status(TSC_PSTN_STATE_AN3, TSC_PSTN_CAUSE_RSP_ TO_STATUS_ENQ))		4
6	B2	DLL ? dl_data_ind CANCEL T_AC_short	DI_data_ind_pstn(Pstn_disc_r)	(PASS)	5
7		+STEP_CHECK_PSTN_STATE_LE5			6
8		+Postamble_pstn			

Detailed Comments : 1) Initialization of the sequence variables.
2) Sending of a SIGNAL ACK message.
3) Expected event, receipt of a STATUS ENQUIRY message .
4) Sending of a STATUS message (state: AN3, cause: response to status enquiry).
5) Expected event, receipt of a DISCONNECT message.
6) Expected status, the IUT shall be in PSTN_path_state LE5.

		Test Case Dynamic Behaviour			

Test Case Name : TCP_S2_I_05

Group : PSTN/Inopportune/LE2/

Purpose : On receipt of a SIGNAL ACK message the IUT shall send a STATUS ENQUIRY message.
On receipt of a STATUS message containing the cause_type "response to status enquiry" and the state AN4 the IUT shall send a DISCONNECT message and enter the new PSTN_path_state LE5 (Path disconnect request).

Configuration :

Default : DEF_PSTN_BODY

Comments : Ref: EN 301 141–1 [1] and EN 300 324–1 [2], Clause 13, table 30 and Annex L.2.4.

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+Preamble_pstn_le2			
2		(S_R:=0, S_S:=0)			1
3		DLL ! dl_data_req START T_AC_short	Dl_data_req_pstn(Pstn_signal_ack(S_R))		2
4	B1	DLL ? dl_data_ind CANCEL T_AC_short	Dl_data_ind_pstn(Pstn_status_enq)	(PASS)	3
5		DLL ! dl_data_req START T_AC_short	Dl_data_req_pstn(Pstn_status(TSC_PSTN_STATE_AN4, TSC_PSTN_CAUSE_RSP_ TO_STATUS_ENQ))		4
6	B2	DLL ? dl_data_ind CANCEL T_AC_short	Dl_data_ind_pstn(Pstn_disc_r)	(PASS)	5
7		+STEP_CHECK_PSTN_STATE_LE5			6
8		+Postamble_pstn			

Detailed Comments : 1) Initialization of the sequence variables.
2) Sending of a SIGNAL ACK message.
3) Expected event, receipt of a STATUS ENQUIRY message .
4) Sending of a STATUS message (state: AN4, cause: response to status enquiry).
5) Expected event, receipt of a DISCONNECT message.
6) Expected status, the IUT shall be in PSTN_path_state LE5.

		Test Case Dynamic Behaviour			

Test Case Name : TCP_S2_I_06

Group : PSTN/Inopportune/LE2/

Purpose : On receipt of a SIGNAL ACK message the IUT shall send a STATUS ENQUIRY message.
On receipt of a STATUS message containing the cause_type "response to status enquiry" and the state AN5 the IUT shall send a DISCONNECT message and enter the new PSTN_path_state LE5 (Path disconnect request).

Configuration :

Default : DEF_PSTN_BODY

Comments : Ref: EN 301 141−1 [1] and EN 300 324−1 [2], Clause 13, table 30 and Annex L.2.4.

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+Preamble_pstn_le2			
2		(S_R:=0, S_S:=0)			1
3		DLL ! dl_data_req START T_AC_short	DI_data_req_pstn(Pstn_signal_ack(S_R))		2
4	B1	DLL ? dl_data_ind CANCEL T_AC_short	DI_data_ind_pstn(Pstn_status_enq)	(PASS)	3
5		DLL ! dl_data_req START T_AC_short	DI_data_req_pstn(Pstn_status(TSC_PSTN_STATE_AN5, TSC_PSTN_CAUSE_RSP_ TO_STATUS_ENQ))		4
6	B2	DLL ? dl_data_ind CANCEL T_AC_short	DI_data_ind_pstn(Pstn_disc_r)	(PASS)	5
7		+STEP_CHECK_PSTN_STATE_LE5			6
8		+Postamble_pstn			

Detailed Comments : 1) Initialization of the sequence variables.
2) Sending of a SIGNAL ACK message.
3) Expected event, receipt of a STATUS ENQUIRY message .
4) Sending of a STATUS message (state: AN5, cause: response to status enquiry).
5) Expected event, receipt of a DISCONNECT message.
6) Expected status, the IUT shall be in PSTN_path_state LE5.

	Test Case Dynamic Behaviour

Test Case Name : TCP_S2_I_07

Group : PSTN/Inopportune/LE2/

Purpose : On receipt of a SIGNAL ACK message the IUT shall send a STATUS ENQUIRY message.
On receipt of a STATUS message containing the cause_type "response to status enquiry" and the state AN7 the IUT shall remain in the PSTN_path_state LE2 (Path initiated by LE).

Configuration :

Default : DEF_PSTN_BODY

Comments : Ref: EN 301 141–1 [1] and EN 300 324–1 [2], Clause 13, table 30 and Annex L.2.4.

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+Preamble_pstn_le2			
2		(S_R:=0, S_S:=0)			1
3		DLL ! dl_data_req START T_AC_short	Dl_data_req_pstn(Pstn_signal_ack(S_R))		2
4	B1	DLL ? dl_data_ind CANCEL T_AC_short	Dl_data_ind_pstn(Pstn_status_enq)	(PASS)	3
5		DLL ! dl_data_req	Dl_data_req_pstn(Pstn_status(TSC_PSTN_STATE_AN7, TSC_PSTN_CAUSE_RSP_ TO_STATUS_ENQ))		4
6		+STEP_CHECK_PSTN_STATE_LE2			5
7		+Postamble_pstn			

Detailed Comments : 1) Initialization of the sequence variables.
2) Sending of a SIGNAL ACK message.
3) Expected event, receipt of a STATUS ENQUIRY message .
4) Sending of a STATUS message (state: AN7, cause: response to status enquiry).
5) Expected status, the IUT shall be in PSTN_path_state LE2.

		Test Case Dynamic Behaviour			

Test Case Name : TCP_S4_I_01

Group : PSTN/Inopportune/LE4/

Purpose : On receipt of an ESTABLISH message the IUT shall send a STATUS ENQUIRY message.

On receipt of a STATUS message containing the cause_type "response to status enquiry" and the state AN1 the IUT shall send a DISCONNECT message and enter the new PSTN_path_state LE5 (Path disconnect request).

Configuration :

Default : DEF_PSTN_BODY

Comments : Ref: EN 301 141–1 [1] and EN 300 324–1 [2], Clause 13, table 30 and Annex L.2.4.

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+Preamble_pstn_le4			
2		DLL ! dl_data_req START T_AC_short	DI_data_req_pstn(Pstn_est_cond_part (TSPX_PSTN_COND_INFO _EST_SEND))		1
3	B1	DLL ? dl_data_ind CANCEL T_AC_short	DI_data_ind_pstn(Pstn_status_enq)	(PASS)	2
4		DLL ! dl_data_req START T_AC_short	DI_data_req_pstn(Pstn_status(TSC_PSTN_STATE_AN1, TSC_PSTN_CAUSE_RSP_ TO_STATUS_ENQ))		3
5	B2	DLL ? dl_data_ind CANCEL T_AC_short	DI_data_ind_pstn(Pstn_disc_r)	(PASS)	4
6		+STEP_CHECK_PSTN_STATE_LE5			5
7		+Postamble_pstn			

Detailed Comments : 1) Sending of an ESTABLISH message.
2) Expected event, receipt of a STATUS ENQUIRY message.
3) Sending of a STATUS message (state: AN1, cause: response to status enquiry).
4) Expected event, receipt of a DISCONNECT message.
5) Expected status, the IUT shall be in PSTN_path_state LE5.

		Test Case Dynamic Behaviour			

Test Case Name : TCP_S4_I_02

Group   : PSTN/Inopportune/LE4/

Purpose   : On receipt of an ESTABLISH ACK message the IUT shall send a STATUS ENQUIRY message.

On receipt of a STATUS message containing the cause_type "response to status enquiry" and the state AN1 the IUT shall send a DISCONNECT message and enter the new PSTN_path_state LE5 (Path disconnect request).

Configuration   :

Default   : DEF_PSTN_BODY

Comments   : Ref: EN 301 141–1 [1] and EN 300 324–1 [2], Clause 13, table 30 and Annex L.2.4.

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+Preamble_pstn_le4			
2		DLL ! dl_data_req START T_AC_short	Dl_data_req_pstn(Pstn_est_ack)		1
3	B1	DLL ? dl_data_ind CANCEL T_AC_short	Dl_data_ind_pstn(Pstn_status_enq)	(PASS)	2
4		DLL ! dl_data_req START T_AC_short	Dl_data_req_pstn(Pstn_status(TSC_PSTN_STATE_AN1, TSC_PSTN_CAUSE_RSP_ TO_STATUS_ENQ))		3
5	B2	DLL ? dl_data_ind CANCEL T_AC_short	Dl_data_ind_pstn(Pstn_disc_r)	(PASS)	4
6		+STEP_CHECK_PSTN_STATE_LE5			5
7		+Postamble_pstn			

Detailed Comments : 1) Sending of an ESTABLISH ACK message.
2) Expected event, receipt of a STATUS ENQUIRY message .
3) Sending of a STATUS message (state: AN1, cause: response to status enquiry).
4) Expected event, receipt of a DISCONNECT message.
5) Expected status, the IUT shall be in PSTN_path_state LE5.

<table>
<tr><td colspan="7" align="center">Test Case Dynamic Behaviour</td></tr>
<tr><td colspan="7">Test Case Name   :   TCP_S4_I_03</td></tr>
<tr><td colspan="7">Group   :   PSTN/Inopportune/LE4/</td></tr>
<tr><td colspan="7">Purpose   :   On receipt of an ESTABLISH ACK message the IUT shall send a STATUS ENQUIRY message. On receipt of a STATUS message containing the cause_type "response to status enquiry" and the state AN2 the IUT shall send a DISCONNECT message and enter the new PSTN_path_state LE5 (Path disconnect request).</td></tr>
<tr><td colspan="7">Configuration   :</td></tr>
<tr><td colspan="7">Default   :   DEF_PSTN_BODY</td></tr>
<tr><td colspan="7">Comments   :   Ref: EN 301 141–1 [1] and EN 300 324–1 [2], Clause 13, table 30 and Annex L.2.4.</td></tr>
</table>

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+Preamble_pstn_le4			
2		DLL ! dl_data_req START T_AC_short	Dl_data_req_pstn(Pstn_est_ack)		1
3	B1	DLL ? dl_data_ind CANCEL T_AC_short	Dl_data_ind_pstn(Pstn_status_enq)	(PASS)	2
4		DLL ! dl_data_req START T_AC_short	Dl_data_req_pstn(Pstn_status(TSC_PSTN_STATE_AN2, TSC_PSTN_CAUSE_RSP_ TO_STATUS_ENQ))		3
5	B2	DLL ? dl_data_ind CANCEL T_AC_short	Dl_data_ind_pstn(Pstn_disc_r)	(PASS)	4
6		+STEP_CHECK_PSTN_STATE_LE5			5
7		+Postamble_pstn			

<table>
<tr><td>Detailed Comments :   1) Sending of an ESTABLISH ACK message.
2) Expected event, receipt of a STATUS ENQUIRY message .
3) Sending of a STATUS message (state: AN2, cause: response to status enquiry).
4) Expected event, receipt of a DISCONNECT message.
5) Expected status, the IUT shall be in PSTN_path_state LE5.</td></tr>
</table>

		Test Case Dynamic Behaviour			

Test Case Name : TCP_S4_I_04

Group : PSTN/Inopportune/LE4/

Purpose : On receipt of an ESTABLISH ACK message the IUT shall send a STATUS ENQUIRY message.
On receipt of a STATUS message containing the cause_type "response to status enquiry" and the state AN3 the IUT shall send a DISCONNECT message and enter the new PSTN_path_state LE5 (Path disconnect request).

Configuration :

Default : DEF_PSTN_BODY

Comments : Ref: EN 301 141−1 [1] and EN 300 324−1 [2], Clause 13, table 30 and Annex L.2.4.

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+Preamble_pstn_le4			
2		DLL ! dl_data_req START T_AC_short	Dl_data_req_pstn(Pstn_est_ack)		1
3	B1	DLL ? dl_data_ind CANCEL T_AC_short	Dl_data_ind_pstn(Pstn_status_enq)	(PASS)	2
4		DLL ! dl_data_req START T_AC_short	Dl_data_req_pstn(Pstn_status(TSC_PSTN_STATE_AN3, TSC_PSTN_CAUSE_RSP_ TO_STATUS_ENQ))		3
5	B2	DLL ? dl_data_ind CANCEL T_AC_short	Dl_data_ind_pstn(Pstn_disc_r)	(PASS)	4
6		+STEP_CHECK_PSTN_STATE_LE5			5
7		+Postamble_pstn			

Detailed Comments : 1) Sending of an ESTABLISH ACK message.
2) Expected event, receipt of a STATUS ENQUIRY message .
3) Sending of a STATUS message (state: AN3, cause: response to status enquiry).
4) Expected event, receipt of a DISCONNECT message.
5) Expected status, the IUT shall be in PSTN_path_state LE5.

		Test Case Dynamic Behaviour			

Test Case Name : TCP_S4_I_05

Group : PSTN/Inopportune/LE4/

Purpose : On receipt of an ESTABLISH ACK message the IUT shall send a STATUS ENQUIRY message. On receipt of a STATUS message containing the cause_type "response to status enquiry" and the state AN4 the IUT shall send a DISCONNECT message and enter the new PSTN_path_state LE5 (Path disconnect request).

Configuration :

Default : DEF_PSTN_BODY

Comments : Ref: EN 301 141–1 [1] and EN 300 324–1 [2], Clause 13, table 30 and Annex L.2.4.

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+Preamble_pstn_le4			
2		DLL ! dl_data_req START T_AC_short	Dl_data_req_pstn(Pstn_est_ack)		1
3	B1	DLL ? dl_data_ind CANCEL T_AC_short	Dl_data_ind_pstn(Pstn_status_enq)	(PASS)	2
4		DLL ! dl_data_req START T_AC_short	Dl_data_req_pstn(Pstn_status(TSC_PSTN_STATE_AN4, TSC_PSTN_CAUSE_RSP_ TO_STATUS_ENQ))		3
5	B2	DLL ? dl_data_ind CANCEL T_AC_short	Dl_data_ind_pstn(Pstn_disc_r)	(PASS)	4
6		+STEP_CHECK_PSTN_STATE_LE5			5
7		+Postamble_pstn			

Detailed Comments : 1) Sending of an ESTABLISH ACK message.
2) Expected event, receipt of a STATUS ENQUIRY message .
3) Sending of a STATUS message (state: AN4, cause: response to status enquiry).
4) Expected event, receipt of a DISCONNECT message.
5) Expected status, the IUT shall be in PSTN_path_state LE5.

Test Case Dynamic Behaviour

Test Case Name	**:** TCP_S4_I_06				
Group	**:** PSTN/Inopportune/LE4/				
Purpose	**:** On receipt of an ESTABLISH ACK message the IUT shall send a STATUS ENQUIRY message. On receipt of a STATUS message containing the cause_type "response to status enquiry" and the state AN5 the IUT shall remain in the PSTN_path_state LE4 (Path active).				
Configuration	**:**				
Default	**:** DEF_PSTN_BODY				
Comments	**:** Ref: EN 301 141–1 [1] and EN 300 324–1 [2], Clause 13, table 30 and Annex L.2.4.				

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+Preamble_pstn_le4			
2		DLL ! dl_data_req START T_AC_short	Dl_data_req_pstn(Pstn_est_ack)		1
3	B1	DLL ? dl_data_ind CANCEL T_AC_short	Dl_data_ind_pstn(Pstn_status_enq)	(PASS)	2
4		DLL ! dl_data_req	Dl_data_req_pstn(Pstn_status(TSC_PSTN_STATE_AN5, TSC_PSTN_CAUSE_RSP_ TO_STATUS_ENQ))		3
5		+STEP_CHECK_PSTN_STATE_LE4			4
6		+Postamble_pstn			

Detailed Comments **:** 1) Sending of an ESTABLISH ACK message.
2) Expected event, receipt of a STATUS ENQUIRY message .
3) Sending of a STATUS message (state: AN5, cause: response to status enquiry).
4) Expected status, the IUT shall be in PSTN_path_state LE4.

Test Case Dynamic Behaviour

Test Case Name	**:** TCP_S4_I_07				
Group	**:** PSTN/Inopportune/LE4/				
Purpose	**:** On receipt of an ESTABLISH ACK message the IUT shall send a STATUS ENQUIRY message. On receipt of a STATUS message containing the cause_type "response to status enquiry" and the state AN7 the IUT shall remain in the PSTN_path_state LE4 (Path active).				
Configuration	**:**				
Default	**:** DEF_PSTN_BODY				
Comments	**:** Ref: EN 301 141–1 [1] and EN 300 324–1 [2], Clause 13, table 30 and Annex L.2.4.				

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+Preamble_pstn_le4			
2		DLL ! dl_data_req START T_AC_short	Dl_data_req_pstn(Pstn_est_ack)		1
3	B1	DLL ? dl_data_ind CANCEL T_AC_short	Dl_data_ind_pstn(Pstn_status_enq)	(PASS)	2
4		DLL ! dl_data_req	Dl_data_req_pstn(Pstn_status(TSC_PSTN_STATE_AN7, TSC_PSTN_CAUSE_RSP_ TO_STATUS_ENQ))		3
5		+STEP_CHECK_PSTN_STATE_LE4			4
6		+Postamble_pstn			

Detailed Comments **:** 1) Sending of an ESTABLISH ACK message.
2) Expected event, receipt of a STATUS ENQUIRY message .
3) Sending of a STATUS message (state: AN7, cause: response to status enquiry).
4) Expected status, the IUT shall be in PSTN_path_state LE4.

Test Case Dynamic Behaviour

Test Case Name	: TCP_S1_S_01
Group	: PSTN/Syntactically_invalid/LE1/
Purpose	: Check that the IUT discards messages containing less than 4 octets and remains in the PSTN_path_state LE1 (Null).
Configuration	:
Default	: DEF_PSTN_BODY
Comments	: Ref: EN 301 141−1 [1] and EN 300 324−1 [2], subclause 13.5.2.

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+Preamble_pstn_le1			
2		DLL ! dl_data_req START T_NOAC	Dl_data_req_pstn(BI_pstn_three_octets)		1
3	B1	?TIMEOUT T_NOAC		(PASS)	2
4		+STEP_CHECK_PSTN_STATE_LE1			3
5		+Postamble_pstn			

Detailed Comments : 1) Sending of a message whose length is less than 4 octets.
2) Expected behaviour, no event shall occure until the expiry of T_NOAC.
3) Expected status, the IUT shall be in PSTN_path_state LE1.

Test Case Dynamic Behaviour

Test Case Name	: TCP_S1_S_02
Group	: PSTN/Syntactically_invalid/LE1/
Purpose	: (protocol discriminator error)
	Check that the IUT discards an ESTABLISH message (sends no ESTABLISH ACK message) containing an unspecified protocol_discriminator IE and remain ins the PSTN_path_state LE1 (Null).
Configuration	:
Default	: DEF_PSTN_BODY
Comments	: Ref: EN 301 141−1 [1] and EN 300 324−1 [2], subclause 13.5.2.

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+Preamble_pstn_le1			
2		DLL ! dl_data_req START T1_max	Dl_data_req_pstn(BI_pstn_est_invalid_pd)		1
3	B1	?TIMEOUT T1_max		(PASS)	2
4		+STEP_CHECK_PSTN_STATE_LE1			3
5		+Postamble_pstn			

Detailed Comments : 1) Sending of an ESTABLISH message whose protocol discriminator is not specified.
2) Expected behaviour, no event shall occure until the expiry of T1_max.
3) Expected status, the IUT shall be in PSTN_path_state LE1.

		Test Case Dynamic Behaviour			

Test Case Name : TCP_S1_S_03

Group : PSTN/Syntactically_invalid/LE1/

Purpose : (L3 address error)

Check that the IUT discards an ESTABLISH message (sends no ESTABLISH ACK message) containing an unprovisioned L3addr and remain ins the PSTN_path_state LE1 (Null).

Configuration :

Default : DEF_PSTN_BODY

Comments : Ref: EN 301 141–1 [1] and EN 300 324–1 [2], subclause 13.5.2.

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+Preamble_pstn_le1			
2		DLL ! dl_data_req START T1_max	Dl_data_req_pstn(BI_pstn_est_unprovisioned _l3addr)		1
3	B1	?TIMEOUT T1_max		(PASS)	2
4		+STEP_CHECK_PSTN_STATE_LE1			3
5		+Postamble_pstn			

Detailed Comments : 1) Sending of an ESTABLISH message whose layer 3 address is not provisioned.
2) Expected behaviour, no event shall occure until the expiry of T1_max
3) Expected status, the IUT shall be in PSTN_path_state LE1.

		Test Case Dynamic Behaviour			

Test Case Name : TCP_S1_S_04

Group : PSTN/Syntactically_invalid/LE1/

Purpose : (message type error)

Check that the IUT discards a message containing an unspecified message_type IE and remain in the PSTN_path_state LE1 (Null).

Configuration :

Default : DEF_PSTN_BODY

Comments : Ref: EN 301 141–1 [1] and EN 300 324–1 [2], subclause 13.5.2.

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+Preamble_pstn_le1			
2		DLL ! dl_data_req START T1_max	Dl_data_req_pstn(BI_pstn_est_invalid_mety)		1
3	B1	?TIMEOUT T1_max		(PASS)	2
4		+STEP_CHECK_PSTN_STATE_LE1			3
5		+Postamble_pstn			

Detailed Comments : 1) Sending of an ESTABLISH message whose mety is invalid.
2) Expected behaviour, no event shall occure until the expiry of T1_max
3) Expected status, the IUT shall be in PSTN_path_state LE1.

		Test Case Dynamic Behaviour			

Test Case Name **:** TCP_S1_S_05

Group   **:** PSTN/Syntactically_invalid/LE1/

Purpose   **:** (repeated optional IEs)

On receipt of an ESTABLISH message containing more than 3 repeated valid optional IEs the IUT shall send an ESTABLISH ACK message and enter the PSTN_path_state LE4 (Path active).

Configuration   **:**

Default   **:** DEF_PSTN_BODY

Comments   **:** Ref: EN 301 141–1 [1] and EN 300 324–1 [2], subclause 13.5.2.

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+Preamble_pstn_le1			
2		DLL ! dl_data_req START T1_max	DI_data_req_pstn(Pstn_est_cond_part(TSPX_PSTN_COND_INFO _EST_4_REP_OPT_IE))		1
3	B1	DLL ? dl_data_ind CANCEL T1_max	DI_data_ind_pstn(Pstn_est_ack)	(PASS)	2
4		+STEP_CHECK_PSTN_STATE_LE4			3
5		+Postamble_pstn			

Detailed Comments : 1) Sending of an ESTABLISH message who contains 4 repeated valid optional IEs.
2) Expected event, receipt of an ESTABLISH ACK message.
3) Expected status, the IUT shall be in PSTN_path_state LE4.

		Test Case Dynamic Behaviour			

Test Case Name **:** TCP_S1_S_06

Group   **:** PSTN/Syntactically_invalid/LE1/

Purpose   **:** (unrecognised IE)

On receipt of an ESTABLISH message containing one unspecified IE the IUT shall send an ESTABLISH ACK message and enter the PSTN_path_state LE4 (Path active).

Configuration   **:**

Default   **:** DEF_PSTN_BODY

Comments   **:** Ref: EN 301 141–1 [1] and EN 300 324–1 [2], subclause 13.5.2.

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+Preamble_pstn_le1			
2		DLL ! dl_data_req START T1_max	DI_data_req_pstn(Pstn_est_cond_part(TSPX_PSTN_COND_INFO _EST_ONE_UNSPEC_IE))		1
3	B1	DLL ? dl_data_ind CANCEL T1_max	DI_data_ind_pstn(Pstn_est_ack)	(PASS)	2
4		+STEP_CHECK_PSTN_STATE_LE4			3
5		+Postamble_pstn			

Detailed Comments : 1) Sending of an ESTABLISH message who contains one unspecified IE.
2) Expected event, receipt of an ESTABLISH ACK message.
3) Expected status, the IUT shall be in PSTN_path_state LE4.

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\multicolumn{6}{c}{**Test Case Dynamic Behaviour**}

Test Case Name **:** TCP_S1_S_07

Group   **:** PSTN/Syntactically_invalid/LE1/

Purpose   **:** (content error of optional IE)

On receipt of an ESTABLISH message containing and one incorrect conditional IE the IUT shall send an ESTABLISH ACK message and enter the PSTN_path_state LE4 (Path active).

Configuration   **:**

Default   **:** DEF_PSTN_BODY

Comments   **:** Ref: EN 301 141–1 [1] and EN 300 324–1 [2], subclause 13.5.2.

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+Preamble_pstn_le1			
2		DLL ! dl_data_req START T1_max	Dl_data_req_pstn(Pstn_est_cond_part(TSPX_PSTN_COND_INFO _EST_ONE_INCORR_COND_IE))		1
3	B1	DLL ? dl_data_ind CANCEL T1_max	Dl_data_ind_pstn(Pstn_est_ack)	(PASS)	2
4		+STEP_CHECK_PSTN_STATE_LE4			3
5		+Postamble_pstn			

Detailed Comments : 1) Sending of an ESTABLISH message who contains one incorrect conditional IE.
2) Expected event, receipt of an ESTABLISH ACK message.
3) Expected status, the IUT shall be in PSTN_path_state LE4.

Test Case Dynamic Behaviour

Test Case Name **:** TCP_S1_S_08

Group   **:** PSTN/Syntactically_invalid/LE1/

Purpose   **:** (optional IE not allowed)

Check that the IUT discards an ESTABLISH message (sends no ESTABLISH ACK message) containing two different valid conditional IEs and remain ins the PSTN_path_state LE1 (Null).

Configuration   **:**

Default   **:** DEF_PSTN_BODY

Comments   **:** Ref: EN 301 141–1 [1] and EN 300 324–1 [2], subclause 13.5.2.

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+Preamble_pstn_le1			
2		DLL ! dl_data_req START T1_max	Dl_data_req_pstn(Pstn_est_cond_part(TSPX_PSTN_COND_INFO _EST_TWO_DIFF_COND_IE))		1
3	B1	?TIMEOUT T1_max		(PASS)	2
4		+STEP_CHECK_PSTN_STATE_LE1			3
5		+Postamble_pstn			

Detailed Comments : 1) Sending of an ESTABLISH message who contains two different conditional IEs .
2) Expected behaviour, no event shall occure until the expiry of T1_max
3) Expected status, the IUT shall be in PSTN_path_state LE1.

	Test Case Dynamic Behaviour			
Test Case Name	**:** TCP_S1_S_09			
Group	**:** PSTN/Syntactically_invalid/LE1/			
Purpose	**:** (protocol discriminator error) Check that the IUT (having sent a PSTN maintenance STATUS ENQUIRY message) discards a PSTN Maintenance STATUS message (repeat the Maintenance STATUS ENQUIRY) containing an unspecified protocol_discriminator IE and remains in the PSTN_path_state LE1 (Null).			
Configuration	**:**			
Default	**:** DEF_PSTN_BODY			
Comments	**:** Ref: EN 301 141–1 [1] and EN 300 324–1 [2], subclause 13.5.2.			

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+Preamble_pstn_le1			
2		<IUT ! MNT_status_enq>	Mnt_status_enq_PSTN		1
3		START T_AC_long			
4		DLL ? dl_data_ind CANCEL T_AC_long	Dl_data_ind_pstn(Mnt_status_enq_PSTN)	(PASS)	2
5		DLL ! dl_data_req START Tm_max	Dl_data_req_pstn(BI_Mnt_status_PSTN)		3
6		DLL ? dl_data_ind CANCEL Tm_max	Dl_data_ind_pstn(Mnt_status_enq_PSTN)	(PASS)	4
7		+STEP_CHECK_PSTN_STATE_LE1			5
8		+Postamble_pstn			
9		? TIMEOUT Tm_max		(FAIL)	
10		+Postamble_pstn			

Detailed Comments : 1) Implicit send message to invoke a sending of a MDL_maintenance request (PSTN GW) message to the NWK entity (LE PSTN FSM).
2) Expected event, receipt of an Maintenance status enquiry (PSTN) message.
3) A STATUS message is sent with an invalid protocol discriminator
4) A valid STATUS ENQUIRY message is repeated by the IUT
5) Expected status, the IUT shall be in PSTN_path_state LE4.

Test Case Dynamic Behaviour				

Test Case Name : TCP_S4_S_01

Group   **:** PSTN/Syntactically_invalid/LE4/

Purpose   **:** (IE out of sequence)

Check that the IUT discards a SIGNAL message (sends no SIGNAL ACK message) containing a valid conditional IE and the correct sequence_number IE out of sequence.

Configuration   **:**

Default   **:** DEF_PSTN_BODY

Comments   **:** Ref: EN 301 141–1 [1] and EN 300 324–1 [2], subclause 13.5.2.

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+Preamble_pstn_le4			
2		(S_R:=0, S_S:=0)			1
3		DLL ! dl_data_req (S_S := S_S + 1) START Tt_max	Dl_data_req_pstn(BI_pstn_signal_IE_out_of_seq(S_S, TSPX_PSTN_COND_INFO _SIGNAL_DIGIT1))		2
4	B1	?TIMEOUT Tt_max		(PASS)	3
5		+Postamble_pstn			
6	B2	DLL ? dl_data_ind CANCEL Tt_max	Dl_data_ind_pstn(Pstn_disc_r)	(PASS)	4
7		DLL ! dl_data_req	Dl_data_req_pstn(Pstn_disc_cpl_s)		5
8		+Postamble_pstn			

Detailed Comments : 1) Initialization of the sequence variables.
2) Sending of a SIGNAL message which contains a valid conditional IE and the correct sequence_number IE which are out of sequence.
3) Expected behaviour, no event shall occure until the expiry of Tt_max.
4) Alternative event, receipt of DISCONNECT message.
5) Sending of DISCONNECT COMPLETE message.

		Test Case Dynamic Behaviour			
Test Case Name	: TCP_S4_S_02				
Group	: PSTN/Syntactically_invalid/LE4/				
Purpose	: (repeated mandatory IEs)				
	Check that the IUT discards a SIGNAL ACK message (sends no DISCONNECT message) containing two repeated sequence number IEs (each containing invalid sequence numbers).				
Configuration	:				
Default	: DEF_PSTN_BODY				
Comments	: Ref: EN 301 141–1 [1] and EN 300 324–1 [2], subclause 13.5.2.				

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+Preamble_pstn_le4			
2		(S_R:=0, S_S:=5)			1
3		DLL ! dl_data_req START Tt_max	DI_data_req_pstn(BI_pstn_signal_ack_two_seq_num(S_S))		2
4	B1	?TIMEOUT Tt_max		(PASS)	
5		+STEP_CHECK_PSTN_STATE_LE4			3
6		+Postamble_pstn			
7	B2	DLL ? dl_data_ind CANCEL Tt_max	DI_data_ind_pstn(Pstn_disc_r)	(PASS)	4
8		DLL ! dl_data_req	DI_data_req_pstn(Pstn_disc_cpl_s)		5
9		+Postamble_pstn			

Detailed Comments : 1) Initialization of the sequence variables.
2) Sending of a SIGNAL ACK message which contains two repeated sequence number IE (seach containing invalid sequence numbers – S_S:=5).
3) Expected status, the IUT shall remain in PSTN_path_state LE4.
4) Alternative event, receipt of DISCONNECT message.
5) Sending of DISCONNECT COMPLETE message.

Test Case Dynamic Behaviour

Test Case Name	**:** TCP_S4_S_03
Group	**:** PSTN/Syntactically_invalid/LE4/
Purpose	**:** (mandatory IE missing)
	Check that the IUT discards a SIGNAL message (sends no SIGNAL ACK message) containing no sequence_number IE.
Configuration	**:**
Default	**:** DEF_PSTN_BODY
Comments	**:** Ref: EN 301 141–1 [1] and EN 300 324–1 [2], subclause 13.5.2.

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+Preamble_pstn_le4			
2		(S_R:=0, S_S:=0)			1
3		DLL ! dl_data_req (S_S := S_S + 1) START Tt_max	Dl_data_req_pstn(BI_pstn_signal_no_se_num(TSPX_PSTN_COND_INFO _SIGNAL_DIGIT1))		2
4	B1	?TIMEOUT Tt_max		(PASS)	3
5		+Postamble_pstn			
6	B2	DLL ? dl_data_ind CANCEL Tt_max	Dl_data_ind_pstn(Pstn_disc_r)	(PASS)	4
7		DLL ! dl_data_req	Dl_data_req_pstn(Pstn_disc_cpl_s)		5
8		+Postamble_pstn			

Detailed Comments : 1) Initialization of the sequence variables.
2) Sending of a SIGNAL message which contains no sequence_number IE.
3) Expected behaviour, no event shall occure until the expiry of Tt_max.
4) Alternative event, receipt of DISCONNECT message.
5) Sending of DISCONNECT COMPLETE message.

		Test Case Dynamic Behaviour			

Test Case Name	**:** TCP_S4_S_04
Group	**:** PSTN/Syntactically_invalid/LE4/
Purpose	**:** Check that the IUT discards a SIGNAL message (sends no SIGNAL ACK message) containing no conditional IE.
Configuration	**:**
Default	**:** DEF_PSTN_BODY
Comments	**:** Ref: EN 301 141–1 [1] and EN 300 324–1 [2], subclause 13.5.2.

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+Preamble_pstn_le4			
2		(S_R:=0, S_S:=0)			1
3		DLL ! dl_data_req (S_S := S_S + 1) START Tt_max	Dl_data_req_pstn(Pstn_signal(S_S, –))		2
4	B1	?TIMEOUT Tt_max		(PASS)	3
5		+Postamble_pstn			
6	B2	DLL ? dl_data_ind CANCEL Tt_max	Dl_data_ind_pstn(Pstn_disc_r)	(PASS)	4
7		DLL ! dl_data_req	Dl_data_req_pstn(Pstn_disc_cpl_s)		5
8		+Postamble_pstn			

Detailed Comments : 1) Initialization of the sequence variables.
2) Sending of a SIGNAL message which contains no conditional IE (conditional IE missing).
3) Expected behaviour, no event shall occure until the expiry of Tt_max.
4) Alternative event, receipt of DISCONNECT message.
5) Sending of DISCONNECT COMPLETE message.

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Test Case Dynamic Behaviour

Test Case Name : TCP_S4_S_05

Group : PSTN/Syntactically_invalid/LE4/

Purpose : (content error of mandatory IE)

Check that the IUT discards a SIGNAL message (sends no SIGNAL ACK message) containing an invalid length of the mandatory IE "sequence_number".

Configuration :

Default : DEF_PSTN_BODY

Comments : Ref: EN 301 141–1 [1] and EN 300 324–1 [2], subclause 13.5.2.

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+Preamble_pstn_le4			
2		(S_R:=0, S_S:=0)			1
3		DLL ! dl_data_req (S_S := S_S + 1) START Tt_max	Dl_data_req_pstn(BI_pstn_signal_seq_num_length_err(S_S, TSPX_PSTN_COND_INFO_SIGNAL_DIGIT1))		2
4	B1	?TIMEOUT Tt_max		(PASS)	3
5		+Postamble_pstn			
6	B2	DLL ? dl_data_ind CANCEL Tt_max	Dl_data_ind_pstn(Pstn_disc_r)	(PASS)	4
7		DLL ! dl_data_req	Dl_data_req_pstn(Pstn_disc_cpl_s)		5
8		+Postamble_pstn			

Detailed Comments : 1) Initialization of the sequence variables.
2) Sending of a SIGNAL message whose sequence number IE contains an incorrect length element.
3) Expected behaviour, no event shall occure until the expiry of Tt_max.
4) Alternative event, receipt of DISCONNECT message.
5) Sending of DISCONNECT COMPLETE message.

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Test Case Dynamic Behaviour

Test Case Name	: TCP_S4_S_06		
Group	: PSTN/Syntactically_invalid/LE4/		
Purpose	: Check that the IUT discards a SIGNAL message (sends no SIGNAL ACK message) containing two conditional IEs.		
Configuration	:		
Default	: DEF_PSTN_BODY		
Comments	: Ref: EN 301 141–1 [1] and EN 300 324–1 [2], subclause 13.5.2.		

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+Preamble_pstn_le4			
2		(S_R:=0, S_S:=0)			1
3		DLL ! dl_data_req (S_S := S_S + 1) START Tt_max	DI_data_req_pstn(BI_pstn_signal_double_cond_IE(S_S, TSPX_PSTN_COND_INFO _SIGNAL_DIGIT1, TSPX_PSTN_COND_INFO _SIGNAL_DIGIT1))		2
4	B1	?TIMEOUT Tt_max		(PASS)	3
5		+Postamble_pstn			
6	B2	DLL ? dl_data_ind CANCEL Tt_max	DI_data_ind_pstn(Pstn_disc_r)	(PASS)	4
7		DLL ! dl_data_req	DI_data_req_pstn(Pstn_disc_cpl_s)		5
8		+Postamble_pstn			

Detailed Comments : 1) Initialization of the sequence variables.
2) Sending of a SIGNAL message whose sequence number IE contains an incorrect length element.
3) Expected behaviour, no event shall occure until the expiry of Tt_max.
4) Alternative event, receipt of DISCONNECT message.
5) Sending of DISCONNECT COMPLETE message.

		Test Case Dynamic Behaviour			
Test Case Name		: TCP_S1_T_01			
Group		: PSTN/Timers/LE1/			
Purpose		: On receipt of a SIGNAL ACK message the IUT shall send a STATUS ENQUIRY message.			
		On time−out of timer T4 the IUT shall repeat sending the STATUS ENQUIRY message.			
		On receipt of a STATUS message containing the cause_type "response to status enquiry" and the state IE AN1 after N4 repetitions of the STATUS ENQUIRY message the IUT shall remain in the PSTN_path_state LE1 (Null).			
Configuration		:			
Default		: DEF_PSTN_BODY			
Comments		: Ref: EN 301 141−1 [1] and EN 300 324−1 [2], Clause 13, table 28 and Annex L.2.4.			
Nr	**Label**	**Behaviour Description**	**Constraints Ref**	**Verdict**	**Comments**
1		+Preamble_pstn_le1			
2		(S_R:=0, S_S:=0, R_COUNTER:=0)			1
3		DLL ! dl_data_req START T_AC_short	Dl_data_req_pstn(Pstn_signal_ack(S_R))		2
4	B1	DLL ? dl_data_ind CANCEL T_AC_short, START T4_min, START T4_max	Dl_data_ind_pstn(Pstn_status_enq)	(PASS)	3
5		REPEAT LTS_STATUS_EQUIRY(R_COUNTER) UNTIL [R_COUNTER=N4]			4
6		DLL ! dl_data_req CANCEL T4_min, CANCEL T4_max	Dl_data_req_pstn(Pstn_status(TSC_PSTN_STATE_AN1, TSC_PSTN_CAUSE_RSP_ TO_STATUS_ENQ))		5
7		+STEP_CHECK_PSTN_STATE_LE1			6
8		+Postamble_pstn			
		LTS_STATUS_EQUIRY(COUNTER:INTEGER)			
9	B2	?TIMEOUT T4_min		(PASS)	4.1
10	B3	DLL ? dl_data_ind (COUNTER:=COUNTER+1) START T4_min, START T4_max	Dl_data_ind_pstn(Pstn_status_enq)	(PASS)	4.2

Detailed Comments : 1) Initialization of the sequence variables and the COUNTER variable.
2) Sending of a SIGNAL ACK message.
3) Expected event, receipt of a STATUS ENQUIRY message. Start of the timers T4_min and T4_max.
4) Expected behaviour, N4 re−send of a STATUS ENQUIRY message.
4.1) Expected behaviour, no STATUS ENQUIRY message shall be received before the expiry of T4_min.
4.2) Expected event, receipt of a STATUS ENQUIRY message. Start of the timers T4_min and T4_max.
5) Sending of a STATUS message (state: AN1, cause: response to status enquiry).
6) Expected status, the IUT shall be in PSTN_path_state LE1.

		Test Case Dynamic Behaviour			

Test Case Name : TCP_S1_T_02

Group : PSTN/Timers/LE1/

Purpose : On receipt of a SIGNAL ACK message the IUT shall send a STATUS ENQUIRY message.

On time−out of timer T4 the IUT shall repeat sending the STATUS ENQUIRY message.

On N4+1 time−outs of timer T4 the IUT shall send a DISCONNECT message and enter the new PSTN_path_state LE5 (Path disconnect request).

Configuration :

Default : DEF_PSTN_BODY

Comments : Ref: EN 301 141−1 [1] and EN 300 324−1 [2], Clause 13, table 28 and Annex L.2.4.

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+Preamble_pstn_le1			
2		(S_R:=0, S_S:=0, R_COUNTER:=0)			1
3		DLL ! dl_data_req START T_AC_short	Dl_data_req_pstn(Pstn_signal_ack(S_R))		2
4	B1	DLL ? dl_data_ind CANCEL T_AC_short, START T4_min, START T4_max	Dl_data_ind_pstn(Pstn_status_enq)	(PASS)	3
5		REPEAT LTS_STATUS_EQUIRY(R_COUNTER) UNTIL [R_COUNTER=N4]			4
6	B4	?TIMEOUT T4_min		(PASS)	5
7	B5	DLL ? dl_data_ind CANCEL T4_max	Dl_data_ind_pstn(Pstn_disc_r)	(PASS)	6
8		+STEP_CHECK_PSTN_STATE_LE5			7
9		+Postamble_pstn			
		LTS_STATUS_EQUIRY(COUNTER:INTEGER)			
10	B2	?TIMEOUT T4_min		(PASS)	4.1
11	B3	DLL ? dl_data_ind (COUNTER:=COUNTER+1) START T4_min, START T4_max	Dl_data_ind_pstn(Pstn_status_enq)	(PASS)	4.2

Detailed Comments : 1) Initialization of the sequence variables and the COUNTER variable.
2) Sending of a SIGNAL ACK message.
3) Expected event, receipt of a STATUS ENQUIRY message. Start of the timers T4_min and T4_max.
4) Expected behaviour, N4 re−send of a STATUS ENQUIRY message.
4.1) Expected behaviour, no STATUS ENQUIRY message shall be received before the expiry of T4_min.
4.2) Expected event, receipt of a STATUS ENQUIRY message. Start of the timers T4_min and T4_max.
5) Expected behaviour, no DISCONNECT message shall be received before the expiry of T4_min.
6) Expected event, receipt of a DISCONNECT message.
7) Expected status, the IUT shall be in PSTN_path_state LE5.

	Test Case Dynamic Behaviour			
Test Case Name	: TCP_S1_T_03			
Group	: PSTN/Timers/LE1/			
Purpose	: On receipt of a SIGNAL ACK message the IUT shall send a STATUS ENQUIRY message.			
	On time−out of timer T4 after receiving a STATUS message containing not the cause_type "response to status enquiry" the IUT shall repeat sending the STATUS ENQUIRY message.			
	On receipt of a STATUS message containing the cause_type "response to status enquiry" and the state AN1 the IUT shall remain in the PSTN_path_state LE1 (Null).			
Configuration	:			
Default	: DEF_PSTN_BODY			
Comments	: Ref: EN 301 141−1 [1] and EN 300 324−1 [2], Clause 13, table 28 and Annex L.2.4.			

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+Preamble_pstn_le1			
2		(S_R:=0, S_S:=0)			1
3		DLL ! dl_data_req START T_AC_short	Dl_data_req_pstn(Pstn_signal_ack(S_R))		2
4	B1	DLL ? dl_data_ind CANCEL T_AC_short, START T4_min, START T4_max	Dl_data_ind_pstn(Pstn_status_enq)	(PASS)	3
5		DLL ! dl_data_req	Dl_data_req_pstn(Pstn_status_mety(TSC_PSTN_STATE_AN1, TSC_PSTN_CAUSE_MESS AGE_NOT_COMPATIBLE_ WITH_PATH_STATE,TSC_M ETY_STATUS_ENQ))		4
6	B2	?TIMEOUT T4_min		(PASS)	5
7	B3	DLL ? dl_data_ind CANCEL T4_max	Dl_data_ind_pstn(Pstn_status_enq)	(PASS)	6
8		DLL ! dl_data_req	Dl_data_req_pstn(Pstn_status(TSC_PSTN_STATE_AN1, TSC_PSTN_CAUSE_RSP_ TO_STATUS_ENQ))		7
9		+STEP_CHECK_PSTN_STATE_LE1			8
10		+Postamble_pstn			

Detailed Comments : 1) Initialization of the sequence variables.
2) Sending of a SIGNAL ACK message.
3) Expected event, receipt of a STATUS ENQUIRY message. Start of the timers T4_min and T4_max.
4) Sending of a STATUS message (state: AN1, cause: message not compatible with path state instead of cause: response to status enquiry).
5) Expected behaviour, no STATUS ENQUIRY message shall be received before the expiry of T4_min.
6) Expected event, receipt of a STATUS ENQUIRY message, the STATUS message with the incorrect cause shall be ignored.
7) Sending of a STATUS message (state: AN1, cause: response to status enquiry).
8) Expected status, the IUT shall be in PSTN_path_state LE1.

		Test Case Dynamic Behaviour			
Test Case Name		: TCP_S1_T_04			
Group		: PSTN/Timers/LE1/			
Purpose		: On receipt of the MDL_maintenance_request, the IUT shall send a MAINTENANCE STATUS ENQUIRY message, and remain in the PSTN_path_state LE1 (Null). On time−out of timer Tm, the IUT shall repeat the MAINTENANCE STATUS ENQUIRY message, and remain in the PSTN_path_state LE1 (Null).			
Configuration		:			
Default		: DEF_PSTN_BODY			
Comments		: Ref: EN 301 141−1 [1] .			
Nr	**Label**	**Behaviour Description**	**Constraints Ref**	**Verdict**	**Comments**
1		+Preamble_pstn_le1			
2		<IUT ! MNT_status_enq>	Mnt_status_enq_PSTN		1
3		START T_AC_long			
4		DLL ? dl_data_ind CANCEL T_AC_long,START Tm_max	Dl_data_ind_pstn(Mnt_status_enq_PSTN)	(PASS)	2
5		DLL ? dl_data_ind CANCEL Tm_max	Dl_data_ind_pstn(Mnt_status_enq_PSTN)	(PASS)	3
6		DLL ! dl_data_req	Dl_data_req_pstn(Mnt_status_PSTN)		
7		+STEP_CHECK_PSTN_STATE_LE1			4
8		+Postamble_pstn			
9		? TIMEOUT Tm_max		(FAIL)	
10		+Postamble_pstn			
Detailed Comments : 1) Implicit send message to invoke a sending of a MDL_maintenance request (PSTN GW) message to the NWK entity (LE PSTN FSM). 2) Expected event, receipt of an Maintenance status enquiry (PSTN) message. 3) A valid STATUS ENQUIRY message is repeated by the IUT 4) Expected status, the IUT shall be in PSTN_path_state LE4.					

Test Case Dynamic Behaviour					
Test Case Name : TCP_S2_T_01					
Group : PSTN/Timers/LE2/					
Purpose : On time−out of timer T1 the IUT shall repeat sending the ESTABLISH message. On receipt of an ESTABLISH ACK message after N1 repetitions of the ESTABLISH message the IUT shall enter the new PSTN_path_state LE4 (Path active).					
Configuration :					
Default : DEF_PSTN_BODY					
Comments : Ref: EN 301 141−1 [1] and EN 300 324−1 [2], Clause 13, table 30 and Annex L.2.4.					

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+Preamble_pstn_le1			
2		+STEP_PSTN_INVOKE_DIAL(TSPX_IMPLICIT_ EVENT_PSTN,TSPX_SUBSCRIBER_NUMBER)			1
3		START T_AC_long			
4		DLL ? dl_data_ind CANCEL T_AC_long, START T1_min, START T1_max	Dl_data_ind_pstn(Pstn_est_r)		2
5	B1	?TIMEOUT T1_min		(PASS)	3
6	B2	DLL ? dl_data_ind CANCEL T1_max	Dl_data_ind_pstn(Pstn_est_r)	(PASS)	4, NOTE1
7		DLL ! dl_data_req	Dl_data_req_pstn(Pstn_est_ack)		5
8		+STEP_CHECK_PSTN_STATE_LE4			6
9		+Postamble_pstn			

Detailed Comments : 1) Implicit send message to invoke a sending of a FE−establish_request (terminating call request) message to the NWK entity (LE PSTN FSM).   2) Receipt of an ESTABLISH message, new state LE2. Start of the timers T1_min and T1_max.   3) Expected behaviour, no event shall occure until the expiry of T1_min.   4) Expected event, receipt of the re−sent ESTABLISH message.   5) Sending of an ESTABLISH ACK message.   6) Expected status, the IUT shall be in PSTN_path_state LE4.   NOTE1: As N1=1 the TP requirments concerning N1 are implicitly met.

		Test Case Dynamic Behaviour			

Test Case Name : TCP_S2_T_02

Group : PSTN/Timers/LE2/

Purpose : On time−out of timer T1 the IUT shall repeat sending the ESTABLISH message.

On N1+1 time−outs of timer T1 the IUT shall send a DISCONNECT message and enter the new PSTN_path_state LE5 (Path disconnect request).

Configuration :

Default : DEF_PSTN_BODY

Comments : Ref: EN 301 141−1 [1] and EN 300 324−1 [2], Clause 13, table 30 and Annex L.2.4.

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+Preamble_pstn_le1			
2		+STEP_PSTN_INVOKE_DIAL(TSPX_IMPLICIT_ EVENT_PSTN,TSPX_SUBSCRIBER_NUMBER)			1
3		START T_AC_long			
4		DLL ? dl_data_ind CANCEL T_AC_long, START T1_min, START T1_max	Dl_data_ind_pstn(Pstn_est_r)		2
5	B1	?TIMEOUT T1_min		(PASS)	3
6	B2	DLL ? dl_data_ind START T1_min, START T1_max	Dl_data_ind_pstn(Pstn_est_r)	(PASS)	4, NOTE1
7	B3	?TIMEOUT T1_min		(PASS)	5
8	B4	DLL ? dl_data_ind CANCEL T1_max	Dl_data_ind_pstn(Pstn_disc_r)	(PASS)	6
9		+STEP_CHECK_PSTN_STATE_LE5			7
10		+Postamble_pstn			

Detailed Comments : 1) Implicit send message to invoke a sending of a FE−establish_request (terminating call request) message to the NWK entity (LE PSTN FSM).
2) Receipt of an ESTABLISH message, new state LE2. Start of the timers T1_min and T1_max.
3) Expected behaviour, no ESTABLISH message shall be received until the expiry of T1_min.
4) Expected event, receipt of the re−sent ESTABLISH message. Start of the timers T1_min and T1_max.
5) Expected behaviour, no DISCONNECT message shall be received until the expiry of T1_min.
6) Expected event, receipt of a DISCONNECT message.
7) Expected status, the IUT shall be in PSTN_path_state LE5.

NOTE1: As N1=1 the TP requirments concerning N1 are implicitly met.

Test Case Dynamic Behaviour

Test Case Name : TCP_S4_T_01

Group : PSTN/Timers/LE4/

Purpose : On time−out of timer Tt after sending a SIGNAL message the IUT shall send a DISCONNECT
message and enter the new PSTN_path_state LE5 (Path disconnect request).

Configuration :

Default : DEF_PSTN_BODY

Comments : Ref: EN 301 141−1 [1] and EN 300 324−1 [2], Clause 13, table 30 and Annex L.2.4.

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+Preamble_pstn_le4			
2		<IUT ! pstn_signal>	Pstn_signal(S_R, TSPX_PSTN_COND_INFO _SIGNAL_LE)		1
3		(S_R:=0, S_S:=0) START T_AC_long			2
4		DLL ? dl_data_ind (S_R:=S_R+1) CANCEL T_AC_long, START Tt_min, START Tt_max	Dl_data_ind_pstn(Pstn_signal(S_R, TSPX_PSTN_COND_INFO _SIGNAL_LE))		3
5	B1	?TIMEOUT Tt_min		(PASS)	4
6	B2	DLL ? dl_data_ind CANCEL Tt_max	Dl_data_ind_pstn(Pstn_disc_r)	(PASS)	5
7		+STEP_CHECK_PSTN_STATE_LE5			6
8		+Postamble_pstn			

Detailed Comments : 1) Implicit send message to invoke a sending of a FE−line_signal_request message to the NWK
entity (LE PSTN FSM).
2) Initialization of the sequence variables.
3) Receipt of a SIGNAL message, start of the timers Tt_min and Tt_max.
4) Expected behaviour, no event shall occure until the expiry of Tt_min.
5) Expected event, receipt of a DISCONNECT message.
6) Expected status, the IUT shall be in PSTN_path_state LE5.

		Test Case Dynamic Behaviour			

Test Case Name : TCP_S4_T_02

Group : PSTN/Timers/LE4/

Purpose : On reception of a SIGNAL ACK message acknowledging not all outstanding SIGNAL messages the IUT shall restart Timer Tt.
On time−out of timer Tt the IUT shall send a DISCONNECT message and enter the new PSTN_path_state LE5 (Path disconnect request).

Configuration :

Default : DEF_PSTN_BODY

Comments : Ref: EN 301 141−1 [1] and EN 300 324−1 [2], Clause 13, table 30 and Annex L.2.4.

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+Preamble_pstn_le4			
2		<IUT ! pstn_signal>	Pstn_signal(S_R, TSPX_PSTN_COND_INFO _SIGNAL_LE)		1
3		<IUT ! pstn_signal>	Pstn_signal(S_R, TSPX_PSTN_COND_INFO _SIGNAL_LE)		2
4		(S_R:=0, S_S:=0) START T_AC_long			3
5		DLL ? dl_data_ind (S_R:=S_R+1) START Tt_max	DI_data_ind_pstn(Pstn_signal(S_R, TSPX_PSTN_COND_INFO _SIGNAL_LE))		4
6		DLL ? dl_data_ind (S_R:=S_R+1) CANCEL T_AC_long	DI_data_ind_pstn(Pstn_signal(S_R, TSPX_PSTN_COND_INFO _SIGNAL_LE))		5
7		(S_R:=S_R−1)			6
8		DLL ! dl_data_req (S_R:=S_R+1) START Tt_min, START Tt_max	DI_data_req_pstn(Pstn_signal_ack(S_R))		7
9	B1	?TIMEOUT Tt_min		(PASS)	8
10	B2	DLL ? dl_data_ind CANCEL Tt_max	DI_data_ind_pstn(Pstn_disc_r)	(PASS)	9
11		+STEP_CHECK_PSTN_STATE_ LE5			10
12		+Postamble_pstn			

Detailed Comments : 1) Implicit send message to invoke a sending of a FE−line_signal_request message to the NWK entity (LE PSTN FSM).
2) Second implicit send message to invoke a sending of a FE−line_signal_request message to the NWK entity (LE PSTN FSM).
3) Initialization of the sequence variables.
4) Receipt of a SIGNAL message (M(S) = S(R)).
5) Second receipt of a SIGNAL message (M(S) = S(R)).
6) Decrementing of S(R) to have the appropriate S(R) value for single acknowledgment of the first SIGNAL messages.
7) Sending of a SIGNAL ACK message (M(R) = S(R)) to acknowledge the first pstn SIGNAL message. Start of the timers Tt_min and Tt_max
8) Expected behaviour, no event shall occure until the expiry of Tt_min.
9) Expected event, receipt of a DISCONNECT message.
10) Expected status, the IUT shall be in PSTN_path_state LE5.

Test Case Dynamic Behaviour					
Test Case Name **:** TCP_S4_T_03					
Group **:** PSTN/Timers/LE4/					
Purpose **:** On receipt of a SIGNAL message containing a faulty sequence number the IUT shall send a DISCONNECT message and enter the new PSTN_path_state LE5 (Path disconnect request).					
Configuration **:**					
Default **:** DEF_PSTN_BODY					
Comments **:** Ref: EN 301 141–1 [1] and EN 300 324–1 [2], Clause 13, table 30 and Annex L.2.4.					
Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+Preamble_pstn_le4			
2		(S_S:=5)			1
3		DLL ! dl_data_req START T_AC_short	Dl_data_req_pstn(Pstn_signal(S_S, TSPX_PSTN_COND_INFO _SIGNAL_DIGIT1))		2
4	B1	DLL ? dl_data_ind CANCEL T_AC_short	Dl_data_ind_pstn(Pstn_disc_r)	(PASS)	3
5		+STEP_CHECK_PSTN_STATE_LE5			4
6		+Postamble_pstn			
Detailed Comments : 1) The send sequence variables is set to an incorrect value.. 2) Sending of a SIGNAL message containing a faulty sequence number. 3) Expected event, receipt of a DISCONNECT message. 4) Expected status, the IUT shall be in PSTN_path_state LE5.					

		Test Case Dynamic Behaviour			

Test Case Name	**:** TCP_S4_T_04				
Group	**:** PSTN/Timers/LE4/				
Purpose	**:** On receipt of a SIGNAL ACK message containing a faulty sequence number after sending a SIGNAL message the IUT shall send a DISCONNECT message and enter the new PSTN_path_state LE5 (Path disconnect request).				
Configuration	**:**				
Default	**:** DEF_PSTN_BODY				
Comments	**:** Ref: EN 301 141−1 [1] and EN 300 324−1 [2], Clause 13, table 30 and Annex L.2.4.				

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+Preamble_pstn_le4			
2		<IUT ! pstn_signal>	Pstn_signal(S_R, TSPX_PSTN_COND_INFO _SIGNAL_LE)		1
3		(S_R:=0, S_S:=0) START T_AC_long			2
4		DLL ? dl_data_ind (S_R:=S_R+1) CANCEL T_AC_long, START Tt_max	Dl_data_ind_pstn(Pstn_signal(S_R, TSPX_PSTN_COND_INFO _SIGNAL_LE))		3
5		(S_R:=S_R+1)			4
6		DLL ! dl_data_req	Dl_data_req_pstn(Pstn_signal_ack(S_R))		5
7	B1	DLL ? dl_data_ind CANCEL Tt_max	Dl_data_ind_pstn(Pstn_disc_r)	(PASS)	6
8		+STEP_CHECK_PSTN_STATE_LE5			7
9		+Postamble_pstn			

Detailed Comments :	1) Implicit send message to invoke a sending of a FE−line_signal_request message to the NWK entity (LE PSTN FSM). 2) Initialization of the sequence variables. 3) Receipt of a SIGNAL message, start of the timer Tt_max. 4) The receive sequence variable S(R) is incremented to a faulty value; 5) Sending of a SIGNAL ACK message with a faulty M(R) value. 6) Expected event, receipt of a DISCONNECT message. 7) Expected status, the IUT shall be in PSTN_path_state LE5.

		Test Case Dynamic Behaviour			

Test Case Name : TCP_S4_T_05

Group : PSTN/Timers/LE4/

Purpose : On receipt of an ESTABLISH ACK message the IUT shall send a STATUS ENQUIRY message.

On time−out of timer T4 the IUT shall repeat sending the STATUS ENQUIRY message.

On receipt of a STATUS message containing the cause_type "response to status enquiry" and the state IE AN5 after N4 repetitions of the STATUS ENQUIRY message the IUT shall remain in the PSTN_path_state LE4 (Path active).

Configuration :

Default : DEF_PSTN_BODY

Comments : Ref: EN 301 141−1 [1] and EN 300 324−1 [2], Clause 13, table 30 and Annex L.2.4.

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+Preamble_pstn_le4			
2		DLL ! dl_data_req START T_AC_short	Dl_data_req_pstn(Pstn_est_ack)		1
3	B1	DLL ? dl_data_ind (R_COUNTER:=0) CANCEL T_AC_short, START T4_min, START T4_max	Dl_data_ind_pstn(Pstn_status_enq)	(PASS)	2
4		REPEAT LTS_STATUS_EQUIRY(R_COUNTER) UNTIL [R_COUNTER=N4]			3
5		DLL ! dl_data_req CANCEL T4_min, CANCEL T4_max	Dl_data_req_pstn(Pstn_status(TSC_PSTN_STATE_AN5, TSC_PSTN_CAUSE_RSP_ TO_STATUS_ENQ))		4
6		+STEP_CHECK_PSTN_STATE_LE4			5
7		+Postamble_pstn			
		LTS_STATUS_EQUIRY(COUNTER:INTEGER)			
8	B2	?TIMEOUT T4_min		(PASS)	3.1
9	B3	DLL ? dl_data_ind (COUNTER:=COUNTER+1) START T4_min, START T4_max	Dl_data_ind_pstn(Pstn_status_enq)	(PASS)	3.2

Detailed Comments : 1) Sending of an ESTABLISH ACK message.
2) Expected event, receipt of a STATUS ENQUIRY message . The COUNTER variable is set to zero. Start of the timers T4_min and T4_max.
3) Expected behaviour, N4 re−send of a STATUS ENQUIRY message.
3.1) Expected behaviour, no STATUS ENQUIRY message shall be received before the expiry of T4_min.
3.2) Expected event, receipt of a STATUS ENQUIRY message. Start of the timers T4_min and T4_max.
4) Sending of a STATUS message (state: AN5, cause: response to status enquiry).
5) Expected status, the IUT shall be in PSTN_path_state LE4.

		Test Case Dynamic Behaviour			

Test Case Name : TCP_S4_T_06

Group : PSTN/Timers/LE4/

Purpose : On receipt of an ESTABLISH ACK message the IUT shall send a STATUS ENQUIRY message.

On time−out of timer T4 the IUT shall repeat sending the STATUS ENQUIRY message.

On N4+1 time−outs of timer T4 the IUT shall send a DISCONNECT message and enter the new PSTN_path_state LE5 (Path disconnect request).

Configuration :

Default : DEF_PSTN_BODY

Comments : Ref: EN 301 141−1 [1] and EN 300 324−1 [2], Clause 13, table 30 and Annex L.2.4.

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+Preamble_pstn_le4			
2		DLL ! dl_data_req START T_AC_short	Dl_data_req_pstn(Pstn_est_ack)		1
3	B1	DLL ? dl_data_ind (R_COUNTER:=0) CANCEL T_AC_short, START T4_min, START T4_max	Dl_data_ind_pstn(Pstn_status_enq)	(PASS)	2
4		REPEAT LTS_STATUS_EQUIRY(R_COUNTER) UNTIL [R_COUNTER=N4]			3
5	B4	?TIMEOUT T4_min		(PASS)	4
6	B5	DLL ? dl_data_ind CANCEL T4_max	Dl_data_ind_pstn(Pstn_disc_r)	(PASS)	5
7		+STEP_CHECK_PSTN_STATE_LE5			6
8		+Postamble_pstn			
		LTS_STATUS_EQUIRY(COUNTER:INTEGER)			
9	B2	?TIMEOUT T4_min		(PASS)	3.1
10	B3	DLL ? dl_data_ind (COUNTER:=COUNTER+1) START T4_min, START T4_max	Dl_data_ind_pstn(Pstn_status_enq)	(PASS)	3.2

Detailed Comments : 1) Sending of an ESTABLISH ACK message.
2) Expected event, receipt of a STATUS ENQUIRY message . The COUNTER variable is set to zero. Start of the timers T4_min and T4_max.
3) Expected behaviour, N4 re−send of a STATUS ENQUIRY message.
3.1) Expected behaviour, no STATUS ENQUIRY message shall be received before the expiry of T4_min.
3.2) Expected event, receipt of a STATUS ENQUIRY message. Start of the timers T4_min and T4_max.
4) Expected behaviour, no DISCONNECT message shall be received before the expiry of T4_min.
5) Expected event, receipt of a DISCONNECT message.
6) Expected status, the IUT shall be in PSTN_path_state LE5.

		Test Case Dynamic Behaviour			
Test Case Name		: TCP_S4_T_07			
Group		: PSTN/Timers/LE4/			
Purpose		: On receipt of an ESTABLISH ACK message the IUT shall send a STATUS ENQUIRY message.			
		On time–out of timer T4 after receiving a STATUS message containing not the cause_type "response to status enquiry" the IUT shall repeat sending the STATUS ENQUIRY message.			
		On receipt of a STATUS message containing the cause_type "response to status enquiry" and the state AN5 the IUT shall remain in the PSTN_path_state LE4 (Path active).			
Configuration		:			
Default		: DEF_PSTN_BODY			
Comments		: Ref: EN 301 141–1 [1] and EN 300 324–1 [2], Clause 13, table 30 and Annex L.2.4.			
Nr	**Label**	**Behaviour Description**	**Constraints Ref**	**Verdict**	**Comments**
1		+Preamble_pstn_le4			
2		DLL ! dl_data_req START T_AC_short	DI_data_req_pstn(Pstn_est_ack)		1
3	B1	DLL ? dl_data_ind CANCEL T_AC_short, START T4_min, START T4_max	DI_data_ind_pstn(Pstn_status_enq)	(PASS)	2
4		DLL ! dl_data_req	DI_data_req_pstn(Pstn_status_mety(TSC_PSTN_STATE_AN5, TSC_PSTN_CAUSE_MESS AGE_NOT_COMPATIBLE_ WITH_PATH_STATE,TSC_M ETY_STATUS_ENQ))		3
5	B2	?TIMEOUT T4_min		(PASS)	4
6	B3	DLL ? dl_data_ind CANCEL T4_max	DI_data_ind_pstn(Pstn_status_enq)	(PASS)	5
7		DLL ! dl_data_req	DI_data_req_pstn(Pstn_status(TSC_PSTN_STATE_AN5, TSC_PSTN_CAUSE_RSP_ TO_STATUS_ENQ))		6
8		+STEP_CHECK_PSTN_STATE_LE4			7
9		+Postamble_pstn			

Detailed Comments : 1) Sending of an ESTABLISH ACK message.
2) Expected event, receipt of a STATUS ENQUIRY message. Start of the timers T4_min and T4_max.
3) Sending of a STATUS message (state: AN5, cause: message not compatible with path state instead of cause: response to status enquiry).
4) Expected behaviour, no STATUS ENQUIRY message shall be received before the expiry of T4_min.
5) Expected event, receipt of a STATUS ENQUIRY message, the STATUS message with the incorrect cause shall be ignored.
6) Sending of a STATUS message (state: AN5, cause: response to status enquiry).
7) Expected status, the IUT shall be in PSTN_path_state LE4.

		Test Case Dynamic Behaviour			

Test Case Name : TCP_S5_T_01

Group : PSTN/Timers/LE5/

Purpose : On time–out of timer T3 the IUT shall repeat sending the DISCONNECT message.

On receipt of a DISCONNECT COMPLETE message after N3 repetitions of the DISCONNECT message the IUT shall enter the new PSTN_path_state LE1 (Null).

Configuration :

Default : DEF_PSTN_BODY

Comments : Ref: EN 301 141–1 [1] and EN 300 324–1 [2], Clause 13, table 30 and Annex L.2.4.

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+LTS_pre_step			
2		DLL ? dl_data_ind (R_COUNTER:=0) CANCEL T_AC_short, START T3_min, START T3_max	DI_data_ind_pstn(Pstn_disc_r)		1
3		REPEAT LTS_DISCONNECT(R_COUNTER) UNTIL [R_COUNTER=N3]			2
4		DLL ! dl_data_req CANCEL T3_min, CANCEL T3_max	DI_data_req_pstn(Pstn_disc_cpl_s)		3
5		START T_NOAC			
6	T1	?TIMEOUT T_NOAC		(PASS)	4
7		+STEP_CHECK_PSTN_STATE_LE1			5
8		+Postamble_pstn			
		LTS_pre_step			
9		+Preamble_pstn_le4			
10		(S_S:=10)			a
11		DLL ! dl_data_req (S_S := S_S + 1) START T_AC_short	DI_data_req_pstn(Pstn_signal(S_S, TSPX_PSTN_COND_INFO _SIGNAL_DIGIT1))		b
		LTS_DISCONNECT (COUNTER:INTEGER)			
12	LB1	?TIMEOUT T3_min		(PASS)	2.1
13	LB2	DLL ? dl_data_ind (COUNTER:=COUNTER+1) START T3_min, START T3_max	DI_data_ind_pstn(Pstn_disc_r)	(PASS)	2.2

Detailed Comments : 1) Receipt of a DISCONNECT message, new state LE5. Start of the timers T3_min and T3_max.
2) Expected behaviour, N3 re–send of a DISCONNECT message.
2.1) Expected behaviour, no DISCONNECT message shall be received before the expiry of T4_min.
2.2) Expected event, receipt of a DISCONNECT message. Start of the timers T3_min and T3_max.
3) Sending of a DISCONNECT COMPLETE message.
4) Expected event, timeout of timer T_NOAC.
5) Expected status, the IUT shall be in PSTN_path_state LE1.

LTS_pre_step:
a) The send sequence variable S(S) is set to an incorrect value.
b) Sending of a SIGNAL message with an incorrect send sequence number M(S).

		Test Case Dynamic Behaviour			

Test Case Name : TCP_S5_T_02

Group : PSTN/Timers/LE5/

Purpose : On time−out of timer T3 the IUT shall repeat sending the DISCONNECT message.

On N3+1 time−outs of timer T3 the IUT shall repeat sending the DISCONNECT message and remain in the PSTN_path_state LE5 (Path disconnect request).

On receipt of a DISCONNECT REQUEST message after N3+2 repetitions of the DISCONNECT message the IUT shall enter the new PSTN_path_state LE1 (Null).

Configuration :

Default : DEF_PSTN_BODY

Comments : Ref: EN 301 141−1 [1] and EN 300 324−1 [2], Clause 13, table 30 and Annex L.2.4.

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+LTS_pre_step			
2		DLL ? dl_data_ind (R_COUNTER:=0) CANCEL T_AC_short, START T3_min, START T3_max	Dl_data_ind_pstn(Pstn_disc_r)		1
3		REPEAT LTS_DISCONNECT(R_COUNTER) UNTIL [R_COUNTER=N3]			2
4		? TIMEOUT T3_min			3
5		DLL ? dl_data_ind CANCEL T3_max	Dl_data_ind_pstn(Pstn_disc_r)	(PASS)	
6		+STEP_CHECK_PSTN_STATE_LE5			4
7		+Postamble_pstn			
		LTS_pre_step			
8		+Preamble_pstn_le4			
9		(S_S:=10)			a
10		DLL ! dl_data_req (S_S := S_S + 1) START T_AC_short	Dl_data_req_pstn(Pstn_signal(S_S, TSPX_PSTN_COND_INFO _SIGNAL_DIGIT1))		b
		LTS_DISCONNECT (COUNTER:INTEGER)			
11	LB1	?TIMEOUT T3_min		(PASS)	2.1
12	LB2	DLL ? dl_data_ind (COUNTER:=COUNTER+1) START T3_min, START T3_max	Dl_data_ind_pstn(Pstn_disc_r)	(PASS)	2.2

Detailed Comments : 1) Receipt of a DISCONNECT message, new state LE5. Start of the timers T3_min and T3_max.
2) Expected behaviour, N3 re−send of a DISCONNECT message.
2.1) Expected behaviour, no DISCONNECT message shall be received before the expiry of T4_min.
2.2) Expected event, receipt of a DISCONNECT message. Start of the timers T3_min and T3_max.
3) N3+1 expiry of T3.
4) Expected status, the IUT shall be in PSTN_path_state LE1.

LTS_pre_step:
a) The send sequence variable S(S) is set to an incorrect value.
b) Sending of a SIGNAL message with an incorrect send sequence number M(S).

Test Case Dynamic Behaviour					
Test Case Name : TCl_Sx_V_01					
Group : ISDN/valid/					
Purpose : On receipt of the MDL_maintenance_request (ISDN UNI), the IUT shall send a MAINTENANCE STATUS ENQUIRY message with the IE ISDN UNI status request.					
Configuration :					
Default : DEF_ISDN					
Comments : Ref: EN 300 141–1 , subclause 7.3.2					
Nr	**Label**	**Behaviour Description**	**Constraints Ref**	**Verdict**	**Comments**
1		+Preamble_isdn			
2		<IUT ! MNT_status_enq>	Mnt_status_enq_ISDN		1
3		START T_AC_long			
4		DLL ? dl_data_ind CANCEL T_AC_long	DI_data_ind_pstn(Mnt_status_enq_ISDN)		2
5		+Postamble_isdn			
Detailed Comments : 1) Implicit send message to invoke a sending of a MDL_maintenance request (IDN UNI) message to the NWK entity (LE PSTN FSM). 2)expected of a Maintenance ISDN status enquiry message.					

Test Case Dynamic Behaviour					
Test Case Name : TCl_Sx_V_02					
Group : ISDN/valid/					
Purpose : On receipt of the MDL_maintenance_request (ISDN UNI), the IUT shall send a MAINTENANCE STATUS ENQUIRY message. On receipt of a MAINTENANCE STATUS with the IE ISDN UNI status response , the IUT sends no message.					
Configuration :					
Default : DEF_ISDN					
Comments : Ref: EN 300 141–1 , subclause 7.3.2					
Nr	**Label**	**Behaviour Description**	**Constraints Ref**	**Verdict**	**Comments**
1		+Preamble_isdn			
2		<IUT ! MNT_status_enq>	Mnt_status_enq_ISDN		1
3		START T_AC_long			
4		DLL ? dl_data_ind CANCEL T_AC_long	DI_data_ind_pstn(Mnt_status_enq_ISDN)		2
5		DLL ! dl_data_req START T_NOAC	DI_data_req_pstn(Mnt_status_ISDN)	(PASS)	3
6		? TIMEOUT T_NOAC		(PASS)	
7		+Postamble_isdn			
Detailed Comments : 1) Implicit send message to invoke a sending of a MDL_maintenance request (IDN UNI) message to the NWK entity (LE PSTN FSM). 2)expected of a Maintenance ISDN status enquiry message. 3) A valid STATUS is sent.					

Test Case Dynamic Behaviour

Test Case Name	: TCI_Sx_V_03
Group	: ISDN/valid/
Purpose	: On receipt of the MDL_maintenance_request (ISDN UNI), the IUT shall send a MAINTENANCE STATUS ENQUIRY message.
	On receipt of a STATUS message (not including the IE ISDN UNI status response) , the IUT sends no message.
	On time−out of timer Tm, the IUT shall repeat the ISDN MAINTENANCE STATUS ENQUIRY message.
Configuration	:
Default	: DEF_ISDN
Comments	: Ref: EN 300 141−1 , subclause 7.3.2

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+Preamble_isdn			
2		<IUT ! MNT_status_enq>	Mnt_status_enq_ISDN		1
3		START T_AC_long			
4		DLL ? dl_data_ind CANCEL T_AC_long	DI_data_ind_pstn(Mnt_status_enq_ISDN)		2
5		DLL ! dl_data_req START Tm_max	DI_data_req_pstn(Mnt_status_ISDN_inv)		3
6		DLL ? dl_data_ind CANCEL Tm_max	DI_data_ind_pstn(Mnt_status_enq_ISDN)	(PASS)	4
7		+Postamble_isdn			
8		? TIMEOUT Tm_max		(FAIL)	
9		+Postamble_isdn			

Detailed Comments : 1) Implicit send message to invoke a sending of a MDL_maintenance request (ISDN UNI) message to the NWK entity (LE PSTN FSM).
2) Expected event, receipt of an Maintenance status enquiry (ISDN) message.
3) A invalid STATUS message is sent to the IUT
4) Expected event, receipt of arepeated Maintenance status enquiry (ISDN) message.

		Test Case Dynamic Behaviour			

Test Case Name : TCI_Sx_S_01

Group : ISDN/Syntactically_invalid/

Purpose : (protocol discriminator error)
Check that the IUT (having sent a ISDN maintenance STATUS ENQUIRY message) discards a ISDN Maintenance STATUS message (repeat the Maintenance STATUS ENQUIRY) containing an unspecified protocol_discriminator IE.

Configuration :

Default : DEF_ISDN

Comments : Ref: EN 301 141–1 [1] and EN 300 324–1 [2], subclause 13.5.2

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+Preamble_isdn			
2		<IUT ! MNT_status_enq>	Mnt_status_enq_ISDN		1
3		START T_AC_long			
4		DLL ? dl_data_ind CANCEL T_AC_long	Dl_data_ind_pstn(Mnt_status_enq_ISDN)	(PASS)	2
5		DLL ! dl_data_req START Tm_max	Dl_data_req_pstn(BI_Mnt_status_ISDN)		3
6		DLL ? dl_data_ind CANCEL Tm_max	Dl_data_ind_pstn(Mnt_status_enq_ISDN)	(PASS)	4
7		+Postamble_isdn			
8		? TIMEOUT Tm_max		(FAIL)	
9		+Postamble_isdn			

Detailed Comments : 1) Implicit send message to invoke a sending of a MDL_maintenance request (ISDN UNI) message to the NWK entity (LE PSTN FSM).
2) Expected event, receipt of an Maintenance status enquiry (ISDN) message.
3) A STATUS message is sent with an invalid protocol discriminator
4) A valid STATUS ENQUIRY message is repeated by the IUT

Test Case Dynamic Behaviour				

Test Case Name : TCI_Sx_T_01

Group : ISDN/Timers/

Purpose : On receipt of the MDL_maintenance_request (ISDN UNI), the IUT shall send a MAINTENANCE STATUS ENQUIRY message with the IE ISDN UNI status request,
On time−out of timer Tm, the IUT shall repeat the MAINTENANCE STATUS ENQUIRY message.

Configuration :

Default : DEF_ISDN

Comments : Ref: EN 301 141−1 [1] and EN 300 324−1 [2], subclause 13.5.2

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+Preamble_isdn			
2		<IUT ! MNT_status_enq>	Mnt_status_enq_ISDN		1
3		START T_AC_long			
4		DLL ? dl_data_ind CANCEL T_AC_long, START Tm_max	Dl_data_ind_pstn(Mnt_status_enq_ISDN)		2
5		DLL ? dl_data_ind CANCEL Tm_max	Dl_data_ind_pstn(Mnt_status_enq_ISDN)	(PASS)	3
6		+Postamble_isdn			
7		? TIMEOUT Tm_max		(FAIL)	
8		+Postamble_isdn			

Detailed Comments : 1) Implicit send message to invoke a sending of a MDL_maintenance request (ISDN UNI) message to the NWK entity (LE PSTN FSM).
2) Expected event, receipt of an Maintenance status enquiry (ISDN) message.
3) Expected event, receipt of arepeated Maintenance status enquiry (ISDN) message.

Test Step Dynamic Behaviour

Test Step Name : STEP_PSTN_LEx_1
Group : state_transitions/PSTN_protocol/
Objective : any state – null ––> LEx – LE1
Default : DEF_PSTN_PRE
Comments :

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		[TRUE]			

Detailed Comments :

Test Step Dynamic Behaviour

Test Step Name : STEP_PSTN_LE1_2
Group : state_transitions/PSTN_protocol/
Objective : null – path initiated by LE ––> LE1 – LE2.
Default : DEF_PSTN_PRE
Comments : Ref: EN 300 324–1 [2], subclause 13.7, table 30.

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+STEP_PSTN_INVOKE_DIAL(TSPX_IMPLICIT_EVENT_PSTN,TSPX_SUBSCRIBER_NUMBER)			1
2		START T_AC_long			
3		DLL ? dl_data_ind_est(TCV_l3_addr := dl_data_ind_est.user_data.layer_3_address) CANCEL T_AC_long	Dl_data_ind_est(Pstn_est_r)		2

Detailed Comments : 1) Implicit send message to invoke a sending of a FE–establish_request (terminating call request) message to the NWK entity (LE PSTN FSM).
2) Receipt of an ESTABLISH message.

Test Step Dynamic Behaviour

Test Step Name : STEP_PSTN_LE1_4
Group : state_transitions/PSTN_protocol/
Objective : null – path active ––> LE1 – LE4.
Default : DEF_PSTN_PRE
Comments : Ref: EN 300 324–1 [2], subclause 13.7, table 30.

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		DLL ! dl_data_req START T1_max	Dl_data_req_pstn(Pstn_est_s)		1
2		DLL ? dl_data_ind_est_ack (TCV_l3_addr := dl_data_ind_est_ack.user_data.layer_3_address) CANCEL T1_max	Dl_data_ind_est_ack(Pstn_est_ack_r)		2

Detailed Comments : 1) Sending of an ESTABLISH message.
2) Receipt of an ESTABLISH ACK message, new state LE4.

Test Step Dynamic Behaviour

Test Step Name : STEP_PSTN_LE4_5

Group   : state_transitions/PSTN_protocol/

Objective   : path active – path disconnect request ––> LE4 – LE5.

Default   : DEF_PSTN_PRE

Comments   : Ref: EN 300 324–1 [2]: 13.7, table 30

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		(S_S:=10)			1
2		DLL ! dl_data_req (S_S := S_S + 1) START T_AC_short	Dl_data_req_pstn(Pstn_signal(S_S, TSPX_PSTN_COND_INFO _SIGNAL_DIGIT1))		2
3		DLL ? dl_data_ind CANCEL T_AC_short	Dl_data_ind_pstn(Pstn_disc_r)		3

Detailed Comments : 1) The send sequence variable S(S) is set to an incorrect value.
                      2) Sending of a SIGNAL message with an incorrect send sequence number M(S).
                      3) Receipt of a DISCONNECT message.

Test Step Dynamic Behaviour

Test Step Name : Preamble_pstn_le1

Group   : preambles/

Objective   : Brings the IUT into state LE1 (null).

Default   : DEF_PSTN_PRE

Comments   :

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		[TRUE]			

Detailed Comments :

Test Step Dynamic Behaviour

Test Step Name : Preamble_pstn_le2

Group   : preambles/

Objective   : Resets the PSTN FSM (null state) and brings the IUT into state LE2 (path initiated by LE).

Default   : DEF_PSTN_PRE

Comments   :

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+STEP_PSTN_LEx_1			1
2		+STEP_PSTN_LE1_2			2

Detailed Comments : 1) Any state – null state ––> LEx – LE1.
                      2) Null – path initiated by LE ––> LE1 – LE2.

		Test Step Dynamic Behaviour			
Test Step Name	**:**	Preamble_pstn_le4			
Group	**:**	preambles/			
Objective	**:**	Resets the PSTN FSM (null state) and brings the IUT into state LE4 (path active).			
Default	**:**	DEF_PSTN_PRE			
Comments	**:**				
Nr	**Label**	**Behaviour Description**	**Constraints Ref**	**Verdict**	**Comments**
1		+STEP_PSTN_LEx_1			1
2		+STEP_PSTN_LE1_4			2
Detailed Comments : 1) Any state – null state ––> LEx – LE1. 2) Null – path active ––> LE1 – LE4.					

		Test Step Dynamic Behaviour			
Test Step Name	**:**	Preamble_pstn_le5			
Group	**:**	preambles/			
Objective	**:**	Resets the PSTN FSM (null state) and brings the IUT into state LE5 (path disconnect request).			
Default	**:**	DEF_PSTN_PRE			
Comments	**:**				
Nr	**Label**	**Behaviour Description**	**Constraints Ref**	**Verdict**	**Comments**
1		+STEP_PSTN_LEx_1			1
2		+STEP_PSTN_LE1_4			2
3		+STEP_PSTN_LE4_5			3
Detailed Comments : 1) Any state – null state ––> LEx – LE1. 2) Null – path active ––> LE1 – LE4. 3) Path active – path disconnect request ––> LE4 – LE5.					

		Test Step Dynamic Behaviour			
Test Step Name	**:**	Preamble_isdn			
Group	**:**	preambles/			
Objective	**:**				
Default	**:**	DEF_ISDN			
Comments	**:**				
Nr	**Label**	**Behaviour Description**	**Constraints Ref**	**Verdict**	**Comments**
1		[TRUE]			
Detailed Comments :					

Test Step Dynamic Behaviour					
Test Step Name : Postamble_pstn					
Group : postambles/					
Objective : Postamble for common PSTN tests. The IUT is brought into state LE1 (null state). any state – null state ––> LEx – LE1					
Default : DEF_PSTN_POST					
Comments :					
Nr	**Label**	**Behaviour Description**	**Constraints Ref**	**Verdict**	**Comments**
1		+STEP_PSTN_INVOKE_ON_HOOK(TSPX_IMPLICIT_EVENT_PSTN)			
Detailed Comments :					

Test Step Dynamic Behaviour					
Test Step Name : Postamble_isdn					
Group : postambles/					
Objective : Postamble of common ISDN tests.					
Default : DEF_ISDN					
Comments :					
Nr	**Label**	**Behaviour Description**	**Constraints Ref**	**Verdict**	**Comments**
1		[TRUE]		R	
Detailed Comments :					

Test Step Dynamic Behaviour	

Test Step Name : STEP_CHECK_PSTN_STATE_LE1

Group : status_verification/

Objective : Check that the IUT is in state LE1(null).

On receipt of an ESTABLISH ACK message the IUT PSTN protocol shall send a STATUS ENQUIRY message ==> the IUT PSTN protocol is not in one of the PSTN_path_states LE2 and LE5.
On receipt of a STATUS message containing the cause_type "response to status enquiry" and the state IE "AN1" the IUT PSTN protocol shall not send a DISCONNECT message ==> the IUT PSTN protocol is not in one of the PSTN_path_states LE3 and LE4.
On receipt of an ESTABLISH ACK message the IUT PSTN protocol shall send again a STATUS ENQUIRY message.
On receipt of a STATUS message containing the cause_type "response to status enquiry" and the state IE "AN5" the IUT PSTN protocol shall send a DISCONNECT message ==> the IUT PSTN protocol is not in one of the PSTN_path_states LE0 and LE6.
Complete this test step by sending a DISCONNECT COMPLETE message (IUT PSTN protocol enters the PSTN_path_state LE1).

Default : DEF_PSTN_BODY

Comments : Ref: EN 300 324–1 [2], subclause 13.7 table 30

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		DLL ! dl_data_req START T_AC_short	Dl_data_req_pstn(Pstn_est_ack_s)		1
2	CS1	DLL ? dl_data_ind CANCEL T_AC_short	Dl_data_ind_pstn(Pstn_status_enq)	(PASS)	2
3		DLL ! dl_data_req START T_NOAC	Dl_data_req_pstn(Pstn_status(TSC_PSTN_STATE_AN1, TSC_PSTN_CAUSE_RSP_ TO_STATUS_ENQ))		3
4	CS2	?TIMEOUT T_NOAC		(PASS)	4
5		DLL ! dl_data_req START T_AC_short	Dl_data_req_pstn(Pstn_est_ack)		5
6		DLL ? dl_data_ind CANCEL T_AC_short	Dl_data_ind_pstn(Pstn_status_enq)		6
7		DLL ! dl_data_req START T_AC_short	Dl_data_req_pstn(Pstn_status(TSC_PSTN_STATE_AN5, TSC_PSTN_CAUSE_RSP_ TO_STATUS_ENQ))		7
8	CS3	DLL ? dl_data_ind CANCEL T_AC_short	Dl_data_ind_pstn(Pstn_disc_r)	(PASS)	8
9		DLL ! dl_data_req	Dl_data_req_pstn(Pstn_disc_cpl_s)		

Detailed Comments : 1) Sending of an ESTABLISH ACK message.
2) Expected event, receipt of a STATUS ENQUIRY message
(the IUT is not in one of the PSTN_path_states LE2 and LE5.).
3) Sending of a STATUS message (state: AN1, cause: response to status enquiry).
4) Expected behaviour, no event shall occure during T_NOAC
(the IUT is not in one of the PSTN_path_states LE3 and LE4).
5) Sending of an ESTABLISH ACK message.
6) Receipt of a STATUS ENQUIRY message .
7) Sending of a STATUS message (state: AN5, cause: response to status enquiry).
8) Expected event, receipt of a DISCONNECT message
(The IUT is not in one of the PSTN_path_states LE0 and LE6).

		Test Step Dynamic Behaviour			

Test Step Name : STEP_CHECK_PSTN_STATE_LE2

Group : status_verification/

Objective : Check that the IUT is in state LE2 (path initiated by LE).

On receipt of a SIGNAL message the IUT PSTN protocol shall send a STATUS ENQUIRY message ==> the IUT PSTN protocol is not in one of the PSTN_path_states LE4 and LE5.
On receipt of a STATUS message containing the cause_type "response to status enquiry" and the state IE "AN1" the IUT PSTN protocol shall not send a DISCONNECT message ==> the IUT PSTN protocol is not in the PSTN_path_state LE3.
On receipt of a SIGNAL message the IUT PSTN protocol shall send again a STATUS ENQUIRY message.
On receipt of a STATUS message containing the cause_type "response to status enquiry" and the state IE "AN3" the IUT PSTN protocol shall send a DISCONNECT message ==> the IUT PSTN protocol is not in one of the PSTN_path_states LE0, LE1 and LE6.
Complete this test step by sending a DISCONNECT COMPLETE message (IUT PSTN protocol enters the PSTN_path_state LE1).

Default : DEF_PSTN_BODY

Comments : Ref: EN 300 324–1 [2], subclause 13.7 table 30

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		DLL ! dl_data_req (S_S := S_S + 1) START T_AC_short	Dl_data_req_pstn(Pstn_signal(S_S, TSPX_PSTN_COND_INFO _SIGNAL_DIGIT1))		1
2	CS1	DLL ? dl_data_ind CANCEL T_AC_short	Dl_data_ind_pstn(Pstn_status_enq)	(PASS)	2
3		DLL ! dl_data_req START T_NOAC	Dl_data_req_pstn(Pstn_status(TSC_PSTN_STATE_AN1, TSC_PSTN_CAUSE_RSP_ TO_STATUS_ENQ))		3
4	CS2	?TIMEOUT T_NOAC START T1_max		(PASS)	4
5		DLL ? dl_data_ind_est (TCV_l3_addr := dl_data_ind_est.user_data.layer_3_address) CANCEL T1_max	Dl_data_ind_est(Pstn_est_r)	(PASS)	2
6		+LTS_END			
7		DLL ? dl_data_ind_est (TCV_l3_addr := dl_data_ind_est.user_data.layer_3_address) CANCEL T_NOAC	Dl_data_ind_est(Pstn_est_r)	(PASS)	5
8		+LTS_END			
		LTS_END			
9		DLL ! dl_data_req (S_S := S_S + 1) START T_AC_short	Dl_data_req_pstn(Pstn_signal(S_S, TSPX_PSTN_COND_INFO _SIGNAL_DIGIT1))		6
10		DLL ? dl_data_ind CANCEL T_AC_short	Dl_data_ind_pstn(Pstn_status_enq)	(PASS)	7
11		DLL ! dl_data_req START T_AC_short	Dl_data_req_pstn(Pstn_status(TSC_PSTN_STATE_AN3, TSC_PSTN_CAUSE_RSP_ TO_STATUS_ENQ))		8
12	CS3	DLL ? dl_data_ind CANCEL T_AC_short	Dl_data_ind_pstn(Pstn_disc_r)	(PASS)	9
13		DLL ! dl_data_req	Dl_data_req_pstn(Pstn_disc_cpl_s)		10

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Test Step Dynamic Behaviour

Detailed Comments : 1) Sending of a SIGNAL message.
2) Expected event, receipt of a STATUS ENQUIRY message (the IUT is not in one of the PSTN_path_states LE4 and LE5).
3) Sending of a STATUS message (state: AN1, cause: response to status enquiry).
4) Expected behaviour, no event shall occure during T_NOAC (the IUT is not in the PSTN_path_state LE3).
5) Receipt of re-sent ESTABLISH message.
6) Sending of a SIGNAL message.
7) Receipt of a STATUS ENQUIRY message.
8) Sending of a STATUS message (state: AN3, cause: response to status enquiry).
9) Expected event, receipt of a DISCONNECT message (The IUT is not in one of the PSTN_path_states LE0, LE1 and LE6).
10) Sending of a DISCONNECT COMPLETE message.

Test Step Dynamic Behaviour					

Test Step Name : STEP_CHECK_PSTN_STATE_LE4

Group : status_verification/

Objective : Check that the IUT is in state LE4 (path active).

On receipt of an ESTABLISH message the IUT PSTN protocol shall send a STATUS ENQUIRY message ==> the IUT PSTN protocol is not in one of the PSTN_path_states LE1, LE2, LE3 and LE5.
On receipt of a STATUS message containing the cause_type "response to status enquiry" and the state IE "AN2" the IUT PSTN protocol shall send a DISCONNECT message ==> the IUT PSTN protocol is not in one of the PSTN_path_states LE0 and LE6.
Complete this test step by sending a DISCONNECT COMPLETE message (IUT PSTN protocol enters the PSTN_path_state LE1).

Default : DEF_PSTN_BODY

Comments : Ref: EN 300 324-1 [2], subclause 13.7 table 30

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		DLL ! dl_data_req START T_AC_short	Dl_data_req_pstn(Pstn_est_cond_part (TSPX_PSTN_COND_INFO _EST_SEND))		1
2	CS1	DLL ? dl_data_ind CANCEL T_AC_short	Dl_data_ind_pstn(Pstn_status_enq)	(PASS)	2
3		DLL ! dl_data_req START T_AC_short	Dl_data_req_pstn(Pstn_status(TSC_PSTN_STATE_AN2, TSC_PSTN_CAUSE_RSP_ TO_STATUS_ENQ))		3
4	CS2	DLL ? dl_data_ind CANCEL T_AC_short	Dl_data_ind_pstn(Pstn_disc_r)	(PASS)	4
5		DLL ! dl_data_req	Dl_data_req_pstn(Pstn_disc_cpl_s)		5

Detailed Comments : 1) Sending of an ESTABLISH message.
2) Expected event, receipt of a STATUS ENQUIRY message (the IUT is not in one of the PSTN_path_states LE1, LE2, LE3 and LE5).
3) Sending of a STATUS message (state: AN2, cause: response to status enquiry).
4) Expected event, receipt of a DISCONNECT message (The IUT is not in one of the PSTN_path_states LE0 and LE6).
5) Sending of a DISCONNECT COMPLETE message.

Test Step Dynamic Behaviour

Test Step Name : STEP_CHECK_PSTN_STATE_LE5

Group : status_verification/

Objective : Check that the IUT is in state LE5 (path disconnect request).

On receipt of a DISCONNECT message the IUT PSTN protocol shall send no DISCONNECT COMPLETE and no STATUS ENQUIRY message ==> the IUT PSTN protocol is not in one of the PSTN_path_states LE0, LE1, LE2, LE3, LE4 and LE6.

Default : DEF_PSTN_BODY

Comments : Ref: EN 300 324–1 [2], subclause 13.7 table 30

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		DLL ! dl_data_req START T_NOAC	Dl_data_req_pstn(Pstn_disc_s)		1
2	CS1	?TIMEOUT T_NOAC		(PASS)	2

Detailed Comments : 1) ending of a DISCONNECT message.
2) Expected behaviour, no event shall occure during T_NOAC (the IUT is not in one of the PSTN_path_states LE0, LE1, LE2, LE3, LE4 and LE6).

Test Step Dynamic Behaviour

Test Step Name : STEP_REC_DISC_CPL

Group : com_test_steps/

Objective : Otherwise no event shall occure during T_AC_short.

Default : DEF_PSTN_BODY

Comments :

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1	S2	? TIMEOUT T_AC_short		(PASS)	2

Detailed Comments : 2) No DISCONNECT COMPLETE message is expected.

Test Step Dynamic Behaviour

Test Step Name : STEP_PSTN_INVOKE_DIAL(flag:BOOLEAN;number:IA5String)

Group : implicit_events/

Objective : To establish call to NMDS interface.

Default : DEF_PSTN_BODY

Comments :

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		[flag]			
2		<IUT ! pstn_est>	Pstn_est_r		1
3		[NOT flag]			
4		T ! te_dial_pstn (TSV_TE_DIALED := TRUE)	Dial_pstn(number)		2

Detailed Comments : 1) Implicit send message to invoke a sending of a FE−establish_request (terminating call request) message to the NWK entity (LE PSTN FSM).
2) Sending of DIAL primitive to invoke a sending of a FE−establish_request (terminating call request) message to the NWK entity (LE PSTN FSM).

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Test Step Dynamic Behaviour

Test Step Name : STEP_PSTN_INVOKE_ON_HOOK(flag:BOOLEAN)

Group : implicit_events/

Objective : To release the terminating call.

Default : DEF_PSTN_BODY

Comments :

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		[flag]			1
2		[NOT flag]			2
3		[TSV_TE_DIALED = TRUE]			
4		T ! te_on_hook_pstn (TSV_TE_DIALED := FALSE)			3
5		[TSV_TE_DIALED = FALSE]			

Detailed Comments : 1) Use of implicit event.
2) Use of ASP te_on_hook_pstn.
3) Release of the terminating call.

<table>
<tr><td colspan="6" align="center">**Default Dynamic Behaviour**</td></tr>
<tr><td colspan="6">**Default Name** : DEF_PSTN_PRE</td></tr>
<tr><td colspan="6">**Group** : PSTN/</td></tr>
<tr><td colspan="6">**Objective** : Covers the default handling concerning the PSTN protocol in the test body.
ATTENTION: USE IN PREAMBLE DEFAULT ONLY !</td></tr>
<tr><td colspan="6">**Comments** :</td></tr>
<tr><td>**Nr**</td><td>**Label**</td><td>**Behaviour Description**</td><td>**Constraints Ref**</td><td>**Verdict**</td><td>**Comments**</td></tr>
<tr><td>1</td><td></td><td>DLL ? dl_data_ind (S_R:=S_R+1)</td><td>Dl_data_ind_pstn(
Pstn_protocol_parameter_r)</td><td></td><td></td></tr>
<tr><td>2</td><td></td><td>DLL ! dl_data_req</td><td>Dl_data_req_pstn(
Pstn_signal_ack(
S_R))</td><td></td><td></td></tr>
<tr><td>3</td><td></td><td>RETURN</td><td></td><td></td><td></td></tr>
<tr><td>4</td><td>DPR1</td><td>DLL ? OTHERWISE</td><td></td><td>(INCONC)</td><td>1</td></tr>
<tr><td>5</td><td></td><td>+LTS_PSTN_INVOKE_ON_HOOK</td><td></td><td></td><td></td></tr>
<tr><td>6</td><td>DPR2</td><td>?TIMEOUT</td><td></td><td>(INCONC)</td><td>2</td></tr>
<tr><td>7</td><td></td><td>+LTS_PSTN_INVOKE_ON_HOOK</td><td></td><td></td><td></td></tr>
<tr><td></td><td></td><td>LTS_PSTN_INVOKE_ON_HOOK</td><td></td><td></td><td></td></tr>
<tr><td>8</td><td></td><td>[TSPX_IMPLICIT_EVENT_PSTN]</td><td></td><td></td><td></td></tr>
<tr><td>9</td><td></td><td>[NOT TSPX_IMPLICIT_EVENT_PSTN]</td><td></td><td></td><td></td></tr>
<tr><td>10</td><td></td><td>[TSV_TE_DIALED]</td><td></td><td></td><td></td></tr>
<tr><td>11</td><td></td><td>T ! te_on_hook_pstn (TSV_TE_DIALED :=
FALSE)</td><td></td><td></td><td>3</td></tr>
<tr><td>12</td><td></td><td>[NOT TSV_TE_DIALED]</td><td></td><td></td><td></td></tr>
<tr><td colspan="6">**Detailed Comments** : 1) Unexpected event fom the PSTN FSM was received was received.
2) Unexpected expiry of a timer.
3) Release of the terminating call.</td></tr>
</table>

| **Default Dynamic Behaviour** |

Default Dynamic Behaviour

Default Name : DEF_PSTN_BODY

Group   : PSTN/

Objective : Covers the default handling concerning the PSTN protocol in the test body.
ATTENTION: USE IN TEST BODY DEFAULT ONLY !

Comments   :

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		DLL ? dl_data_ind (S_R:=S_R+1)	Dl_data_ind_pstn(Pstn_protocol_parameter_r)		
2		DLL ! dl_data_req	Dl_data_req_pstn(Pstn_signal_ack(S_R))		
3		RETURN			
4	DB1	DLL ? OTHERWISE		(FAIL)	1
5		+LTS_PSTN_INVOKE_ON_HOOK			
6	DB2	?TIMEOUT		(FAIL)	2
7		+LTS_PSTN_INVOKE_ON_HOOK			
		LTS_PSTN_INVOKE_ON_HOOK			
8		[TSPX_IMPLICIT_EVENT_PSTN]			
9		[NOT TSPX_IMPLICIT_EVENT_PSTN]			
10		[TSV_TE_DIALED]			
11		T ! te_on_hook_pstn (TSV_TE_DIALED := FALSE)			3
12		[NOT TSV_TE_DIALED]			

Detailed Comments : 1) Unexpected event fom the PSTN FSM was received was received.
2) Unexpected expiry of a timer.
3) Release of the terminating call.

		Default Dynamic Behaviour			
Default Name : DEF_PSTN_POST
Group : PSTN/
Objective : Covers the default handling concerning the PSTN protocol in the postamble. ATTENTION: USE IN POSTAMBLE DEFAULT ONLY !
Comments :
Nr	**Label**	**Behaviour Description**	**Constraints Ref**	**Verdict**	**Comments**
1	DPO0	DLL ? dl_data_ind	Dl_data_ind_pstn(Pstn_disc_cpl_r)		
2		RETURN			
3	DPO1	DLL ? OTHERWISE		(INCONC)	1
4		+LTS_PSTN_INVOKE_ON_HOOK			
5	DPO2	?TIMEOUT		(INCONC)	2
6		+LTS_PSTN_INVOKE_ON_HOOK			
		LTS_PSTN_INVOKE_ON_HOOK			
7		[TSPX_IMPLICIT_EVENT_PSTN]			
8		[NOT TSPX_IMPLICIT_EVENT_PSTN]			
9		[TSV_TE_DIALED]			
10		T ! te_on_hook_pstn (TSV_TE_DIALED := FALSE)			3
11		[NOT TSV_TE_DIALED]			
Detailed Comments : 1) Unexpected event fom the PSTN FSM was received was received. 2) Unexpected expiry of a timer. 3) Release of the terminating call. .

		Default Dynamic Behaviour			
Default Name : DEF_ISDN
Group : ISDN/
Objective :
Comments :
Nr	**Label**	**Behaviour Description**	**Constraints Ref**	**Verdict**	**Comments**
1		DLL ? OTHERWISE		FAIL	
Detailed Comments :