EUROPEAN
TELECOMMUNICATION
STANDARD

ETS 300 374-4

December 1997

Source: SPS

Reference: DE/SPS-03016-2

ICS: 33.020

Key words: IN, CS1, INAP, ATS, PIXIT, testing

Intelligent Network (IN);
Intelligent Network Capability Set 1 (CS1);
Core Intelligent Network Application Protocol (INAP);
Part 4: Abstract Test Suite (ATS) and partial Protocol Implementation eXtra Information for Testing (PIXIT) proforma specification for Service Switching Function (SSF) and Specialized Resource Function (SRF)

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Contents

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Foreword

This European Telecommunication Standard (ETS) has been produced by the Signalling Protocol and Switching (SPS) Technical Committee of the European Telecommunications Standards Institute (ETSI).

This ETS is part 4 of a multi-part standard covering the Capability Set 1 (CS1) core Intelligent Network Protocol (INAP) as described below:

Part 1:   "Protocol specification";

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

Part 3:   "Test Suite Structure and Test Purposes (TSS&TP) specification for Service Switching Function (SSF) and Specialized Resource Function (SRF)";

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

Part 5:   "Protocol specification for the Service Control Function (SCF) - Service Data Function (SDF) interface";

Part 6:   "PICS proforma specification for the SCF-SDF interface".

Transposition dates	
Date of adoption:	5 December 1997
Date of latest announcement of this ETS (doa):	31 March 1998
Date of latest publication of new National Standard or endorsement of this ETS (dop/e):	30 September 1998
Date of withdrawal of any conflicting National Standard (dow):	30 September 1998

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1   Scope

This fourth part of ETS 300 374 provides the Abstract Test Suite (ATS), the Abstract Test Method (ATM), ATS conventions, the partial Protocol Implementation eXtra Information for Testing (PIXIT) proforma and the Protocol Conformance Testing Report (PCTR) proforma for the Service Switching Function (SSF) and the Specialized Resource Function (SRF) of the core Intelligent Network Application Protocol (INAP) of Intelligent Network (IN) Capability Set 1 (CS1) according to ETS 300 374-1 [1].

The objective of the ETS is to provide a standardized ATS for SSF and SRF conformance tests which give a reasonable probability of inter-operability between IN components from different manufacturers over the core INAP interfaces.

Annex A provides a partial PIXIT proforma.

Annex B includes a PCTR proforma.

Annex C provides an ATS for SSF and SRF. The specification of the Test Cases (TCs) in the ATS is based on the dynamic conformance requirements specified in ETS 300 374-3 [3]. The TCs provide the implementation of the TPs in TTCN.

ISO/IEC 9646, parts 1 to 5 [4 to 8] and ETS 300 406 [9] are used as the basis for the test methodology.

2   Normative references

This ETS incorporates by dated and undated reference, provisions from other publications. These normative references are cited at the appropriate places in the text and the publications are listed hereafter. For dated references, subsequent amendments to or revisions of any of these publications apply to this ETS only when incorporated in it by amendment or revision. For undated references the latest edition of the publication referred to applies.

[1]   ETS 300 374-1 (1994): "Intelligent Network (IN); Intelligent Network Capability Set 1 (CS1); Core Intelligent Network Application Protocol (INAP); Part 1: Protocol specification".

[2]   ETS 300 374-2 (1996): "Intelligent Network (IN); Intelligent Network Capability Set 1 (CS1); Core Intelligent Network Application Protocol (INAP); Part 2: Protocol Implementation Conformance Statement (PICS) proforma specification".

[3]   ETS 300 374-3 (1997): "Intelligent Network (IN); Intelligent Network Capability Set 1 (CS1); Core Intelligent Network Application Protocol (INAP); Part 3: Test Suite Structure and Test Purposes (TSS&TP) specification for Service Switching Function (SSF) and Specialized Resource Function (SRF)".

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

[5]   ISO/IEC 9646-2: "Information technology - Open Systems Interconnection - Conformance testing methodology and framework - Part 2: Abstract Test Suite Specification".

[6]   ISO/IEC 9646-3: "Information technology - Open Systems Interconnection - Conformance testing methodology and framework - Part 3: The Tree and Tabular Combined Notation (TTCN)".

[7]   ISO/IEC 9646-4: "Information technology - Open Systems Interconnection - Conformance testing methodology and framework - Part 4: Test realization".

[8]   ISO/IEC 9646-5: "Information technology - Open Systems Interconnection - Conformance testing methodology and framework - Part 5: Requirements on test laboratories and clients for the conformance assessment process".

[9] ETS 300 406 (1995): "Methods for Testing and Specification (MTS); Protocol and profile conformance testing specifications; Standardization methodology".

[10] ETS 300 287 (1993): "Integrated Services Digital Network (ISDN); Signalling System No.7; Transaction Capabilities Application Part (TCAP) version 2".

[11] ITU-T Recommendation Q.771 (1993): "Specification of signalling system No.7; Functional description of transaction capabilities".

[12] ITU-T Recommendation Q.772 (1993): "Specification of signalling system No.7; Transaction capabilities information element definitions".

[13] ITU-T Recommendation Q.773 (1993): "Specification of signalling system No.7; Transaction capabilities formats and encoding".

[14] ITU-T Recommendation Q.774 (1993): "Specification of signalling system No.7; Transaction capabilities procedures".

[15] ITU-T Recommendation Q.775 (1993): "Specification of signalling system No.7; Guidelines for using transaction capabilities".

[16] ISO/IEC 9545 (1989): "Information technology - Open Systems Interconnection - Application layer structure".

[17] ETS 300 008: "Integrated Service Digital Network (ISDN); Signalling System No.7; Message Transfer Part (MTP) to support international interconnection".

[18] ETS 300 009: "Integrated Service Digital Network (ISDN); Signalling System No.7; Signalling Connection Control Part (SCCP) [connectionless service] to support international interconnection".

3 Definitions and abbreviations

3.1 Definitions

For the purposes of this ETS, the following definitions apply, together with those given in ETS 300 374-1 [1] and ETS 300 374-3 [3]:

Abstract Test Case (ATC): Refer to ISO/IEC 9646-1 [4].

NOTE: In this ETS, the commonly used term TC is applied in the same way as ATC.

Abstract Test Suite (ATS): Refer to ISO/IEC 9646-1 [4].

Client (of a test laboratory): Refer to ISO/IEC 9646-1 [4].

dynamic conformance requirements: Refer to ISO/IEC 9646-1 [4].

Implementation Under Test (IUT): Refer to ISO/IEC 9646-1 [4].

IN component: A physical component of the intelligent network which has one of the following form: a SCP, a SSP, an IP or a SDP.

INAP interface: An interface of an IN component at which the core INAP applies. An INAP interface is either a SCF-SSF, or a SCF-SRF, or a SCF-SDF interface.

Lower Tester (LT): Refer to ISO/IEC 9646-1 [4].

Multi-Party Testing (MPyT) context: Refer to ISO/IEC 9646-1 [4].

non-INAP interface: An interface an IN component has, is not the one of the core INAP interfaces.

PCTR proforma: Refer to ISO/IEC 9646-1 [4].

PICS proforma: Refer to ISO/IEC 9646-1 [4].

PIXIT proforma: Refer to ISO/IEC 9646-1 [4].

Point Of Control And Observation (PCO): Refer to ISO/IEC 9646-1 [4].

Protocol Implementation Conformance Statement (PICS): Refer to ISO/IEC 9646-1 [4].

Protocol Implementation eXtra Information For Testing (PIXIT): Refer to ISO/IEC 9646-1 [4].

remote test method: Refer to ISO/IEC 9646-1 [4].

Single-Party Testing (SPyT) context: Refer to ISO/IEC 9646-1 [4].

System Under Test (SUT): Refer to ISO/IEC 9646-1 [4].

test event: Refer to ISO/IEC 9646-1 [4].

test laboratory: Refer to ISO/IEC 9646-1 [4].

Test Purpose (TP): Refer to ISO/IEC 9646-1 [4].

test system: Refer to ISO/IEC 9646-1 [4].

3.2 Abbreviations

For the purposes of this ETS, the following abbreviations apply:

aC	SCF Assist with relay handling
aS	Assisting SSF
ASE	Application Service Element
ASP	Abstract Service Primitives
ATM	Abstract Test Method
ATC	Abstract Test Case
ATS	Abstract Test Suite
bC	Basic SCF
BI	Invalid Behaviour
BO	Inopportune Behaviour
bS	tests for SSP basic functions
BV	Valid Behaviour
CA	Capability tests
cD	Non-integrated SDF
cI	IP with direct path to SCP
CM	Co-ordination Message
CP	Co-ordination Point
dC	SCF-SDF handling
FE	Functional Entity
FSM	Finite State Machine
IE	Information Element
iS	Initiating SSF
ISUP	ISDN User Part
IT	basic Interconnection Tests
IUT	Implementation Under Test
LT	Lower Tester
MPyT	Multi-Party Testing
MTP	Message Transfer Part
pC	SCF direct path IP handling
PCO	Point of Control and Observation
PCTR	Protocol Conformance Test Report
PDU	Protocol Data Unit

PICS	Protocol Implementation Conformance Statements
PIXIT	Protocol Implementation eXtra Information for Testing
PTS	Profile Test Specification
rC	SCF-SSF relay handling
rS	SSF relay
SAP	Service Access Point
SCCP	Signalling Connection Control Part
SPyT	Single-Party Testing
SS7	Signalling System No.7
SUT	System Under Test
TC	Test Case
TCAP	Transaction Capabilities Application Part
TP	Test Purpose
TSS	Test Suite Structure
TTCN	Tree and Tabular Combined Notation
UL	Upper Layer
UT	Upper Tester

4 Abstract test method and test configurations

This clause describes the testing architecture, the Abstract Test Method (ATM), the test configurations, different testing context and the Point of Control and Observation (PCO) used in the ATS.

For the core INAP conformance testing the remote test method is selected primarily due to its minimal impact on an Implementation Under Test (IUT). It is not possible in this test method to observe and control the upper service boundary of the IUT.

4.1 SUT and IUT

A SUT in this ETS is generally a SSP or an IP which has a core INAP interface to a SCP.

Based on the application layer structure of ETS 300 374-1 [1] (see ISO/IEC 9545 [16]), an IUT of the core INAP is an implementation of an application entity, which is:

- either a SSF within a SSP;

- or a SSF with an integrated SRF within a SSP;

- or a SRF within an IP.

An IUT uses the TCAP services to establish, maintain and end application associations. A test case simulates the behaviours of a SCF to test the IUT.

4.2 SUT interfaces

A SUT is a network component which has one core INAP interface and more then one non-INAP interfaces. The ATS designed simulates the SCF behaviours at the core INAP interface. However, at the non-INAP interfaces different protocols such as ISUP, B-ISUP, TUP or DSS1 may be available depending upon the network configuration. These non-INAP interfaces are used in the ATS as a second or third auxiliary interface for testing. Some kind of control or observation function is needed for the execution of testing via one of these interfaces. However, the ATS is designed to test the core INAP interface. It is not suitable to be used for an interworking test between the core INAP and the other protocols.

4.3 Lower Testers (LTs)

LTs constitute a major part of a core INAP test system. Depending on the test configuration more than one LT can be needed in test cases. There is always a main LT in the test system which is in use in all test cases. It controls and observes the behaviours of the IUT via the core INAP interface. In most test cases a second parallel LT, and in some test cases even a third parallel LT, is needed. The role of the parallel LTs is to provoke at the IUT some core INAP procedures needed for testing or to make some simple observations via a non-INAP interface.

4.4 Upper Tester (UT)

No explicit UT is needed in a core INAP test system.

4.5 Underlying SS7 protocols

Although ETS 300 374-1 [1] allows either the TCAP or the ROSE/Q.932 to be as underlying protocol for the core INAP application associations, ETS 300 374-3 [3] and the ATS of the core INAP are designed by using TCAP as one of the mandatory Association Service Elements (ASEs). It requires that any kind of SUT implements the ITU-T/ETSI SS7 protocol stack including MTP (see ETS 300 008 [17]), connectionless SCCP (see ETS 300 009 [18]) and TCAP (see ETS 300 287 [10]) as underlying protocols.

The ATS is designed in such a way that it accepts the TCAP in both the 1988 (blue book) and 1993 (white book) version. No test case has been implemented in TTCN for testing the AC negotiation.

4.6 TCAP emulation in test system

The main LT uses the SS7 MTP and connectionless SCCP as underlying protocols in the core INAP test system for the signalling transportation and connection control. The test system contains also a TCAP software emulator. Within the core INAP test system, the TCAP ASPs constitute a major part of the interface between the TCAP emulator and the main LT.

4.7 Points of Control and Observation (PCOs)

A PCO is available for each LT. The PCO models two first-in first-out (FIFO) queues for all test events. The service upper boundary of a TCAP emulator in the test system is defined as the main PCO which applies to the main LT at the INAP interface. The main PCO is identical to the TCSAP between the TC component sublayer and a TC user. The address of the main PCO is identical to the originating/destination address in the TC primitives by using connectionless SCCP address. Any combination of SCCP address types is allowed for testing. The test events at the main PCO are specified in terms of sending or receiving TC primitives or firing a monitoring timer.

A second or third PCO is used for the second or third, parallel LT. Depending upon the protocol used at the non-INAP interface, they are:

- either identical to the MTP SAP at the upper service boundary of the MTP level 3 for the ISUP, B-ISUP or TUP protocol;

- or identical to the DSAP at the upper service boundary of the data link Layer (DLL or L2) for the protocol DSS1.

The second or third PCO can be of the same type, e.g. DSAP, but they have different addresses.

4.8 Co-ordination Points (CPs) and Co-ordination Messages (CMs)

Between the main LT and each parallel LT there is a CP. The main LT exchanges CMs with each parallel LT. The main LT uses co-ordination points and co-ordination messages to control and to synchronize the parallel LTs. In this ETS each parallel LT has only one CP available. The semantics of the CPs are similar to PCOs.

4.9 Test configurations

The test configuration for testing SSF is different from the test configuration for testing SRF.

4.9.1 Test configuration for SSF testing

Figure 1 shows the test configuration for testing the SSF. The SUT is a SSP which can be:

- a SSP alone;
- a SSP with an integrated IP;
- a SSP with an attached IP;
- an initiating SSP;
- an assisting SSP.
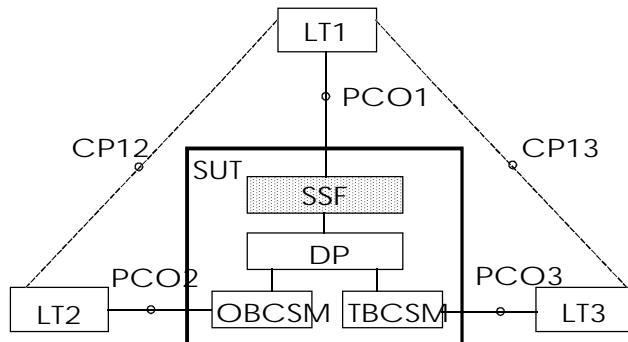
Figure 1: Test configuration for testing SSF

In figure 1, three LTs are used. LT1 is the main LT. LT2 and LT3 are the parallel LTs. PCO1 is a main PCO at the INAP interface. PCO2 is at a non-INAP interface for the call originating signalling, while PCO3 is at the second non-INAP interface for call terminating signalling. LT1 simulates a SCP, while LT2 and LT3 stimulates some network events at the non-INAP interfaces, necessary for the testing. Four types of testing context are used for testing the SSF:

Testing context 1:   single LT1;
Testing context 2:   LT1 and LT2;
Testing context 3:   LT1 and LT3;
Testing context 4:   LT1, LT2 and LT3.

CP12 is the co-ordination point between LT1 and LT2. CP13 is the co-ordination point between LT1 and LT3.

4.9.2 Test configuration for SRF testing

Figure 2 shows the test configuration for testing the SRF. The SUT is an IP which has an INAP interface to the SCP. The SUT can be:

- an IP connected directly to a SSP;
- an IP connected to a SSP via intermediate exchange.
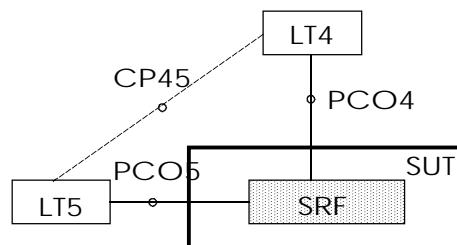
Figure 2: Test configuration for testing SRF

In figure 2, two LTs are used. LT4 is the main LT, while LT5 is the parallel LT. LT4 simulates a SCP. LT5 simulates a SSP to provoke some events necessary for the testing. PCO4 is the main PCO at the INAP interface. PCO5 is at a non-INAP interface.

According to the test configuration two types testing context are used in the ATS for testing SRF:

Testing context 5:   single LT4;
Testing context 6:   LT4 and LT5.

CP45 is the co-ordination point between LT4 and LT5.

4.10   Single-Party Testing (SPyT)

In a Single Party Testing (SPyT) context, only the main PCO exists in the test system. To test SSF, or SRF, a small part of test cases are specified in a SPyT context. The IUT is required by the test purposes to communicate with the main LT (LT1 for the SSF testing, LT4 for the SRF testing). The test cases running in the main LT simulate the behaviours of the SCF, as a peer entity of the IUT.

4.11   Multi-Party Testing (MPyT)

In a Multi-Party Testing (MPyT) context two or three PCOs are used. Each PCO is controlled and observed by one LT. The IUT is required by the test purposes to communicate with LTs. The main LT simulates the SCF behaviours while the second, parallel LT and/or the third parallel LT simulate(s) the provocation or observation functions via the non-INAP interface(s), e.g. via an interface at the originating call signalling side (OBCSM) or an interface at the terminating call signalling side (TBCSM) of a SSP.

The co-ordination of the LTs activities is needed. It is realized in the ATS through the specific co-ordination messages. The main LT requests a parallel LT to provoke a procedure or observe some results. The parallel LT answers with a result indicating whether a provocation/observation requested by the main LT has succeeded. The parallel LT does not assign any test verdict. A verdict is always assigned by the main LT. The MPyT context implies to use the concurrent TTCN in the design of the ATS. The design follows two facts in the SSF and SRF testing:

-        no concurrent requirement on LTs:

         There is no real concurrence between the main LT and the parallel LTs. If two parallel LTs appear in a same test case, no co-ordination is needed between them.

-        the parallel LTs do not assign any prerequisite verdict:

         Only the main LT assigns the verdict in each test case.

4.12   Abstract test method

The remote test method is used in the core INAP ATS. According to the test purposes, six different types of test context exist in the ATS. Contexts 1 to 4 apply to SSF testing, while contexts 5 and 6 are used for SRF testing.

4.12.1   Remote test method in SPyT context 1
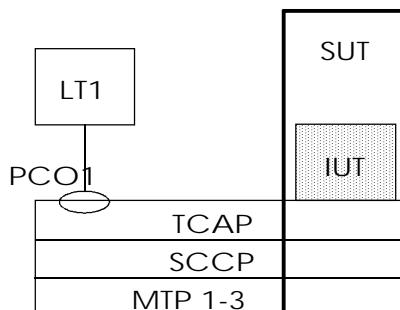
Figure 3: Remote test method in SPyT context 1

Figure 3 shows the remote test method in the SPyT context 1. PCO1 is at the core INAP interface of the test system. A small part of the test cases for testing the SSF are designed under this test context.

4.12.2 Remote test method in MPyT context 2 and context 3

Figure 4 shows a remote test method in the MPyT context 2 and context 3. These two types of the test context are used in most test cases for testing the SSF. A main LT, LT1, and a parallel LT, LT2 in context 2 or LT3 in context 3 are used in the test configuration. In figure 4:

- the protocol Ln or Lm is either NWK (L3) of DSS1, or one of ISUP, B-ISUP or TUP of SS7;
- the protocol Ln-1 or Lm-1 is either DLL (L2) of DSS1, or MTP level 3 of SS7;
- the protocol Ln-2 or Lm-2 is either PHL (L1) of DSS1, or MTP level 1-2 of SS7.

The protocol stacks (Ln, Ln-1, Ln-2) and (Lm, Lm-1, Lm-2) can be of different type.
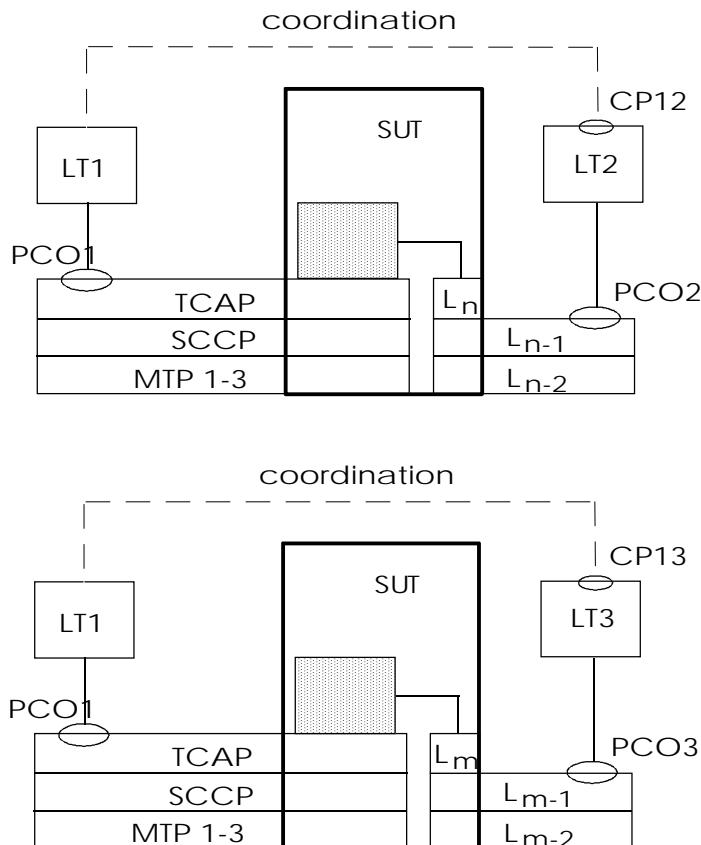
Figure 4: Remote test method in MPyT context 2 and 3

4.12.3 Remote test method in MPyT context 4
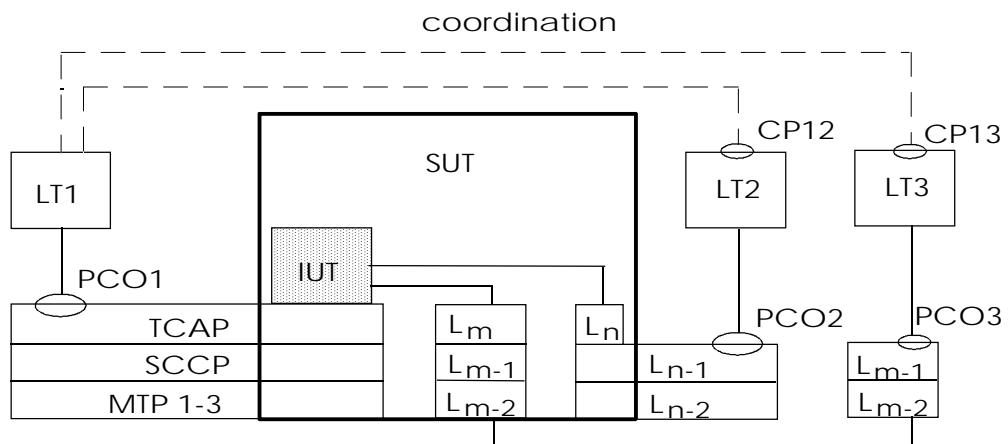
Figure 5: Remote test method in MPyT context 4

Figure 5 shows the remote test method in the MPyT context 4 with three LTs:

-      the protocol Ln or Lm is either NWK (L3) of DSS1, or one of ISUP, B-ISUP or TUP of SS7;
-      the protocol Ln-1 or Lm-1 is either DLL (L2) of DSS1, or MTP level 3 of SS7;
-      the protocol Ln-2 or Lm-2 is either PHL (L1) of DSS1, or MTP level 1-2 of SS7.

Whether the protocol stacks (Lm, Lm-1, Lm-2) and (Ln, Ln-1, Ln-2) are identical or different, it depends on the network configuration. This test context is used to test SSF in the monitoring state. The test context can also be in use for the test cases of the SSF concerning the charging event.

4.12.4   Remote test method in SPyT context 5
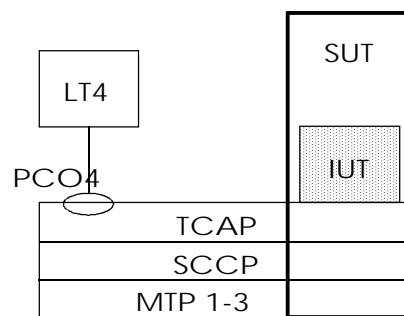
Figure 6: Remote test method in SPyT context 5

Figure 6 shows the remote test method in the SPyT context 5. The test cases at LT4 simulate the SCF. PCO4 is at the core INAP interface of the test system. A few test cases for testing the SRF are designed under this test context.

4.12.5   Remote test method in MPyT context 6

Figure 7 shows a remote test method in the MPyT context 6. This test context are used in most test cases for testing the SRF. A main LT, LT4, and a parallel LT, LT5 in context 6 are used in the test configuration. In figure 7:

-      the protocol Ln is either the NWK (L3) of DSS1, or one of ISUP, B-ISUP or TUP of SS7;
-      the protocol Ln-1 is either DLL (L2) of DSS1, or MTP level 3 of SS7;
-      the protocol Ln-2 is either PHL (L1) of DSS1, or MTP level 1-2 of SS7.
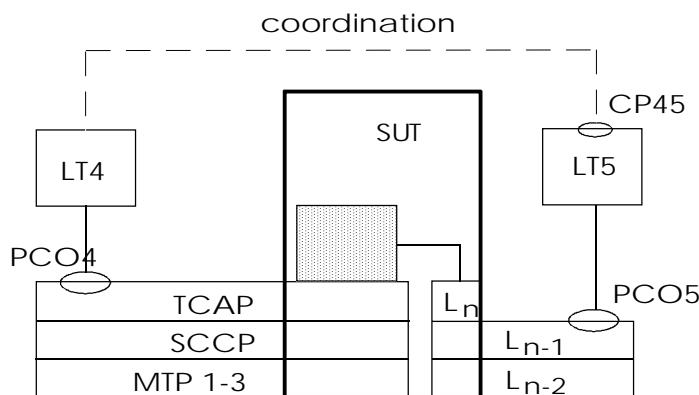
Figure 7: Remote test method in MPyT context 6

4.13   Usage of test configurations and test context

The ATS consists of 369 test cases. According to the dynamic conformance requirement of each test case, especially according to the number of the interfaces of the SUT used in the test scenario of the test case, one of the six test context is chosen for realization of the test case.

4.13.1   Use of the test context 1

A total of 40 test cases are designed by using the SPyT context 1 for testing the SSF. The INAP interface of the SUT is used in the test. Only LT1 is needed. The test cases are listed below.

IN621101, IN627101, IN627102, IN631101, IN631102, IN631103, IN631104, IN637101, IN637102, IN637103, IN637104, IN637105, IN637106, IN638001, IN638002, IN638003, IN641101, IN647101, IN651101, IN651102, IN651103, IN651104, IN651105, IN651106, IN651107, IN651108, IN651109, IN651110, IN651111, IN651112, IN751101, IN751102, IN751103, IN751104, IN751105, IN851101, IN851102, IN851103, IN851104, IN851105.

4.13.2   Use of the test context 2

A total of 16 test cases are designed by using the MPyT context 2 for testing the SSF. The INAP interface and a non-INAP interface of the SUT are used in the test. In this test context LT1 and LT2, apply to those test cases listed below.

IN633003, IN633004, IN633005, IN633118, IN633119, IN633120, IN633121, IN633122, IN633123, IN636002, IN636003, IN636004, IN636007, IN636008, IN636009, IN636022.

4.13.3   Use of the test context 3

A total 9 of test cases are designed by using the MPyT context 3 for testing the SSF. The INAP interface and a non-INAP interface of the SUT are used in the test. In this test context LT1 and LT3, apply to those test cases listed below for testing the SSF.

IN633006, IN633007, IN633124, IN633125, IN633126, IN633127, IN633128, IN636023, IN636026.

4.13.4   Use of the test context 2 or 3

A total of 196 test cases are designed by using either the MPyT context 2 or context 3 for testing the SSF. The INAP interface and a non-INAP interface of the SUT are used in the test. These test cases are listed below. Once the test context is defined by the PIXIT answer, all the following test cases shall follow a same test context during the test execution.

IN621001, IN623101, IN631001, IN631002, IN631003, IN631004, IN631005, IN631006, IN631007, IN631008, IN631009, IN631010, IN631011, IN631012, IN631013, IN631014, IN631015, IN631016, IN633001, IN633002, IN633101, IN633102, IN633103, IN633104, IN633105, IN633106, IN633107, IN633108, IN633109, IN633110, IN633111, IN633114, IN633115, IN633116, IN633117, IN633129, IN633130, IN633131, IN633134, IN633135, IN633136, IN633137, IN633138, IN633139, IN633301, IN633302, IN633303, IN633304, IN633305, IN633306, IN633307, IN636016, IN636101, IN636102, IN636103, IN636104, IN636105, IN636106, IN636107, IN636108, IN636109, IN636110, IN636111, IN636112, IN636113, IN636114, IN636115, IN636116, IN636117, IN636118, IN643101, IN643102, IN643103, IN643104, IN643105, IN643106, IN643107, IN643108, IN643109, IN643110, IN643111, IN643301, IN646101, IN646102, IN646103, IN646104, IN653101, IN656101, IN656102, IN656103, IN656104, IN656105, IN656106, IN656107, IN733101, IN733102, IN733103, IN733104, IN734001, IN734101, IN734102, IN734103, IN734104, IN734105, IN734106, IN734107, IN734108, IN734109, IN734110, IN734111, IN734112, IN734113, IN734114, IN734115, IN734116, IN734117, IN734118, IN734119, IN734120, IN734121, IN734122, IN734123, IN734124, IN734125, IN734126, IN734127, IN743101, IN744101, IN744102, IN744103, IN753101, IN753102, IN753103, IN753104, IN754105, IN756101, IN756102, IN756103, IN756104, IN756105, IN833101, IN833102, IN833103, IN833104, IN833105, IN833106, IN833107, IN835001, IN835101, IN843101, IN845101, IN853101, IN853102, IN853103, IN853104, IN855105, IN855109, IN855110, IN856101, IN856102, IN931101, IN931102, IN931103, IN931104, IN932001, IN932002, IN932101, IN932102, IN932103, IN932104, IN932105, IN932106, IN932301, IN932302, IN932303, IN932304, IN932305, IN932306, IN933001, IN933101, IN933102, IN933103, IN933104, IN933105, IN933106, IN942101, IN942102, IN943101, IN943102, IN943103, IN943104, IN943105, IN952101, IN952102, IN952103, IN952104.

4.13.5 Use of the test context 4

A total of 10 test cases are designed by using the MPyT context 4 for testing the SSF. The INAP interface and the two other non-INAP signalling interfaces of the SUT (SSP) are used in the test. The three LTs, LT1, LT2 and LT3, are in use. The test cases are listed below.

IN626001, IN633008, IN636001, IN636005, IN636006, IN636010, IN636024, IN636025, IN636027, IN636028.

4.13.6 Use of test context 2, 3 or 4

A total of 46 test cases designed are suitable for using either the MPyT context 2, or context 3, or context 4, depending on the PIXIT answer, whether the interface to invoke ApplyChargingReport, as well as EventNotificationCharging is the same one as that used to invoke InitialDP. If they are different, the INAP interface and the two other non-INAP signalling interfaces of the SSP are used in the test. Then the test configuration consists of LT1, LT2 and LT3 and the test context 4 is used. If only one non-INAP interface is used, the testing context is either using LT1 and LT2 (context 2), or using LT1 and LT3 (context 3).

IN633308, IN633309, IN633310, IN633311, IN633312, IN633313, IN633314, IN636017, IN636018, IN636019, IN636020, IN636021, IN636301, IN636302, IN636303, IN636304, IN636305, IN636306, IN636307, IN734301, IN734302, IN734303, IN734304, IN734305, IN734306, IN734307, IN835301, IN835302, IN835303, IN835304, IN835305, IN835306, IN835307, IN933002, IN933301, IN933302, IN933303, IN933304, IN933305, IN933306, IN933307.

The test cases listed bellow uses either context 2 with LT1 and LT2, or context 4 with LT1, LT2 and LT3.

IN636011, IN636012, IN636013, IN636014, IN636015.

4.13.7 Use of the test context 5

A total of 3 test cases are designed by using the SPyT context 5 for testing the SRF. The INAP interface of the SUT is used in the test. Only the L4 is needed. The test cases are listed below.

INA51101, INA51102, INA51103.

4.13.8 Use of the test context 6

A total of 49 test cases are designed by using the MPyT context 6 for testing the SRF. The INAP interface and a non-INAP interface of the SUT are used in the test. In this test context LT4 and LT5, apply to those test cases listed below.

INA31001, INA31002, INA32001, INA32002, INA32101, INA32102,INA32103, INA32104, INA32105, INA32106, INA32107, INA32108, INA32109, INA32110, INA32111, INA32112, INA32113, INA32114, INA32115, INA32116, INA32117, INA32118, INA32119, INA32120, INA32121, INA32122, INA32123, INA32124, INA32125, INA32126, INA32127, INA32301, INA32302, INA32303, INA32304, INA32305, INA32306, INA33001, INA33002, INA33101, INA33102, INA42101, INA42102, INA42103, INA43101, INA43102, INA43103, INA43104, INA52101.

4.14 Testing sequence

The test cases are designed independent of each other. Which testing sequence is used in the test is principally the decision of a test laboratory. However, Each test case uses an own preamble. The test preamble is normally tested before it is in use.

4.14.1 SSF testing sequence

The following suggestions apply to the testing sequence for the SSF testing:

- the testing follows the sequence of the test groups: basic SSF, SSF relay, initiating SSF, assisting SSF;

- the test group of the SSME FSM is prior to the test group of the SSF FSM;

- within the test group SSME FSM, test subgroup the "idle management" state is prior to the subgroup the "non call associated treatment" state;

- within the test group SSF FSM, the testing sequence of the test subgroups follows the "idle" state, the "waiting for instruction", the "monitoring" state, the "waiting for end of user interaction" state, the "waiting for end of temporary connection" state;

- exceptionally, the testing CallGap in the test group SSME FSM is posterior to the testing the InitialDP in the test group SSF FSM.

4.14.2 SRF testing sequence

The following suggestion applies to the testing sequence for the SRF testing.

Within the test group SRSM FSM the testing sequence of the test subgroups follows the "idle" state, the "connected" state, the "user interaction" state.

5 Abstract test suite convention

The ATS conventions are intended to give a better understanding of the ATS but they describe also the conventions made for the development of the ATS, thus for any later maintenance purposes or further development of the ATS the conventions described in this clause shall be considered.

The ATS conventions contain two clauses, the naming conventions and the conventions for design the ATS. The naming conventions describe the structure and style of the naming of all ATS elements. The conventions for design describe the functional structure of the ATS.

5.1 Naming conventions

The naming conventions in the ATS specification try to follow:

- the conventions for defining TC services and TCAP ITU-T Recommendation Q.771 [11] and ITU-T Recommendation Q.773 [13];

- the conventions for defining core INAP ETS 300 374-1 [1] and the TSS&TP ETS 300 374-3 [3].

Additional naming conventions are defined in this subclause for the use in the TTCN specification.

5.1.1 Naming test groups and test subgroups

The identifiers of test groups or subgroups follow fully the convention of ETS 300 374-3 [3]. A naming structure can have a maximum of four levels for identification of a test subgroup. At the first level exist two groups, SSF or SRF (using three characters, all uppercases), to identify the type of the IUT.

The second level identifies a role of the IUT in a concrete physical SUT. Two characters are used for naming, the first one is of lowercase, the second one is of uppercase:

- the test group SSF has four subgroups: bS, rS, iS, aS.
  (bS: basic SSP, rS: relay SSP, iS: initiating SSP, aS: associating SSP)

- the test group SRF has one subgroup: cI.
  (cI: direct path between SCP and IP)

The third level defines the subgroups of the valid behaviour, invalid or inopportune testing. Two characters in uppercase use for naming; BV: valid behaviour testing, BO: opportune testing, BI: invalid behaviour testing.

The fourth level identifies the state from which the test starts. The name of the state can have 1 - 5 characters in lowercases. For the test group SSF the possible state names are: a, b, c, d, e, f, ma, mb. For the test group SRF the possible state names are: one, two three.

EXAMPLE: Valid test subgroup names are: SSF/bS/BI/ma/, SSF/aS/BO/c, or SRF/cI/BV/one/.

5.1.2 Naming convention for Declaration part

5.1.2.1 ASN1 type definitions

In order to keep consistency between the ATS and the base standard, the naming convention in the ASN.1 definition of ETS 300 374-1 [1] is adopted in the ATS. Upper case is used for the first character of a name part. Lower case or digits are used for the remaining characters of the name part. Separate name parts have no "_" and space for separation.

EXAMPLE: EventTypeBCSM, InformationToSend, ResourceAddress, DialogueIdType, QualityOfService, OctetStringAsn1, OpLocalValue.

5.1.2.2 TTCN ASPs

The TTCN ASP naming convention follows the TC primitives naming convention of ITU-T Recommendation Q.771 [11]. Only uppercase is used in the name parts except for the last name part. Different name parts are separated by "_" (instead of "-" in the original definitions). Only lowercase is used in the last name part. The "req" or "ind" indicates the primitive type Request or Indication.

EXAMPLE: TC_BEGIN_req, TC_CONTINUE_ind, TC_INVOKE_req, TC_RESULT_L_ind, TC_U_REJECT_ind, TC_U_ERROR_req, TC_INVOKE_ind, TC_U_ERROR_ind.

5.1.2.3 ASN1 PDUs

The ASN.1 PDU naming convention follows the core INAP and the TCAP message definition conventions in ETS 300 374-1 [1] and ITU-T Recommendation Q.773 [13].

Valid PDU names

The name of a ASN.1 PDU type used for the valid behaviour testing is in uppercase. The first name part identifies the name of a remote operation of the core INAP or the TCAP itself. The four remote operation types, invoke, return result last, return error, and reject, are used as the second name part in the ASN.1 convention. Two parts are separated by "_".

EXAMPLE: AT_Invoke, PC_ReturnResultLast, CAN_ReturnError, TCAP_Reject.

Exception: CON_CTR_ICA_RNC_RRB_ReturnError indicating a common ASN.1 type of return error for the operations CON, CTR, ICA, RNC and RRB.

Invalid PDU names

The names of all ASN.1 PDU types used for the invalid behaviour testing have the additional suffix "_invalid" added to the valid PDU names.

EXAMPLE: ETC_Invoke_invalid, RC_Invoke_invalid.

5.1.2.4   Test suite parameters

The test suite parameters defined already in the core INAP keep the same names. The first character of the first name part is in lowercase.

EXAMPLE: maxSCIBillingChargingLength, numberOfChargingEvents,
                           minDisplayInformationLength.

For the TTCN specification, additional test suite parameters are necessary. Their names have either the prefix "TSPC_" derived from PICS answers, or the prefix "TSPX_" derived from PIXIT answers.

EXAMPLE: TSPC_IP, TSPC_aS, TSPX_paDate, TSPX_ctrl49.

5.1.2.5   Test suite constant declarations

The test suite constants defined already in the core INAP keep the same names.

EXAMPLE: missingParameterLocalValue,   highLayerCompatibleLength,   numOfCounters,
                           Core_INAP_CS1_SCP_to_SSP_AC.

Test suite constants declared in the ATS have either the prefix "TSC_", or the suffix "LocalValue".

EXAMPLE: TSC_prearranged,   TSC_basic,   IDPLocalValue,   PALocalValue,
                           canceledLocalValue, systemFailureLocalValue.

Those test suite constants which are defined in the ASN.1 type definitions or ASN.1 PDU definitions as the values of an ENUMERATED type do not appear in the test suite constant declarations table.

EXAMPLE: assisting, oMidCall, misTypedComponent, abort.

5.1.2.6   Test case selection expressions

The names of test case selection expressions have the prefix "SELEXP_", followed by three digits. If the most left digit is "0", the expression is used for a test step. Otherwise, it is used for a test case.

EXAMPLE: SELEXP_001, SELEXP_023 are for the test step selection expression, while
                           SELEXP_122, SELEXP_244 are for the test case selection expressions.

5.1.2.7   Test case variables

A test case variable has the prefix "TCV_". It can have an additional name part with one digit separated by "_".

EXAMPLE: TCV_ACN, TCV_fltCrit, TCV_digID_1, TCV_invID_7.

5.1.2.8   Test suite operations

The test suite operations have the prefix "TSO_".

EXAMPLE: TSO_AssistingRequest, TSO_EDP_NEvent.

5.1.2.9   Timers

The name of a timer in the ATS has a prefix "T_".

EXAMPLE: T_dly.

5.1.3 Naming conventions for Constraint part

5.1.3.1 TTCN ASP constraints

The first name part of an ASP constraint is in uppercase. Other name parts are in lowercase. "_" separates the different name parts.

TC component ASPs

If the ASP type indicates a TC component ASP, the ASP constraint name begins with the name of the component.

EXAMPLE: CIRQ_inv_1, ARI_reterr_1, PC_rrl, ETC_inv_man_2, ETC_inc_opt, ETC_inv_para, CTR_inv_ext, TCAP_rej_ind_any.

The first and second name parts are derived from the ASN.1 PDU type.

EXAMPLE: ASP constraint name   ASN.1 PDU type
                   CIRQ_inv   from CIRQ_Invoke
                   ARI_reterr   from ARI_ReturnError
                   PC_rrl   from PC_ReturnResultLast
                   TCAP_rej_ind_any   from TAP_Reject

The third name part indicates the characteristics of the constraint, such as:

    man: testing mandatory parameter(s);
    opt: testing optional parameters;
    para: testing specific parameters;
    any: with any parameters.

EXAMPLE: ETC_inv_para, ETC_inv_man, ETC_inv_opt.

TC dialogue ASPs

If the ASP type indicates a TC dialogue ASP, the ASP constraint name begins with the prefix "AC_". Its name is similar to its ASP type.

EXAMPLE: ASP constraint name   ASP type
                   TC_u_abrta_ind   TC_UABORTa_ind
                   TC_beg_ind   TC_BEGIN_ind
                   TC_u_abrtb_req_88   TC_U_ABORTb_req

If formal parameter lists are used, the first name part of the variable names is in lowercase.

EXAMPLE: invID, dp, mode

5.1.3.2 ASN1 PDU constraints

The first character of an ASN1 PDU constraint is in uppercase. The other characters are in lowercase. The ASN1 PDU constraint name is identical to the TTCN (TC component) ASP constraint name.

EXAMPLE: ASN.1 PDU constraint name   TTCN ASP constraint name
                   Cirq_reterr_1   CIRQ_reterr_1
                   Rnc_inv_opt_1   RNC_inv_opt_1
                   Asf_rrl(InvID)   ASF_rrl(invID : InvokeIdType)
                   Tcap_rej_ind_any   CAP_rej_ind_any

5.1.4 Naming conventions for Dynamic part

5.1.4.1 Test cases

A test case name has a prefix "IN" followed normally by six digits. The first left digit is restricted to be one of "6", "7", "8", "9", "A" (see ETS 300 374-3 [3]).

EXAMPLE: IN633101, IN651108, INA51106.

5.1.4.2 Test steps and test step groups

The test steps have been grouped into: Preambles/, Postambles/, ControlViaOtherInterface/, ObserveViaOtherInterface/, DialogueHandling/, Miscellaneous/, ForPreambles/, Forpostambles/, General/. The test step names have the ASN.1 style.

EXAMPLE: RcvBegInd, OtherAsp, RcvDP(idpInv:IDP_Invoke), PostAbortDialogue, PreEnterServiceFiltering_2.

The test step name of a preamble has the prefix "Pre" followed by several name parts in ASN.1 style. All preambles are located in the group of Preambles/. The test step name of a postamble has the prefix "Post" followed by several name parts in ASN.1 style. All postambles are located in the group of Postambles/.

The group of ControlViaOtherInterface/ and the group of ObserveViaOtherInterface/ contain the test steps to provoke as well as observe the SUT via a non-INAP interface of the SUT. The group of DialogueHandling/ contain those test steps which can handle the TCAP dialogue messages in 1988 as well as 1992 version.

The group of ForPreambles/, and the group of Forpostambles/, contain the Default test step for the preambles or postambles respectively. The group General/ contains the Default test step for the bodies of the test cases.

The group Miscellaneous/ contains those test steps which have rather programming characteristics than specification ones.

5.2 Conventions for design of the ATS

The following conventions are followed in the design of the ATS.

- The behaviour description in each Test Case Dynamic Behaviour table is straightforward. It reflects above all the exchange of core INAP message sequence between the IUT and the main LT defined in the test purpose. All other technical details are hidden and substructured in the different test steps.

- The ATS is designed to be able to handle the different TCAP versions. A dialogue initiated by the main LT uses always 1988 version of TCAP. The main LT is able to receive the TC primitive either 1992 or 1988 version, and responds accordingly. Three test steps: ConfirmDialogue, FirstEnd and RcvBegInd are designed to deal with the dialogue handling. There are no checks for matching the value of ApplicationContextName in the DialogueControlUserData, and QualityService in the TC primitives received.

- The ATS is designed to be able to receive more then one component in a TCAP message. The main LT sends always one component in each TCAP message.

- The ATS is designed to follow the order of the components defined in the test purposes. If no component order is required in a test purpose, the designed test case allows to receive the components in any order.

- The ATS is designed to receive a TCAP continue message without components. The main LT never sends such kind of TCAP messages to the IUT.

- If a parameter value indicated in the PICS answer has a value range, the minimum value is taken in the constraints part for sending to the IUT. In some cases the value of a parameter is implementation-dependent or network-dependent, then a specific value is taken from the PIXIT answer for sending to the IUT.

- If a test purpose does not specify the parameter value, any value is acceptable in the constraints received from the IUT.

5.2.1 Test group and test case selections

The selection of a test group or a test case follows generally a four-level hierarchy. The hierarchy is found in the table of test suite structure and the table of test case index in the test suite overview, and in the table of test case selection expression definition in the declaration part.

- At the top level the selection criteria is the physical configuration of a SUT. It depends on the PICS answers.

- At the second level the selection criteria is the possibility of the control or observation via a non-INAP interface of the SUT. It depends on the PIXIT answers.

- At the third level the selection criteria is whether the IUT supports the tested core INAP operation. It depends on the PICS answers.

- At the lowest level the selection criteria is whether the IUT supports the parameter Extensions or the optional parameter tested. It depends on the PICS answers.

5.2.2 TTCN ASP definitions in declaration part

Although the TC ASP definitions are already given in table forms in ITU-T Recommendation Q.771 [11], the data format and coding are the implementation-dependent. In order to avoid any confusion during the ATS implementation, all parameters in the ASPs are defined in ASN.1 type being in line with the core INAP definition.

5.2.2.1 Dialogue handling ASPs

Within the TTCN definitions of all dialogue handling TC ASPs a parameter called DialogueControlUserData is added. The parameter field can carry the user data or information of the dialogue APDUs ITU-T Recommendation Q.775 [15].

5.2.2.2 Component handling ASPs

Within the TC ASP definitions for the component handling, the parameters related to a specific PDU type are structured together ITU-T Recommendation Q.771 [11].

- In the operation invocation TC primitives the following parameters are structured in the ComponentInvoke parameter: Invoke ID, Linked ID, Operation, Parameters.

- In the report of success TC primitives the following parameters are structured in the ComponentReturnResultLast parameter: InvokeID, Operation, Parameters.

- In the report of failure TC primitives the following parameters are structured in the ComponentReturnError parameter: InvokeID, Error, Parameters.

- In the user rejection and component sub-layer rejection TC primitives the following parameters are structured in the ComponentReject parameter: InvokeID, ProblemCode.

5.2.3 ASN.1 PDU definitions

All PDUs are defined in ASN.1 type derived from the core INAP operations. Additional operations are also defined for invalid behaviours testing.

Annex A (normative):   Partial PIXIT proforma

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

This partial PIXIT proforma contained in this ETS, after augmented by the test realizer, is proposed to be provided to the client for completion, when the related abstract test suite is to be used against client's Implementation Under Test (IUT).

Text in *italics* is comments for guidance for the production of a PIXIT, and is not to be included in the actual PIXIT.

The completed PIXIT will normally be used in conjunction with the completed PICS, as it adds precision to the information provided by the PICS.

A.1   Identification summary

This table is completed by the test laboratory. The item "Contract References" is optional.

Table A.1: Identification summary

PIXIT reference number	
Test laboratory name	
Date of issue	
Issued to (name of client)	
Contract references	

A.2   Abstract test suite summary

In the following table the test laboratory provides the version number of the protocol specification and the version number of ATS which are used in the conformance testing.

Table A.2: ATS summary

Protocol specification	ETS 300 374-1
Version of protocol specification	
TSS&TP specification	ETS 300 374-3
Version of TSS&TP specification	
ATS specification	ETS 300 374-4, annex C
Version of ATS specification	
Abstract test method	Remote test method

A.3 Test laboratory

A.3.1 Test laboratory identification

The test laboratory provides the following information.

Table A.3: Test laboratory identification

Name of test laboratory	
Postal address of test laboratory	
Office address of test laboratory	
Telephone number of test laboratory	
FAX number of test laboratory	

A.3.2 Accreditation status of the test service

The test laboratory provides the following information.

Table A.4: Accreditation status of the test service

Accreditation status	
Accreditation reference	

A.3.3 Manager of test laboratory

The test laboratory provides the information about the manager of test laboratory in the following table.

Table A.5: Manager of test laboratory

Name of manager of test laboratory	
Telephone number	
FAX number	
E-mail address	

A.3.4 Contact person of test laboratory

The test laboratory provides the information about the contact person of test laboratory in the following table.

Table A.6: Contact person of test laboratory

Name of contact of test laboratory	
Telephone number	
FAX number	
E-mail address	

A.3.5 Means of testing

In the table below, the test laboratory provides a statement of conformance of the Means Of Testing (MOT) to the reference standardized ATS, and identifies all restrictions for the test execution required by the MOT beyond those stated in the reference standardized ATS.

Table A.7: Means of testing

Means of testing

A.3.6 Instructions for completion

In this table, the test laboratory provides any specific instructions necessary for completion and return of the proforma from the client.

Table A.8: Instruction for completion

Instructions for completion

A.4 Client

A.4.1 Client identification

The client provides the identification in the following table.

Table A.9: Client identification

Name of client	
Postal address of client	
Office address of client	
Telephone number of client	
FAX number of client	

A.4.2 Client test manager

In this table the client provides information about the test manager.

Table A.10: Client test manager

Name of client test manager	
Telephone number	
FAX number	
E-mail address	

A.4.3 Client contact person

In this table the client provides information about the test contact person.

Table A.11: Client contact person

Name of client contact person	
Telephone number	
FAX number	
E-mail address	

A.4.4 Test facilities required

In the following table, the client records the particular facilities required for testing, if a range of facilities is provided by the test laboratory.

Table A.12: Test facilities required

Test facilities required

A.5 System under test

A.5.1 SUT information

In the table below, the client provides information about the SUT in the table below.

Table A.13: SUT information

System name	
System version	
SCS reference	
Machine configuration	
Operating system identification	
IUT identification	
PICS reference for the IUT	

A.5.2   Limitations of the SUT

In the table below, the client provides information explaining if any of the abstract tests cannot be executed.

Table A.14: Limitation of the SUT

Limitations of the SUT

A.5.3   Environmental conditions

In the table below, the client provides information about any tighter environmental conditions for the correct operation of the SUT.

Table A.15: Environmental conditions

Environmental conditions

A.6   Ancillary protocols

This clause is completed by the client in conjunction with the test laboratory.

In the following tables, the client identifies relevant information concerning each ancillary protocol in the SUT other than the IUT itself.

Based on the MOT the test laboratory should create question proformas for each ancillary protocol in the blank space following each table. The information required is dependent on the MOT and the SUT, and covers all the addressing, parameter values, timer values and facilities (relevant to ETSs) as defined by the PICS for the ancillary protocol.

A.6.1   Ancillary protocols 1

Table A.16: Ancillary protocol 1

Protocol name	ETS 300 287: "Integrated Service Digital Network (ISDN); Signalling System No.7; Transaction Capabilities Application Part (TCAP) version 2"
Version number	
PICS reference (optional)	
PIXIT reference (optional)	
PCTR reference (optional)	

A.6.2   Ancillary protocols 2

Table A.17: Ancillary protocol 2

Protocol name	ETS 300 009: "Integrated Service Digital Network (ISDN); Signalling System No.7; Signalling Connection Control Part (SCCP) [connectionless service] to support international interconnection"
Version number	
PICS reference (optional)	
PIXIT reference (optional)	
PCTR reference (optional)	

A.6.3   Ancillary protocols 3

Table A.18: Ancillary protocol 3

Protocol name	ETS 300 008: "Integrated Service Digital Network (ISDN); Signalling System No.7; Message Transfer Part (MTP) to support international interconnection"
Version number	
PICS reference (optional)	
PIXIT reference (optional)	
PCTR reference (optional)	

A.6.4   Ancillary protocols 4

Table A.19: Ancillary protocol 4

Protocol name	
Version number	
PICS reference (optional)	
PIXIT reference (optional)	
PCTR reference (optional)	

A.7 Protocol layer information for core INAP CS 1

This clause is completed by the test laboratory and client in consultation.

A.7.1 Protocol identification

Table A.20: Protocol identification

Specification reference	ETS 300 374-1: Intelligent Network (IN); Intelligent Network Capability Set 1 (CS1); Core Intelligent Network Application Protocol (INAP); Part 1: Protocol specification
Version of protocol	
PICS reference	

A.7.2 IUT information

A.7.2.1 Addresses

The client negotiates with test laboratory about the addresses which are used in the conformance testing to identify the LT (as a TC-User) and the IUT (as a TC-User). These addresses can be any addressing options provided by the SCCP.

These addresses shall be coded in the ASN.1 value notation of ASN.1 type OCTET STRING.

Table A.21: IUT addresses

Name of parameter	Value	Comments
TSPX_IUTAddress		Address identifying the IUT (as a TC-User).
TSPX_LTAddress		Address identifying the LT (as a TC-User).

A.7.2.2 Parameter values

The question tables in this subclause are completed by the client. All parameters have the ASN.1 type, the parameter values shall be coded in ASN.1 value notation.

Each table has four fields:

- *the first filed contains the name of the parameter and the PICS item reference (refer to ETS 300 374-2 [2]);*

- *the second field contains the type of the parameter in ASN.1 notation. This field is provided as a convenient reference for the client to code the value of the parameter. For most of the tables this field contains the fully expanded ASN.1 type extracted from the annex A of ETS 300 374-1 [1]. Only the type FilteredCallTreatment and the type InformationToSend are not fully expanded due to limitation of space in the table, the client can find the fully expanded form in the same annex. The values of the range constants are specified in the PICS related to the IUT;*

- *the third field is to be completed by the client to provide the value of the parameter in ASN.1 value notation;*

- *the client may use the fourth field to provide remarks or explanation for the parameter value.*

A.7.2.2.1 Parameter TSPX_aChBillingChargingCharacteristics_1

In the test, this parameter is used in the ApplyCharging operation requesting the IUT (SSF) to report the required charging related information at the end of connection. The client shall specify the parameter with such a value that indicates the end of connection as being the charging report condition and requests one or more charging related information to be reported by the IUT (SSF).

The client may use the Remarks field to indicate in prose which charging related information is specified.

Table A.22: Parameter TSPX_aChBillingChargingCharacteristics_1

Parameter name: TSPX_aChBillingChargingCharacteristics_1
PICS item: item 1 of table A.9: of ApplyCharging invocation arguments
ASN.1 parameter type
`OCTET STRING (SIZE(minAChBillingChagingLength..maxAChBillingLength))`
ASN.1 value
Remarks:

A.7.2.2.2 Parameter TSPX_aChBillingChargingCharacteristics

In the test, this parameter is used in the ApplyCharging operation requesting the IUT (SSF) to send an ApplyChargingReport with required charging related information at a charging report condition other than the end of connection. The client shall specify the parameter with such a value that indicates one supported condition as being the charging report condition and requests one or more charging related information to be reported by the IUT (SSF).

The client may use the Remarks field to indicate in prose which charging related information and charging report condition are specified.

Table A.23: Parameter TSPX_aChBillingChargingCharacteristics

Parameter name: TSPX_aChBillingChargingCharacteristics
PICS item: item 1 of table A.9: of ApplyCharging invocation arguments
ASN.1 parameter type
`OCTET STRING (SIZE(minAChBillingChagingLength..maxAChBillingLength))`
ASN.1 value
Remarks:

A.7.2.2.3 Parameter TSPX_acExtensions

This parameter is network operator specific. In the test, it is used in an ApplyCharging operation for testing whether the IUT accepts the specific extensions. The client shall specify the parameter with typical value in use.

Table A.24: Parameter TSPX_acExtensions

Parameter name: TSPX_acExtensions
PICS item: item 5 of table A.9: ApplyCharging invocation arguments
ASN.1 parameter type
| ```
SEQUENCE SIZE(1..numOfExtensions) OF ExtensionField

ExtensionField ::=  SEQUENCE {
                    type            INTEGER,
                    criticality     ENUMERATED {
                                        ignore  (0),
                                        abort   (1)
                                    } DEFAULT ignore,
                    value           [1] ANY DEFINED BY type
}
``` |
| **ASN.1 value** |
| |
| **Remarks:** |

A.7.2.2.4 Parameter TSPX_ariCorrelationID

In the test, this parameter is used when matching an AssistRequestInstructions operation. The operation is provoked by the control mechanism "Detection of assisting request" via the non-INAP interface (see subclause A.8.1.1). The client shall specify the parameter with such a value that it can be generated during the provocation.

Table A.25: Parameter TSPX_ariCorrelationID

Parameter name: TSPX_ariCorrelationID
PICS item: item 1 of table 13: AssistRequestInstructions invocation arguments
ASN.1 parameter type
`OCTET STRING (SIZE(minDigitsLength..maxDigitsLength))`
ASN.1 value
Remarks:

A.7.2.2.5 Parameter TSPX_asfDuration

This parameter indicates the duration of the filtering and is used in an ActivateServiceFiltering operation for testing whether the IUT accepts the operation and also used in preamble to put the IUT into NonCallAssociatedTreatment state. The client shall specify the parameter with typical value in use.

Table A.26: Parameter TSPX_asfDuration

Parameter name: TSPX_asfDuration
PICS item: item 30 of table 7: ActivateServiceFiltering invocation arguments
ASN.1 parameter type
`INTEGER(-2..86400)`
ASN.1 value
Remarks:

A.7.2.2.6 Parameter TSPX_asfServiceKey

This parameter identifies the required IN service for which filtering shall be applied and is used in an ActivateServiceFiltering operation for testing whether the IUT accepts the operation. The client shall specify the parameter with typical value in use.

Table A.27: Parameter TSPX_asfServiceKey

Parameter name: TSPX_asfServiceKey
PICS item: item 33 of table 7: ActivateServiceFiltering invocation arguments
ASN.1 parameter type
`INTEGER(0..2147483647)`
ASN.1 value
Remarks:

A.7.2.2.7 Parameter TSPX_asfCalledAddress

This parameter contains the dialled number towards which filtering shall be applied and is used in an ActivateServiceFiltering operation for testing whether the IUT accepts such operation. The client shall specify the parameter with typical value in use.

Table A.28: Parameter TSPX_asfCalledAddress

Parameter name: TSPX_asfCalledAddress
PICS item: item 35 of table 7: ActivateServiceFiltering invocation arguments
ASN.1 parameter type
`OCTET STRING (SIZE(minDigitsLength..maxDigitsLength))`
ASN.1 value
Remarks:

A.7.2.2.8   Parameter TSPX_asfCallingAddress

This parameter contains the calling party number for which filtering shall be applied and is used in an ActivateServiceFiltering operation for testing whether the IUT accepts such operation. The client shall specify the parameter with typical value in use.

Table A.29: Parameter TSPX_asfCallingAddress

Parameter name: TSPX_asfCallingAddress
PICS item: item 37 of table 7: ActivateServiceFiltering invocation arguments
ASN.1 parameter type
OCTET STRING (SIZE(minDigitsLength..maxDigitsLength))
ASN.1 value
Remarks:

A.7.2.2.9   Parameter TSPX_asfLocationNumber

This parameter identifies the originating geographical area of the call for which filtering shall be applied and is used in an ActivateServiceFiltering operation for testing whether the IUT accepts the operation. The client shall specify the parameter with typical value in use.

Table A.30: Parameter TSPX_asfLocationNumber

Parameter name: TSPX_asfLocationNumber
PICS item: item 38 of table 7: ActivateServiceFiltering invocation arguments
ASN.1 parameter type
OCTET STRING (SIZE(minLocationNumberLength..maxLocationNumberLength))
ASN.1 value
Remarks:

A.7.2.2.10 Parameter TSPX_asfExtensions

This parameter is network operator specific and is used in an ActivateServiceFiltering operation containing such parameter for testing whether the IUT accepts the specific extensions. The client shall specify the parameter with typical value in use.

Table A.31: Parameter TSPX_asfExtensions

Parameter name: TSPX_asfExtensions
PICS item: item 40 of table 7: ActivateServiceFiltering invocation arguments
ASN.1 parameter type

<pre>SEQUENCE SIZE(1..numOfExtensions) OF ExtensionField
 	
ExtensionField ::= SEQUENCE {
                    type   INTEGER,
                    criticality   ENUMERATED {
                            ignore (0),
                            abort   (1)
                        } DEFAULT ignore,
                    value   [1] ANY DEFINED BY type
}</pre>

ASN.1 value
Remarks:

A.7.2.2.11 Parameter TSPX_filteredCallTreatment

This parameter specifies how filtered calls are treated and is a structured data. It is used in an ActivateServiceFiltering operation for testing whether the IUT accepts such operation. The client shall specify the parameter with typical value in use. The value shall include all three OPTIONALs. The type of the parameter is not fully expanded.

Table A.32: Parameter TSPX_filteredCallTreatment

Parameter name: TSPX_filteredCallTreatment
PICS item: item 1 of table 7: ActivateServiceFiltering invocation arguments
ASN.1 parameter type

<pre>FilteredCallTreatment
FilteredCallTreatment ::=   SEQUENCE {
                sFBillingChargingCharacteristics [0] SFBillingChargingCharacteristics,
                informationToSend   [1] InformationToSend   OPTIONAL,
                maximumNumberOfCounters   [2] MaximumNumberOfCounters OPTIONAL,
                releaseCause   [3] ReleaseCause   OPTIONAL
}</pre>

ASN.1 value
Remarks:

A.7.2.2.12 Parameter TSPX_filteringCharacteristics

This parameter is used in an ActivateServiceFiltering operation for testing whether the IUT accepts the operation. The client shall specify the parameter with typical value in use.

Table A.33: Parameter TSPX_filteringCharacteristics

Parameter name: TSPX_filteringCharacteristics
PICS item: item 26 of table 7: ActivateServiceFiltering invocation arguments
ASN.1 parameter type

<pre>CHOICE {
    interval   [0] INTEGER (-1..32767),
    numberOfCalls [1] INTEGER (0..2147483647)
}</pre>

ASN.1 value
Remarks:

A.7.2.2.13 Parameter TSPX_filteringTimeOut

This parameter is used in an ActivateServiceFiltering operation for testing whether the IUT accepts the operation. The client shall specify the parameter with typical value in use.

Table A.34: Parameter TSPX_filteringTimeOut

Parameter name: TSPX_filteringTimeOut
PICS item: item 29 of table 7: ActivateServiceFiltering invocation arguments
ASN.1 parameter type

<pre>CHOICE {
    duration   INTEGER (-2..86400),
    stopTime   OCTET STRING (SIZE(6))
}</pre>

ASN.1 value
Remarks:

A.7.2.2.14 Parameter TSPX_filteringCriteria

This parameter is used in an ActivateServiceFiltering operation for testing whether the IUT accepts the operation. The client shall specify the parameter with typical value in use.

Table A.35: Parameter TSPX_filteringCriteria

Parameter name: TSPX_filteringCriteria
PICS item: item 32 of table 7: ActivateServiceFiltering invocation arguments
ASN.1 parameter type

<pre>CHOICE {
    serviceKey   [2] INTEGER (0..2147483647),
    addressAndService   [30] SEQUENCE {
        calledAddressValue   [0] OCTET STRING (SIZE(minDigitsLength..maxDigitsLength)),
        serviceKey   [1] INTEGER (0.2147483647),
        callingAddressValue   [2] OCTET STRING (SIZE(minDigitsLength..maxDigitsLength))
                                    OPTIONAL,
        locationNumber   [3] OCTET STRING
                                    (SIZE(minLocationNumberLength..maxLocationNumberLength))
                                    OPTIONAL
    }
}</pre>

ASN.1 value
Remarks:

A.7.2.2.15 Parameter TSPX_SFBillingChargingChar

This parameter is used in an ActivateServiceFiltering operation for testing whether the IUT accepts the operation. The client shall specify the parameter with typical value in use.

Table A.36: Parameter TSPX_SFBillingChargingChar

Parameter name: TSPX_SFBillingChargingChar
PICS item: item 2 of table 7: ActivateServiceFiltering invocation arguments
ASN.1 parameter type
OCTET STRING (SIZE(minSFBillingChargingLength..maxSFBillingChargingLength))
ASN.1 value
Remarks:

A.7.2.2.16 Parameter TSPX_asfFilteringInterval

This parameter is used in an ActivateServiceFiltering operation for testing whether the IUT accepts the operation. The client shall specify the parameter with typical value in use.

Table A.37: Parameter TSPX_asfFilteringInterval

Parameter name: TSPX_asfFilteringInterval
PICS item: item 27 of table 7: ActivateServiceFiltering invocation arguments
ASN.1 parameter type
INTEGER (-1..32000)
ASN.1 value
Remarks:

A.7.2.2.17 Parameter TSPX_asfInformationToSend

This parameter is used in an ActivateServiceFiltering operation for testing whether the IUT accepts the operation. The client shall specify the parameter with typical value in use. The type of the parameter is not fully expanded.

Table A.38: Parameter TSPX_asfInformationToSend

Parameter name: TSPX_asfInformationToSend
PICS item: item 3 of table 7: ActivateServiceFiltering invocation arguments
ASN.1 parameter type
| ```
InformationToSend
InformationToSend ::=   CHOICE {
                       inbandInfo          [0] InbandInfo,
                       tone                [1] Tone,
                       displayInformation  [2] DisplayInformation
}
``` |
| **ASN.1 value** |
| |
| Remarks: |

A.7.2.2.18 Parameter TSPX_asfMaximumNumberOfCounters

This parameter is used in an ActivateServiceFiltering operation for testing whether the IUT accepts the operation. The client shall specify the parameter with typical value in use.

Table A.39: Parameter TSPX_asfMaximumNumberOfCounters

Parameter name: TSPX_asfMaximumNumberOfCounters
PICS item: item 24 of table 7: ActivateServiceFiltering invocation arguments
ASN.1 parameter type
INTEGER (1..100)
ASN.1 value
Remarks:

A.7.2.2.19 Parameter TSPX_asfNumberOfCalls

This parameter is used in an ActivateServiceFiltering operation for testing whether the IUT accepts the operation. The client shall specify the parameter with typical value in use.

Table A.40: Parameter TSPX_asfNumberOfCalls

Parameter name: TSPX_asfNumberOfCalls	
PICS item: item 28 of table 7: ActivateServiceFiltering invocation arguments	
ASN.1 parameter type	
`INTEGER (0..2147483647)`	
ASN.1 value	
Remarks:	

A.7.2.2.20 Parameter TSPX_asfStopTime

This parameter is used in an ActivateServiceFiltering operation for testing whether the IUT accepts the operation. The client shall specify the parameter with typical value in use.

Table A.41: Parameter TSPX_asfStopTime

Parameter name: TSPX_asfStopTime	
PICS item: item 31 of table 7: ActivateServiceFiltering invocation arguments	
ASN.1 parameter type	
`OCTET STRING (SIZE(6))`	
ASN.1 value	
Remarks:	

A.7.2.2.21 Parameter TSPX_asfStartTime

This parameter is used in an ActivateServiceFiltering operation for testing whether the IUT accepts the operation. The client shall specify the parameter with typical value in use.

Table A.42: Parameter TSPX_asfStartTime

Parameter name: TSPX_asfStartTime	
PICS item: item 39 of table 7: ActivateServiceFiltering invocation arguments	
ASN.1 parameter type	
`OCTET STRING (SIZE(6))`	
ASN.1 value	
Remarks:	

A.7.2.2.22 Parameter TSPX_cgExtensions

This parameter is used in a CallGap operation containing network operator specific extensions for testing whether the IUT accepts the specific extensions. The client shall specify the parameter with typical value in use.

Table A.43: Parameter TSPX_cgExtensions

Parameter name: TSPX_cgExtensions
PICS item:　　　　item 41 of table 15: CallGap invocation arguments
ASN.1 parameter type

<pre>SEQUENCE SIZE(1..numOfExtensions) OF ExtensionField
 	
ExtensionField ::= SEQUENCE {
                    type   INTEGER,
                    criticality   ENUMERATED {
                        ignore (0),
                        abort   (1)
                    } DEFAULT ignore,
                    value   [1] ANY DEFINED BY type
}</pre>

ASN.1 value
Remarks:

A.7.2.2.23 Parameter TSPX_cgDuration

This parameter is used in a CallGap operation for testing whether the IUT accepts the operation and also used in preamble to put the IUT into NonCallAssociatedTreatment state. The client shall specify the parameter with typical value in use.

Table A.44: Parameter TSPX_cgDuration

Parameter name: TSPX_cgDuration
PICS item:　　　　item 13 of table 15: CallGap invocation arguments
ASN.1 parameter type
`INTEGER (-2..86400)`
ASN.1 value
Remarks:

A.7.2.2.24 Parameter TSPX_gapInterval

This parameter is used in a CallGap operation for testing whether the IUT accepts the operation and used in preamble to put the IUT in the NonCallAssociatedTreatment state. The client shall specify the parameter with typical value in use.

Table A.45: Parameter TSPX_gapInterval

Parameter name: TSPX_gapInterval
PICS item: item 14 of table 15: CallGap invocation arguments
ASN.1 parameter type
`INTEGER (-1..60000)`
ASN.1 value
Remarks:

A.7.2.2.25 Parameter TSPX_gapCriteria

This parameter is used in a CallGap operation for testing whether the IUT accepts the operation. The client shall specify the parameter with typical value in use.

Table A.46: Parameter TSPX_gapCriteria

Parameter name: TSPX_gapCriteria
PICS item: item 1 of table 15: CallGap invocation arguments
ASN.1 parameter type

```
CHOICE {
    calledAddressValue          [0] OCTET STRING (SIZE(minDigitsLength..maxDigitsLength)),
    gapOnService                [2] IMPLICIT SEQUENCE {
        serviceKey                  [0] INTEGER (0..2147483647)
    },
    calledAddressAndService     [29] IMPLICIT SEQUENCE {
        calledAddressValue          [0] OCTET STRING (SIZE(minDigitsLength..maxDigitsLength)),
        serviceKey                  [1] INTEGER (0..2147483647)
    },
    callingAddressAndService    [30] IMPLICIT SEQUENCE {
        callingAddressValue         [0] OCTET STRING (SIZE(minDigitsLength..maxDigitsLength)),
        serviceKey                  [1] INTEGER (0..2147483647),
        locationNumber              [3] OCTET STRING
                                        (SIZE(minLocationNumberLength..maxLocationNumberLength))
                                        OPTIONAL
    }
}
```

ASN.1 value
Remarks:

A.7.2.2.26 Parameter TSPX_gapTreatment

This parameter is used in a CallGap operation for testing whether the IUT accepts the operation. The client shall specify the parameter with typical value in use. InformationToSend of the parameter type is not fully expanded.

Table A.47: Parameter TSPX_gapTreatment

Parameter name: TSPX_gapTreatment
PICS item: item 16 of table 15: CallGap invocation arguments
ASN.1 parameter type

<pre>CHOICE {
    informationToSend   [0] InformationToSend,
    releaseCause   [1] OCTET STRING (SIZE(2..maxCauseLength)),
    both   [2] SEQUENCE {
        informationToSend   [0] InformationToSend,
        releaseCause   [1] OCTET STRING (SIZE(2..maxCauseLength))
    }
}</pre>

ASN.1 value
Remarks:

A.7.2.2.27 Parameter TSPX_cgServiceKey

This parameter is used in a CallGap operation for testing whether the IUT accepts the operation and used in preamble to put the IUT in the NonCallAssociatedTreatment state. The client shall specify the parameter with typical value in use.

Table A.48: Parameter TSPX_cgServiceKey

Parameter name: TSPX_cgServiceKey
PICS item: item 4 of table 15: CallGap invocation arguments
ASN.1 parameter type
INTEGER (0..32767)
ASN.1 value
Remarks:

A.7.2.2.28 Parameter TSPX_cgInformationToSend

This parameter is used in a CallGap operation for testing whether the IUT accepts the operation. The client shall specify the parameter with typical value in use. The parameter type is not fully expanded.

Table A.49: Parameter TSPX_cgInformationToSend

Parameter name: TSPX_cgInformationToSend
PICS item: item 17 of table 15: CallGap invocation arguments
ASN.1 parameter type
``` InformationToSend InformationToSend ::=   CHOICE {   inbandInfo   [0] InbandInfo,   tone   [1] Tone,   displayInformation [2] DisplayInformation } ```
ASN.1 value
Remarks:

A.7.2.2.29 Parameter TSPX_cgLocationNumber

This parameter is used in a CallGap operation for testing whether the IUT accepts the operation. The client shall specify the parameter with typical value in use.

Table A.50: Parameter TSPX_cgLocationNumber

Parameter name: TSPX_cgLocationNumber
PICS item: item 11 of table 15: CallGap invocation arguments
ASN.1 parameter type
`OCTET STRING (SIZE(minLocationNumberLength..maxLocationNumberLength))`
ASN.1 value
Remarks:

A.7.2.2.30 Parameter TSPX_cgReleaseCause

This parameter is used in a CallGap operation for testing whether the IUT accepts the operation. The client shall specify the parameter with typical value in use.

Table A.51: Parameter TSPX_cgReleaseCause

Parameter name: TSPX_cgReleaseCause
PICS item: item 39 of table 15: CallGap invocation arguments
ASN.1 parameter type
OCTET STRING (SIZE(minCauseLength..maxCauseLength))
ASN.1 value
Remarks:

A.7.2.2.31 Parameter TSPX_cgControlType

This parameter is used in a CallGap operation for testing whether the IUT accepts the operation. The client shall specify the parameter with typical value in use.

Table A.52: Parameter TSPX_cgControlType

Parameter name: TSPX_cgControlType
PICS item: item 15 of table 15: CallGap invocation arguments
ASN.1 parameter type

ENUMERATED {
    sCPOverLoaded   (0),
    manuallyInitiated   (1)
}

ASN.1 value
Remarks:

A.7.2.2.32 Parameter TSPX_cgCallingAddressValue

This parameter is used in a CallGap operation for testing whether the IUT accepts the operation. The client shall specify the parameter with typical value in use.

Table A.53: Parameter TSPX_cgCallingAddressValue

Parameter name: TSPX_cgCallingAddressValue
PICS item: item 9 of table 15: CallGap invocation arguments
ASN.1 parameter type
OCTET STRING (SIZE(minDigitsLength..maxDigitsLength))
ASN.1 value
Remarks:

A.7.2.2.33 Parameter TSPX_cirqExtensions

*This parameter is used in a CallInformationRequest operation containing network operator specific
extensions for testing whether the IUT accepts the specific extensions. The client shall specify the
parameter with typical value in use.*

Table A.54: Parameter TSPX_cirqExtensions

Parameter name: TSPX_cirqExtensions
PICS item: item 2 of table 17: CallInformationRequestinvocation arguments
ASN.1 parameter type

SEQUENCE SIZE(1..numOfExtensions) OF ExtensionField
 	
ExtensionField ::= SEQUENCE {
                     type   INTEGER,
                     criticality   ENUMERATED {
                               ignore (0),
                               abort   (1)
                      } DEFAULT ignore,
                     value   [1] ANY DEFINED BY type
}

ASN.1 value
Remarks:

A.7.2.2.34 Parameter TSPX_conCorrelationID

*This parameter is used in a Connect operation containing optional parameters for testing whether the IUT
accepts the operation. The client shall specify the parameter with typical value in use.*

Table A.55: Parameter TSPX_conCorrelationID

Parameter name: TSPX_conCorrelationID
PICS item: item 3 of table 23: Connect invocation arguments
ASN.1 parameter type
OCTET STRING (SIZE(minDigitsLength..maxDigitsLength))
ASN.1 value
Remarks:

A.7.2.2.35 Parameter TSPX_conDestinationRoutingAddress

This parameter contains the called party number towards which the call is to be routed and is used in a Connect operation for testing whether the IUT accepts the operation. The client shall specify the parameter with typical value in use.

Table A.56: Parameter TSPX_conDestinationRoutingAddress

Parameter name: TSPX_conDestinationRoutingAddress
PICS item: item 1 of table 23: Connect invocation arguments
ASN.1 parameter type
SEQUENCE SIZE(1) OF OCTET STRING (SIZE(minCalledPartyNumberLength..maxCalledPartyNumberLength))
ASN.1 value
Remarks:

A.7.2.2.36 Parameter TSPX_conServiceInteractionIndicators

This parameter contains indicators for control network based services at the originating exchange and the destination exchange. It is used in a Connect operation for testing whether the IUT accepts the operation. The client shall specify the parameter with typical value in use.

Table A.57: Parameter TSPX_conServiceInteractionIndicators

Parameter name: TSPX_conServiceInteractionIndicators
PICS item: item 12 of table 23: Connect invocation arguments
ASN.1 parameter type
OCTET STRING (SIZE(minServiceInteractionIndicatorsLength..maxServiceInteractionIndicatorsLength))
ASN.1 value
Remarks:

A.7.2.2.37 Parameter TSPX_conExtensions

This parameter is network operator specific and is used in a Connect operation for testing whether the IUT accepts the specific extensions. The client shall specify the parameter with typical value in use.

Table A.58: Parameter TSPX_conExtensions

Parameter name: TSPX_conExtensions
PICS item: item 8 of table 23: Connect invocation arguments
ASN.1 parameter type

`SEQUENCE SIZE(1..numOfExtensions) OF ExtensionField`
 	
`ExtensionField ::=  SEQUENCE {`
`                    type            INTEGER,`
`                    criticality     ENUMERATED {`
`                        ignore  (0),`
`                        abort   (1)`
`                    } DEFAULT ignore,`
`                    value           [1] ANY DEFINED BY type`
`}`

ASN.1 value
Remarks:

A.7.2.2.38 Parameter TSPX_conAlertingPattern

This parameter indicates a specific pattern used to alert a subscriber. In the test, it is used in a Connect operation for testing whether the IUT accepts the operation. The client shall specify the parameter with typical value in use.

Table A.59: Parameter TSPX_conAlertingPattern

Parameter name: TSPX_conAlertingPattern
PICS item: item 2 of table 23: Connect invocation arguments
ASN.1 parameter type
`OCTET STRING (SIZE(3))`
ASN.1 value
Remarks:

A.7.2.2.39 Parameter TSPX_conCallingPartysCategory

This parameter indicates the type of the calling party and its usage in the context of Connect operation is network operator specific. It is used in a Connect operation for testing whether the IUT accepts the operation containing this parameter. The client shall specify the parameter with typical value in use.

Table A.60: Parameter TSPX_conCallingPartysCategory

Parameter name: TSPX_conCallingPartysCategory	
PICS item: item 14 of table 23: Connect invocation arguments	
ASN.1 parameter type	
`OCTET STRING (SIZE(1))`	
ASN.1 value	
Remarks:	

A.7.2.2.40 Parameter TSPX_conCallingPartyNumber

This parameter is an alternative to the callingPartyNumber supplied by the network and its usage is network dependent. It is used in a Connect operation for testing whether the IUT accepts the operation containing this parameter. The client shall specify the parameter with typical value in use.

Table A.61: Parameter TSPX_conCallingPartyNumber

Parameter name: TSPX_conCallingPartyNumber	
PICS item: item 13 of table 23: Connect invocation arguments	
ASN.1 parameter type	
`OCTET STRING (SIZE(minCallingPartyNumberLength..maxCallingPartyNumberLength))`	
ASN.1 value	
Remarks:	

A.7.2.2.41 Parameter TSPX_conOriginalCalledPartyID

This parameter carries the dialled digits when the call has been forwarded on route to the SSP or is forwarded by the SCP. Its usage is network dependent. It is used in a Connect operation for testing whether the IUT accepts the operation containing this parameter. The client shall specify the parameter with typical value in use.

Table A.62: Parameter TSPX_conOriginalCalledPartyID

Parameter name: TSPX_conOriginalCalledPartyID	
PICS item: item 5 of table 23: Connect invocation arguments	
ASN.1 parameter type	
`OCTET STRING (SIZE(minOriginalCalledPartyIDLength..maxOriginalCalledPartyIDLength))`	
ASN.1 value	
Remarks:	

A.7.2.2.42   **Parameter TSPX_conRedirectingPartyID**

This parameter indicates the directory number the call was redirected form and its usage is network dependent. It is used in a Connect operation for testing whether the IUT accepts the operation containing this parameter. The client shall specify the parameter with typical value in use.

Table A.63: Parameter TSPX_conRedirectingPartyID

Parameter name: TSPX_conRedirectingPartyID
PICS item: item 15 of table 23: Connect invocation arguments
ASN.1 parameter type
OCTET STRING (SIZE(minRedirctingPartyIDLength..maxRedirectingPartyIDLength))
ASN.1 value
Remarks:

A.7.2.2.43   **Parameter TSPX_conRedirectionInformation**

This parameter contains forwarding related information and its usage is network dependent. It is used in a Connect operation for testing whether the IUT accepts the operation containing this parameter. The client shall specify the parameter with typical value in use.

Table A.64: Parameter TSPX_conRedirectionInformation

Parameter name: TSPX_conRedirectionInformation
PICS item: item 16 of table 23: Connect invocation arguments
ASN.1 parameter type
OCTET STRING (SIZE(2))
ASN.1 value
Remarks:

A.7.2.2.44   **Parameter TSPX_conRouteList**

This parameter contains information about outgoing trunk group for routing the call. It is used in a Connect operation for testing whether the IUT accepts the operation containing this parameter. The client shall specify the parameter with typical value in use.

Table A.65: Parameter TSPX_conRouteList

Parameter name: TSPX_conRouteList
PICS item: item 6 of table 23: Connect invocation arguments
ASN.1 parameter type
SEQUENCE SIZE(1..3) OF OCTET STRING (SIZE(minRouteListLength..maxRouteListLength))
ASN.1 value
Remarks:

A.7.2.2.45 Parameter TSPX_conScfID

This parameter indicates the SCF identifier. It is used in a Connect operation for testing whether the IUT accepts the operation containing this parameter. The client shall specify the parameter with typical value in use.

Table A.66: Parameter TSPX_conScfID

Parameter name: TSPX_conScfID
PICS item: item 7 of table 23: Connect invocation arguments
ASN.1 parameter type
`OCTET STRING (SIZE(minScfIDLength..maxScfIDLength))`
ASN.1 value
Remarks:

A.7.2.2.46 Parameter TSPX_ctrExtensions

This parameter is network operator specific and is used in a ConnectToResource operation containing such parameter for testing whether the IUT accepts the specific extensions. The client shall specify the parameter with typical value in use.

Table A.67: Parameter TSPX_ctrExtensions

Parameter name: TSPX_ctrExtensions
PICS item: item 3 of table 25: ConnectToResource invocation arguments
ASN.1 parameter type

`SEQUENCE SIZE(1..numOfExtensions) OF ExtensionField`
 	
`ExtensionField ::=  SEQUENCE {`
`                type            INTEGER,`
`                criticality     ENUMERATED {`
`                        ignore  (0),`
`                        abort   (1)`
`                } DEFAULT ignore,`
`                value           [1] ANY DEFINED BY type`
`}`

ASN.1 value
Remarks:

A.7.2.2.47   Parameter TSPX_ctrIPRoutingAddress

This parameter is used in a ConnectToResource to test whether the IUT accepts the operation. The client shall specify the parameter with typical value in use.

Table A.68: Parameter TSPX_ctrIPRoutingAddress

Parameter name: TSPX_ctrIPRoutingAddress
PICS item: item 1 of table 25: ConnectToResource invocation arguments
ASN.1 parameter type
OCTET STRING (SIZE(minCalledPartyNumberLength..maxCalledPartyNumberLength))
ASN.1 value
Remarks:

A.7.2.2.48   Parameter TSPX_ctrResourceAddress

This parameter is used in a ConnectToResource containing network operator specific parameters to test whether the IUT accepts the operation. The client shall specify the parameter with typical value in use.

Table A.69: Parameter TSPX_ctrResourceAddress

Parameter name: TSPX_ctrResourceAddress
PICS item: item 1 of table 25: ConnectToResource invocation arguments
ASN.1 parameter type

CHOICE {
    iPRoutingAddress   [0] IMPLICIT OCTET STRING
                         (SIZE(minCalledPartyNumberLength..maxCalledPartyNumberLength)),
    none   [3] IMPLICIT NULL
}

ASN.1 value
Remarks:

A.7.2.2.49   Parameter TSPX_ctrServiceInteractionIndicators

This parameter is used in a ConnectToResource containing network operator specific parameters to test whether the IUT accepts the operation. The client shall specify the parameter with typical value in use.

Table A.70: Parameter TSPX_ctrServiceInteractionIndicators

Parameter name: TSPX_ctrServiceInteractionIndicators
PICS item: item 7 of table 25: ConnectToResource invocation arguments
ASN.1 parameter type
OCTET STRING (SIZE(minServiceInteractionIndicatorsLength..maxServiceInteractionIndicatorsLength))
ASN.1 value
Remarks:

A.7.2.2.50 Parameter TSPX_etcAssistingSSPIPRoutingAddress

This parameter is used in an EstablishTemporaryConnection containing network operator specific parameters to test whether the IUT accepts the operation. The client shall specify the parameter with typical value in use.

Table A.71: Parameter TSPX_etcAssistingSSPIPRoutingAddress

Parameter name: TSPX_etcAssistingSSPIPRoutingAddress
PICS item: item 1 of table 28:EstablishTemporaryConnection invocation arguments
ASN.1 parameter type
OCTET STRING (SIZE(minDigitsLength..maxDigitsLength))
ASN.1 value
Remarks:

A.7.2.2.51 Parameter TSPX_etcCorrelationID

This parameter is used in an EstablishTemporaryConnection containing network operator specific parameters to test whether the IUT accepts the operation. The client shall specify the parameter with typical value in use.

Table A.72: Parameter TSPX_etcCorrelationID

Parameter name: TSPX_etcCorrelationID
PICS item: item 2 of table 28:EstablishTemporaryConnection invocation arguments
ASN.1 parameter type
OCTET STRING (SIZE(minDigitsLength..maxDigitsLength))
ASN.1 value
Remarks:

A.7.2.2.52 Parameter TSPX_etcExtensions

This parameter is network operator specific and is used in an EstablishTemporaryConnection operation containing such parameter for testing whether the IUT accepts the specific extensions. The client shall specify the parameter with typical value in use.

Table A.73: Parameter TSPX_etcExtensions

Parameter name: TSPX_etcExtensions
PICS item: item 4 of table 28:EstablishTemporaryConnection invocation arguments
ASN.1 parameter type
| ```
SEQUENCE SIZE(1..numOfExtensions) OF ExtensionField

ExtensionField ::=  SEQUENCE {
                    type            INTEGER,
                    criticality     ENUMERATED {
                                       ignore  (0),
                                       abort   (1)
                                    } DEFAULT ignore,
                    value           [1] ANY DEFINED BY type
}
``` |
| **ASN.1 value** |
|

 |
| **Remarks:**

 |

A.7.2.2.53 Parameter TSPX_etcServiceInteractionIndicators

This parameter is used in an EstablishTemporaryConnection containing network operator specific parameters to test whether the IUT accepts the operation. The client shall specify the parameter with typical value in use.

Table A.74: Parameter TSPX_etcServiceInteractionIndicators

Parameter name: TSPX_etcServiceInteractionIndicators
PICS item: item 8 of table 28:EstablishTemporaryConnection invocation arguments
ASN.1 parameter type
| ```
OCTET STRING (SIZE(minServiceInteractionIndicatorsLength..maxServiceInteractionIndicatorsLength))
``` |
| **ASN.1 value** |
|
 |
| **Remarks:**

 |

A.7.2.2.54 Parameter TSPX_etcScfID

This parameter is used in an EstablishTemporaryConnection containing network operator specific parameters to test whether the IUT accepts the operation. The client shall specify the parameter with typical value in use.

Table A.75: Parameter TSPX_etcScfID

Parameter name: TSPX_etcScfID
PICS item: item 3 of table 28:EstablishTemporaryConnection invocation arguments
ASN.1 parameter type
OCTET STRING (SIZE(minScfIDLength..maxScfIDLength))
ASN.1 value
Remarks:

A.7.2.2.55 Parameter TSPX_FCIBillingChargingCharacteristics

This parameter is used in a FurnishChargingInformation operation to test whether the IUT accepts the operation. The client shall specify the parameter with typical value in use.

Table A.76: Parameter TSPX_FCIBillingChargingCharacteristics

Parameter name: TSPX_FCIBillingChargingCharacteristics
PICS item: item 1 of table 32:FurnishChargingInformation invocation arguments
ASN.1 parameter type
OCTET STRING (SIZE(minFCIBillingChargingLength..maxFCIBillingChargingLength))
ASN.1 value
Remarks:

A.7.2.2.56 Parameter TSPX_icaDestinationRoutingAddress

This parameter is used in an InitiateCallAttempt to test whether the IUT accepts the operation. The client shall specify the parameter with typical value in use.

Table A.77: Parameter TSPX_icaDestinationRoutingAddress

Parameter name: TSPX_icaDestinationRoutingAddress
PICS item: item 1 of table 36: InitiateCallAttempt invocation arguments
ASN.1 parameter type
SEQUENCE SIZE(1) OF OCTET STRING (SIZE(minCalledPartyNumberLength..maxCalledPartyNumberLength))
ASN.1 value
Remarks:

A.7.2.2.57 Parameter TSPX_icaExtensions

This parameter is network operator specific and is used in an InitiateCallAttempt operation containing such parameter for testing whether the IUT accepts the specific extensions. The client shall specify the parameter with typical value in use.

Table A.78: Parameter TSPX_icaExtensions

Parameter name: TSPX_icaExtensions
PICS item: item 3 of table 36: InitiateCallAttempt invocation arguments
ASN.1 parameter type
| ```
SEQUENCE SIZE(1..numOfExtensions) OF ExtensionField

ExtensionField ::=  SEQUENCE {
                    type              INTEGER,
                    criticality       ENUMERATED {
                            ignore  (0),
                            abort   (1)
                    } DEFAULT ignore,
                    value             [1] ANY DEFINED BY type
}
``` |
| **ASN.1 value** |
| |
| **Remarks:** |

A.7.2.2.58 Parameter TSPX_icaAlertingPattern

This parameter is used in an InitiateCallAttempt containing optional parameter to test whether the IUT accepts the operation. The client shall specify the parameter with typical value in use.

Table A.79: Parameter TSPX_icaAlertingPattern

Parameter name: TSPX_icaAlertingPattern
PICS item: item 2 of table 36: InitiateCallAttempt invocation arguments
ASN.1 parameter type
OCTET STRING (SIZE(3))
ASN.1 value
Remarks:

A.7.2.2.59 Parameter TSPX_icaCallingPartyNumber

This parameter is used in an InitiateCallAttempt containing optional parameter to test whether the IUT accepts the operation. The client shall specify the parameter with typical value in use.

Table A.80: Parameter TSPX_icaCallingPartyNumber

Parameter name: TSPX_icaCallingPartyNumber
PICS item: item 8 of table 36: InitiateCallAttempt invocation arguments
ASN.1 parameter type
`OCTET STRING (SIZE(minCallingPartyNumberLength..maxCallingPartyNumberLength))`
ASN.1 value
Remarks:

A.7.2.2.60 Parameter TSPX_icaServiceInteractionIndicators

This parameter is used in an InitiateCallAttempt containing network operator specific parameter to test whether the IUT accepts the operation. The client shall specify the parameter with typical value in use.

Table A.81: Parameter TSPX_icaServiceInteractionIndicators

Parameter name: TSPX_icaServiceInteractionIndicators
PICS item: item 7 of table 36: InitiateCallAttempt invocation arguments
ASN.1 parameter type
`OCTET STRING (SIZE(minServiceInteractionIndicatorsLength..maxServiceInteractionIndicatorsLength))`
ASN.1 value
Remarks:

A.7.2.2.61 Parameter TSPX_paDate

This parameter is used in a PlayAnnouncement for testing whether the IUT accepts the operation. The client shall specify the parameter with typical value in use.

Table A.82: Parameter TSPX_paDate

Parameter name: TSPX_paDate
PICS item: item 13 of table 38: PlayAnnouncement invocation arguments
ASN.1 parameter type
`OCTET STRING (SIZE(3))`
ASN.1 value
Remarks:

A.7.2.2.62   Parameter TSPX_paDisplayInformation

This parameter is used in a PlayAnnouncement containing optional parameters for testing whether the IUT accepts the operation. The client shall specify the parameter with typical value in use.

Table A.83: Parameter TSPX_paDisplayInformation

Parameter name: TSPX_paDisplayInformation	
PICS item: item 21 of table 38: PlayAnnouncement invocation arguments	
ASN.1 parameter type	
`IA5String (SIZE(minDisplayInformationLength..maxDisplayInformationLength))`	
ASN.1 value	
Remarks:	

A.7.2.2.63   Parameter TSPX_paDuration

This parameter is used in a PlayAnnouncement containing optional parameters for testing whether the IUT accepts the operation. The client shall specify the parameter with typical value in use.

Table A.84: Parameter TSPX_paDuration

Parameter name: TSPX_paDuration	
PICS item: item 16 of table 38: PlayAnnouncement invocation arguments	
ASN.1 parameter type	
`INTEGER (0..32767)`	
ASN.1 value	
Remarks:	

A.7.2.2.64   Parameter TSPX_paElementaryMessageID

This parameter is used in a PlayAnnouncement for testing whether the IUT accepts the operation. The client shall specify the parameter with typical value in use.

Table A.85: Parameter TSPX_paElementaryMessageID

Parameter name: TSPX_paElementaryMessageID	
PICS item: item 4 of table 38: PlayAnnouncement invocation arguments	
ASN.1 parameter type	
`INTEGER (0..2147483647)`	
ASN.1 value	
Remarks:	

A.7.2.2.65 Parameter TSPX_paElementaryMessageID_1

This parameter is used in a PlayAnnouncement for testing whether the IUT accepts the operation. The client shall specify the parameter with typical value in use.

Table A.86: Parameter TSPX_paElementaryMessageID_1

Parameter name: TSPX_paElementaryMessageID_1
PICS item: item 8 of table 38: PlayAnnouncement invocation arguments
ASN.1 parameter type
INTEGER (0..2147483647)
ASN.1 value
Remarks:

A.7.2.2.66 Parameter TSPX_paElementaryMessageID_2

This parameter is used in a PlayAnnouncement for testing whether the IUT accepts the operation. The client shall specify the parameter with typical value in use.

Table A.87: Parameter TSPX_paElementaryMessageID_2

Parameter name: TSPX_paElementaryMessageID_2
PICS item: item 8 of table 38: PlayAnnouncement invocation arguments
ASN.1 parameter type
INTEGER (0..2147483647)
ASN.1 value
Remarks:

A.7.2.2.67 Parameter TSPX_paElementaryMessageID_3

This parameter is used in a PlayAnnouncement for testing whether the IUT accepts the operation. The client shall specify the parameter with typical value in use.

Table A.88: Parameter TSPX_paElementaryMessageID_3

Parameter name: TSPX_paElementaryMessageID_3
PICS item: item 8 of table 38: PlayAnnouncement invocation arguments
ASN.1 parameter type
INTEGER (0..2147483647)
ASN.1 value
Remarks:

A.7.2.2.68 Parameter TSPX_paExtensions

This parameter is network operator specific and is used in a PlayAnnouncement operation containing such parameter for testing whether the IUT accepts the specific extensions. The client shall specify the parameter with typical value in use.

Table A.89: Parameter TSPX_paExtensions

Parameter name: TSPX_paExtensions	
PICS item: item 24 of table 38: PlayAnnouncement invocation arguments	
ASN.1 parameter type	

```
SEQUENCE SIZE(1..numOfExtensions) OF ExtensionField

ExtensionField ::=  SEQUENCE {
                    type            INTEGER,
                    criticality     ENUMERATED {
                        ignore  (0),
                        abort   (1)
                    } DEFAULT ignore,
                    value           [1] ANY DEFINED BY type
}
```

ASN.1 value

Remarks:

A.7.2.2.69 Parameter TSPX_paInformationToSend

This parameter is used in a PlayAnnouncement for testing whether the IUT accepts the operation. The client shall specify the parameter with typical value in use. The type of the parameter is not fully expanded.

Table A.90: Parameter TSPX_paInformationToSend

Parameter name: TSPX_paInformationToSend	
PICS item: item 1 of table 38: PlayAnnouncement invocation arguments	
ASN.1 parameter type	

```
InformationToSend
InformationToSend ::=   CHOICE {
                    inbandInfo          [0] InbandInfo,
                    tone                [1] Tone,
                    displayInformation  [2] DisplayInformation
}
```

ASN.1 value

Remarks:

A.7.2.2.70   Parameter TSPX_paInteger

This parameter is used in a PlayAnnouncement for testing whether the IUT accepts the operation. The client shall specify the parameter with a typical value in use.

Table A.91: Parameter TSPX_paInteger

Parameter name: TSPX_paInteger
PICS item: item 10 of table 38: PlayAnnouncement invocation arguments
ASN.1 parameter type
INTEGER (0..2147483647)
ASN.1 value
Remarks:

A.7.2.2.71   Parameter TSPX_paInterval

This parameter is used in a PlayAnnouncement containing optional parameters for testing whether the IUT accepts the operation. For the test purpose the value shall be large than zero. The client shall specify the parameter with typical value in use.

Table A.92: Parameter TSPX_paInterval

Parameter name: TSPX_paInterval
PICS item: item 17 of table 38: PlayAnnouncement invocation arguments
ASN.1 parameter type
INTEGER (0..32767)
ASN.1 value
Remarks:

A.7.2.2.72   Parameter TSPX_paNumber

This parameter is used in a PlayAnnouncement for testing whether the IUT accepts the operation. The client shall specify the parameter with typical value in use.

Table A.93: Parameter TSPX_paNumber

Parameter name: TSPX_paNumber
PICS item: item 11 of table 38: PlayAnnouncement invocation arguments
ASN.1 parameter type
OCTET STRING (SIZE(minDigitsLength..maxDigitsLength))
ASN.1 value
Remarks:

A.7.2.2.73 Parameter TSPX_paNumberOfRepetitions

This parameter is used in a PlayAnnouncement containing optional parameters for testing whether the IUT accepts the operation. The client shall specify the parameter with a value that is large than one and is typical in the real application.

Table A.94: Parameter TSPX_paNumberOfRepetitions

Parameter name: TSPX_paNumberOfRepetitions
PICS item: item 15 of table 38: PlayAnnouncement invocation arguments
ASN.1 parameter type
`INTEGER (0..127)`
ASN.1 value
Remarks:

A.7.2.2.74 Parameter TSPX_paPrice

This parameter is used in a PlayAnnouncement for testing whether the IUT accepts the operation. The client shall specify the parameter with typical value in use.

Table A.95: Parameter TSPX_paPrice

Parameter name: TSPX_paPrice
PICS item: item 14 of table 38: PlayAnnouncement invocation arguments
ASN.1 parameter type
`OCTET STRING (SIZE(4))`
ASN.1 value
Remarks:

A.7.2.2.75 Parameter TSPX_paText

This parameter is used in a PlayAnnouncement for testing whether the IUT accepts the operation. The client shall specify the parameter with typical value in use.

Table A.96: Parameter TSPX_paText

Parameter name: TSPX_paText
PICS item: item 5 of table 38: PlayAnnouncement invocation arguments
ASN.1 parameter type
| ```
SEQUENCE {
    messageContent  [0] IMPLICIT IA5String
                        (SIZE(minMessageContentLength..maxMessageContentLength)),
    attributes      [1] IMPLICIT OCTET STRING
                        (SIZE(minAttributesLength..maxAttributesLength))
}
``` |
| **ASN.1 value** |
| |
| Remarks: |

A.7.2.2.76   Parameter TSPX_paTime

This parameter is used in a PlayAnnouncement for testing whether the IUT accepts the operation. The client shall specify the parameter with typical value in use.

Table A.97: Parameter TSPX_paTime

Parameter name: TSPX_paTime
PICS item: item 12 of table 38: PlayAnnouncement invocation arguments
ASN.1 parameter type
OCTET STRING (SIZE(2))
ASN.1 value
Remarks:

A.7.2.2.77   Parameter TSPX_paToneID

This parameter is used in a PlayAnnouncement for testing whether the IUT accepts the operation. The client shall specify the parameter with typical value in use.

Table A.98: Parameter TSPX_paToneID

Parameter name: TSPX_paToneID
PICS item: item 19 of table 38: PlayAnnouncement invocation arguments
ASN.1 parameter type
INTEGER (0..2147483647)
ASN.1 value
Remarks:

A.7.2.2.78   Parameter TSPX_pcDisplayInformation

This parameter is used in a PromptAndCollectUserInformation operation containing optional parameters for testing whether the IUT accepts the operation. The client shall specify the parameter with typical value in use.

Table A.99: Parameter TSPX_pcDisplayInformation

Parameter name: TSPX_pcDisplayInformation
PICS item: item 34 of table 40:PromptAndCollectUserInformation invocation arguments
ASN.1 parameter type
IA5String (SIZE(minDisplayInformationLength..maxDisplayInformationLength))
ASN.1 value
Remarks:

A.7.2.2.79 Parameter TSPX_pcElementaryMessageID

This parameter is used in a PromptAndCollectUserInformation operation containing optional parameters for testing whether the IUT accepts the operation. The client shall specify the parameter with typical value in use.

Table A.100: Parameter TSPX_pcElementaryMessageID

Parameter name: TSPX_pcElementaryMessageID
PICS item: item 17 of table 40:PromptAndCollectUserInformation invocation arguments
ASN.1 parameter type
INTEGER (0..2147483647)
ASN.1 value
Remarks:

A.7.2.2.80 Parameter TSPX_pcExtensions

This parameter is network operator specific and is used in a PromptAndCollectUserInformation operation containing such parameter for testing whether the IUT accepts the specific extensions. The client shall specify the parameter with typical value in use.

Table A.101: Parameter TSPX_pcExtensions

Parameter name: TSPX_pcExtensions
PICS item: item 35 of table 40: PromptAndCollectUserInformation invocation arguments
ASN.1 parameter type

<pre>SEQUENCE SIZE(1..numOfExtensions) OF ExtensionField
 	
ExtensionField ::= SEQUENCE {
                    type   INTEGER,
                    criticality   ENUMERATED {
                                        ignore (0),
                                        abort   (1)
                                    } DEFAULT ignore,
                    value   [1] ANY DEFINED BY type
}</pre>

ASN.1 value
Remarks:

A.7.2.2.81 Parameter TSPX_pcFirstDigitTimeOut

This parameter is used in a PromptAndCollectUserInformation operation containing optional parameters for testing whether the IUT accepts the operation. The client shall specify the parameter with typical value in use.

Table A.102: Parameter TSPX_pcFirstDigitTimeOut

Parameter name: TSPX_pcFirstDigitTimeOut
PICS item: item 7 of table 40: PromptAndCollectUserInformation invocation arguments
ASN.1 parameter type
INTEGER (0..127)
ASN.1 value
Remarks:

A.7.2.2.82 Parameter TSPX_pcInterDigitTimeOut

This parameter is used in a PromptAndCollectUserInformation operation containing optional parameters for testing whether the IUT accepts the operation. The client shall specify the parameter with typical value in use.

Table A.103: Parameter TSPX_pcInterDigitTimeOut

Parameter name: TSPX_pcInterDigitTimeOut
PICS item: item 8 of table 40: PromptAndCollectUserInformation invocation arguments
ASN.1 parameter type
INTEGER (0..127)
ASN.1 value
Remarks:

A.7.2.2.83 Parameter TSPX_pcMaximumDigits

This parameter is used in a PromptAndCollectUserInformation operation for testing whether the IUT accepts the operation. The client shall specify the parameter with a value that is large than zero and is typical in the real application.

Table A.104: Parameter TSPX_pcMaximumDigits

Parameter name: TSPX_pcMaximumDigits
PICS item: item 3 of table 40: PromptAndCollectUserInformation invocation arguments
ASN.1 parameter type
INTEGER (0..127)
ASN.1 value
Remarks:

A.7.2.2.84   Parameter TSPX_pcMinimumDigits

This parameter is used in a PromptAndCollectUserInformation operation containing optional parameters for testing whether the IUT accepts the operation. The client shall specify the parameter with typical value in use.

Table A.105: Parameter TSPX_pcMinimumDigits

Parameter name: TSPX_pcMinimumDigits	
PICS item: item 2 of table 40: PromptAndCollectUserInformation invocation arguments	
ASN.1 parameter type	
INTEGER (0..127)	
ASN.1 value	
Remarks:	

A.7.2.2.85   Parameter TSPX_pcToneID

This parameter is used in a PromptAndCollectUserInformation operation containing optional parameters for testing whether the IUT accepts the operation. The client shall specify the parameter with typical value in use.

Table A.106: Parameter TSPX_pcToneID

Parameter name: TSPX_pcToneID	
PICS item: item 32 of table 40: PromptAndCollectUserInformation invocation arguments	
ASN.1 parameter type	
INTEGER (0..2147483647)	
ASN.1 value	
Remarks:	

A.7.2.2.86   Parameter TSPX_rncEventTypeCharging

This parameter is used in a RequestNotificationChargingEvent operation for testing whether the IUT accepts this operation. The value of the parameter also is used in the control mechanism "Detection of charging event" (see PIXIT clause 8). The client shall specify the parameter with such a value that the detection of the charging event can be realized by the control mechanism.

Table A.107: Parameter TSPX_rncEventTypeCharging

Parameter name: TSPX_rncEventTypeCharging	
PICS item: item 1 of table 42:RequestNotificationChargingEvent invocation arguments	
ASN.1 parameter type	
OCTET STRING (SIZE(minEventTypeChargingLength..maxEventTypeChargingLength))	
ASN.1 value	
Remarks:	

A.7.2.2.87　　　　Parameter TSPX_rrbExtensions

This parameter is network operator specific and is used in a RequestReportBCSMEvent operation containing this parameter for testing whether the IUT accepts the specific extensions. The client shall specify the parameter with typical value in use.

Table A.108: Parameter TSPX_rrbExtensions

Parameter name: TSPX_rrbExtensions
PICS item:　　　　item 9 of table 44:RequestReportBCSMEvent
ASN.1 parameter type
| ```
SEQUENCE SIZE(1..numOfExtensions) OF ExtensionField

ExtensionField ::=  SEQUENCE {
                    type            INTEGER,
                    criticality     ENUMERATED {
                        ignore  (0),
                        abort   (1)
                    } DEFAULT ignore,
                    value           [1] ANY DEFINED BY type
}
``` |
| **ASN.1 value** |
| |
| Remarks: |

A.7.2.2.88　　　　Parameter TSPX_rrbApplicationTimer

This parameter is used in a RequestReportBCSMEvent operation for testing whether the IUT accepts the operation. The client shall specify the parameter with a typical value in use.

Table A.109: Parameter TSPX_rrbApplicationTimer

Parameter name: TSPX_rrbApplicationTimer
PICS item:　　　　item 8 of table 44:RequestReportBCSMEvent
ASN.1 parameter type
`INTEGER (0..2047)`
ASN.1 value
Remarks:

A.7.2.2.89 Parameter TSPX_rtExtensions

This parameter is network operator specific and is used in a ResetTimer operation containing this parameter for testing whether the IUT accepts the specific extensions. The client shall specify the parameter with typical value in use.

Table A.110: Parameter TSPX_rtExtensions

Parameter name: TSPX_rtExtensions
PICS item:　　　　item 3 of table 46: ResetTimer invocation arguments
ASN.1 parameter type

`SEQUENCE SIZE(1..numOfExtensions) OF ExtensionField`
 	
`ExtensionField ::=  SEQUENCE {`
`                  type            INTEGER,`
`                  criticality     ENUMERATED {`
`                        ignore  (0),`
`                        abort   (1)`
`                  } DEFAULT ignore,`
`                  value           [1] ANY DEFINED BY type`
`}`

ASN.1 value
Remarks:

A.7.2.2.90 Parameter TSPX_rtTimerValue

This parameter specifies the reset value of timer Tssf. In the test It is used in ResetTimer operation to test whether the IUT accepts the operation. The client shall specify the parameter with such a value that the IUT supports and is typical in the real application.

Table A.111: Parameter TSPX_rtTimerValue

Parameter name: TSPX_rtTimerValue
PICS item:　　　　item 2 of table 46: ResetTimer invocation arguments
ASN.1 parameter type
`INTEGER (0..2147483647)`
ASN.1 value
Remarks:

A.7.2.2.91 Parameter TSPX_sCIBillingChargingCharacteristics

This parameter is used in a SendChargingInformation operation for testing whether the IUT accepts the operation. The client shall specify the parameter with typical value in use.

Table A.112: Parameter TSPX_sCIBillingChargingCharacteristics

Parameter name: TSPX_sCIBillingChargingCharacteristics
PICS item: item 1 of table 48: SendChargingInformation invocation arguments
ASN.1 parameter type
`OCTET STRING (SIZE(minSCIBillingChargingLength..maxSCIBillingChargingLength))`
ASN.1 value
Remarks:

A.7.2.2.92 Parameter TSPX_sciExtensions

This parameter is network operator specific and is used in a CallInformationRequest operation containing this parameter for testing whether the IUT accepts the specific extensions. The client shall specify the parameter with typical value in use.

Table A.113: Parameter TSPX_sciExtensions

Parameter name: TSPX_sciExtensions
PICS item: item 4 of table 48: SendChargingInformation invocation arguments
ASN.1 parameter type
<pre>SEQUENCE SIZE(1..numOfExtensions) OF ExtensionField

ExtensionField ::= SEQUENCE {
                 type   INTEGER,
                 criticality   ENUMERATED {
                                     ignore (0),
                                     abort   (1)
                                 } DEFAULT ignore,
                 value   [1] ANY DEFINED BY type
}</pre> |
| **ASN.1 value** |
| |
| Remarks: |

A.7.2.3 Test suite timer values

The client shall specify the values for the following timers based on the explanation below.

The timer value TSPX_Tscf is used to simulate the response timer Tscf of the SCF, which is started when the InitiateCallAttempt is sent by the LT.

The timer value TSPX_Tscf_ssf_1 is used to simulate the Tscf_ssf timer of the SCF, which is started when IDP or ARI is received by the LT.

Timer T_dly is a general purpose timer to prevent test case from waiting infinitely for response from the IUT when the IUT fails.

Timer T_dly1 is a guard timer to prevent test step from waiting infinitely for response from the parallel lower tester. Its value TSPX_cmdelay shall be set to the maximum response time of the parallel lower testers.

Table A.114: Test suite timer values

Item	Name	ASN.1 value	Comments
1	TSPX_Tscf		Used to simulate the response timer Tscf of the SCF.
2	TSPX_Tscf_ssf_1		Used to simulate the timer Tscf_ssf of the SCF after receiving the IDP or ARI.
3	TSPX_Tdly		Initial value for timer T_dly.
4	TSPX_cmdelay		Value for guard timer of T_dly1

A.8 Control or observation via the non-INAP interfaces

In order to test SSF or SRF, it is necessary to make the IUT provoke some procedures or to observe the IUT returning to the idle state. Such controls or observations, which are listed in this clause, can not be realized via the INAP interface at PCO1 (in the TTCN specification called L1). However, a SUT has some non-INAP interfaces other than the Core INAP one. The listed controls or observations are realized via these non-INAP interface. For this reason, the SUT is required to provide means to perform the required control or observation functions. The means shall be provided by the SSP or IP manufacturer. They are referred in this clause as control or observation via the non-INAP interfaces.

In the INAP context a non-INAP interface of the SSF is the protocol/signalling interface either at the originating BCSM or at the terminating BCSM. A non-INAP interface of the SRF is the protocol/signalling interface between the SSP and the IP.

*The client shall state whether the SUT supports the control or observation requirements with Yes/No or Y/N. If the SUT does not support a requirement, the client shall fill in the relevant **Value or Supported** field with "**No**" or "**N**", otherwise with "**Yes**" or "**Y**" and describe in detail how the required control or observation function is to be realized. The test laboratory will use these detailed descriptions to implement the test suite operations.*

Some controls or observations of the SSF can be realized either at the originating side or at the terminating side, the test client shall answer the question **"At which side it is realized?"** with a value indicating which side is used. Value **2** represents the originating side, value **3** represents the terminating side.

A.8.1 **Mechanism for control via the non-INAP interfaces**

A.8.1.1 **Detection of assisting request**

Testing SSF, it is necessary to stimulate the SUT (SSP). The stimulation results in the detection of an assisting request in the IUT and the invocation of an AssistRequestInstructions operation. Four instances of ARI with different parameters are required in the test:

- *ARI containing at least correlationID;*
- *ARI containing at least correlationID and iPSSPCapabilities;*
- *ARI containing at least correlationID and iPAvailable;*
- *ARI containing at least correlationID and extensions.*

The value of correlationID is defined by the client in subclause 7.2.2.4 of this PIXIT and the values of the parameters iPSSPCapabilities, iPAvailable and extensions can be any valid values.

Table A.115: Detection of assisting request

Item	Question	Value or Supported
1	Does this control function with an ARI containing at least correlationID is supported?	
2	Does this control function with an ARI containing at least correlationID and iPSSPCapabilities is supported?	
3	Does this control function with an ARI containing at least correlationID and iPAvailable is supported?	
4	Does this control function with an ARI containing at least correlationID and extensions is supported?	
5	At which side these control functions are realized?	
Detailed description for realization		
Remarks:		

The test laboratory uses the detailed description provided by the client in this table to implement the operation TSO_AssistRequest.

A.8.1.2 Detection of assisting request_srf

Testing SRF, it is necessary to stimulate the SUT (IP). The stimulation results the detection of an assisting request in the IUT (SRF) and the invocation of an AssistRequestInstructions operation. Tow instances of ARI with different parameters are required in the test:

- *ARI containing at least correlationID;*
- *ARI containing at least correlationID and extensions.*

The value of correlationID is defined by the client in subclause 7.2.2.4 of this PIXIT.

Table A.116: Detection of assisting request_srf

Item	Question	Value or Supported
1	Does this control function with an ARI containing at least correlationID is supported?	
2	Does this control function with an ARI containing at least correlationID and extensions is supported?	
Detailed description for realization		
Remarks:		

The test laboratory uses the detailed description provided by the client in this table to implement the operation TSO_SRFAssistRequest.

A.8.1.3 Detection of bearer channel disconnect

Testing SRF, it is necessary to stimulate the SUT (IP). The stimulation results in the detection of a bearer channel disconnect indication (as if from the initiating SSP) in the IUT (SRF).

Table A.117: Detection of release indication

Item	Question	Value or Supported
1	Does this control function is supported?	
Detailed description for realization		
Remarks:		

The test laboratory uses the detailed description provided by the client in this table to implement the operation TSO_BearerChDiscon.

A.8.1.4 Detection of handoff request

Testing SSF, it is necessary to stimulate the IUT (SSF). The stimulation results in the detection of an handoff request within the IUT (SSF).

Table A.118: Detection of handoff request

Item	Question	Value or Supported
1	Does this control function is supported?	
2	At which side this control function is realized?	
Detailed description for realization		
Remarks:		

The test laboratory uses the detailed description provided by the client in this table to implement the operation TSO_HandoffRequest.

A.8.1.5 Detection of charging event

Testing SSF, it is necessary to stimulate the SUT (SSP). The stimulation results in the detection of the required charging event within the IUT. The required charging event is defined by the client in the: Parameter TSPX_rncEventTypeCharging in subclause 7.2.2.86 of this PIXIT.

Table A.119: Detection of charging event

Item	Question	Value or Supported
1	Does this control function is supported?	
2	At which side this control function is realized?	
Detailed description for realization		
Remarks:		

The test laboratory uses the detailed description provided by client in this table to implement the operation TSO_ChargingEvent.

A.8.1.6   Detection of calling party abandon

Testing SSF, it is necessary to stimulate the SUT (SSP). The stimulation results in detection of a calling party abandon within the IUT (SSF).

Table A.120: Detection of calling party abandon

Item	Question	Value or Supported
1	Does this control function is supported?	
Detailed description for realization		
Remarks:		

The test laboratory uses the detailed description provided by the client in this table to implement the operation TSO_CallingPartyAban.

A.8.1.7   Detection of calling party disconnect

Testing SSF, it is necessary to stimulate the SUT (SSP). The stimulation results in the detection of a calling party disconnection within the IUT.

Table A.121: Detection of calling party disconnect

Item	Question	Value or Supported
1	Does this control function is supported?	
Detailed description for realization		
Remarks:		

The test laboratory uses the detailed description provided by the client in this table to implement the operation TSO_CallingPartyDiscon.

A.8.1.8 Detection of charging report condition

Testing SSF, it is necessary to stimulate the SUT (SSP) to result in the detection of charging report conditions within the IUT. The required charging report conditions are defined by the client in the parameters TSPX_aChBillingChargingCharacteristics and TSPX_aChBillingChargingCharacteristics_1 in subclauses 7.2.2.1 and 7.2.2.2 of this PIXIT.

Table A.122: Detection of charging report condition

Item	Question	Value or Supported
1	Does this control function is supported?	
2	At which side this control function is realized?	
	Detailed description for realization	
Remarks:		

The test laboratory uses the detailed description provided by the client in this table to implement the operation TSO_ChargingCondition.

A.8.1.9 Detection of call release

Testing SSF, it is necessary to stimulate the SUT (SSP) to result in the detection of a call release within the IUT.

Table A.123: Detection of call release

Item	Question	Value or Supported
1	Does this control function is supported?	
2	At which side this control function is realized?	
	Detailed description for realization	
Remarks:		

The test laboratory uses the detailed description provided by the client in this table to implement the operation TSO_CallRelease.

A.8.1.10   Detection of EDP_N

Testing SSF, it is necessary to stimulate the SUT (SSP) to result in the detection of an EDP-N on the required Detection Point within the IUT (SSF). The possible required detection points are collectedInfo, analyzedInformation, routeSelectFailure, oCalledPartyBusy, oNoAnswer, oAnswer, oMidCall, oDisconnect, oAbandon, tCalledPartyBusy, tNoAnswer, tAnswer, tMidCall, tDisconnect, tAbandon.

Table A.124: Detection of EDP_N

Item	Question	Value or Supported
1	Does this control function with an analyzedInformation DP is supported	
2	Does this control function with a collectedInfo DP is supported?	
3	Does this control function with a routeSelectFailure DP is supported?	
4	Does this control function with an oCalledPartyBusy DP is supported?	
5	Does this control function with an oNoAnswer DP is supported?	
6	Does this control function with an oAnswer DP is supported?	
7	Does this control function with an oMidCall DP is supported?	
8	Does this control function with an oDisconnect DP is supported?	
9	Does this control function with an oAbandon DP is supported?	
10	Does this control function with a tCalledPartyBusy DP is supported?	
11	Does this control function with a tNoAnswer DP is supported?	
12	Does this control function with a tAnswer DP is supported?	
13	Does this control function with a tMidCall DP is supported?	
14	Does this control function with a tDisconnect DP is supported?	
15	Does this control function with a tAbandon DP is supported?	
16	At which side these control functions are realized?	
Detailed description for realization		
Remarks:		

The test laboratory uses the detailed description provided by the client in this table to implement the operation TSO_EDP_NEvent.

A.8.1.11   Detection of EDP_R

Testing SSF, it is necessary to stimulate the SUT (SSP). The stimulation results in the detection of an EDP-R on the required Detection Point within the IUT. The possible required detection points are collectedInfo, analyzedInformation, routeSelectFailure, oCalledPartyBusy, oNoAnswer, oAnswer, oMidCall, oDisconnect, oAbandon, tCalledPartyBusy, tNoAnswer, tAnswer, tMidCall, tDisconnect, tAbandon.

Table A.125: Detection of EDP_R

Item	Question	Value or Supported
1	Does this control function with an analyzedInformation DP is supported	
2	Does this control function with a collectedInfo DP is supported?	
3	Does this control function with a routeSelectFailure DP is supported?	
4	Does this control function with an oCalledPartyBusy DP is supported?	
5	Does this control function with an oNoAnswer DP is supported?	
6	Does this control function with an oAnswer DP is supported?	
7	Does this control function with an oMidCall DP is supported?	
8	Does this control function with an oDisconnect DP is supported?	
9	Does this control function with an oAbandon DP is supported?	
10	Does this control function with a tCalledPartyBusy DP is supported?	
11	Does this control function with a tNoAnswer DP is supported?	
12	Does this control function with a tAnswer DP is supported?	
13	Does this control function with a tMidCall DP is supported?	
14	Does this control function with a tDisconnect DP is supported?	
15	Does this control function with a tAbandon DP is supported?	
16	At which side these control functions are realized?	
Detailed description for realization		
Remarks:		

The test laboratory uses the detailed description provided by the client in this table to implement the operation TSO_EDP_REvent.

A.8.1.12   Detection of Originating trigger

Testing SSF, it is necessary to stimulate the SUT (SSP). The stimulation results in the detection of an originating trigger within the IUT (SSF) and the invocation of an InitialDP operation containing any valid parameters.

Table A.126: Detection of Originating trigger

Item	Question	Value or Supported
1	Does this control function is supported?	
Detailed description for realization		
Remarks:		

The test laboratory uses the detailed description provided by the client in this table to implement the operation TSO_OtriggerEvent.

A.8.1.13   Detection of release indication

Testing SSF, it is necessary to stimulate the SUT (SSP) to result in the detection of a release indication (as if from the initiating SSP) within the IUT (SSF).

Table A.127: Detection of release indication

Item	Question	Value or Supported
1	Does this control function is supported?	
2	At which side this control function is realized?	
Detailed description for realization		
Remarks:		

The test laboratory uses the detailed description provided by the client in this table to implement the operation TSO_ReleaseInd.

A.8.1.14 Detection of Trigger Detection Point

Testing SSF, it is necessary to stimulate the SUT (SSP). The stimulation results in the detection oft a TDP within the IUT (SSF) and the invocation of an InitialDP operation. Either originating trigger or terminating trigger can be used as the TDP, the client shall indicate which one is used in this control mechanism in the detailed description. Seventeen different instances of IDP are required in test:

1. *IDP containing at least serviceKey and calledPartyNumber;*
2. *IDP containing at least serviceKey and callingPartyNumber;*
3. *IDP containing at least serviceKey and calledPartyCategory;*
4. *IDP containing at least serviceKey and locationNumber;*
5. *IDP containing at least serviceKey and originalCallPartyID;*
6. *IDP containing at least serviceKey and forwardCallIndicators;*
7. *IDP containing at least serviceKey and redirectingPartyID;*
8. *IDP containing at least serviceKey and redirectionInformation;*
9. *IDP containing at least serviceKey, highLayerCompatibility and bearerCapability being bearerCap;*
10. *IDP containing at least serviceKey and addtionalCallingPartyNumber;*
11. *IDP containing at least serviceKey and eventTypeBCSM;*
12. *IDP containing at least serviceKey and iPSSPCapabilities;*
13. *IDP containing at least serviceKey and iPAvailable;*
14. *IDP containing at least serviceKey and extensions;*
15. *IDP containing at least serviceKey and serviceInteractionIndicators;*
16. *IDP containing at least serviceKey and cGEncountered, and the TDP shall match the Call Gap Criteria TSPX_cgServiceKey (see subclause 7.2.2.27);*
17. *IDP containing any valid parameters.*

Table A.128: Detection of Trigger Detection Point

Item	Question	Value or Supported
1	Does this control function with an IDP No.1 is supported?	
2	Does this control function with an IDP No.2 is supported?	
3	Does this control function with an IDP No.3 is supported?	
4	Does this control function with an IDP No.4 is supported?	
5	Does this control function with an IDP No.5 is supported?	
6	Does this control function with an IDP No.6 is supported?	
7	Does this control function with an IDP No.7 is supported?	
8	Does this control function with an IDP No.8 is supported?	
9	Does this control function with an IDP No.9 is supported?	
10	Does this control function with an IDP No.10 is supported?	
11	Does this control function with an IDP No.11 is supported?	
12	Does this control function with an IDP No.12 is supported?	
13	Does this control function with an IDP No.13 is supported?	
14	Does this control function with an IDP No.14 is supported?	
15	Does this control function with an IDP No.15 is supported?	
16	Does this control function with an IDP No.16 is supported?	
17	Does this control function with an IDP No.17 is supported?	
18	At which side these control functions are realized?	

(continued)

Table A.128 (concluded): Detection of Trigger Detection Point

Detailed description for realization
Remarks:

The test laboratory uses the detailed description provided by the client in this table to implement the operation TSO_TDPEvent.

A.8.1.15 Detection of Terminating trigger

Testing SSF, it is necessary to stimulate the SUT (SSP) to result in the detection of a terminating trigger within the IUT (SSF) and the invocation of an InitialDP operation containing any valid parameters.

Table A.129: Detection of Terminating trigger

Item	Question	Value or Supported
1	Does this control function is supported?	
Detailed description for realization		
Remarks:		

The test laboratory uses the detailed description provided by the client in this table to implement the operation TSO_TtriggerEvent.

A.8.2 Mechanism of observation via the non-INAP interfaces

A.8.2.1 Observation of SSF returning to idle state

Testing SSF, it is necessary to observe the IUT (SSF) returning to Idle state.

Table A.130: Observation of SSF returning to Idle state

Item	Question	Value or Supported
1	Does this observation function is supported?	
2	At which side this observation function is realized?	
Detailed description for realization		
Remarks:		

The test laboratory uses the detailed description provided by the client in this table to implement the operation TSO_SSFIdle.

A.8.2.2 Observation of SRF returning to idle state

Testing SRF, it is necessary to observe the IUT (SRF) returning to Idle.

Table A.131: Observation of SRF returning to Idle state

Item	Question	Value or Supported
1	Does this observation function is supported?	
Detailed description for realization		
Remarks:		

The test laboratory uses the detailed description provided by the client in this table to implement the operation TSO_SRFIdle.

Annex B (normative): Protocol Conformance Test Report (PCTR) proforma

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

This annex provides a PCTR proforma which shall be used by the test laboratory to document the result of conformance testing against the core INAP CS1 using the ATS specified in this ETS for a specific client.

Text in *italics* is comment for guidance for the production of a PCTR, and is not to be included in the actual PCTR.

When the test laboratory completes a PCTR, each page of each completed proforma shall carry the following information:

- the page number and total number of pages in the PCTR;
- the reference number allocated by the laboratory to the test report;
- the name of the test laboratory.

B.1 Identification summary

B.1.1 Protocol Conformance Test Report (PCTR)

Table B.1: PCTR identification

PCTR reference number	
PCTR date of issue	
Test laboratory name	
Test laboratory address	
Accreditation status	
Accreditation reference	
Technical authority	
Job title	
Signature	
Corresponding SCTR number	
Corresponding SCTR date	
Test laboratory manager	
Signature:	

B.1.2 IUT identification

Table B.2: IUT identification

Name	
Version	
Protocol specification	ETS 300 374-1 (1994)
PICS	
Previous PCTR if any	

B.1.3 Testing environment

Table B.3: Testing environment

PIXIT reference	
ATS specification reference	ETS 300 374-4 (1994), annex C
Abstract test method	Remote test method in MPyT context
Means of testing name	
Means of testing version	
Period of testing:	
Conformance log reference(s):	
Retention date for log reference(s):	

B.1.4 Limits and reservation

Additional information relevant to the technical contents or further use of the test report, or the rights and obligations of the test laboratory and the client, may be given here. Such information may include restriction on the publication of the report.

The order of the test cases listed in clause B.6 of this PCTR corresponds to the ordering of test cases defined in the ATS referenced in subclause B.1.3 of the PCTR. This does not indicate that the tests were executed in this order. The precise order of execution of test cases can be determined, if necessary, by reference to the conformance logs for the test campaign.

The test results presented in this test report apply only to the particular IUT declared in subclause B.1.2 of this PCTR, for the functionality described in the relevant PICS attached to this PCTR, as presented for test in the period declared in subclause B.1.3 of the PCTR and configured as declared in the relevant PIXIT attached to this PCTR. This PCTR shall not be reproduced except in full together with its attached PICS and PIXIT.

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B.1.5 Comments

Additional comments may be given by either the client or the test laboratory on any of the contents of the PCTR, for example, to note disagreement between the two parties.

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B.2   IUT conformance status

This IUT **has** or **has not** been shown by conformance assessment to be non conforming to the specified protocol specification.

Strike the appropriate words in this sentence. If the PICS for this IUT is consistent with the static conformance requirements (as specified in clause B.3) and there are no "FAIL" verdicts to be recorded (in clause B.6) strike the words "has or". otherwise strike the words "or has not".

B.3   Static conformance summary

The PICS for this IUT **is** or **is not** consistent with the static conformance requirements in the specified protocol.

Strike the appropriate words in this sentence.

B.4   Dynamic conformance summary

The test campaign **did** or **did not** reveal errors in the IUT.

*Strike the appropriate words in this sentence. If there are no "FAIL" verdicts to be recorded (in clause B.6) strike the words "**did** or" otherwise strike the words "or **did not**".*

Summary of the results of groups of test:

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B.5 Static conformance review report

If clause B.3 of the PCTR indicates non-conformance, this clause itemizes the mismatches between the PICS and the static conformance requirements of the specified protocol specification. The test laboratory should enter the statement described below, together with relevant details in the following form:

- item number;
- PICS item reference;
- PICS item description;
- description of Protocol requirement;
- description of non-conformance;
- optionally, an objective statement on the impact the non-conformance may present in use.

The static conformance review indicates the following inconsistency(ies) or non-conformance(s) to the requirements of the standard referenced in subclause B.1.2 of this PCTR.

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Otherwise the following statement should be entered:

The static conformance review did not reveal any inconsistencies with or non-conformances to the requirements of the standards in subclause B.1.2 of this PCTR.

B.6 Test campaign report

This clause shall use the following table which indicates both the test case selection that was performed by the test laboratory, and the results of testing. The table below indicates the minimum information which is required, additional columns may be added for attaching other information which may be provided, e.g. mappings from ATS to ETS or conformance log reference for test cases that led to Fail or Inclusive verdicts.

The Selected column indicates whether a test case was selected for execution against the IUT identified in subclause B.1.2 according to the analysis of the information in the PICS and PIXIT for the IUT. If the test case is deselected on the basis of the PIXIT then the test laboratory shall indicate why, by use of the observation column, by reference to the relevant PIXIT clause. The test laboratory may also provide clarification regarding which PICS entries let to the test case deselection, whether the deselections as a result of evaluating the selection expression or directly as a result of PICS entries. The allowed answers in this column are: Yes/No.

If the test case was selected, the Run column indicates whether or not the test was run to completion. If the status of test case was Not Run The test laboratory indicates why by use of the observation column. The allowed answers in this column are: <empty> if the test case is deselected, or Yes/No if selected.

In the Verdict column, enter the verdict as assigned during the test campaign for each test run. In the case that an automated verdict has been amended on the basis of manual expert analysis, the rationale for the change of verdict is recorded as an observation.

In the Observation column, enter an observation or a reference to any relevant observation made in clause B.7.

Table B.4: Test campaign report

ATS reference	Selected?	Run?	Verdict	Observations (refer to clause B.7)
IN621001	Yes/No			
IN621101	Yes/No			
IN623101	Yes/No			
IN626001	Yes/No			
IN627101	Yes/No			
IN627102	Yes/No			
IN631001	Yes/No			
IN631002	Yes/No			
IN631003	Yes/No			
IN631004	Yes/No			
IN631005	Yes/No			
IN631006	Yes/No			
IN631007	Yes/No			
IN631008	Yes/No			
IN631009	Yes/No			
IN631010	Yes/No			
IN631011	Yes/No			
IN631012	Yes/No			
IN631013	Yes/No			
IN631014	Yes/No			
IN631015	Yes/No			
IN631016	Yes/No			
IN631101	Yes/No			
IN631102	Yes/No			
IN631103	Yes/No			
IN631104	Yes/No			
IN633001	Yes/No			
IN633002	Yes/No			
IN633003	Yes/No			
IN633004	Yes/No			
IN633005	Yes/No			
IN633006	Yes/No			
IN633007	Yes/No			
IN633008	Yes/No			
IN633101	Yes/No			
IN633102	Yes/No			
IN633103	Yes/No			
IN633104	Yes/No			
IN633105	Yes/No			
IN633106	Yes/No			
IN633107	Yes/No			
IN633108	Yes/No			
IN633109	Yes/No			
IN633110	Yes/No			
IN633111	Yes/No			
IN633114	Yes/No			
IN633115	Yes/No			
IN633116	Yes/No			
IN633117	Yes/No			
IN633118	Yes/No			
IN633119	Yes/No			
IN633120	Yes/No			
IN633121	Yes/No			
IN633122	Yes/No			
IN633123	Yes/No			

(continued)

Table B.4 (continued): Test campaign report

ATS reference	Selected?	Run?	Verdict	Observations (refer to clause B.7)
IN633124	Yes/No			
IN633125	Yes/No			
IN633126	Yes/No			
IN633127	Yes/No			
IN633128	Yes/No			
IN633129	Yes/No			
IN633130	Yes/No			
IN633131	Yes/No			
IN633134	Yes/No			
IN633135	Yes/No			
IN633136	Yes/No			
IN633137	Yes/No			
IN633138	Yes/No			
IN633139	Yes/No			
IN633301	Yes/No			
IN633302	Yes/No			
IN633303	Yes/No			
IN633304	Yes/No			
IN633305	Yes/No			
IN633306	Yes/No			
IN633307	Yes/No			
IN633308	Yes/No			
IN633309	Yes/No			
IN633310	Yes/No			
IN633311	Yes/No			
IN633312	Yes/No			
IN633313	Yes/No			
IN633314	Yes/No			
IN636001	Yes/No			
IN636002	Yes/No			
IN636003	Yes/No			
IN636004	Yes/No			
IN636005	Yes/No			
IN636006	Yes/No			
IN636007	Yes/No			
IN636008	Yes/No			
IN636009	Yes/No			
IN636010	Yes/No			
IN636011	Yes/No			
IN636012	Yes/No			
IN636013	Yes/No			
IN636014	Yes/No			
IN636015	Yes/No			
IN636016	Yes/No			
IN636017	Yes/No			
IN636018	Yes/No			
IN636019	Yes/No			
IN636020	Yes/No			
IN636021	Yes/No			
IN636022	Yes/No			
IN636023	Yes/No			
IN636024	Yes/No			
IN636025	Yes/No			
IN636026	Yes/No			
IN636027	Yes/No			

(continued)

Table B.4 (continued): Test campaign report

ATS reference	Selected?	Run?	Verdict	Observations (refer to clause B.7)
IN636028	Yes/No			
IN636101	Yes/No			
IN636102	Yes/No			
IN636103	Yes/No			
IN636104	Yes/No			
IN636105	Yes/No			
IN636106	Yes/No			
IN636107	Yes/No			
IN636108	Yes/No			
IN636109	Yes/No			
IN636110	Yes/No			
IN636111	Yes/No			
IN636112	Yes/No			
IN636113	Yes/No			
IN636114	Yes/No			
IN636115	Yes/No			
IN636116	Yes/No			
IN636117	Yes/No			
IN636118	Yes/No			
IN636301	Yes/No			
IN636302	Yes/No			
IN636303	Yes/No			
IN636304	Yes/No			
IN636305	Yes/No			
IN636306	Yes/No			
IN636307	Yes/No			
IN637101	Yes/No			
IN637102	Yes/No			
IN637103	Yes/No			
IN637104	Yes/No			
IN637105	Yes/No			
IN637106	Yes/No			
IN638001	Yes/No			
IN638002	Yes/No			
IN638003	Yes/No			
IN641101	Yes/No			
IN643101	Yes/No			
IN643102	Yes/No			
IN643103	Yes/No			
IN643104	Yes/No			
IN643105	Yes/No			
IN643106	Yes/No			
IN643107	Yes/No			
IN643108	Yes/No			
IN643109	Yes/No			
IN643110	Yes/No			
IN643111	Yes/No			
IN643301	Yes/No			
IN646101	Yes/No			
IN646102	Yes/No			
IN646103	Yes/No			
IN646104	Yes/No			
IN647101	Yes/No			
IN651101	Yes/No			
IN651102	Yes/No			

(continued)

Table B.4 (continued): Test campaign report

ATS reference	Selected?	Run?	Verdict	Observations (refer to clause B.7)
IN651103	Yes/No			
IN651104	Yes/No			
IN651105	Yes/No			
IN651106	Yes/No			
IN651107	Yes/No			
IN651108	Yes/No			
IN651109	Yes/No			
IN651110	Yes/No			
IN651111	Yes/No			
IN651112	Yes/No			
IN653101	Yes/No			
IN656101	Yes/No			
IN656102	Yes/No			
IN656103	Yes/No			
IN656104	Yes/No			
IN656105	Yes/No			
IN656106	Yes/No			
IN656107	Yes/No			
IN733101	Yes/No			
IN733102	Yes/No			
IN733103	Yes/No			
IN733104	Yes/No			
IN734001	Yes/No			
IN734101	Yes/No			
IN734102	Yes/No			
IN734103	Yes/No			
IN734104	Yes/No			
IN734105	Yes/No			
IN734106	Yes/No			
IN734107	Yes/No			
IN734108	Yes/No			
IN734109	Yes/No			
IN734110	Yes/No			
IN734111	Yes/No			
IN734112	Yes/No			
IN734113	Yes/No			
IN734114	Yes/No			
IN734115	Yes/No			
IN734116	Yes/No			
IN734117	Yes/No			
IN734118	Yes/No			
IN734119	Yes/No			
IN734120	Yes/No			
IN734121	Yes/No			
IN734122	Yes/No			
IN734123	Yes/No			
IN734124	Yes/No			
IN734125	Yes/No			
IN734126	Yes/No			
IN734127	Yes/No			
IN734301	Yes/No			
IN734302	Yes/No			
IN734303	Yes/No			
IN734304	Yes/No			
IN734305	Yes/No			

(continued)

Table B.4 (continued): Test campaign report

ATS reference	Selected?	Run?	Verdict	Observations (refer to clause B.7)
IN734306	Yes/No			
IN734307	Yes/No			
IN743101	Yes/No			
IN744101	Yes/No			
IN744102	Yes/No			
IN744103	Yes/No			
IN751101	Yes/No			
IN751102	Yes/No			
IN751103	Yes/No			
IN751104	Yes/No			
IN751105	Yes/No			
IN753101	Yes/No			
IN753102	Yes/No			
IN753103	Yes/No			
IN753104	Yes/No			
IN754105	Yes/No			
IN756101	Yes/No			
IN756102	Yes/No			
IN756103	Yes/No			
IN756104	Yes/No			
IN756105	Yes/No			
IN833101	Yes/No			
IN833102	Yes/No			
IN833103	Yes/No			
IN833104	Yes/No			
IN833105	Yes/No			
IN833106	Yes/No			
IN833107	Yes/No			
IN835001	Yes/No			
IN835101	Yes/No			
IN835301	Yes/No			
IN835302	Yes/No			
IN835303	Yes/No			
IN835304	Yes/No			
IN835305	Yes/No			
IN835306	Yes/No			
IN835307	Yes/No			
IN843101	Yes/No			
IN845101	Yes/No			
IN851101	Yes/No			
IN851102	Yes/No			
IN851103	Yes/No			
IN851104	Yes/No			
IN851105	Yes/No			
IN853101	Yes/No			
IN853102	Yes/No			
IN853103	Yes/No			
IN853104	Yes/No			
IN855105	Yes/No			
IN855109	Yes/No			
IN855110	Yes/No			
IN856101	Yes/No			
IN856102	Yes/No			
IN931101	Yes/No			

(continued)

Table B.4 (continued): Test campaign report

ATS reference	Selected?	Run?	Verdict	Observations (refer to clause B.7)
IN931102	Yes/No			
IN931103	Yes/No			
IN931104	Yes/No			
IN932001	Yes/No			
IN932002	Yes/No			
IN932101	Yes/No			
IN932102	Yes/No			
IN932103	Yes/No			
IN932104	Yes/No			
IN932105	Yes/No			
IN932106	Yes/No			
IN932301	Yes/No			
IN932302	Yes/No			
IN932303	Yes/No			
IN932304	Yes/No			
IN932305	Yes/No			
IN932306	Yes/No			
IN933001	Yes/No			
IN933002	Yes/No			
IN933101	Yes/No			
IN933102	Yes/No			
IN933103	Yes/No			
IN933104	Yes/No			
IN933105	Yes/No			
IN933106	Yes/No			
IN933301	Yes/No			
IN933302	Yes/No			
IN933303	Yes/No			
IN933304	Yes/No			
IN933305	Yes/No			
IN933306	Yes/No			
IN933307	Yes/No			
IN942101	Yes/No			
IN942102	Yes/No			
IN943101	Yes/No			
IN943102	Yes/No			
IN943103	Yes/No			
IN943104	Yes/No			
IN943105	Yes/No			
IN952101	Yes/No			
IN952102	Yes/No			
IN952103	Yes/No			
IN952104	Yes/No			
INA31001	Yes/No			
INA31002	Yes/No			
INA32001	Yes/No			
INA32002	Yes/No			
INA32101	Yes/No			
INA32102	Yes/No			
INA32103	Yes/No			
INA32104	Yes/No			
INA32105	Yes/No			
INA32106	Yes/No			
INA32107	Yes/No			
INA32108	Yes/No			

(continued)

Table B.4 (concluded): Test campaign report

ATS reference	Selected?	Run?	Verdict	Observations (refer to clause B.7)
INA32109	Yes/No			
INA32110	Yes/No			
INA32111	Yes/No			
INA32112	Yes/No			
INA32113	Yes/No			
INA32114	Yes/No			
INA32115	Yes/No			
INA32116	Yes/No			
INA32117	Yes/No			
INA32118	Yes/No			
INA32119	Yes/No			
INA32120	Yes/No			
INA32121	Yes/No			
INA32122	Yes/No			
INA32123	Yes/No			
INA32124	Yes/No			
INA32125	Yes/No			
INA32126	Yes/No			
INA32127	Yes/No			
INA32301	Yes/No			
INA32302	Yes/No			
INA32303	Yes/No			
INA32304	Yes/No			
INA32305	Yes/No			
INA32306	Yes/No			
INA33001	Yes/No			
INA33002	Yes/No			
INA33101	Yes/No			
INA33102	Yes/No			
INA42101	Yes/No			
INA42102	Yes/No			
INA42103	Yes/No			
INA43101	Yes/No			
INA43102	Yes/No			
INA43103	Yes/No			
INA43104	Yes/No			
INA51101	Yes/No			
INA51102	Yes/No			
INA51103	Yes/No			
INA52101	Yes/No			

B.7 Observations

Additional information relevant to the technical content of the PCTR are given here.

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Annex C (normative): Abstract test suite

This ATS has been produced using the Tree and Tabular Combined Notation (TTCN) according to ISO/IEC 9646-3 [6].

The ATS was developed on a separate TTCN software tool and therefore the TTCN tables are not completely referenced in the contents table. The ATS itself contains a Test Suite Overview Part which provides additional information and references.

C.1   The TTCN Graphical form (TTCN.GR)

The TTCN.GR representation of this ATS is contained in a PDF file (3744.PDF contained in archive 3744_E1.LZH) which accompanies this ETS.

C.2   The TTCN Machine Processable form (TTCN.MP)

The TTCN.MP representation corresponding to this ATS is contained in an ASCII file (3744.MP contained in archive 3744_E1.LZH) which accompanies this ETS.

NOTE: According to ISO/IEC 9646-3 [6], in case of a conflict in interpretation of the operational semantics of TTCN.GR and TTCN.MP, the operational semantics of the TTCN.GR representation takes precedence.

History

Document history			
August 1995	Public Enquiry	PE 89:	1995-08-07 to 1995-12-01
September 1997	Vote	V 9748:	1997-09-30 to 1997-11-28
December 1997	First Edition		