ETSI

DRAFT

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EUROPEAN
TELECOMMUNICATION
STANDARD

Integrated Services Digital Network (ISDN);
Signalling System No.7;
Digital cellular telecommunications system (Phase 2);
Application of ISDN User Part (ISUP) version 2 for the
ISDN-Public Land Mobile Network (PLMN) signalling interface;
Part 4: Abstract Test Suite (ATS) and partial Protocol
Implementation eXtra Information for Testing (PIXIT) proforma
specification

ETSI

Contents

Foreword

This draft European Telecommunication Standard (ETS) has been produced by the Signalling Protocols and Switching (SPS) Technical Committee of the European Telecommunications Standards Institute (ETSI), and is now submitted for the Public Enquiry phase of the ETSI standards approval procedure

This ETS is part 4 of a multi-part standard covering the application of Integrated Services Digital Network (ISDN) User Part (ISUP) version 2 for the ISDN-Public Land Mobile Network (PLMN) signalling interface as described below:

Part 1:   "Protocol specification";

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

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

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

Proposed transposition dates	
Date of latest announcement of this ETS (doa):	3 months after ETSI publication
Date of latest publication of new National Standard or endorsement of this ETS (dop/e):	6 months after doa
Date of withdrawal of any conflicting National Standard (dow):	6 months after doa

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1 Scope

This fourth part of ETS 300 646 provides the conformance test specification for the second version of the Integrated Services Digital Network (ISDN) - Global System for Mobile communications (GSM) Public Land Mobile Network (PLMN) signalling interface defined in ETS 300 646-1 [1] in compliance with the relevant requirements and in accordance with the relevant guidance given in ISO/IEC 9646-1 [6].

This ETS contains the abstract test suite (ATS) for ISUP version 2 for the ISDN-PLMN interface, written in Tree and Tabular Combined Notation (TTCN) as specified in ISO/IEC 9646-3 [8]. It is based on ETS 300 646-3 [3] which specifies the Test Suite Structure and Test Purposes (TSS&TP).

This ETS applies only to exchanges having implemented the ISUP version 2 protocol specification. It is applicable for conformance testing of gateways in the fixed network or in the public land mobile network as defined in the ISUP version 2 for the ISDN-PLMN interface specification ETS 300 646-1 [1]. This ETS does not deal with compatibility testing.

The main text part of this ETS presents the requirements regarding the chosen test method and the conventions used within the ATS.

The annexes present the ATS for ISUP version 2 for the ISDN-PLMN interface (available on electronic media), the partial Protocol Implementation eXtra Information for Testing (PIXIT) proforma and the Protocol Conformance Test Report (PCTR) proforma.

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 300 646-1: "Integrated Services Digital Network (ISDN); Signalling System No.7; Digital cellular telecommunication systems (Phase 2); Application of the ISDN User Part (ISUP) version 2 for the ISDN-Public Land Mobile Network (PLMN) signalling interface; Part 1: Protocol specification (GSM 09.12)".

[2]   ETS 300 646-2: "Integrated Services Digital Network (ISDN); Signalling System No.7; Digital cellular telecommunication systems (Phase 2); Application of the ISDN User Part (ISUP) version 2 for the ISDN-Public Land Mobile Network (PLMN) signalling interface; Part 2: Protocol Implementation Conformance Statement (PICS) proforma specification".

[3]   ETS 300 646-3: "Integrated Services Digital Network (ISDN); Signalling System No.7; Digital cellular telecommunication systems (Phase 2); Application of the ISDN User Part (ISUP) version 2 for the ISDN-Public Land Mobile Network (PLMN) signalling interface; Part 3: Test Suite Structure and Test Purposes (TSS&TP) specification".

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

[5]   ETR 141: "Methods for Testing and Specification (MTS); Protocol and profile conformance testing specifications; The Tree and Tabular Combined Notation (TTCN) style guide".

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

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

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

[9]   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".

3   Definitions and abbreviations

3.1   Definitions

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

-       terms defined in ETS 300 646-1 [1];
-       terms defined in ISO/IEC 9646-1 [6] and in ISO/IEC 9646-3 [8].

In particular, the following terms apply:

Abstract Test Case (ATC): A complete and independent specification of the actions required to achieve a specific test purpose, defined at the level of abstraction of a particular Abstract Test Method, starting in a stable testing state and ending in a stable testing state (see ISO/IEC 9646-1 [6], subclause 3.3.3).

Abstract Test Method (ATM): The description of how an IUT is to be tested, given at an appropriate level of abstraction to make the description independent of any particular realization of a Means of Testing, but with enough detail to enable abstract test cases to be specified for this method (see ISO/IEC 9646-1 [6], subclause 3.3.5).

Abstract Test Suite (ATS): A test suite composed of abstract test cases (see ISO/IEC 9646-1 [6], subclause 3.3.6).

Implementation Under Test (IUT): An implementation of one or more OSI protocols in an adjacent user/provider relationship, being part of a real open system which is to be studied by testing (see ISO/IEC 9646-1 [6], subclause 3.3.43).

Means Of Testing (MOT): The combination of equipment and procedures that can perform the derivation, selection, parametrization and execution of test cases, in conformance with a reference standardized ATS, and can produce a conformance log (see ISO/IEC 9646-1 [6], subclause 3.3.54).

Point of Control and Observation (PCO): A point within a testing environment where the occurrence of test events is to be controlled and observed, as defined in an abstract test method (see ISO/IEC 9646-1 [6], subclause 3.3.64).

pre-test condition: A setting or state in the IUT which cannot be achieved by providing stimulus from the test environment.

Protocol Implementation Conformance Statement (PICS): A statement made by the supplier of a protocol claimed to conform to a given specification, stating which capabilities have been implemented (see ISO/IEC 9646-1 [6], subclauses 3.3.39 and 3.3.80).

PICS proforma: A document, in the form of a questionnaire, which when completed for an implementation or system becomes the PICS.

Protocol Implementation eXtra Information for Testing (PIXIT): A statement made by a supplier or implementor of an IUT (protocol) which contains or references all of the information related to the IUT and its testing environment, which will enable the test laboratory to run an appropriate test suite against the IUT (see ISO/IEC 9646-1 [6], subclauses 3.3.41 and 3.3.81).

PIXIT proforma: A document, in the form of a questionnaire, which when completed for the IUT becomes the PIXIT.

System Under Test (SUT): The real open system in which the IUT resides (see ISO/IEC 9646-1 [6], subclause 3.3.103).

user: He access protocol entity at the User side of the user-network interface where a T reference point or coincident S and T reference point applies.

3.2 Abbreviations

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

ASP	Abstract Service Primitive
ATC	Abstract Test Case
ATM	Abstract Test Method
ATS	Abstract Test Suite
CIC	Circuit Identification Code
GMSC	Gateway MSC
GSM	Global System for Mobile communications
IncGateway	Incoming fixed network gateway
IncGMSC	Incoming GMSC
ISDN	Integrated Services Digital Network
ISUP	ISDN User Part
IUT	Implementation Under Test
LT	Lower Tester
MOT	Means Of Testing
MSC	Mobile-service Switching Centre
MS	Mobile Station
MSISDN	Mobile Station ISDN number
MSRN	Mobile Station Roaming Number
MTC	Main Test Component
MTP	Message Transfer Part
NNI	Network-network interface
PCO	Point of Control and Observation
PCTR	Protocol Conformance Test Report
PTC	Parallel Test Component
PDU	Protocol Data Unit
NI	Network Indicator
OutGateway	Outgoing fixed network gateway
OutGMSC	Outgoing GMSC
PICS	Protocol Implementation Conformance Statement
PIXIT	Protocol Implementation eXtra Information for Testing
PLMN	Public Land Mobile Network
SCS	System Conformance Statement
SP	Signalling Point
SPC	Signalling Point Code
SS7	Signalling System No.7
SUT	System Under Test
TCP	Test Co-ordination Procedures
TSS&TP	Test Suite Structure and Test Purposes
TTCN	Tree and Tabular Combined Notation
UNI	User-network interface
UT	Upper Tester
VMSC	Visited MSC

4 Implementation under test and test methods

4.1 Identification of the system and implementation Under Test

The System Under Test (SUT) is a gateway exchange located either in the fixed (ISDN) network or in the Public Land Mobile Network (PLMN). The Implementation Under Test (IUT) is the ISUP version 2 implementation in this gateway exchange, as shown in figure 1.
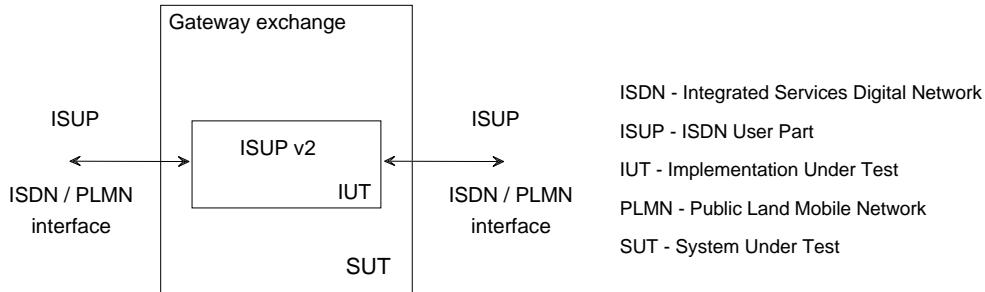
Figure 1: Exchange as SUT

At least one of the shown ISUP signalling interfaces is a ISDN-PLMN signalling interface. The ISUP signalling protocol can be observed on the SS7 link on the Network-Network Interface (NNI). The effects of signalling procedures of ISUP can be observed on the circuits controlled by the ISUP on the NNI.

From ETS 300 646-1 [1], two types of exchanges (or roles) can be identified (see figure 2).
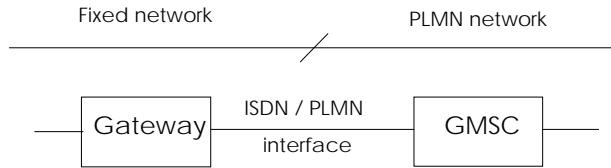
Figure 2: Roles of exchanges

4.2 ATM and testing configuration for ISUP version 2 for the ISDN-PLMN signalling interface

The Abstract Test Method (ATM) chosen for the ISUP version 2 for the ISDN-PLMN signalling interface testing specification is the distributed multi-party test method. The ATM is defined at an appropriate level of abstraction so that the test cases may be specified appropriately, without adding restrictions to the IUT. The testing architecture is described in the following subclauses.

The ATS is written in concurrent TTCN.

4.2.1 Gateway exchanges

The configuration proposed for testing the gateway exchanges is shown in figure 3. In order to test the protocol and functionality of gateway exchanges one needs to consider the incoming and outgoing side of the SUT.
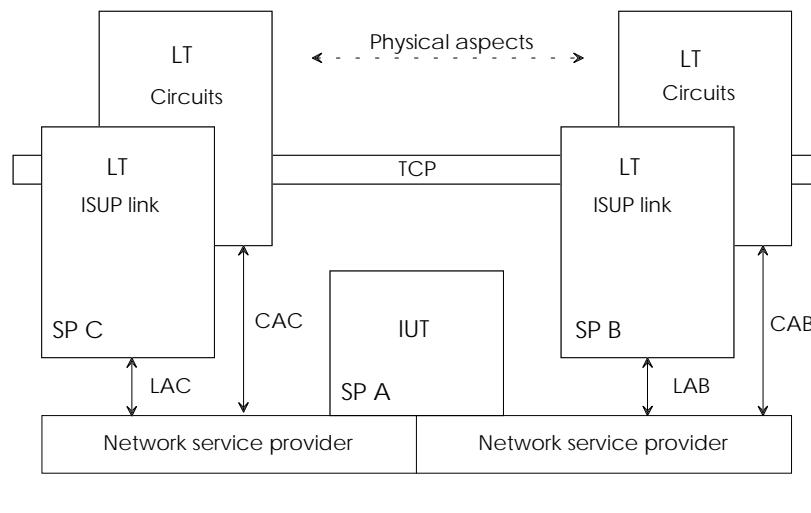
IUT - Implementation Under Test
LT - Lower Tester
PCO - Point of Control and Observation
SP - Signalling Point
TCP - Test Coordination Procedures

LAB - PCO for signalling link AB
CAB - PCO for AB circuits
LAC - PCO for signalling link AC
CAC - PCO for AC circuits

Figure 3: ISUP test method for gateway exchanges

The IUT is observed and controlled from two ISUP links with associated circuits. The Points of Control and Observation (PCO) are labelled LAB and CAB on one side, and LAC and CAC on the other.

The LAB and LAC PCOs are used by the Lower Testers (LT) for controlling the ISUP signalling link, whereas the CAB and CAC PCOs are used by the lower testers for observing circuit related events, such as connectivity, echo control check, alerting tone, etc.

The ISUP PDUs to be sent and observed on the LAB PCO side allow for PDU constraints to be specified and coded down to the bit-level.

> NOTE: The underlying network service provider is the Message Transfer Part (MTP) protocol as specified in ITU-T Recommendations Q.701-Q.707/ETS 300 008.

Figure 4 shows the actual used configuration for gateway exchanges, with a Main Test Component (MTC), responsible for the A-B interface and a slave Parallel Testing Component (PTC), responsible for the C-A interface.

IUT - Implementation Under Test
MTC - Main Test Component
PCO - Point of Control and Observation
PTC - Parallel Test Component
SP - Signalling Point

LAB - PCO for signalling link AB
CAB - Circuit PCO on AB interface
LAC - PCO for signalling link AC
CAC - Circuit PCO on AC interface
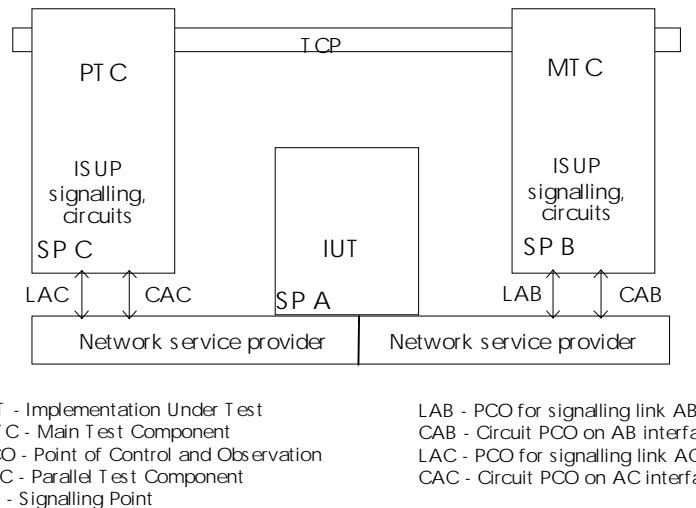
Figure 4: ISUP test configuration for gateway exchanges

For some test cases, when the SUT is a GMSC, but the tested functionality is that of a VMSC, the parallel test component also describes the behaviour on the PLMN access.

The Test Co-ordination Procedures (TCP) allow for communication between the testers. The test components are mostly implicitly co-ordinated (asynchronously); the TCPs are only used when it is necessary to obtain the verdict from the parallel test component.

4.2.2 Master-slave aspects in the test configuration

Figure 4 shows the logical test components of the adopted test configuration. The main test component is located on the right side of the IUT, whereas on the left side there is the parallel test component.

The right side main test component may be international or national ISUP and is configurable so that any two of these may be run, based on the answers given to PIXIT questions.

The left side parallel test component may also be international or national ISUP. At test execution exactly one combination will be chosen, based on the information provided in the PIXIT proforma.

The message flow in the test cases is designed in such a way that the verdict is assigned based on observing the behaviour on the MTC side. The left side will in this case mainly act as a slave stimulus/responder. There are, however, test cases where the expected behaviour of both sides is needed to assign the verdict.

5 Conventions used within the ATS

The abbreviations are consistently used within the ATS written in TTCN and are useful for understanding and/or maintaining the coding detail level.

5.1 Test suite parameters, constants and variables

Most test suite parameters are named using the pattern: TSP_Xxx

Most test suite variables are named using the pattern: TSV_Xxx

All test suite constants are named using the pattern: TSC_Xxx

5.2 Test case variables

Most test case variables are named using the pattern: TCV_Xxx

5.3 ASP constraints

The naming scheme for ASP constraints is: PDU_XY_more_specific

where PDU indicates the PDU type included, XY indicates the direction and more_specific (if any) describes the constraint with abbreviated naming convention.

EXAMPLE: IAM_BA_CgPN (IAM sent from SP B to SP A, with a calling party number included).

5.4 Timers

All timers are named using the pattern: Tname[min or max]

EXAMPLE: TearlyACMmin (waiting before sending early ACM timer).

5.5 Test suite operations

Most names for test suite operations follow the scheme: TSO_TestSuiteOperationName

The TSO functions are specified using the syntax of C programming language or pseudo code.

5.6 Aliases

Aliases are extensively used instead of cumbersome names for ASP primitives (like MTP TRANSFER_IND).

They are named using the scheme:

S_XXX   for the sending of an ISUP message XXX which resolves to the MTP TRANSFER_REQ primitive

R_XXX   for the receipt of an ISUP message XXX which is resolved to the MTP TRANSFER_IND primitive

5.7 Test case and step identifiers

The general naming convention for the test cases is:

IPB_{X}_N   for the basic call; or

IPS_{X}_N   for the supplementary services.

where **X** is either **V** (valid stimulus) or **I** (inopportune stimulus) and **N** is a sequence number.

The general naming convention for the dispatcher test steps is:

BC_N or SS_N

where N is the same sequence number as the test case to which it relates.

Some generic steps with appropriate names, e.g. to complete the call-setup (+S_ACM_etc_BA, +R_ACM_etc_AC) are also used.

5.8 Constraints

The constraints visible on the test case level are all ASP constraints. The ASPs are chained to PDU constraints every time an ISUP message is involved. This allows for a higher level of abstraction on the test case level and hides the information in the ASP constraint part. In order to reduce the number of constraints, a technique where a default constraint is manipulated/modified on the send line is used. This also has the advantage of increasing readability. In the case of access ASPs, no further PDU constraints are defined.

5.9 Dynamic behaviour

The general scheme of running a test case can be described shortly as follows:

Firstly, the control is given to the main test component, which starts executing. This main test component controls and observes the IUT on the AB signalling link.

Secondly after possibly initializing some data the main test component creates the corresponding parallel test component. This component is the slave process and it is located in a separate test step. It is dispatched using a parameter derived from the role of the exchange to be tested. For each test case the concurrent "slave" parallel test component is created.

The main (right) and the parallel (left) test components will then co-operate, most of the time asynchronously driven by the received messages, until the test purpose is achieved and the verdict is set.

The behaviour description is kept on an abstract level, hiding whenever it is possible programming details in the underlying test steps. Test steps are used whenever this saves code without decreasing the readability of the test case.

The comment fields are extensively used. The message sequence chart for the chosen testing configuration is provided at test case level to quickly give an overview of the expected behaviour.

5.10 Pre-test conditions

For each test it is assumed that the circuits are unblocked from both sides and idle. If a particular test case needs special pre-test conditions, these are presented in the description part of the test case.

Annex A (normative):   ATS for ISUP version 2 for the ISDN-PLMN interface

This ATS has been produced using the Tree and Tabular Combined Notation (TTCN) according to ISO/IEC 9646-3 [8].

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.

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

The TTCN.GR representation of this ATS is contained in a Postscript file (PLS.PS**1)**) which accompanies this ETS.

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

The TTCN.MP representation corresponding to this ATS is contained in an ASCII file (PLS.MP**1)**) which accompanies this ETS.

> NOTE: According to ISO/IEC 9646-3 [8], 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.

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1)   This file is located in an archive file named 6464_EP.LZH. Other file formats are available on request.

Annex B (normative): Partial PIXIT proforma for ISUP version 2 for the ISDN-PLMN interface

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 PIXIT.

B.1 Identification summary

PIXIT number:	
Test laboratory name:	
Date of issue:	
Issued to:	

B.2 Abstract test suite summary

Protocol specification:	ETS 300 646-1
ATS specification:	ISUP_v2_ISDN_PLMN
Abstract test method:	Distributed multi-party test method

B.3 Test laboratory

Test laboratory identification:	
Test laboratory manager:	
Test laboratory contact:	
Means of testing:	
Instructions for completion:	

B.4 Client identification

Client identification:	
Client test manager:	
Test facilities required:	

B.5   System Under Test (SUT)

Name:	
Version:	
SCS number:	
Machine configuration:	
Operating system identification:	
IUT identification:	
PICS reference for IUT:	
Limitations of the SUT:	
Environmental conditions:	

B.6   Ancillary protocols

Protocol name	Version number	PICS reference	PIXIT reference	PCTR reference
MTP				
PLMN access				

B.7   Protocol information for ISUP

B.7.1   Protocol identification

Name:	ISDN User Part (ISUP) version 2
Version:	
PICS references:	

NOTE: The PICS reference should reference a completed PICS which is conformant with the PICS proforma contained in ETS 300 646-2.

B.7.2   IUT information - PIXIT proforma tables

The PIXIT information requested in the following tables is needed to provide the necessary information for the execution of the testing campaign. It is assumed that one exchange role is tested at one time. The answers to some PIXIT questions are related to an individual role. A typical example is the nature of address indicator of the called party number value, which is different in the case of international gateways and national exchanges. That is why if several roles are to be tested, one completed copy of the PIXIT proforma for each role is needed.

B.7.2.1 General configuration

Signalling Point Codes (SPCs)

Two signalling point codes (one incoming and one outgoing) need to be defined for the IUT. For an international intermediate exchange the incoming and outgoing point codes are the same, whereas for an international gateway exchange there are two different signalling point codes because they belong to two separate networks (international and national).

Circuit Identification Codes (CICs)

From a formal point of view, in most test cases it is sufficient to use only one CIC per signalling link in order to execute the testing. From a practical point of view the tester could select any CIC within a range of CICs belonging to a route, when initiating a call setup. The tester can, however, use the first CIC in the circuit group, without reducing the generality. The ATS requires the first CIC in the group as an answer to the PIXIT questions 9 and 10 in table B.1.

Table B.1: General configuration

Item	Parameter	Parameter Type	Explanation	Value
1	TSP_SPA_R	BIT_14	SS7 Signalling point code of the SUT on the AB interface (right side)	
2	TSP_SPA_L	BIT_14	SS7 Signalling point code of the SUT on the AC interface (left side)	
3	TSP_SPB	BIT_14	SS7 Signalling point code of the tester on the AB interface	
4	TSP_SPC	BIT_14	SS7 Signalling point code of the tester on the AC interface	
5	TSP_NI_R	BIT_2	SS7 Network indicator on the AB interface	
6	TSP_NI_L	BIT_2	SS7 Network indicator on the AC interface	
7	TSP_SLS_R	BIT_4	SS7 Signalling link selection on the AB interface	
8	TSP_SLS_L	BIT_4	SS7 Signalling link selection on the AC interface	
9	TSP_CIC_R	BIT_12	SS7 Circuit identification code on the AB interface	
10	TSP_CIC_L	BIT_12	SS7 Circuit identification code on the AC interface	
11	TSP_NB_CICS	INTEGER	Number of SS7 circuit identification codes on the AB and AC interfaces	

B.7.2.2   Parameter values

Subscriber numbers

The subscriber numbers have to be specified for each role which is to be tested. All numbers are by default national (significant) numbers, having the nature of address indicator set accordingly.

Table B.2: Subscriber number parameter values

Item	Parameter	Parameter Type	Explanation	Value
1	TSP_Nb_B	HEX_N	Subscriber number located at SP B	
2	TSP_Nb_C	HEX_N	Subscriber number located at SP C	
3	TSP_Nb_B_default	HEX_N	Subscriber number which will be provided as default number by the network for UNI at SP B	
4	TSP_GenNb_B	HEX_N	Additional subscriber number located at SP B	
5	TSP_Nb_C_default	HEX_N	Subscriber number which will be provided as default number by the network for UNI at SP C	
6	TSP_GenNb_C	HEX_N	Additional subscriber number located at SP C	
7	TSP_Nb_A	HEX_N	Subscriber number located at the SUT when the GMSC is the VMSC	
8	TSP_MSRN	HEX_N	Mobile station roaming number	

B.7.2.3   Timer values

Table B.3: Timer values

Item	Parameter	Parameter Type	Explanation	Value
1	TSP_T_WAIT	INTEGER	Wait for some event timer (max 30 s)	
2	TSP_T_GUARD	INTEGER	Guard timer for the test case (min 30 s)	
3	TSP_tol	INTEGER	Tolerance for ISUP timers (in percent)	
4	TSP_TearlyACM	INTEGER	Early ACM timer (5-20 s)	

B.7.2.4   Other information

Table B.4: Other information

Item	Parameter	Parameter Type	Explanation	Value
1	TSP_Orig_ISDN_ access	BIT_1	Use of ISDN access at origination ('1'B) or non-ISDN access ('0'B) in the Forward call indicators	
2	TSP_Orig_ISDN_ access	BIT_1	Use of ISDN access at termination ('1'B) or non-ISDN access ('0'B) in the Backward call indicators	

Annex C (normative): Protocol Conformance Test Report (PCTR) proforma for ISUP version 2 for the ISDN-PLMN signalling interface

C.1 Identification summary

C.1.1 Protocol conformance test report

PCTR number:	
PCTR date:	
Test laboratory identification:	
Test laboratory manager:	
Signature:	

C.1.2 IUT identification

Name:	
Version:	
Protocol specification:	ETS 300 646-1
PICS:	
Previous PCTR (f any)	

C.1.3 Testing environment

PIXIT number:	
ATS specification:	ETS 300 646-4
Abstract test method:	Distributed multi-party test method
Means of testing identification:	
Date of testing:	
Conformance log reference(s):	
Retention date for log reference(s):	

C.1.4 Limits and reservation

Additional information relevant to the technical contents or further use of the test report, or to 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.

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C.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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C.2 IUT conformance status

This IUT has / has not been shown by conformance assessment to be conforming to the referenced 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 C.3) and there are no "FAIL" verdicts to be recorded (in clause C.6) strike the word "has not", otherwise strike the words "has".

C.3 Static conformance summary

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

Strike the appropriate words in this sentence.

C.4 Dynamic conformance summary

The test campaign did / 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 6 of this report) strike the word "did". otherwise strike the words "did not".

Summary of the results of groups of test:

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C.5   Static conformance review report

If clause A.3 indicates non-conformance, this clause itemizes the mismatches between the PICS and the static conformance requirements of the specified protocol specification.

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C.6   Test campaign report

Table C.1: Test campaign report - basic call

ATS reference	Selected? (Y/N)	Run? (Y/N)	Verdict (P/F/I)	Observations (Reference to any observations made in clause C.7)
BC/IPB_V_1				
BC/IPB_V_2				
BC/IPB_V_3				
BC/IPB_V_4				
BC/IPB_V_5				
BC/IPB_V_6				
BC/IPB_V_7				
BC/IPB_V_8				
BC/IPB_V_9				
BC/IPB_V_10				
BC/IPB_V_11				
BC/IPB_V_12				
BC/IPB_V_13				

Table C.2: Test campaign report - supplementary services

ATS reference	Selected? (Y/N)	Run? (Y/N)	Verdict (P/F/I)	Observations (Reference to any observations made in clause C.7)
SS/IPS_V_1				
SS/IPS_V_2				
SS/IPS_V_3				
SS/IPS_V_4				
SS/IPS_V_5				
SS/IPS_V_6_a				
SS/IPS_V_6_b				
SS/IPS_V_7				
SS/IPS_V_8				
SS/IPS_V_9				
SS/IPS_V_10_a				
SS/IPS_V_10_b				
SS/IPS_V_11_a				
SS/IPS_V_11_b				

C.7   Observations

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

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History

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