

**Integrated Services Digital Network (ISDN);
Advice of Charge (AOC) supplementary service;
Digital Subscriber Signalling System No. one (DSS1) protocol;
Part 6: Abstract Test Suite (ATS) and partial Protocol
Implementation eXtra Information for Testing (PIXIT)
proforma specification for the network**



Reference

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Foreword

This European Standard (Telecommunications series) has been produced by ETSI Technical Committee Services and Protocols for Advanced Networks (SPAN), and is now submitted for the ETSI standards One-step Approval Procedure.

The present document is part 6 of a multi-part deliverable covering the Digital Subscriber Signalling System No. one (DSS1) protocol specification for the Integrated Services Digital Network (ISDN) Advice of Charge (AOC) supplementary service, as identified 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 the user";
- Part 4: "Abstract Test Suite (ATS) and partial Protocol Implementation eXtra Information for Testing (PIXIT) proforma specification for the user";
- Part 5: "Test Suite Structure and Test Purposes (TSS&TP) specification for the network";
- Part 6: "Abstract Test Suite (ATS) and partial Protocol Implementation eXtra Information for Testing (PIXIT) proforma specification for the network".**

The present version updates the ATS to be aligned with V1.3.6 of the protocol specification.

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

1 Scope

The present document specifies the Abstract Test Suite (ATS) and partial Protocol Implementation eXtra Information for Testing (PIXIT) proforma for the Network side of the T reference point or coincident S and T reference point (as defined in ITU-T Recommendation I.411 [10]) of implementations conforming to the stage three standard for the Advice of Charge (AOC) supplementary service for the pan-European Integrated Services Digital Network (ISDN) by means of the Digital Subscriber Signalling System No. one (DSS1) protocol, EN 300 182-1 [1].

EN 300 182-5 [3] specifies the Test Suite Structure and Test Purposes (TSS&TP) related to the present document. Other parts specify the TSS&TP and the ATS and partial PIXIT proforma for the User side of the T reference point or coincident S and T reference point of implementations conforming to EN 300 182-1 [1].

2 References

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

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

- [1] ETSI EN 300 182-1 (V1.3.6): "Integrated Services Digital Network (ISDN); Advice of Charge (AOC) supplementary service; Digital Subscriber Signalling System No. one (DSS1) protocol; Part 1: Protocol specification".
- [2] ETSI EN 300 182-2 (V1.3.4): "Integrated Services Digital Network (ISDN); Advice of Charge (AOC) supplementary service; Digital Subscriber Signalling System No. one (DSS1) protocol; Part 2: Protocol Implementation Conformance Statement (PICS) proforma specification".
- [3] ETSI EN 300 182-5 (V1.2.2): "Integrated Services Digital Network (ISDN); Advice of Charge (AOC) supplementary service; Digital Subscriber Signalling System No. one (DSS1) protocol; Part 5: Test Suite Structure and Test Purposes (TSS&TP) specification for the network".
- [4] ETSI EN 300 196-1 (V1.2.2): "Integrated Services Digital Network (ISDN); Generic functional protocol for the support of supplementary services; Digital Subscriber Signalling System No. one (DSS1) protocol; Part 1: Protocol specification".
- [5] ISO/IEC 9646-1 (1994): "Information technology - Open Systems Interconnection - Conformance testing methodology and framework - Part 1: General concepts".
- [6] ISO/IEC 9646-2 (1994): "Information technology - Open Systems Interconnection - Conformance testing methodology and framework - Part 2: Abstract Test Suite Specification".
- [7] ISO/IEC 9646-3 (1998): "Information technology - Open Systems Interconnection - Conformance testing methodology and framework - Part 3: The Tree and Tabular Combined Notation (TTCN)".
- [8] ISO/IEC 9646-4 (1994): "Information technology - Open Systems Interconnection - Conformance testing methodology and framework; Part 4: Test realization".
- [9] ISO/IEC 9646-5 (1994): "Information technology - Open Systems Interconnection - Conformance testing methodology and framework; Part 5: Requirements on test laboratories and clients for the conformance assessment process".
- [10] ITU-T Recommendation I.411 (1993): "ISDN user-network interfaces - reference configurations".
- [11] ITU-T Recommendation X.209 (1988): "Specification of basic encoding rules for Abstract Syntax Notation One (ASN.1)".

- [12] ETSI EN 300 403-3 (V1.3.1): "Integrated Services Digital Network (ISDN); Digital Subscriber Signalling System No. one (DSS1) protocol; Signalling network layer for circuit-mode basic call control; Part 3: Protocol Implementation Conformance Statement (PICS) proforma specification".

3 Definitions and abbreviations

3.1 Definitions

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

Abstract Test Suite (ATS): see ISO/IEC 9646-1 [5]

Implementation Under Test (IUT): see ISO/IEC 9646-1 [5]

Lower Tester (LT): see ISO/IEC 9646-1 [5]

Point of Control and Observation (PCO): see ISO/IEC 9646-1 [5]

Protocol Implementation Conformance Statement (PICS): see ISO/IEC 9646-1 [5]

PICS proforma: see ISO/IEC 9646-1 [5]

Protocol Implementation eXtra Information for Testing (PIXIT): see ISO/IEC 9646-1 [5]

PIXIT proforma: see ISO/IEC 9646-1 [5]

System Under Test (SUT): see ISO/IEC 9646-1 [5]

Upper Tester (UT): see ISO/IEC 9646-1 [5]

3.2 Abbreviations

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

AOC	Advice of Charge
ASN.1	Abstract Syntax Notation One
ASP	Abstract Service Primitive
ATM	Abstract Test Method
ATS	Abstract Test Suite
BER	Basic Encoding Rules
CM	Co-ordination Message
CP	Co-ordination Point
DSS1	Digital Subscriber Signalling System No. one
ExTS	Executable Test Suite
FIE	Facility Information Element
ISDN	Integrated Services Digital Network
IUT	Implementation Under Test
LT	Lower Tester
MOT	Means Of Testing
MTC	Main Test Component
PCO	Point of Control and Observation
PCTR	Protocol Conformance Test Report
PDU	Protocol Data Unit
PICS	Protocol Implementation Conformance Statement
PIXIT	Protocol Implementation eXtra Information for Testing
PTC	Parallel Test Component
SUT	System Under Test
TP	Test Purpose

TSS	Test Suite Structure
TTCN	Tree and Tabular Combined Notation
UT	Upper Tester

4 Abstract Test Method (ATM)

4.1 Description of ATM used

The requirement for testing the network IUT is to focus on the behaviour of the network IUT at the user-network interface where a T reference point or coincident S and T reference point applies. Thus the IUT is the network DSS1 protocol entity at a particular user-network interface and is not the whole network.

In practice the behaviour at a single user-network interface does not occur in isolation, but depends on the activity at other user-network interfaces. Therefore a multi-party test method is used.

The general configuration used is shown in figure 1. In this ATS the PTCs act as slaves to the MTC; all active behaviour at the PTCs is initiated by CMs sent by the MTC and all verdicts are assigned by the MTC (using information sent in CMs by the PTCs where appropriate). Not all components are used in every test case.

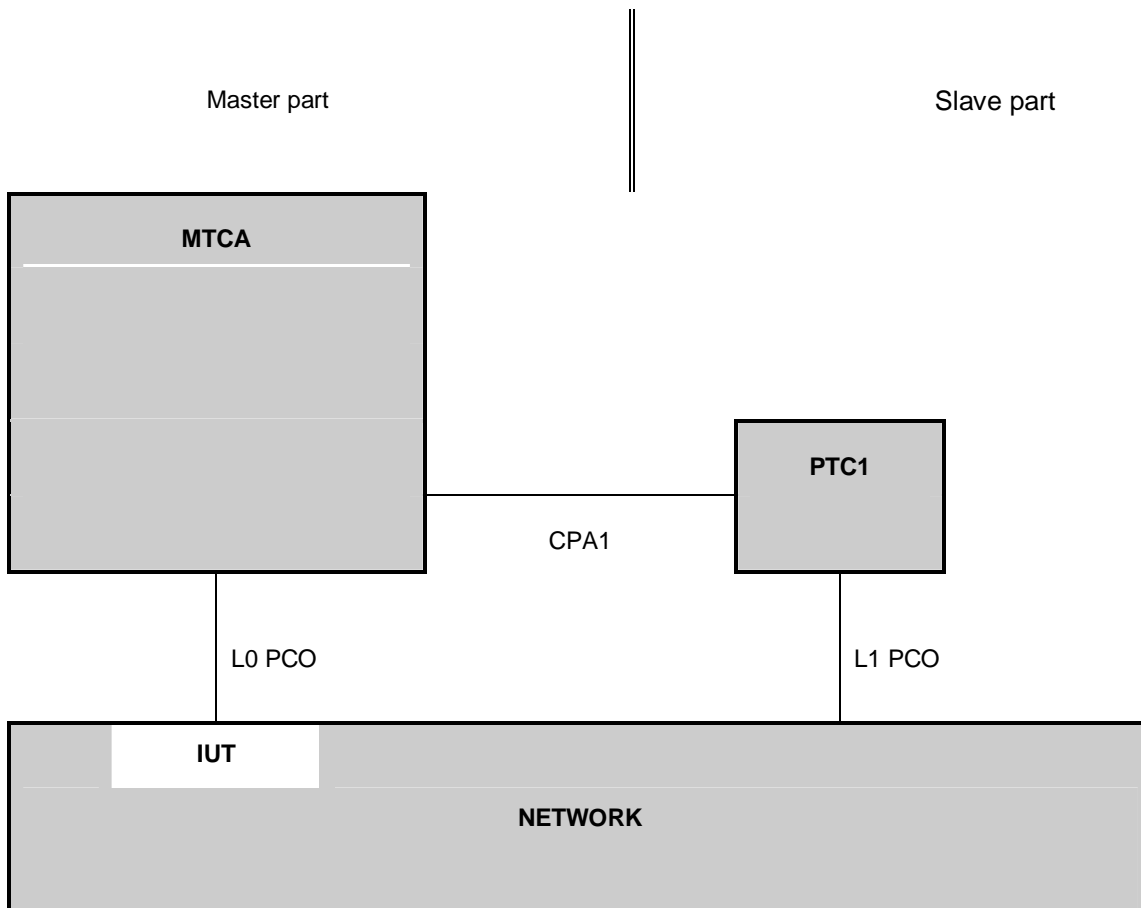


Figure 1: Multi-party test method

4.2 Served user test cases excluding "Independent of bearer" group

For these test cases the IUT is connected to the MTC. Depending on the test case zero or one PTC is used. The verdict depends only on the behaviour observed at the PCO between the IUT and the MTC. The PTC is used only to provoke the IUT to send messages to the MTC or to handle behaviour at the remote user interface as a result of activity at the IUT interface.

In general the correlation of messages between the served and remote user interfaces (which is part of the functionality of the supplementary service rather than the protocol) is not tested. If a message is expected at the MTC as a result of an action at a remote user and is not received this usually leads to an inconclusive verdict.

NOTE: The same test component configuration, including one PTC, is used for all these test cases. For test cases requiring no PTC the PTC is never created. This is to facilitate re-use of test steps.

4.3 Served user test cases - "Independent of bearer" group

For these test cases the IUT is connected to the MTC and no PTC is used. Implicit sends are used to specify behaviour that should be provoked by action at other network interfaces. As this involves other (unspecified) supplementary services the required action at other interfaces cannot be specified in the ATS.

5 Untestable test purposes

There are no untestable test cases associated with this ATS and ATM.

6 ATS conventions

6.1 Version of TTCN used

The version of TTCN used is that defined in ISO/IEC 9646-3 [7].

6.2 Use of ASN.1

6.2.1 Situations where ASN.1 is used

ASN.1 has been used for three major reasons. First, types defined in ASN.1 can model problems that "pure" TTCN cannot. For instance, data structures modelling ordered or unordered sequences of data are preferably defined in ASN.1. Second, ASN.1 provides a better restriction mechanism for type definitions by using sub-type definitions. Third, it is necessary to use ASN.1 to reproduce the type definitions for remote operation components as specified in the base standards.

The possibility to use TTCN and ASN.1 in combination is used, i.e. referring to an ASN.1 type from a TTCN type.

6.2.2 Specification of encoding rules

There is a variation in the encoding rules applied to ASN.1 types and constraints specified in this ATS and therefore a mechanism is needed to differentiate the encoding rules. However the mechanism specified in ISO/IEC 9646-3 [7] does not facilitate definition of the encoding rules as needed for this ATS. A solution is therefore used which is broadly in the spirit of ISO/IEC 9646-3 [7] in which comment fields have been used as a means of encoding rules.

For ASN.1 used in this ATS, two variations of encoding rules are used. One is the commonly known Basic Encoding Rules (BER) as specified in ITU-T Recommendation X.209 [11]. In the second case the encoding is according to ISDN, i.e. the ASN.1 data types are a representation of structures contained within the ISDN specification (basic call, Generic functional protocol or individual supplementary service). For example, if octets of an information element are specified in ASN.1 as a SEQUENCE then this should be encoded in an Executable Test Suite (ExTS) as any other ISDN information element specified using tabular TTCN. This ISDN encoding variation is the default encoding rule for this ATS. This means that all ASN.1 constraint tables are encoded using ISDN (non-BER) encoding unless stated otherwise. BER encoding should never be applied to an ASN.1 constraint where BER encoding has not been specified.

For BER encoding, an indication is given in the comments field of the table header. For this ATS such indications appear in the ASN.1 type constraint declaration tables only. In the first line of the table header comment field, the notation "ASN1_Encoding: BER" is used.

Note that within BER, there are a number of variations for the encoding of lengths of fields. According to EN 300 196-1 [4], an IUT should be able to interpret all length forms within BER for received PDUs. When sending PDUs containing BER encoding, EN 300 196-1 [4] gives guidelines but makes no restrictions on the length forms within BER which an IUT may apply.

In this particular ATS all ASN.1 type constraints which are of type "Component" are to be encoded using BER.

Table 1: ASN.1 type constraint declaration showing use of encoding variation

ASN.1 Type Constraint Declaration	
Constraint Name :	Beg3PTYinv
ASN.1 Type :	Component
Derivation Path :	
Comments :	ASN1_Encoding: BER Receive component: Begin3PTY invoke component
Description	
begin3PTY_Components begin3PTY_InvokeComp { invokeID ? , operation_value localValue 4}	
Detailed comments :	

6.3 Conventions for variables and parameters

Table 2

MTCA	
call reference	CREF1
B channel (basic)	bch_num1
channel nr (primary)	CH_NUM1
PCO L0	IPN0, LIPN0
	(to PTC1)
PTC1	
call reference	P1CREF
B channel (basic)	P1_bch_num
channel nr (primary)	P1_CH_NUM
PCO L1	IPN1, LIPN1

7 ATS to TP map

The identifiers used for the TPs are reused as test case names. Thus there is a straightforward one-to-one mapping.

8 PCTR conformance

A test laboratory, when requested by a client to produce a PCTR, is required, as specified in ISO/IEC 9646-5 [9], to produce a PCTR conformant with the PCTR template given in annex B of ISO/IEC 9646-5 [9].

Furthermore, a test laboratory, offering testing for the ATS specification contained in annex C, when requested by a client to produce a PCTR, is required to produce a PCTR conformant with the PCTR proforma contained in annex A of the present document.

A PCTR which conforms to this PCTR proforma specification shall preserve the content and ordering of the clauses contained in annex A. Clause A.6 of the PCTR may contain additional columns. If included, these shall be placed to the right of the existing columns. Text in italics may be retained by the test laboratory.

9 PIXIT conformance

A test realizer, producing an executable test suite for the ATS specification contained in annex C, is required, as specified in ISO/IEC 9646-4 [8], to produce an augmented partial PIXIT proforma conformant with this partial PIXIT proforma specification.

An augmented partial PIXIT proforma which conforms to this partial PIXIT proforma specification shall, as a minimum, have contents which are technically equivalent to annex B. The augmented partial PIXIT proforma may contain additional questions that need to be answered in order to prepare the Means Of Testing (MOT) for a particular IUT.

A test laboratory, offering testing for the ATS specification contained in annex C, is required, as specified in ISO/IEC 9646-5 [9], to further augment the augmented partial PIXIT proforma to produce a PIXIT proforma conformant with this partial PIXIT proforma specification.

A PIXIT proforma which conforms to this partial PIXIT proforma specification shall, as a minimum, have contents which are technically equivalent to annex B. The PIXIT proforma may contain additional questions that need to be answered in order to prepare the test laboratory for a particular IUT.

10 ATS conformance

The test realizer, producing MOT and ExTS for this ATS specification, shall comply with the requirements of ISO/IEC 9646-4 [8]. In particular, these concern the realization of an ExTS based on each ATS. The test realizer shall provide a statement of conformance of the MOT to this ATS specification.

An ExTS which conforms to this ATS specification shall contain test groups and test cases which are technically equivalent to those contained in the ATS in annex C. All sequences of test events comprising an abstract test case shall be capable of being realized in the executable test case. Any further checking which the test system might be capable of performing is outside the scope of the present document and shall not contribute to the verdict assignment for each test case.

Test laboratories running conformance test services using this ATS shall comply with ISO/IEC 9646-5 [9].

A test laboratory which claims to conform to this ATS specification shall use an MOT which conforms to this ATS.

11 Configurations required in testing

For some test cases it is necessary to configure the SUT in specific ways, this is described in table 3 below. In this table L0 refers to the network interfaces connected to PCO L0.

NOTE 1: For test cases selected only when the availability of charging information is controllable both a condition from the first part of the table (subscription status) and from the second part of the table (availability of charging information) apply. For other test cases only a condition from the first part of the table (subscription status), if any, is applicable.

NOTE 2: The Test Suite Parameter PX_PerCall should be set to indicate which subscription option is selected for each test case. To select all applicable test cases it can be necessary to use both values of this parameter.

Table 3: SUT configurations for specific test cases

Test cases	Special configuration	PIXIT reference
AOC_N01_001-3 AOC_N03_001-3 AOC_N07_044-51	AOC-S subscribed on a per call basis at L0	3.1
AOC_N01_004-6 AOC_N03_004-6, 010	AOC-D subscribed on a per call basis at L0	3.2
AOC_N01_007-9 AOC_N03_007-9, 011	AOC-E subscribed on a per call basis at L0	3.3
AOC_N02_001-3 AOC_N07_001-3, 010-2, 019 022, 025-7	AOC-S subscribed for all calls at L0	3.4
AOC_N06_001-3	AOC-S subscribed with either option at L0	3.1, 3.4
AOC_N06_004-6 AOC_N07_004-6, 013-5, 020 023, 028-30, 034-5, 038, 040, 042	AOC-D subscribed with either option at L0	3.2, 3.5
AOC_N04_001-4 AOC_N05_001-3 AOC_N07_007-9, 016-8, 021 024, 031-33, 036-7, 039, 041, 043	AOC-E subscribed with either option at L0	3.3, 3.6
AOC_N01_001, 004, 007 AOC_N02_001, AOC_N03_001, 004, 007 AOC_N04_001 AOC_N06_001, 004 AOC_N07_001, 004, 007, 010 013, 016, 025, 028, 031, 034-7, 044, 047, 052	Charging information available	3.7
AOC_N01_002, 005, 008 AOC_N02_002 AOC_N03_002, 005, 008, 010 011 AOC_N06_002, 005 AOC_N07_003, 012, 027	Charging information not available	3.8
AOC_N04_002 AOC_N07_006, 009, 015, 018 030,033,	Charging information is not available or incomplete and based on currency units or only one type of charging unit	3.9
AOC_N04_003 AOC_N07_038-43, 046, 049, 054	Charging information is incomplete and based on more than one type of charging unit	3.10

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

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--

A.1 Identification summary

A.1.1 Protocol conformance test report

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

A.1.2 IUT identification

Name:	
Version:	
Protocol specification:	EN 300 182-1
PICS:	
Previous PCTRs (if any):	

A.1.3 Testing environment

PIXIT Reference number:	
ATS Specification:	EN 300 182-6
Abstract Test Method:	Multi-party test method (see ISO/IEC 9646-2)
Means of Testing identification:	
Dates of testing:	
Conformance log reference(s):	
Retention date for log reference(s):	

A.1.4 Limits and reservations

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.

.....

.....

.....

.....

A.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.

.....

.....

.....

.....

A.2 IUT conformance status

This IUT has / 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 A.3 of this report) and there are no "FAIL" verdicts to be recorded (in clause A.6) strike the word "has", otherwise strike the words "has not".

A.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.

A.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 A.6 of this report) strike the word "did", otherwise strike the words "did not".

Summary of the results of groups of tests:

.....
.....
.....
.....

A.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.

.....
.....
.....
.....
.....
.....
.....

A.6 Test campaign report

ATS reference	Selected? (Y/N)	Run? (Y/N)	Verdict	Observations
AOC_N01_001				
AOC_N01_002				
AOC_N01_003				
AOC_N01_004				
AOC_N01_005				
AOC_N01_006				
AOC_N01_007				
AOC_N01_008				
AOC_N01_009				
AOC_N02_001				
AOC_N02_002				
AOC_N02_003				
AOC_N03_001				
AOC_N03_002				
AOC_N03_003				
AOC_N03_004				
AOC_N03_005				
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AOC_N03_007				
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AOC_N03_009				
AOC_N03_010				
AOC_N03_011				
AOC_N04_001				
AOC_N04_002				
AOC_N04_003				
AOC_N04_004				
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AOC_N07_013				
AOC_N07_014				
AOC_N07_015				
AOC_N07_016				
AOC_N07_017				
AOC_N07_018				
AOC_N07_019				
AOC_N07_020				
AOC_N07_021				
AOC_N07_022				
AOC_N07_023				

ATS reference	Selected? (Y/N)	Run? (Y/N)	Verdict	Observations
AOC_N07_024				
AOC_N07_025				
AOC_N07_026				
AOC_N07_027				
AOC_N07_028				
AOC_N07_029				
AOC_N07_030				
AOC_N07_031				
AOC_N07_032				
AOC_N07_033				
AOC_N07_034				
AOC_N07_035				
AOC_N07_036				
AOC_N07_037				
AOC_N07_038				
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AOC_N07_040				
AOC_N07_041				
AOC_N07_042				
AOC_N07_043				
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AOC_N07_050				
AOC_N07_051				
AOC_N07_052				
AOC_N07_053				
AOC_N07_054				
AOC_N08_001				
AOC_N09_001				
AOC_N09_002				
AOC_N09_003				
AOC_N09_004				
AOC_N09_005				
AOC_N09_006				
AOC_N09_007				

A.7 Observations

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

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Annex B (normative): Partial PIXIT proforma

Notwithstanding the provisions of the copyright clause related to the text of the present document, ETSI grants that users of the present document may freely reproduce the 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: EN 300 182-1

ATS specification: EN 300 182-6

Abstract test method: Multi-party test method (see ISO/IEC 9646-2)

B.3 Test laboratory

Test laboratory identification:

.....

Accreditation status of the test service:

.....

Accreditation reference:

.....

Test laboratory manager:

.....

Test laboratory contact:

.....

Means of testing:

.....

Test laboratory instructions for completion:

.....

B.4 Client (of the test laboratory)

Client identification:

.....

Client test manager:

.....

Client contact:

.....

Test facilities required:

.....

B.5 System Under Test (SUT)

Name:

.....

Version:

.....

SCS reference:

.....

Machine configuration:

.....

Operating system identification:

.....

IUT identification:

.....

PICS (all layers):

.....

.....

Limitations of the SUT:

.....

Environmental conditions:

.....

B.6 Protocol information

B.6.1 Protocol identification

Specification reference: EN 300 182-1

Protocol version:

PICS reference:

NOTE: The PICS reference should reference a completed PICS which is conformant with the PICS proforma contained in EN 300 182-2.

B.6.2 Parameter values

Table B.1: Parameter values

Item	Question	Supported? (Y/N)	Allowed values	Value
1.1	Does the IUT support Basic Access?		N/A	N/A
1.2	What length of Call Reference is used?		1, 2	
1.3	Is it possible to control the availability of charging information?		N/A	N/A
1.4	Does the IUT allow the release and re-establishment of the layer 2 multiple frame established operation at the start of each test case? (note)		N/A	N/A
1.5	Does the IUT send RESTART after re-establishment of multiple frame operation?		N/A	N/A
NOTE: This procedure is used to re-initialize all layer 2 counters before starting a test case. The value of this PIXIT item can be set to "No" for accesses where the layer 2 multiple frame established operation release and re-establishment may cause problems.				

B.6.3 Actions required to stimulate IUT

Table B.2: Actions required to stimulate IUT

Item	Action: What actions, if possible, have to be taken to cause the IUT to ...	Supported? (Y/N)	Stimulus (action taken)
2.1	invoke a supplementary service or take other action to cause a charge to be incurred independent of a bearer (see clause 8.2.4.1 of EN 300 182-1)?		

B.6.4 Configuration of IUT

Table B.3: Actions required to configure the IUT

Item	Action: What actions, if possible, have to be taken to configure the IUT ...	Supported? (Y/N)	Stimulus (action taken)
3.1	for AOC-S subscribed on a per call basis		
3.2	for AOC-D subscribed on a per call basis		
3.3	for AOC-E subscribed on a per call basis		
3.4	for AOC-S subscribed for all calls		
3.5	for AOC-D subscribed for all calls		
3.6	for AOC-E subscribed for all calls		
3.7	so that charging information is available		
3.8	so that charging information is NOT available		
3.9	so that charging information is not available or incomplete and based on currency units or only one type of charging unit		
3.10	so that charging information is incomplete and based on more than one type of charging unit		

B.6.5 Timer values

Table B.4: Timer values

Item	Timer: Give a value for the timer that is used to ...	Value (in seconds)
4.1	wait for the test operator to perform an implicit send action or to wait for a PTC to react (TWAIT)	
4.2	wait for the IUT to respond to a stimulus sent by the tester (TAC)	
4.3	control that the IUT does not respond to a stimulus sent by the tester (TNOAC)	
4.4	wait for a RESTART message sent by the IUT (T_RESTART)	
NOTE:	The IUT provider may fill in a value range rather than a fixed value for the test management timers. During test execution the test laboratory will choose specific values for the timers dependant on the means of testing used. These specific values may be beyond the range given by the IUT provider, if this is necessary for achieving satisfactory test results.	

B.7 Basic call PIXIT items

B.7.1 Parameter values - information element codings

Table B.5: Codings of information elements

Item	Information element: provide, if possible, ...	Supported? (Y/N)	Value
N1.1	a coding of a Bearer Capability information element, which the IUT is compatible with, for the purpose of accepting received SETUP messages and which may be used in SETUP messages to be transmitted		
N1.2	a coding of a High layer compatibility information element, which the IUT is compatible with, for the purpose of accepting received SETUP messages and which may be used in SETUP messages to be transmitted		
N1.3	a coding of a Low layer compatibility information element, which the IUT is compatible with, for the purpose of accepting received SETUP messages and which may be used in SETUP messages to be transmitted		
N1.4	a Called party number information element, which the IUT is compatible with, for ...		
N1.4.1	served user access		
N1.4.2	first remote user access		
N1.5	preferred channel number to be used for the purpose of accepting received SETUP messages, for ... (see note)		
N1.5.1	single call at served user side		
N1.5.2	void		
N1.5.3	first call at remote user side		
NOTE: Items N1.5.1 to N1.5.3 are applicable for primary rate access only.			

Annex C (normative): Abstract Test Suite (ATS)

This ATS has been produced using the Tree and Tabular Combined Notation (TTCN) according to ISO/IEC 9646-3 [7].

The ATS was developed on a separate TTCN software tool and therefore the TTCN tables are not completely referenced in the table contents. 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 an Adobe Portable Document Format™ file (AOC_N_v100.PDF contained in archive en_30018206v010401o0.ZIP) which accompanies the present document.

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

The TTCN.MP representation corresponding to this ATS is contained in an ASCII file (AOC_N_v100.MP contained in archive en_30018206v010401o0.ZIP) which accompanies the present document.

NOTE 1: Where an ETSI Abstract Test Suite (in TTCN) is published in both .GR and .MP format these two forms shall be considered equivalent. In the event that there appears to be syntactical or semantic differences between the two then the problem shall be resolved and the erroneous format (whichever it is) shall be corrected.

NOTE 2: The TTCN ATS contains references to EN 300 182-1[1], EN 300 182-2 [2] and EN 300 403-3 [12].

Annex D (informative): Changes with respect to the previous EN 300 182-6 V1.3.4

The following changes have been done:

- updating of ATS for alignment with EN 300 182-1 [1] and EN 300 182-5 [3] and corresponding changes to PCTR and PIXIT;
- revision including removal of superfluous and out of date material from clauses 4 and 6 and old appendix D;
- addition of information on configuration of the SUT needed for testing.

History

Document history		
Edition 1	September 1996	Publication as ETS 300 182-6
V1.2.4	June 1998	Publication
V1.3.4	November 1999	Publication
V1.4.1	January 2001	One-step Approval Procedure OAP 20010601: 2001-01-31 to 2001-06-01