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European Standard (Telecommunications series)

Integrated Services Digital Network (ISDN); Diversion supplementary services; 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

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ETSI

650 Route des Lucioles
F-06921 Sophia Antipolis Cedex - FRANCE

Tel.: +33 4 92 94 42 00   Fax: +33 4 93 65 47 16

Siret N° 348 623 562 00017 - NAF 742 C
Association à but non lucratif enregistrée à la
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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 Integrated Services Digital Network (ISDN); Diversion supplementary services; Digital Subscriber Signalling System No. one (DSS1) protocol, 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 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".

Proposed national transposition dates	
Date of latest announcement of this EN (doa):	3 months after ETSI publication
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 Suites (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 of implementations conforming to the stage three standard for the diversion supplementary services for the pan-European Integrated Services Digital Network (ISDN) by means of the Digital Subscriber Signalling System No. one (DSS1) protocol, EN 300 207-1 [1].

EN 300 207-5 [3] specifies the Test Suite Structure and Test Purposes (TSS&TP) related to this ATS and partial PIXIT proforma specification. 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 300 207-1 [1].

The present document contains two ATSs for different parts of the protocol; one (CDIV) for Call Forwarding Busy, Call Forwarding Unconditional, Call Forwarding No Response and Call Deflection and the other (SCF) for Selective Call Forwarding Busy, Selective Call Forwarding Unconditional and Selective Call Forwarding No Response. Common parts of the protocol are covered by the CDIV ATS.

2 References

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

- References are either specific (identified by date of publication and/or edition number or version number) or non-specific.

- For a specific reference, subsequent revisions do not apply.

- For a non-specific reference, the latest version applies.

[1]   ETSI EN 300 207-1: "Integrated Services Digital Network (ISDN); Diversion supplementary services; Digital Subscriber Signalling System No. one (DSS1) protocol; Part 1: Protocol specification".

[2]   ETSI EN 300 207-2: "Integrated Services Digital Network (ISDN); Diversion supplementary services; Digital Subscriber Signalling System No. one (DSS1) protocol; Part 2: Protocol Implementation Conformance Statement (PICS) proforma specification".

[3]   ETSI EN 300 207-5: "Integrated Services Digital Network (ISDN); Diversion supplementary services; 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: "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".

NOTE: EN 300 207-1 [1] has an undated reference to EN 300 196-1 [4]. Some ASN.1 definitions from EN 300 196-1 [4] are referenced by EN 300 207-1 and are reproduced in the TTCN ATSs in the present document. The versions of these definitions used in the present document are based on those in EN 300 196-1 . There is a technical change in the definition of PartyNumber in EN 300 196-1 which has no impact on the present document.

[5]   ETSI EN 300 403-1: "Integrated Services Digital Network (ISDN); Digital Subscriber Signalling System No. one (DSS1) protocol; Signalling network layer for circuit-mode basic call control; Part 1: Protocol specification [ITU-T Recommendation Q.931 (1993), modified]".

[6]   ETSI EN 300 403-3: "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".

[7]   ETSI EN 300 097-1: "Integrated Services Digital Network (ISDN); Connected Line Identification Presentation (COLP) supplementary service; Digital Subscriber Signalling System No. one (DSS1) protocol; Part 1: Protocol specification".

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

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

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

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

[12]   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".

[13]   ISO/IEC 8825-1: "Information technology - ASN.1 encoding rules: Specification of Basic Encoding Rules (BER), Canonical Encoding Rules (CER) and Distinguished Encoding Rules (DER)" (See also ITU-T Recommendation X.690: (1994)).

3   Definitions and abbreviations

3.1   Definitions

For the purposes of the present document, the terms and definitions given in ISO/IEC 9646-1 [8] apply.

3.2   Abbreviations

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

ATS	Abstract Test Suite
BER	Basic Encoding Rules
CD	Call Diversion
CDIV	Call DIVersion (this is used to refer collectively to the CD, CFB, CFNR and CFU services)
CFB	Call Forward Busy
CFNR	Call Forward No Reply
CFU	Call Forward Unconditional
ETS	Executable Test Suite
IUT	Implementation Under Test
LT	Lower Tester
MOT	Means Of Testing
MTC	Main Test Component
PCO	Point of Control and Observation
PICS	Protocol Implementation Conformance Statement
PIXIT	Protocol Implementation eXtra Information for Testing
PTC	Parallel Test Component
SCF	Selective Call Forwarding
NOTE:	This is used to refer collectively to the SCFB, SCFNR and SCFU services.
SCFB	Selective Call Forwarding Busy
SCFNR	Selective Call Forwarding No Reply
SCFU	Selective Call Forwarding Unconditional
SUT	System Under Test
TP	Test Purpose
TTCN	Tree and Tabular Combined Notation

4   Abstract Test Method

4.1   CDIV network side ATS

The multi-party test method is applied for the CDIV network side ATS.

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. Not all components are used in every test case.
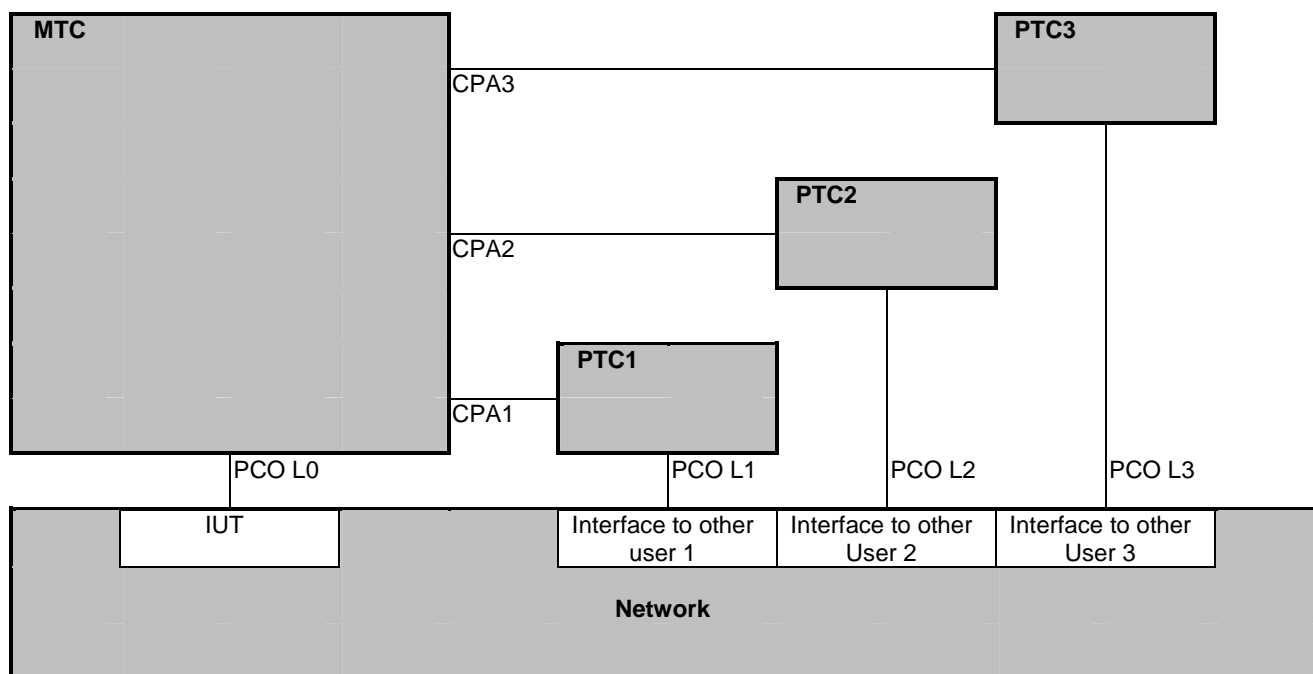
Figure 1: Multi-party test method

For each test case the interface to which the MTC connected is the IUT, which may be the interface of the calling user, served user or diverted-to user depending on the test group. PTCs are connected to any other interfaces where activity is necessary. The association between the network interfaces and PTCs that is typically used is described in table 1.

Table 1: Association of test components with interfaces

	Calling user	(First) served user	Second served user	Diverted-to user
Calling user tests - one diversion	MTC	PTC1		PTC2
Calling user tests - two diversions	MTC	PTC1	PTC2	PTC3
Served user tests - activation, deactivation and interrogation		MTC		
Served user tests - one diversion	PTC1	MTC		PTC2 (see note)
Served user tests - two diversions	PTC1	PTC2	MTC	PTC3
Called user tests - one diversion	PTC1	PTC2		MTC
Called user tests - two diversions	PTC3	PTC1	PTC2	MTC
NOTE: In some TCs PCO L2 is connected to the interface of the diverted-to user but no PTC is associated with that PCO.				

4.2 SCF network side ATS

The remote test method is applied for the SCF network side ATS as illustrated in figure 2.

The parts of the protocol specific to SCF (i.e. activation, deactivation and interrogation of the SCF services) do not involve any activity at interfaces of users other than the served user and therefore it is not appropriate to use a multi-party test method.

A Point of Control and Observation (PCO) resides at the service access point between layers 2 and 3 in the test system. This PCO is named "L" (for Lower). The L PCO is used to control and observe the behaviour of the Implementation Under Test (IUT) and test case verdicts are assigned depending on the behaviour observed at this PCO.

Within test cases all communication with the IUT is via PCO L. However in some cases informal test co-ordination is performed by re-configuration of the IUT between test cases.
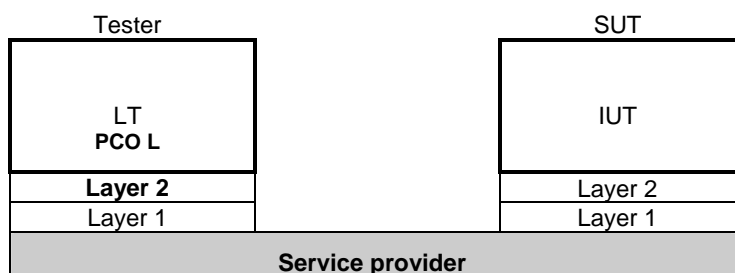
Figure 2: Remote test method

5 Untestable test purposes

There are no untestable test purposes associated with these ATSs.

6   ATS conventions

6.1   Version of TTCN used

The version of TTCN used is that defined in ISO/IEC 9646-3 [10].

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 specified in the base standards in ASN.1.

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 [10] 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 [10] 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 ISO/IEC 8825-1 [13]. 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 (ETS) 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. This encoding rule is sometimes named "Direct Encoding".

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 2: 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

This is applicable to the CDIV ATS only (no calls are used in the SCF ATS).

MTCA

call reference	CREF1
B channel (basic)	bch_num1
channel number (primary)	CH_NUM1
PCO L0	IPN0, LIPN0

PTC1

call reference	P1_CREF
B channel (basic)	P1_bch_num
channel number (primary)	P1_CH_NUM
PCO L1	IPN1, LIPN1

PTC2

call reference	P2_CREF
B channel (basic)	P2_bch_num
channel number (primary)	P2_CH_NUM
PCO L2	IPN2, LIPN2

PTC3

call reference	P3_CREF
B channel (basic)	P3_bch_num
channel number (primary)	P3_CH_NUM
PCO L3	IPN3, LIPN3

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 [12], to produce a PCTR conformant with the PCTR template given in annex B of ISO/IEC 9646-5 [12].

Furthermore, a test laboratory, offering testing for either 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.

A PCTR which conforms to this PCTR proforma specification shall preserve the content and ordering of the clauses contained in annex A except that either Clauses A.6.1 or A.6.2 may be omitted. 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 either ATS specification contained in annex C, is required, as specified in ISO/IEC 9646-4 [11], 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 except as indicated below. 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 either ATS specification contained in annex C, is required, as specified in ISO/IEC 9646-5 [12], 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 except as indicated below. The PIXIT proforma may contain additional questions that need to be answered in order to prepare the test laboratory for a particular IUT.

In an augmented partial PIXIT proforma or PIXIT proforma applicable to testing to only one of the ATSs in the present document the items in annex B for which responses are only required for testing to the other ATS may be omitted.

10 ATS conformance

The test realizer, producing MOT and ETS for this ATS specification, shall comply with the requirements of ISO/IEC 9646-4 [11]. In particular, these concern the realization of an ETS based on each ATS. The test realizer shall provide a statement of conformance of the MOT to this ATS specification.

An ETS which conforms to this ATS specification shall contain test groups and test cases which are technically equivalent to those contained in at least one 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 this ATS specification 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 [12].

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

11.1   General

There are potentially a number of ways that the IUT can be configured (e.g. with different subscription options) and a number of test cases are applicable only to one or a subset of the configurations that a particular IUT may support. There are also a number of test purposes which require the IUT to be specially configured so that exception conditions which do not occur as a result of protocol action can be tested.

The conditions can be considered in five groups:

- subscription options;

- network provider options;

- number of screening lists (SCF only);

- special conditions incompatible with normal operation; and

- special conditions compatible with normal operation.

11.2   CDIV ATS

Tables 3 to 6 describe configurations relating to subscription options and network provider options.

For the purposes of overall test case selection the test suite parameters relating to all the configurations supported (as identified in the PIXIT) shall be TRUE.

During test suite execution the parameters describing the actual configuration of the IUT shall be true (this includes one and only one of the parameters listed in each of Tables 3, 4 and 6). Any test cases which require different configurations are deselected. If more than one configuration is supported then it is necessary to re-configure the IUT and change the parameters in order to run all the test cases.

NOTE 1: Certain parameters are used for test case parameterization as well as selection.

NOTE 2: All test cases concerning specific call forwarding supplementary services assume that the service concerned is subscribed, except where indicated in the Tables below. In addition many test cases (not specifically concerning CFU) assume that CFU is supported and subscribed.

NOTE 3: Certain test cases assume that other supplementary services (e.g. DDI, SUB) are provided and subscribed if it is indicated in the PIXIT that they are supported.

NOTE 4: Certain test cases other than those listed in Table 4 assume that MSN is provided if it is indicated that it is supported in the PIXIT. An exception is CDIV_N10_001 which requires MSN not to be provided.

Table 3: SUT configurations for subscription options - Calling user test cases

Test cases	Calling user is notified of diversion	Test suite parameter	PIXIT reference
CDIV_N01_002 - 005	Yes (with or without diverted-to number)	PX_2_27 OR PX_2_28	2.27 or 2.28
CDIV_N02_001, 002	Yes, without diverted to number, or No	PX_2_28 OR PX_2_29	2.28 or 2.29
CDIV_N02_003 - 008	Yes, with diverted to number	PX_2_27	2.27

Table 4: SUT configurations for subscription options - Served user test cases

Test Cases (see note 1)	CDIV service subscription	MSN (see note 3)	Activation, deactivation and interrogation for all ISDN-numbers on the same access (see note 3)	Test suite parameter	PIXIT ref.
CDIV_N03_001,002, 008, 009, 024 CDIV_N04_001,002, 008, 009, 019 CDIV_N06_001,2	Whole access	*	N/A	PX_2_1	2.1
CDIV_N03_003,004,010,011 CDIV_N04_003,004,010,011 CDIV_N06_003, 004	Per ISDN number	No	*	PX_2_2	2.2
CDIV_N03_005, 012 CDIV_N04_005, 012 CDIV_N06_006	Per ISDN number	Yes	*	PX_2_3 OR PX_2_4	2.3 or 2.4
CDIV_N03_006 CDIV_N04_006 CDIV_N06_6	Per ISDN number	Yes	No	PX_2_3	2.3
CDIV_N03_007, 013 CDIV_N04_007, 013 CDIV_N07_007	Per ISDN number	Yes	Yes	PX_2_4	2.4
CDIV_N03_025, 026 CDIV_N04_020, 021 CDIV_N06_014, 015	DDI range	N/A	Any	PX2_5 OR PX_2_6	2.5 or 2.6
CDIV_N03_027 CDIV_N04_022 CDIV_N06_016	DDI range	N/A	No	PX_2_5	2.5
CDIV_N03_028 CDIV_N04_023 CDIV_N06_017	DDI range	N/A	Yes	PX_2_6	2.6
CDIV_N03_014 CDIV_N04_014 CDIV_N05_004 CDIV_N06_009 CDIV_N11_025, 034, 043 CDIV_N17_010, 018, 026	Not subscribed for any basic service (see note 2)	*	N/A	PX_2_7 (CFB) PX_2_8 (CFNR) PX_2_9 (CFB) PX_2_20 (CD)	2.7, 2,8, 2.9 2.20
CDIV_N03_015 CDIV_N04_015 CDIV_N06_010 CDIV_N11_026, 035, 044 CDIV_N17_011, 019, 027	Not available for any basic service (see note 2)	*	N/A	PX_2_10 (CFB, CFU, CFNR) PX_2_21 (CD)	2.10 2.21
NOTE 1: "N03", "N04" and "N06" include each of the subgroups for cfu, cfnr and cfb.					
NOTE 2: For test cases in groups N03, N04, N06 and N11 the service that the test case concerns needs to be not subscribed or not available. For CDIV_N05_004 all of CFB, CFNR and CFU need to be not subscribed. For test cases in group N17 CFU needs to be not subscribed or not available.					
NOTE 3: "*" indicates that either value of the option may be used.					

Table 5: SUT configurations for subscription and network provider options - miscellaneous

Test cases	Option	Value	Test suite parameter	PIXIT reference
CDIV_N07_001 - 009 CDIV_N08_001 - 009 CDIV_N09_001 - 003 CDIV_N10_001 - 003, 011	Served user receives notification that a call has been forwarded.	Yes, with call offering information	PX_2_15	2.15
CDIV_N11_031, 040, 049 CDIV_N17_017, 025, 033	Maximum number of diversions for a single call.	1	PX_2_22	2.22
CDIV_N12_001	Served user receives notification in outgoing calls that forwarding is currently activated.	Yes	PX_2_23	2.23

Table 6: SUT configurations for network provider option

Test cases	Served user call retention on invocation of diversion	Test suite parameter	PIXIT reference
CDIV_N10_004 CDIV_N11_001 - 003 CDIV_N17_007 - 009	Clear call on invocation.	PX_2_18	2.18
CDIV_N10_005 - 010 CDIV_N11_004 - 009, 011 - 024 CDIV_N17_001 - 006, 034 - 036 CDIV_N18_002	Retain call until alerting begins at diverted-to user.	PX_2_19	2.19

Table 7 describes the configurations relating to special conditions. Some of these are considered to be incompatible with normal operation.

For the purposes of test case selection the test suite parameters relating to all the configurations supported (as identified in the PIXIT) shall be TRUE.

During test suite execution the parameters describing the actual configuration of the IUT shall be true. Those test cases which require special conditions for which the IUT is not configured are deselected. Generally it will be necessary to re-configure the IUT and change the parameters in order to run all the test cases.

NOTE 5: Test cases not requiring special conditions are not deselected when the parameter indicates that the IUT is configured for a special condition.

Table 7: SUT configurations for special conditions

Test cases (see note)	Configuration	Test suite parameter	PIXIT reference
CDIV_N03_019 CDIV_N17_013, 021, 029	An attempt to activate diversion is to be unsuccessful due to a resources being unavailable.	PX_2_11	2.11
CDIV_N05_005	Requested interrogation information is not available.	PX_2_13	2.13
CDIV_N05_006 CDIV_N06_011	Requested interrogation information exceeds the maximum allowed length.	PX_2_14	2.14
CDIV_N08_005, 006	Presentation of the calling address is not restricted.	PX_2_16	2.16
CDIV_N03_017	Activation of CDIV prevented by supplementary service interaction.	PX_2_17	2.17
CDIV_N02_007, 008 CDIV_N13_003	Diverted to number is "not available" due to interworking.	PX_2_24	2.24
CDIV_N17_037	On receipt of a SETUP message the IUT sends a CallRerouteing invoke component.	PX_2_25	2.25
CDIV_N18_001	A forwarded call will encounter interworking.	PX_2_26	2.26
CDIV_N02_001,002, 005, 006	For COLR, presentation is not allowed.	PX_2_30	2.30
CDIV_N08_001-009	The user connected to the access related to the MTC is considered as being network dependant user busy.	PX_2_31	2.31
NOTE: "N03", "N04" and "N06" include each of the subgroups for cfu, cfnr and cfb.			

11.3   SCF ATS

Table 8 describes the configurations relating to subscription options, it is necessary for the IUT to support at least one of the first four configurations. Table 9 describes the configurations relating to the number of screening lists, it is necessary for the IUT to support at least one of these configurations. It is only possible for a particular interface to be configured as one of each of these groups of configurations at a given time.

For the purposes of test case selection the test suite parameters relating to all the configurations supported (as identified in the PIXIT) shall be TRUE.

During test suite execution one parameter from each group shall be true indicating the actual configuration of the IUT. Any test cases which require different configurations are deselected. If more than one configuration is supported then it is necessary to re-configure the IUT and change the parameters in order to run all the test cases.

NOTE 1:   The parameters CONF_ONE_LIST and CONF_MANY_LISTS are used for test case parameterization as well as selection.

Table 8: SUT configurations for subscription options

Test Cases (see note 1)	SCF subscription	MSN (see note 3)	Activation, deactivation and interrogation for all ISDN-numbers on the same access (see note 3)	Test suite parameter	PIXIT ref.
SCF_N01_001, 002, 010, 011 (see note 2) SCF_N01_030 SCF_N02_024	Whole access	*	N/A	CONF_WHOLE_ACCESS	2a.1
SCF_N01_003, 004, 012, 013 (see note 2)	Per ISDN number	No	*	CONF_PERNO_NO_MSN	2a.2
SCF_N01_005, 014 (see note 2)	Per ISDN number	Yes	*	CONF_PERNO_MSN_NO OR CONF_PERNO_MSN_YES	2a.3 OR 2a.4
SCF_N01_006 (see note 2)	Per ISDN number	Yes	No	CONF_PERNO_MSN_NO	2a.3
SCF_N01_007 (see note 2)	Per ISDN number	Yes	Yes	CONF_PERNO_MSN_YES	2a.4
SCF_N01_031, 032 SCF_N02_025, 026	DDI range	N/A	Any	CONF_DDI_NO OR CONF_DDI_YES	2a.11 2a.12
SCF_N01_033 SCF_N02_027	DDI range	N/A	No	CONF_DDI_NO	2a.11
SCF_N01_034 SCF_N02_028	DDI range	N/A	Yes	CONF_DDI_YES	2a.12
SCF_N01_020 SCF_N07_004 SCF_N08_002	Not subscribed for any basic service	*	N/A	CONF_NOT_SUB_ALL	2a.5
SCF_N07_005 SCF_N08_003	Not available for any basic service	*	N/A	CONF_NOT_AVAIL_ALL	2a.6
NOTE 1: Where TCs in group N01 are listed the TCs with the same serial numbers in groups N03 and N05 require the same configuration. Where TCs in group N02 are listed the TCs with the same serial numbers in groups N04 and N06 require the same configuration.					
NOTE 2: The TCs with the same serial numbers in groups N02, N03, N04, N05 and N06 require the same configuration.					
NOTE 3: "*" indicates that either value of the option may be used.					

Table 9: SUT configurations for number of screening lists

Test cases	Configuration	Test suite parameter	PIXIT reference
SCF_N01_008, 016 (see note 1)	One screening list registered.	CONF_ONE_LIST	2a.7
SCF_N01_009, 017 (see note 1) SCF_N01_018 (see note 2)	More than one screening list registered.	CONF_MANY_LIST	2a.8
NOTE 1: The TCs with the same serial numbers in groups N02, N03, N04, N05 and N06 require the same configuration.			
NOTE 2: The TCs with the same serial numbers in groups N03, and N05 require the same configuration.			

Table 10 describes the configurations relating to special conditions. The first two listed are considered to be incompatible with normal operation.

For the purposes of test case selection the test suite parameters relating to all the configurations supported (as identified in the PIXIT) shall be TRUE.

During test suite execution the parameters describing the actual configuration of the IUT shall be true. Those test cases which require special conditions for which the IUT is not configured are deselected. Generally it will be necessary to re-configure the IUT and change the parameters in order to run all the test cases.

> NOTE 2: Test cases not requiring special conditions are not deselected when the parameter indicates that the IUT is configured for a special condition.

Table 10: SUT configurations for special conditions

Test cases	Configuration	Test suite parameter	PIXIT reference
SCF_N01_23 (see note 1)	An attempt to activate SCF is to be unsuccessful due to a supplementary service interaction.	CONFIG_INTERACTION	2a.9
SCF_N01_025 (see note 1)	An attempt to activate SCF is to be unsuccessful due to a resources being unavailable.	CONFIG_RESOURCE	2a.10
SCF_N01_024 (see note 1)	There is a basic service for which the IUT is not subscribed.	PX_3_9	3.9
SCF_N02_018 (see note 2)	There is a basic service for which the SCF service is not subscribed.	PX_3_12	3.12
SCF_N01_021 (see note 1) SCF_N02_019 (see note 2)	There is a basic service for which the SCF service is not available.	PX_3_13	3.13
NOTE 1: The TCs with the same serial numbers in groups N03, and N05 require the same configuration. NOTE 2: The TCs with the same serial numbers in groups N04, and N06 require the same configuration.			

Annex A (normative):
Protocol Conformance Test Report (PCTR) 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 PCTR proforma in this annex so that it can be used for its intended purposes and may further publish the completed PCTR.

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 300 207-1 *Name(s) of service(s) tested*
PICS:	
Previous PCTRs (if any):	

A.1.3 Testing environment

PIXIT Reference number:	
ATS Specification:	**EN 300 207-6** *CDIV/SCF (Delete CDIV or SCF as applicable)*
Abstract Test Method:	*Multi-party test method (CDIV) / Remote test method (SCF)* (see ISO/IEC 9646-2) *(Delete as applicable)*
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.

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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.

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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:

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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.

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A.6 Test campaign report

A.6.1 Test campaign report for CDIV

This clause is only included in the PCTR if the test campaign was for one or more of CFB, CFU, CFNR or CD.

ATS reference	Selected? (Y/N)	Run? (Y/N)	Verdict	Observations
CDIV_N01_001				
CDIV_N01_002				
CDIV_N01_003				
CDIV_N01_004				
CDIV_N01_005				
CDIV_N02_001				
CDIV_N02_002				
CDIV_N02_003				
CDIV_N02_004				
CDIV_N02_005				
CDIV_N02_006				
CDIV_N02_007				
CDIV_N02_008				
CDIV_N03_CFB_001				
CDIV_N03_CFB_002				
CDIV_N03_CFB_003				

ATS reference	Selected? (Y/N)	Run? (Y/N)	Verdict	Observations
CDIV_N03_CFB_004				
CDIV_N03_CFB_005				
CDIV_N03_CFB_006				
CDIV_N03_CFB_007				
CDIV_N03_CFB_008				
CDIV_N03_CFB_009				
CDIV_N03_CFB_010				
CDIV_N03_CFB_011				
CDIV_N03_CFB_012				
CDIV_N03_CFB_013				
CDIV_N03_CFB_014				
CDIV_N03_CFB_015				
CDIV_N03_CFB_016				
CDIV_N03_CFB_017				
CDIV_N03_CFB_018				
CDIV_N03_CFB_019				
CDIV_N03_CFB_020				
CDIV_N03_CFB_021				
CDIV_N03_CFB_022				
CDIV_N03_CFB_023				
CDIV_N03_CFB_024				
CDIV_N03_CFB_025				
CDIV_N03_CFB_026				
CDIV_N03_CFB_027				
CDIV_N03_CFB_028				
CDIV_N03_CFNR_001				
CDIV_N03_CFNR_002				
CDIV_N03_CFNR_003				
CDIV_N03_CFNR_004				
CDIV_N03_CFNR_005				
CDIV_N03_CFNR_006				
CDIV_N03_CFNR_007				
CDIV_N03_CFNR_008				
CDIV_N03_CFNR_009				
CDIV_N03_CFNR_010				
CDIV_N03_CFNR_011				
CDIV_N03_CFNR_012				
CDIV_N03_CFNR_013				
CDIV_N03_CFNR_014				
CDIV_N03_CFNR_015				
CDIV_N03_CFNR_016				
CDIV_N03_CFNR_017				
CDIV_N03_CFNR_018				
CDIV_N03_CFNR_019				
CDIV_N03_CFNR_020				
CDIV_N03_CFNR_021				
CDIV_N03_CFNR_022				
CDIV_N03_CFNR_023				
CDIV_N03_CFNR_024				
CDIV_N03_CFNR_025				
CDIV_N03_CFNR_026				
CDIV_N03_CFNR_027				
CDIV_N03_CFNR_028				
CDIV_N03_CFU_001				
CDIV_N03_CFU_002				
CDIV_N03_CFU_003				
CDIV_N03_CFU_004				
CDIV_N03_CFU_005				
CDIV_N03_CFU_006				
CDIV_N03_CFU_007				
CDIV_N03_CFU_008				
CDIV_N03_CFU_009				

ATS reference	Selected? (Y/N)	Run? (Y/N)	Verdict	Observations
CDIV_N03_CFU_010				
CDIV_N03_CFU_011				
CDIV_N03_CFU_012				
CDIV_N03_CFU_013				
CDIV_N03_CFU_029				
CDIV_N03_CFU_014				
CDIV_N03_CFU_015				
CDIV_N03_CFU_016				
CDIV_N03_CFU_017				
CDIV_N03_CFU_018				
CDIV_N03_CFU_019				
CDIV_N03_CFU_020				
CDIV_N03_CFU_021				
CDIV_N03_CFU_022				
CDIV_N03_CFU_023				
CDIV_N03_CFU_024				
CDIV_N03_CFU_025				
CDIV_N03_CFU_026				
CDIV_N03_CFU_027				
CDIV_N03_CFU_028				
CDIV_N04_CFB_001				
CDIV_N04_CFB_002				
CDIV_N04_CFB_003				
CDIV_N04_CFB_004				
CDIV_N04_CFB_005				
CDIV_N04_CFB_006				
CDIV_N04_CFB_007				
CDIV_N04_CFB_008				
CDIV_N04_CFB_009				
CDIV_N04_CFB_010				
CDIV_N04_CFB_011				
CDIV_N04_CFB_012				
CDIV_N04_CFB_013				
CDIV_N04_CFB_014				
CDIV_N04_CFB_015				
CDIV_N04_CFB_016				
CDIV_N04_CFB_017				
CDIV_N04_CFB_018				
CDIV_N04_CFB_019				
CDIV_N04_CFB_020				
CDIV_N04_CFB_021				
CDIV_N04_CFB_022				
CDIV_N04_CFB_023				
CDIV_N04_CFNR_001				
CDIV_N04_CFNR_002				
CDIV_N04_CFNR_003				
CDIV_N04_CFNR_004				
CDIV_N04_CFNR_005				
CDIV_N04_CFNR_006				
CDIV_N04_CFNR_007				
CDIV_N04_CFNR_008				
CDIV_N04_CFNR_009				
CDIV_N04_CFNR_010				
CDIV_N04_CFNR_011				
CDIV_N04_CFNR_012				
CDIV_N04_CFNR_013				
CDIV_N04_CFNR_014				
CDIV_N04_CFNR_015				
CDIV_N04_CFNR_016				
CDIV_N04_CFNR_017				
CDIV_N04_CFNR_018				
CDIV_N04_CFNR_019				

ATS reference	Selected? (Y/N)	Run? (Y/N)	Verdict	Observations
CDIV_N04_CFNR_020				
CDIV_N04_CFNR_021				
CDIV_N04_CFNR_022				
CDIV_N04_CFNR_023				
CDIV_N04_CFU_001				
CDIV_N04_CFU_002				
CDIV_N04_CFU_003				
CDIV_N04_CFU_004				
CDIV_N04_CFU_005				
CDIV_N04_CFU_006				
CDIV_N04_CFU_007				
CDIV_N04_CFU_008				
CDIV_N04_CFU_009				
CDIV_N04_CFU_010				
CDIV_N04_CFU_011				
CDIV_N04_CFU_012				
CDIV_N04_CFU_013				
CDIV_N04_CFU_014				
CDIV_N04_CFU_015				
CDIV_N04_CFU_016				
CDIV_N04_CFU_017				
CDIV_N04_CFU_018				
CDIV_N04_CFU_019				
CDIV_N04_CFU_020				
CDIV_N04_CFU_021				
CDIV_N04_CFU_022				
CDIV_N04_CFU_023				
CDIV_N05_001				
CDIV_N05_002				
CDIV_N05_003				
CDIV_N05_004				
CDIV_N05_005				
CDIV_N05_006				
CDIV_N05_007				
CDIV_N06_CFB_001				
CDIV_N06_CFB_002				
CDIV_N06_CFB_003				
CDIV_N06_CFB_004				
CDIV_N06_CFB_005				
CDIV_N06_CFB_006				
CDIV_N06_CFB_007				
CDIV_N06_CFB_008				
CDIV_N06_CFB_009				
CDIV_N06_CFB_010				
CDIV_N06_CFB_011				
CDIV_N06_CFB_012				
CDIV_N06_CFB_013				
CDIV_N06_CFB_014				
CDIV_N06_CFB_015				
CDIV_N06_CFB_016				
CDIV_N06_CFB_017				
CDIV_N06_CFNR_001				
CDIV_N06_CFNR_002				
CDIV_N06_CFNR_003				
CDIV_N06_CFNR_004				
CDIV_N06_CFNR_005				
CDIV_N06_CFNR_006				
CDIV_N06_CFNR_007				
CDIV_N06_CFNR_008				
CDIV_N06_CFNR_009				
CDIV_N06_CFNR_010				
CDIV_N06_CFNR_011				

ATS reference	Selected? (Y/N)	Run? (Y/N)	Verdict	Observations
CDIV_N06_CFNR_012				
CDIV_N06_CFNR_013				
CDIV_N06_CFNR_014				
CDIV_N06_CFNR_015				
CDIV_N06_CFNR_016				
CDIV_N06_CFNR_017				
CDIV_N06_CFU_001				
CDIV_N06_CFU_002				
CDIV_N06_CFU_003				
CDIV_N06_CFU_004				
CDIV_N06_CFU_005				
CDIV_N06_CFU_006				
CDIV_N06_CFU_007				
CDIV_N06_CFU_008				
CDIV_N06_CFU_009				
CDIV_N06_CFU_010				
CDIV_N06_CFU_011				
CDIV_N06_CFU_012				
CDIV_N06_CFU_013				
CDIV_N06_CFU_014				
CDIV_N06_CFU_015				
CDIV_N06_CFU_016				
CDIV_N06_CFU_017				
CDIV_N07_001				
CDIV_N07_002				
CDIV_N07_003				
CDIV_N07_004				
CDIV_N07_005				
CDIV_N07_006				
CDIV_N07_007				
CDIV_N07_008				
CDIV_N07_009				
CDIV_N08_001				
CDIV_N08_002				
CDIV_N08_003				
CDIV_N08_004				
CDIV_N08_005				
CDIV_N08_006				
CDIV_N08_007				
CDIV_N08_008				
CDIV_N08_009				
CDIV_N09_001				
CDIV_N09_002				
CDIV_N09_003				
CDIV_N10_001				
CDIV_N10_002				
CDIV_N10_003				
CDIV_N10_004				
CDIV_N10_005				
CDIV_N10_006				
CDIV_N10_007				
CDIV_N10_008				
CDIV_N10_009				
CDIV_N10_010				
CDIV_N10_011				
CDIV_N11_001				
CDIV_N11_002				
CDIV_N11_003				
CDIV_N11_004				
CDIV_N11_005				
CDIV_N11_006				
CDIV_N11_007				

ATS reference	Selected? (Y/N)	Run? (Y/N)	Verdict	Observations
CDIV_N11_008				
CDIV_N11_009				
CDIV_N11_010				
CDIV_N11_011				
CDIV_N11_012				
CDIV_N11_013				
CDIV_N11_014				
CDIV_N11_015				
CDIV_N11_016				
CDIV_N11_017				
CDIV_N11_018				
CDIV_N11_019				
CDIV_N11_020				
CDIV_N11_021				
CDIV_N11_022				
CDIV_N11_023				
CDIV_N11_024				
CDIV_N11_026				
CDIV_N11_027				
CDIV_N11_028				
CDIV_N11_029				
CDIV_N11_030				
CDIV_N11_031				
CDIV_N11_032				
CDIV_N11_033				
CDIV_N11_035				
CDIV_N11_036				
CDIV_N11_037				
CDIV_N11_038				
CDIV_N11_039				
CDIV_N11_040				
CDIV_N11_041				
CDIV_N11_042				
CDIV_N11_044				
CDIV_N11_045				
CDIV_N11_046				
CDIV_N11_047				
CDIV_N11_048				
CDIV_N11_049				
CDIV_N11_050				
CDIV_N11_051				
CDIV_N11a_025				
CDIV_N11a_034				
CDIV_N11a_043				
CDIV_N12_001				
CDIV_N13_001				
CDIV_N13_002				
CDIV_N13_003				
CDIV_N13_004				
CDIV_N13_005				
CDIV_N13_006				
CDIV_N14_001				
CDIV_N14_002				
CDIV_N14_003				
CDIV_N14_004				
CDIV_N14_005				
CDIV_N14_006				
CDIV_N14_007				
CDIV_N14_008				
CDIV_N14_009				
CDIV_N14_010				
CDIV_N14_011				

ATS reference	Selected? (Y/N)	Run? (Y/N)	Verdict	Observations
CDIV_N14_012				
CDIV_N14_013				
CDIV_N14_014				
CDIV_N14_015				
CDIV_N14_016				
CDIV_N14_017				
CDIV_N15_001				
CDIV_N15_002				
CDIV_N15_003				
CDIV_N15_004				
CDIV_N15_005				
CDIV_N15_006				
CDIV_N15_007				
CDIV_N15_008				
CDIV_N15_009				
CDIV_N15_010				
CDIV_N15_011				
CDIV_N16_001				
CDIV_N16_002				
CDIV_N17_001				
CDIV_N17_002				
CDIV_N17_003				
CDIV_N17_004				
CDIV_N17_005				
CDIV_N17_006				
CDIV_N17_007				
CDIV_N17_008				
CDIV_N17_009				
CDIV_N17_010				
CDIV_N17_011				
CDIV_N17_012				
CDIV_N17_013				
CDIV_N17_014				
CDIV_N17_015				
CDIV_N17_016				
CDIV_N17_017				
CDIV_N17_018				
CDIV_N17_019				
CDIV_N17_020				
CDIV_N17_021				
CDIV_N17_022				
CDIV_N17_023				
CDIV_N17_024				
CDIV_N17_025				
CDIV_N17_026				
CDIV_N17_027				
CDIV_N17_028				
CDIV_N17_029				
CDIV_N17_030				
CDIV_N17_031				
CDIV_N17_032				
CDIV_N17_033				
CDIV_N17_034				
CDIV_N17_035				
CDIV_N17_036				
CDIV_N17_037				
CDIV_N18_001				
CDIV_N18_002				

A.6.2   Test campaign report for SCF

This clause is only included in the PCTR if the test campaign was for one or more of SCFB, SCFU or SCFNR.

ATS reference	Selected? (Y/N)	Run? (Y/N)	Verdict	Observations
SCF_N01_001				
SCF_N01_002				
SCF_N01_003				
SCF_N01_004				
SCF_N01_005				
SCF_N01_006				
SCF_N01_007				
SCF_N01_008				
SCF_N01_009				
SCF_N01_010				
SCF_N01_011				
SCF_N01_012				
SCF_N01_013				
SCF_N01_014				
SCF_N01_015				
SCF_N01_016				
SCF_N01_017				
SCF_N01_018				
SCF_N01_019				
SCF_N01_020				
SCF_N01_021				
SCF_N01_022				
SCF_N01_023				
SCF_N01_024				
SCF_N01_025				
SCF_N01_026				
SCF_N01_027				
SCF_N01_028				
SCF_N01_029				
SCF_N01_030				
SCF_N01_031				
SCF_N01_032				
SCF_N01_033				
SCF_N01_034				
SCF_N02_001				
SCF_N02_002				
SCF_N02_003				
SCF_N02_004				
SCF_N02_005				
SCF_N02_006				
SCF_N02_007				
SCF_N02_008				
SCF_N02_009				
SCF_N02_010				
SCF_N02_011				
SCF_N02_012				
SCF_N02_013				
SCF_N02_014				
SCF_N02_015				
SCF_N02_016				
SCF_N02_017				
SCF_N02_018				
SCF_N02_019				
SCF_N02_020				
SCF_N02_021				
SCF_N02_022				
SCF_N02_023				
SCF_N02_024				

ATS reference	Selected? (Y/N)	Run? (Y/N)	Verdict	Observations
SCF_N02_025				
SCF_N02_026				
SCF_N02_027				
SCF_N02_028				
SCF_N03_001				
SCF_N03_002				
SCF_N03_003				
SCF_N03_004				
SCF_N03_005				
SCF_N03_006				
SCF_N03_007				
SCF_N03_008				
SCF_N03_009				
SCF_N03_010				
SCF_N03_011				
SCF_N03_012				
SCF_N03_013				
SCF_N03_014				
SCF_N03_015				
SCF_N03_016				
SCF_N03_017				
SCF_N03_018				
SCF_N03_019				
SCF_N03_020				
SCF_N03_021				
SCF_N03_022				
SCF_N03_023				
SCF_N03_024				
SCF_N03_025				
SCF_N03_026				
SCF_N03_027				
SCF_N03_028				
SCF_N03_029				
SCF_N03_030				
SCF_N03_031				
SCF_N03_032				
SCF_N03_033				
SCF_N03_034				
SCF_N04_001				
SCF_N04_002				
SCF_N04_003				
SCF_N04_004				
SCF_N04_005				
SCF_N04_006				
SCF_N04_007				
SCF_N04_008				
SCF_N04_009				
SCF_N04_010				
SCF_N04_011				
SCF_N04_012				
SCF_N04_013				
SCF_N04_014				
SCF_N04_015				
SCF_N04_016				
SCF_N04_017				
SCF_N04_018				
SCF_N04_019				
SCF_N04_020				
SCF_N04_021				
SCF_N04_022				
SCF_N04_023				
SCF_N04_024				

ATS reference	Selected? (Y/N)	Run? (Y/N)	Verdict	Observations
SCF_N04_025				
SCF_N04_026				
SCF_N04_027				
SCF_N04_028				
SCF_N05_001				
SCF_N05_002				
SCF_N05_003				
SCF_N05_004				
SCF_N05_005				
SCF_N05_006				
SCF_N05_007				
SCF_N05_008				
SCF_N05_009				
SCF_N05_010				
SCF_N05_011				
SCF_N05_012				
SCF_N05_013				
SCF_N05_014				
SCF_N05_015				
SCF_N05_016				
SCF_N05_017				
SCF_N05_018				
SCF_N05_019				
SCF_N05_020				
SCF_N05_021				
SCF_N05_022				
SCF_N05_023				
SCF_N05_024				
SCF_N05_025				
SCF_N05_026				
SCF_N05_027				
SCF_N05_028				
SCF_N05_029				
SCF_N05_030				
SCF_N05_031				
SCF_N05_032				
SCF_N05_033				
SCF_N05_034				
SCF_N06_001				
SCF_N06_002				
SCF_N06_003				
SCF_N06_004				
SCF_N06_005				
SCF_N06_006				
SCF_N06_007				
SCF_N06_008				
SCF_N06_009				
SCF_N06_010				
SCF_N06_011				
SCF_N06_012				
SCF_N06_013				
SCF_N06_014				
SCF_N06_015				
SCF_N06_016				
SCF_N06_017				
SCF_N06_018				
SCF_N06_019				
SCF_N06_020				
SCF_N06_021				
SCF_N06_022				
SCF_N06_023				
SCF_N06_024				

ATS reference	Selected? (Y/N)	Run? (Y/N)	Verdict	Observations
SCF_N06_025				
SCF_N06_026				
SCF_N06_027				
SCF_N06_028				
SCF_N07_001				
SCF_N07_002				
SCF_N07_003				
SCF_N07_004				
SCF_N07_005				
SCF_N07_006				
SCF_N07_007				
SCF_N08_001				
SCF_N08_002				
SCF_N08_003				
SCF_N08_004				
SCF_N08_005				
SCF_N08_006				

A.7　Observations

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

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Annex B (normative):
Partial PIXIT proforma

B.1   Identification summary

PIXIT number:

....

Test laboratory name:

....

Date of issue:

....

Issued to:

....

B.2   Abstract test suite summary

Protocol specification: EN 300 207-1

ATS specification: EN 300 207-6

Abstract test method: Multi-party test method (see ISO/IEC 9646-2) for CDIV
                                                Remote test method (see ISO/IEC 9646-2) for SCF

    NOTE: Two separate ATSs cover the network side of EN 300 207-1. The CDIV ATS covers the CFB, CFU, CFNR and CD services and the SCF ATS covers the SCFB, SCFU and SCFNR services. This PIXIT proforma is applicable to both ATSs. If the IUT is only to be tested to one of the ATSs then it is not necessary for items indicated as only applicable to the other ATS to be completed.

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 300 207-1

Protocol version:

PICS reference:

> NOTE: The PICS reference should reference a completed PICS which is conformant with the PICS proforma contained in EN 300 207-2.

B.6.2   Parameter values

Table B.1: Configuration aspects

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 for BA 2 for PRA	
1.3	Does the IUT support MSN?		N/A	N/A
1.4	Does the IUT support DDI?		N/A	N/A
1.5	Does the IUT support SUB?		N/A	N/A
1.6	Does the IUT support CLIP?		N/A	N/A
1.7	Does the IUT support COLR?		N/A	N/A
1.8	Does the IUT support UUS?		N/A	N/A
1.9	Does the IUT support point-to-multipoint operation?		N/A	N/A
1.10	Does the IUT allow the release and re-establishment of the layer 2 multiple frame established operation at the start of each test case? (see note)		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   Configuration of IUT

B.6.3.1   Configuration of the IUT for CDIV testing

Table B.2 only is only required for CDIV testing

Table B.2: Actions required to configure the IUT (CDIV)

Item	Action: What actions, if possible, have to be taken to configure the IUT ...	Supported? (Y/N)	Stimulus (action taken)
2.1	for subscription for the whole access?		
2.2	for subscription on a per number basis with MSN not provided?		
2.3	for subscription on a per number basis, MSN provided and the subscription option for the use of all numbers is "no"?		
2.4	for subscription on a per number basis, MSN provided and the subscription option for the use of all numbers is "yes"?		
2.5	for subscription on DDI range basis and the subscription option for the use of all numbers is "no"?		
2.6	for subscription on a DDI range basis and the subscription option for the use of all numbers is "yes"?		
2.7	so that CFB is not subscribed to?		
2.8	so that CFNR is not subscribed to?		
2.9	so that CFU is not subscribed to?		
2.10	so that a requested supplementary service is not available for the basic service?		
2.11	to respond with "resourceUnavailable" when a call forwarding service is invoked?		
2.13	so that the requested interrogation information is not available?		
2.14	so that the data provided by the network exceeds the maximum allowed length for a message (in response to an interrogation)?		
2.15	so that the subscription option "served user receives notification that a call has been forwarded" is "yes", with call offering information"?		
2.16	so that presentation of the calling address is not restricted?		
2.17	so that activation of a call forwarding service is prevented by a supplementary service interaction (e.g. with OCB)?		
2.18	so that the network provider option "served user call retention on invocation of diversion" is "clear call on invocation"?		
2.19	so that the network provider option "served user call retention on invocation of diversion" is "retain call until alerting begins at diverted-to user"?		
2.20	so that Call Deflection is not subscribed to?		
2.21	so that Call Deflection is not available for any basic service?		
2.22	so that the limit on the number of diversions is 1?		
2.23	for the subscription option "served user receives reminder notification in outgoing calls that forwarding is currently activated" is "yes"?		
2.24	so that the diverted to number is "not available" due to interworking?		
2.25	so that on receipt of a SETUP message, it sends a CallRerouteing invoke component?		

Item	Action: What actions, if possible, have to be taken to configure the IUT ...	Supported? (Y/N)	Stimulus (action taken)
2.26	so that a forwarded call will encounter interworking?		
2.27	so that the served user subscription option "calling user is notified of diversion" is "yes, with diverted-to number"?		
2.28	so that the subscription option "calling user is notified of diversion" is "yes, without diverted to number"?		
2.29	so that the subscription option "calling user is notified of diversion" is "no"?		
2.30	so that for COLR, presentation is not allowed?		
2.31	so that the user connected to the access related to the MTC is considered as being network determined user busy?		

B.6.3.2   Configuration of the IUT for SCF testing

Table B.2a is only required for SCF testing.

Table B.2a: Actions required to configure the IUT (SCF)

Item	Action: What actions, if possible, have to be taken to configure the IUT ...	Supported? (Y/N)	Stimulus (action taken)
2a.1	for SCF to be subscribed for the whole access? (see note 1)		
2a.2	for SCF to be subscribed on a per ISDN number basis without MSN? (see note 1)		
2a.3	for SCF to be subscribed on a per ISDN number basis with MSN and with the subscription option "Activation, deactivation and interrogation for all ISDN-numbers on the same access" as "no"? (see note 1)		
2a.4	for SCF to be subscribed on a per ISDN number basis with MSN and with the subscription option "Activation, deactivation and interrogation for all ISDN-numbers on the same access" as "yes"? (see note 1)		
2a.5	for SCF to not be subscribed for any basic service? (see note 1)		
2a.6	for SCF not to be available for any basic service? (see note 1)		
2a.7	for there to be one screening list registered? (see note 2)		
2a.8	for there to be more than one screening list registered? (see note 2)		
2a.9	for an attempt to activate SCF to be unsuccessful due to a supplementary service interaction? (see note 3)		
2a.10	for an attempt to activate SCF to be unsuccessful due to a resources being unavailable? (see note 3)		
2a.11	for SCF to be subscribed on a DDI range basis and with the subscription option "Activation, deactivation and interrogation for all ISDN-numbers on the same access" as "no"? (see note 1)		
2a.12	or SCF to be subscribed on a DDI range basis and with the subscription option "Activation, deactivation and interrogation for all ISDN-numbers on the same access" as "yes"? (see note 1)		
NOTE 1:	Items 2a.1 to 2a.6, 2a.11 and 2a.12 refer to mutually exclusive configurations at a given access. It is necessary for an implementation to support at least one of 2a.1 to 2a.4, 2a.11 or 2a.12. As some test purposes are applicable to specific configurations information concerning all that are supported by the IUT should be given.		
NOTE 2:	Items 2a.7 and 2a.8 refer to mutually exclusive configurations at a given access. It is necessary for an implementation to support at least one of them. As some test purposes are applicable to specific configurations information concerning both should be given if they are supported.		
NOTE 3:	The basic service and forwarded-to number should be given if they are different from those given in items 3.9 and 1.4.1 respectively.		

B.6.4 Parameter values

Table B.3: Parameter values

Item	Give an example of ...	Supported? (Y/N)	Allowed values	Value
3.1	an ISDN number, provided to identify the served user, that is not a valid number.		N/A	
3.2	a basic service to which the served user has not subscribed.			
3.3	an invalid diverted-to number.			
3.4	a special service number to which forwarding is prohibited.			
3.5	a coding of a compatible Bearer capability for use in the CallRerouteing component.			
3.6	a coding of a compatible High layer compatibility for use in the CallRerouteing component.			
3.7	a coding of a compatible low layer compatibility for use in the CallRerouteing component.			
3.8	a Called party subaddress information element, which the IUT is compatible with.			
3.9	a basic service to which the served user has subscribed.			
3.10	a valid identifier for a registered screening list.			
3.11	an identifier for an invalid (e.g. unregistered) screening list.			
3.12	a basic service for which SCF is not subscribed.			
3.13	a basic service for which SCF is not available.			
3.14	An ISDN number, corresponding to the access of the served user, that is not a DDI range identifier.			
NOTE 1: Items 3.5 to 3.9 are only required for CDIV testing. NOTE 2: Items 3.10 to 3.13 are only required for SCF testing. NOTE 3 Item 3.14 is only required if the enhancements for DDI ranges are supported.				

B.6.5 Timer values

Table B.4: Timer values

Item	Timer duration	Supported? (Y/N)	Allowed values	Value
4.1	T-CFNR duration in seconds?		N/A	
4.2	Timer that is used to wait for the test operator to perform an implicit send action or wait for a PTC to react (TWAIT).		N/A	
4.3	Timer that is used to wait for the IUT to respond to a stimulus sent by the tester (TAC).		N/A	
4.4	Timer that is used to control hat the IUT does not respond to a stimulus sent by the tester (TNOAC).		N/A	
4.5	Timer that is used to wait for the IUT to send a RESTART message following data link establishment (T_RESTART).		N/A	
NOTE 1: The IUT provider may fill in a 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 outside the range given by the IUT provider if this is necessary for achieving satisfactory test results. NOTE 2: Items 4.1 and 4.2 are only required for CDIV testing.				

B.6.6   Void

Table B.5: Void

B.6.7   Interactions

Table B.6 is only required for CDIV testing

Table B.6: Interactions

Item	Action: Does the IUT ...	Supported? (Y/N)	Stimulus (action taken)
6.1	on sending a SETUP message containing UUI to a user which does not support UUS, and the called user diverts the call after an alerting message has been received, send a CallRerouteing error component indicating "supplementaryServiceInteraction not allowed"?		

B.7   Basic call PIXIT items

B.7.1   Parameter Values - Information element coding

Table B.7: Coding 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 (see note 3);		
N1.4.2	- first remote user access;		
N1.4.3	- second remote user access;		
N1.4.4	- third remote user access.		
N1.5	preferred channel number to be used for the purpose of accepting received SETUP messages, for ... (see note 1)		
N1.5.1	- single call at served user side;		
N1.5.2	- second call at served user side;		
N1.5.3	- first call at remote user side;		
N1.5.4	- second call at remote user side;		
N1.5.5	- third call at remote user side.		
NOTE 1: Items N1.5.1 to N1.5.5 are applicable for primary rate access only. NOTE 2: As this is a general table used for all supplementary services, all items N1.4.1 to N1.4.4, and N1.5.1 to N1.5.5 (if primary rate access is supported), are not always required, but should be supplied if possible. NOTE 3: If the IUT supports the enhancements for DDI ranges then this number shall be a DDI range identifier.			

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 [10].

This ATS was developed on a separate TTCN software tool and therefore the TTCN tables are not completely referenced in the table of contents. These ATS themselves contain 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 (cdiv_n_v410.pdf contained in archive en_30020706v030201o0.ZIP) which accompanies the present document.

The TTCN.GR representation of this ATS is contained in an Adobe Portable Document Format™ file (scf_n_v400.pdf contained in archive en_30020706v030201o0.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 (cdiv_n_v410.mp contained in archive en_30020706v030201o0.ZIP) which accompanies the present document.

The TTCN.MP representation corresponding to this ATS is contained in an ASCII file (scf_n_v400.mp contained in archive en_30020706v030201o0.ZIP) which accompanies the present document.

NOTE: 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.

Annex D (informative):
Changes between EN 300 207-6 V3.1.1 and V1.2.3

Changes in the ATS cdiv_n:

Item or Test case ID	description of changes
ASN1 Type Definition: CallDeflection_Component	In the Argument declaration, add "OPTIONAL" to the field "PresentationAllowedIndicator".
PTC1_OUT and PTC2_OUT	Add rows to answer with CALL PROCEEDING message on receipt of a SETUP message. (rows #6 #8 and #10) Remove the event to receive a CALL PROCEEDING message (incompatible with the call state) : rows #20 to #25.
PR30902_01	Row #2 - coordination message to send CALL PROCEEDING - removed (the CALL PROCEEDING message is sent automatically without coordination message).
CDIV_N01_001	Add on row #8 an event to handle the receipt of a CALL PROCEEDING message before receiving a NOTIFY message.

Changes in the ATS scf_n:

Item or Test case ID	description of changes
ASN1 Type Constraints: ActSCFinv2, ActSCFinv4, DeactSCFinv2, DeactSCFinv4	Change the field value of allNumbers from "-" to "NULL" (according to the type definition.
ASN1 Type Definition: ActStatSCF_comps	After "operation" replace "deactStatNotSCF" with "actStatNotSCF".
ASN1 Type Definition: ActivatedSCFLists	Replace 1...15 with 0...15.
ASN1 Type Constraint: IntSCFrr3	Replace "-" with "{ }" (according to the type definition = SET of sequence).

D.1 Changes between EN 300 207-6 V3.2.1 and V3.1.1

ATS corrections according to the comment from Italtel in SPAN#8TD044.

History

Document history		
Edition 1	September 1997	Publication as ETS 300 207-6
V1.2.3	March 2000	Publication
V3.1.1	November 2001	Publication
V3.2.1	August 2002	One-step Approval Procedure OAP 20021227: 2002-08-28 to 2002-12-27