

**Intelligent Network (IN);
Intelligent Network Application Protocol (INAP);
Capability Set 2 (CS2);
Part 4: Abstract Test Suite (ATS) specification and Partial
Protocol Implementation eXtra Information for Testing (PIXIT)
proforma for Service Switching Function (SSF);
Sub-part 2: Call Party Handling (CPH)**



Reference

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Intellectual Property Rights

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Foreword

This European Standard (Telecommunications series) has been produced by ETSI Technical Committee Services and Protocol for Advanced Networks (SPAN), and is now submitted for the Public Enquiry phase of the ETSI standards Two-step Approval Procedure.

The present document is part 4, sub-part 2 of a multi-part EN covering the Intelligent Network Application Protocol (INAP) capability set 2, 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 Service Switching Function (SSF)";

Part 4: "Abstract Test Suite (ATS) specification and Partial Protocol Implementation eXtra Information for Testing (PIXIT) proforma for Service Switching Function (SSF)";

Sub-part 1: "Basic capability set of CS-1 including CS-2 complements";

Sub-part 2: "Call Party Handling (CPH)";

Sub-part 3: "Specialized Resource Functions (SRF)";

Part 5: "Distributed Functional Plane (DFP) [ITU-T Recommendation Q.1224 (1997) modified]".

Proposed national transposition dates	
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Date of withdrawal of any conflicting National Standard (dow):	6 months after doa

1 Scope

The present document provides the Abstract Test Suite (ATS) for testing of the Service Switching Function (SSF) and the Specialized Resource Function (SRF) of the core Intelligent Network Application Protocol (INAP) according to EN 301 140-1 [1].

Annexes A, B and C deal with CS1.

In this part 4-2, the CS2 Call Party Handling (CPH) is covered.

Annex A provides the Tree and Tabular Combined Notation (TTCN).

Annex B provides the Partial Protocol Implementation eXtra Information for Testing (PIXIT) Proforma.

Annex C provides the Protocol Conformance Test Report (PCTR) Proforma.

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.
- A non-specific reference to an ETS shall also be taken to refer to later versions published as an EN with the same number.

- [1] EN 301 140-1: "Intelligent Network (IN); Intelligent Network Application Protocol (INAP); Capability Set 2 (CS2); Part 1: Protocol specification".
- [2] ISO/IEC 9646-6: "Information technology - Open Systems Interconnection - Conformance testing methodology and framework - Part 6: Protocol profile test specification".
- [3] EN 301 140-4-1: "Intelligent Network (IN); Intelligent Network Application Protocol (INAP); Capability Set 2 (CS2); Part 4: Abstract Test Suite (ATS) specification and Partial Protocol Implementation eXtra Information for Testing (PIXIT) proforma for Service Switching Function (SSF); Sub-part 1: Basic capability set of CS-1 including CS-2 complements".
- [4] EN 301 140-2: "Intelligent Network (IN); Intelligent Network Application Protocol (INAP); Capability Set 2 (CS2); Part 2: Protocol Implementation Conformance Statement (PICS) proforma specification".
- [5] ISO/IEC 9646-3: "Information technology - Open Systems Interconnection - Conformance testing methodology and framework - Part 3: The Tree and Tabular Combined Notation (TTCN)".

Annex A (normative): TTCN of the ATS for INAP CS2 CPH

Refer to EN 301 140-4-1 [3] clauses 1 to 7 for the methodology to obtain the TTCN, as well as the ATS convention, etc.

This ATS has been produced using the Tree and Tabular Combined Notation (TTCN) according to ISO/IEC 9646-3 [5].

The ATS was developed on a separate TTCN software tool and therefore the TTCN tables are not completely referenced in the table of contents. The ATS itself contains a test suite overview part which provides additional information and references.

A1 The TTCN Graphical form (TTCN.GR)

The TTCN.GR representation of this ATS is contained in an Adobe Portable Document Format™ file (CPH_cs2_v5.PDF contained in archive ak10iidc.ZIP) which accompanies the present document.

A2 The TTCN Machine Processable form (TTCN.MP)

The TTCN.MP representation corresponding to this ATS is contained in an ASCII file (CPH_cs2_v5.MP contained in archive ak10iidc.ZIP) which accompanies the present document.

NOTE: According to ISO/IEC 9646-3 [5], in case of a conflict in interpretation of the operational semantics of TTCN.GR and TTCN.MP, the operational semantics of the TTCN.GR representation takes precedence.

Annex B (normative): Partial PIXIT proforma for INAP CS2 CPH

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 PIXIT proforma in this annex so that it can be used for its intended purposes and may further publish the completed PIXIT.

The PIXIT proforma is based on ISO/IEC 9646-6 [2]. Any additional information needed can be found in this international standard document.

B.1 Identification summary

Table B.1

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

B.2 ATS summary

Table B.2

Protocol specification:	EN 301 140-1
Protocol to be tested:	
ATS specification:	EN 301 140-2
Abstract test method:	Remote test method, embedded variant

B.3 Test laboratory

Table B.3

Test laboratory identification:	
Test laboratory manager:	
Means of testing:	
SAP address:	

B.4 Client identification

Table B.4

Client identification:	
Client test manager:	
Test facilities required:	

B.5 SUT

Table B.5

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

B.6 Protocol layer information

B.6.1 Protocol identification

Table B.6

Name:	EN 301 140-1 - Core INAP - CS1 part
Version:	
PICS references:	

B.6.2 IUT information

B.6.2.1 Implicit send events

Table B.7 Implicit send events

Item	PIXIT (See note)	Related implicit send message (PDU)	Invocation description
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			
11			
12			
13			
14			
15			
16			

NOTE: The PIXIT names for the implicit send events in this table are the same as those of the test steps in which the implicit send events are used.

B.6.2.2 Core INAP Parameter values

Table B.8 Parameter values

Item	Parameter	Parameter type	Explanation/Format	Value
	PIX_AChBillingChargingCharacteristics	AChBillingChargingCharacteristics	"xx"H	
	PIX_AlertingPattern	AlertingPattern	"xxx"H	
	PIX_AlertingPattern_ICA	AlertingPattern	"xxx"H	
	PIX_APTyAbandonCause	Cause	"xx"H	
	PIX_APTyDiscCause	Cause	"xx"H	
	PIX_AssistingSSPIRoutingAddress	AssistingSSPIRoutingAddress	"xxxx"H	
	PIX_BPTyBusy_UDUBCause	Cause	"xx"H	
	PIX_BPTyNoAnswerCause	Cause	"xx"H	
	PIX_CalledPartyNumber1_CON	CalledPartyNumber	LegId 2 "xxxx"H	
	PIX_CalledPartyNumber2_CON	CalledPartyNumber	LegId 3 "xxxx"H	
	PIX_CalledPartyNumber3_CON	CalledPartyNumber	LegId 4 "xxxx"H	
	PIX_CalledPartyNumber4_CON	CalledPartyNumber	LegId 5 "xxxx"H	
	PIX_CalledPartyNumber5_CON	CalledPartyNumber	LegId 6 "xxxx"H	
	PIX_CalledPartyNumber6_CON	CalledPartyNumber	LegId 7 "xxxx"H	
	PIX_CalledPartyNumber7_CON	CalledPartyNumber	LegId 8 "xxxx"H	
	PIX_CalledPartyNumber8_CON	CalledPartyNumber	LegId 9 "xxxx"H	
	PIX_CalledPartyNumberInvalid_CON	CalledPartyNumber	"xxxx"H	
	PIX_CalledPartyNumber1_ICA	CalledPartyNumber	LegId 2 "xxxx"H	
	PIX_CalledPartyNumber2_ICA	CalledPartyNumber	LegId 3 "xxxx"H	
	PIX_CalledPartyNumber3_ICA	CalledPartyNumber	LegId 4 "xxxx"H	
	PIX_CalledPartyNumber4_ICA	CalledPartyNumber	LegId 5 "xxxx"H	
	PIX_CalledPartyNumber5_ICA	CalledPartyNumber	LegId 6 "xxxx"H	
	PIX_CalledPartyNumber6_ICA	CalledPartyNumber	LegId 7 "xxxx"H	
	PIX_CalledPartyNumber7_ICA	CalledPartyNumber	LegId 8 "xxxx"H	
	PIX_CalledPartyNumber1_SetupInd	CalledPartyNumber	"xxxx"H	
	PIX_CalledPartyNumber2_SetupInd	CalledPartyNumber	"xxxx"H	
	PIX_CallingPartyNumber1	CallingPartyNumber	"xxxx"H	
	PIX_CallingPartyNumber2	CallingPartyNumber	"xxxx"H	
	PIX_CallingPartysCategory_CON	CallingPartysCategory	"xx"H	
	PIX_CallingPartysCategory_SetupInd	CallingPartysCategory	"xx"H	
	PIX_DateAndTime	DateAndTime	YYMMDDHHMMSS	
	PIX_Duration	Duration	Seconds	
	PIX_EventTypeCharging1	EventTypeCharging		
	PIX_EventTypeCharging2	EventTypeCharging		
	PIX_FCIBillingChargingCharacteristics	FCIBillingChargingCharacteristics		
	PIX_InbandInfo_message	InbandInfo	InformationToSend	
	PIX_Interval	Integer	Seconds	
	PIX_IPRoutingAddress	IPRoutingAddress	"xx"H	
	PIX_LocationNumber	LocationNumber	"xxx"H	
	PIX_MaximumNumberOfCounters	MaximumNumberOfCounters	"xx"H	
	PIX_NumberOfCalls	Integer	xx	
	PIX_OriginalCalledPartyNumber	CalledPartyNumber	"xxxx"H	
	PIX_RedirectingPartyNumber	CalledPartyNumber	"xxxx"H	
	PIX_RedirectionInformation	RedirectionInformation	"xx"H	
	PIX_ReleaseCause	Cause	"xx"H	
	PIX_RouteSelectFailure1Cause	Cause	"xx"H	
	PIX_RouteSelectFailure2Cause	Cause	"xx"H	
	PIX_ScflD	ScflD	"xxxx"H	
	PIX_ServiceInteractionIndicators	ServiceInteractionIndicators	"xx"H	
	PIX_ServiceKey1	ServiceKey	"xx"H	
	PIX_ServiceKey2	ServiceKey	"xx"H	
	PIX_SFBillingChargingCharacteristics	SFBillingChargingCharacteristics	"xxxx"H	
	PIX_StartTime	DateAndTime	YYMMDDHHMMSS	
	PIX_StopTime	DateAndTime	YYMMDDHHMMSS	

Item	Parameter	Parameter type	Explanation/Format	Value
	PIX_ElementaryMessageID	integer	xxx	
	PIX_CorrelationId	correlationID	"xxx"H	
	PIX_UiScriptID1	integer	xxx	
	PIX_UiScriptID2	integer	xxx	
	PIX_UiScriptIDInvalid	integer	xxx	
	PIX_UiScriptResult	UiScriptResult	"xxxx"H	
	PIX_UiScriptSpecificInfo	UiScriptSpecificInfo	"xxxx"H	

B.6.2.3 TCAP Parameter values

Table B.9 Parameter values

Item	Parameter	Parameter type	Explanation	Value
	PIX_Invokeld	InvokeldType	Direction SCF->SSF Direction SSF->SCF	
	PIX_Dialogueld	DialogueIDType	Direction SCF->SSF Direction SSF->SCF	

Annex C (normative): Protocol Conformance Test Report (PCTR) proforma for CORE INAP CS2 CPH protocol

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The PCTR Proforma is based on ISO/IEC 9646-6 [2]. Any additional information needed can be found in the present document.

C.1 Identification summary

C.1.1 Protocol conformance test report

Table C.1

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

C.1.2 IUT identification

Table C.2

Name:	
Version:	
Protocol specification:	
PICS:	
Previous PCTR if any:	

C.1.3 Testing environment

Table C.3

PIXIT number:	
ATS specification:	
Abstract test method:	
Means of testing identification:	
Date of testing:	
Conformance log reference(s):	
Retention date for log reference(s):	

C.1.4 Limits and reservation

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

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C.1.5 Comments

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

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C.2 IUT conformance status

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

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

C.3 Static conformance summary

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

Strike the appropriate words in this sentence.

C.4 Dynamic conformance summary

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

Strike the appropriate words in this sentence. If there are no "FAIL" verdicts to be recorded in clause C.6 of the present document strike the words "did or" otherwise strike the words "or did not".

Summary of the results of groups of test:

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C.5 Static conformance review report

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

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C.6 Test campaign report

Table C.4

ATS reference	Selected	Run	Verdict	Observations (see note)
MC				
IN2_A_CPH_MC_BV_01	Yes/No	Yes/No		
IN2_A_CPH_MC_BV_02	Yes/No	Yes/No		
IN2_A_CPH_MC_BI_01	Yes/No	Yes/No		
MCS				
IN2_A_CPH_MCS_BV_01	Yes/No	Yes/No		
IN2_A_CPH_MCS_BI_01	Yes/No	Yes/No		
RC				
IN2_A_CPH_RC_BV_01	Yes/No	Yes/No		
IN2_A_CPH_RC_BV_02	Yes/No	Yes/No		
IN2_A_CPH_RC_BV_03	Yes/No	Yes/No		
DL				
IN2_A_CPH_DL_BV_01	Yes/No	Yes/No		
IN2_A_CPH_DL_BV_02	Yes/No	Yes/No		
IN2_A_CPH_DL_BV_03	Yes/No	Yes/No		
IN2_A_CPH_DL_BI_01	Yes/No	Yes/No		
ML				
IN2_A_CPH_ML_BV_01	Yes/No	Yes/No		
IN2_A_CPH_ML_BV_02	Yes/No	Yes/No		
IN2_A_CPH_ML_BV_03	Yes/No	Yes/No		
IN2_A_CPH_ML_BI_01	Yes/No	Yes/No		
RR				
IN2_A_CPH_RR_BV_01	Yes/No	Yes/No		
IN2_A_CPH_RR_BV_02	Yes/No	Yes/No		
SL				
IN2_A_CPH_SL_BV_01	Yes/No	Yes/No		
IN2_A_CPH_SL_BV_02	Yes/No	Yes/No		
IN2_A_CPH_SL_BI_01	Yes/No	Yes/No		
ML				
IN2_A_CPH_ML_BV_01	Yes/No	Yes/No		
IN2_A_CPH_ML_BV_02	Yes/No	Yes/No		
IN2_A_CPH_ML_BV_03	Yes/No	Yes/No		
IN2_A_CPH_ML_BI_01	Yes/No	Yes/No		
CW				
IN2_A_CPH_CW_BV_01	Yes/No	Yes/No		
IN2_A_CPH_CW_BV_02	Yes/No	Yes/No		
IN2_A_CPH_CW_BV_03	Yes/No	Yes/No		
IN2_A_CPH_CW_BV_04	Yes/No	Yes/No		
IN2_A_CPH_CW_BI_01	Yes/No	Yes/No		
IN2_A_CPH_CW_BI_02	Yes/No	Yes/No		
Call Handling				
IN2_A_CPH_001	Yes/No	Yes/No		
IN2_A_CPH_002	Yes/No	Yes/No		
IN2_A_CPH_003	Yes/No	Yes/No		
IN2_A_CPH_004	Yes/No	Yes/No		
IN2_A_CPH_005	Yes/No	Yes/No		
IN2_A_CPH_006	Yes/No	Yes/No		
IN2_A_CPH_007	Yes/No	Yes/No		
IN2_A_CPH_008	Yes/No	Yes/No		
IN2_A_CPH_009	Yes/No	Yes/No		
IN2_A_CPH_010	Yes/No	Yes/No		
IN2_A_CPH_001	Yes/No	Yes/No		
IN2_A_CPH_002	Yes/No	Yes/No		
IN2_A_CPH_003	Yes/No	Yes/No		
IN2_A_CPH_004	Yes/No	Yes/No		
IN2_A_CPH_005	Yes/No	Yes/No		
IN2_A_CPH_006	Yes/No	Yes/No		

ATS reference	Selected	Run	Verdict	Observations (see note)
IN2_A_CPH_007	Yes/No	Yes/No		
IN2_A_CPH_008	Yes/No	Yes/No		
IN2_A_CPH_009	Yes/No	Yes/No		
IN2_A_CPH_010	Yes/No	Yes/No		
IN2_A_CPH_011	Yes/No	Yes/No		
IN2_A_CPH_012	Yes/No	Yes/No		
IN2_A_CPH_013	Yes/No	Yes/No		
IN2_A_CPH_014	Yes/No	Yes/No		
IN2_A_CPH_015	Yes/No	Yes/No		
IN2_A_CPH_016	Yes/No	Yes/No		
IN2_A_CPH_017	Yes/No	Yes/No		
IN2_A_CPH_018	Yes/No	Yes/No		
IN2_A_CPH_019	Yes/No	Yes/No		
IN2_A_CPH_020	Yes/No	Yes/No		
IN2_A_CPH_021	Yes/No	Yes/No		
IN2_A_CPH_022	Yes/No	Yes/No		
IN2_A_CPH_023	Yes/No	Yes/No		
IN2_A_CPH_024	Yes/No	Yes/No		
IN2_A_CPH_025	Yes/No	Yes/No		
IN2_A_CPH_026	Yes/No	Yes/No		
IN2_A_CPH_027	Yes/No	Yes/No		
IN2_A_CPH_028	Yes/No	Yes/No		
IN2_A_CPH_029	Yes/No	Yes/No		
IN2_A_CPH_030	Yes/No	Yes/No		
IN2_A_CPH_031	Yes/No	Yes/No		
IN2_A_CPH_032	Yes/No	Yes/No		
IN2_A_CPH_033	Yes/No	Yes/No		
IN2_A_CPH_034	Yes/No	Yes/No		
IN2_A_CPH_035	Yes/No	Yes/No		
IN2_A_CPH_036	Yes/No	Yes/No		
IN2_A_CPH_037	Yes/No	Yes/No		
IN2_A_CPH_038	Yes/No	Yes/No		
IN2_A_CPH_039	Yes/No	Yes/No		
IN2_A_CPH_030	Yes/No	Yes/No		
IN2_A_CPH_031	Yes/No	Yes/No		
IN2_A_CPH_032	Yes/No	Yes/No		
IN2_A_CPH_033	Yes/No	Yes/No		
IN2_A_CPH_034	Yes/No	Yes/No		
IN2_A_CPH_035	Yes/No	Yes/No		
IN2_A_CPH_036	Yes/No	Yes/No		
IN2_A_CPH_037	Yes/No	Yes/No		
IN2_A_CPH_038	Yes/No	Yes/No		
IN2_A_CPH_039	Yes/No	Yes/No		
IN2_A_CPH_040	Yes/No	Yes/No		
IN2_A_CPH_041	Yes/No	Yes/No		
IN2_A_CPH_042	Yes/No	Yes/No		
IN2_A_CPH_043	Yes/No	Yes/No		
IN2_A_CPH_044	Yes/No	Yes/No		
IN2_A_CPH_045	Yes/No	Yes/No		
IN2_A_CPH_046	Yes/No	Yes/No		
IN2_A_CPH_047	Yes/No	Yes/No		
IN2_A_CPH_048	Yes/No	Yes/No		
IN2_A_CPH_049	Yes/No	Yes/No		

NOTE: Reference to any observations made in clause C.7 in the present document.

C.7 Observations

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

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History

Document history		
V1.1.2	June 1999	Public Enquiry PE 9947: 1999-06-23 to 1999-11-19