Final draft **EN 301 152-2** V1.2.1 (1998-07)

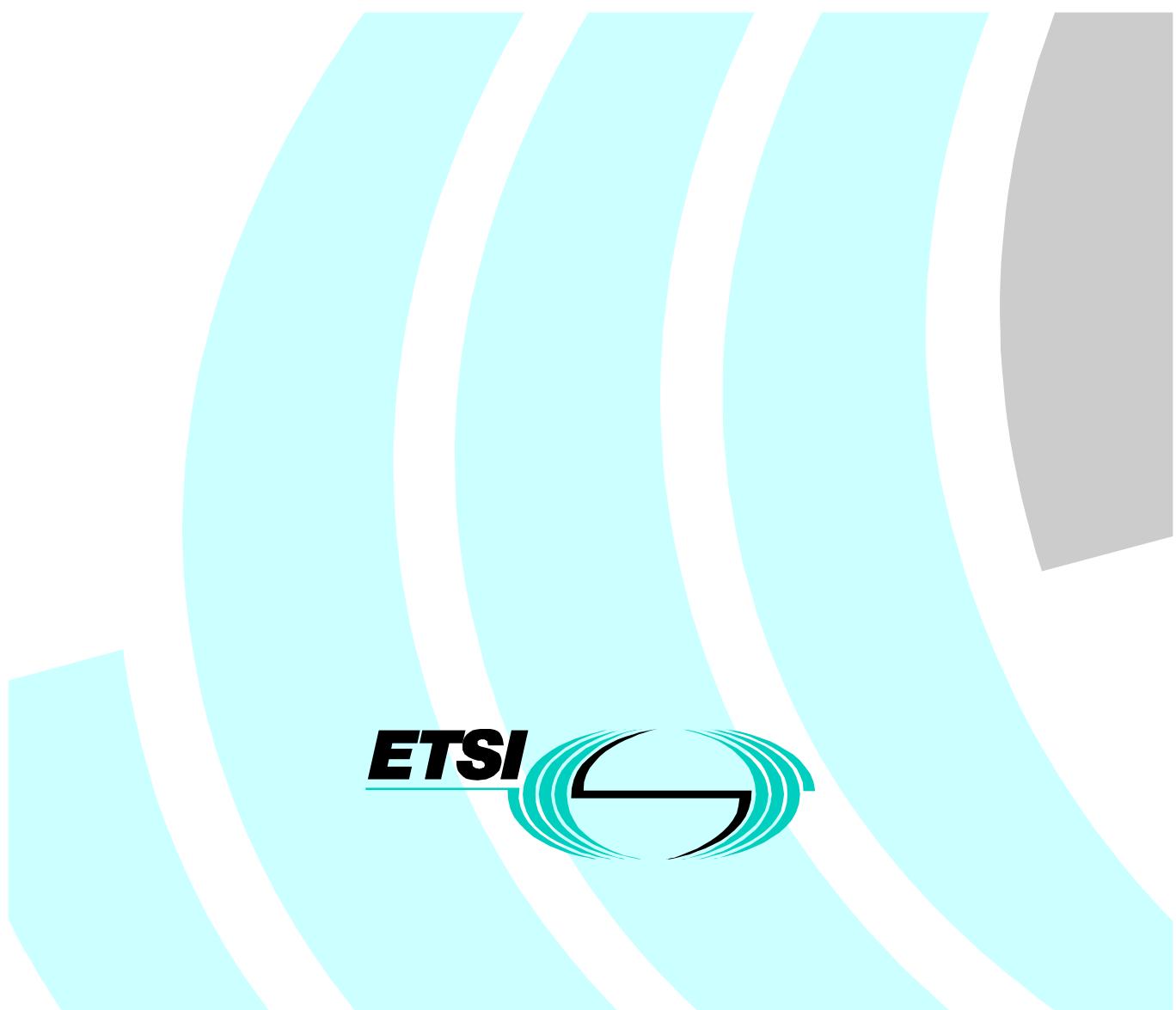*European Standard (Telecommunications series)*

Intelligent Network (IN);
IN Capability Set 1 (CS1) extension;
Intelligent Network Application Protocol (INAP);
Customized Applications for
Mobile network EnhancedLogic (CAMEL);
Part 2: Protocol Implementation Conformance
Statement (PICS) proforma specification

ETSI

Contents

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Foreword

This European Standard (Telecommunications series) has been produced by ETSI Technical Committee Signalling Protocols and Switching (SPS), and is now submitted for the Voting phase of the ETSI standards Two-step Approval Procedure.

The present document is part 2 of a multi-part standard covering the IN Capability Set 1 (CS1) extension; Intelligent Network Application Protocol (INAP); Customized Applications for Mobile network Enhanced Logic (CAMEL) as described below:

Part 1: "Protocol specification";

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

    NOTE: Further parts of the present document may be identified later.

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

This second part of EN 301 152 provides the Implementation Conformance Statement (ICS) proforma for the core Intelligent Network Application Protocol (INAP) of Intelligent Network (IN) Capability Set 1 (CS1) defined in ETS 300 374-1 [2] extended by the Intelligent Network Application Protocol (INAP) of Intelligent Network (IN) Capability Set 1 (CS1) extension defined in EN 301 152-1 [1] in compliance with the relevant requirements, and in accordance with the relevant guidance given in ISO/IEC 9646-7 [4].

ETS 300 374-2 [8] was taken as an editorial basis for the present document. Enhancements and modifications in respect to EN 301 152-1 [1] are covered by appropriate updates of existing tables or by new tables. For the CAMEL capability only a restricted subset of the protocol aspects of ETS 300 374-1 [2] is necessary. These restrictions are covered in the present document too.

2 References

References may be made to:

a) specific versions of publications (identified by date of publication, edition number, version number, etc.), in which case, subsequent revisions to the referenced document do not apply; or

b) all versions up to and including the identified version (identified by "up to and including" before the version identity); or

c) all versions subsequent to and including the identified version (identified by "onwards" following the version identity); or

d) publications without mention of a specific version, in which case 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.

2.1 Normative references

[1]   EN 301 152-1 (V1.2): "Intelligent Network (IN); IN Capability Set 1 (CS1) extension; Intelligent Network Application Protocol (INAP); Customized Applications for Mobile network Enhanced Logic (CAMEL); Part 1: Protocol specification".

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

[3]   ISO/IEC 9646-1 (1994): "Information technology - Open Systems Interconnection - Conformance testing methodology and framework - Part 1: General concepts".

[4]   ISO/IEC 9646-7 (1995): "Information technology - Open Systems Interconnection - Conformance testing methodology and framework - Part 7: Implementation Conformance Statements".

[5]   TS 101 044 (V5.5): "Digital cellular telecommunications system (Phase 2+); Customized Applications for Mobile network Enhanced Logic (CAMEL) - Stage 2 (GSM 03.78 version 5.5.0)".

[6]   TS 101 046 (V5.5): "Digital cellular telecommunications system (Phase 2+); Customized Applications for Mobile network Enhanced Logic (CAMEL); CAMEL Application Part (CAP) specification (GSM 09.78 version 5.5.0)".

[7]   GTS GSM 03.03: "Digital cellular telecommunications system (Phase 2+); Numbering, addressing and Identification GSM 03.03".

2.2 Informative references

[8]   ETS 300 374-2 (1996): "Intelligent Network (IN); Intelligent Network Capability Set 1 (CS1); Core Intelligent Network Application Protocol (INAP); Part 2: Protocol Implementation Conformance Statement (PICS) proforma specification for Service Switching Function (SSF), Specialized Resource Function (SRF) and Service Control Function (SCF)".

3 Definitions, symbols and abbreviations

3.1 Definitions

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

- terms defined in EN 301 152-1 [1];

- terms defined in ISO/IEC 9646-1 [3] and in ISO/IEC 9646-7 [4].

In particular, the following terms defined in ISO/IEC 9646-1 [3] apply:

Implementation Conformance Statement (ICS): A statement made by the supplier of an implementation or system claimed to conform to a given specification, stating which capabilities have been implemented. The ICS can take several forms: protocol ICS, profile ICS, profile specific ICS, information object ICS, etc.

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

Protocol ICS (PICS): An ICS for an implementation or system claimed to conform to a given protocol specification.

3.2 Abbreviations

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

AC	Application Context
ASE	Application Service Element
BCSM	Basic Call State Model
CS1	Capability Set 1
ICS	Implementation Conformance Statement
IN	Intelligent Network
INAP	Intelligent Network Application Protocol
IP	Intelligent Peripheral
IUT	Implementation Under Test
PDU	Protocol Data Unit
PICS	Protocol Implementation Conformance Statement
SCF	Service Control Function
SCP	Service Control Point
SCS	System Conformance Statement
SRF	Specialized Resource Function
SSF	Service Switching Function
SSP	Service Switching Point
SUT	System Under Test

Within the present document the terms gsmSSF and SSF and the terms gsmSCF and SCF respectively are used synonymously.

4   Conformance

If it claims to conform to the present document, the actual PICS proforma to be filled in by a supplier shall be technically equivalent to the text of the PICS proforma given in annex A, and shall preserve the numbering/naming and ordering of the proforma items.

A PICS which conforms to the present document shall be a conforming PICS proforma completed in accordance with the instructions for completion given in annex A, clause A.1.

Annex A (normative):
PICS proforma for core INAP CS1

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

A.1   Guidance for completing the PICS proforma

A.1.1   Purpose and structure

The purpose of this PICS proforma is to provide a mechanism whereby a supplier of an implementation of the requirements defined in EN 301 152-1 [1] may provide information about the implementation in a standardized manner.

The PICS proforma is subdivided into clauses for the following categories of information:

- instructions for completing the ICS proforma;

- identification of the implementation;

- identification of the protocol;

- PICS proforma tables;

    - global statement of conformance;

    - physical entities;

    - external interfaces;

    - application contexts;

    - operations;

    - arguments, results and errors;

    - timers;

    - range constants.

A.1.2   Symbols, abbreviations and terms

The PICS proforma contained in this annex is comprized of information in tabular form in accordance with the guidelines presented in ISO/IEC 9646-7 [4].

Item column

The item column contains a number which identifies the item in the table.

Item description column

The item description column describes in free text each respective item (e.g. parameters, timers, etc.). It implicitly means "is <item description> supported by the implementation?".

Status column

The following notations, defined in ISO/IEC 9646-7 [4], are used for the status column:

    m   mandatory - the capability is required to be supported.

o optional - the capability may be supported or not.

n/a not applicable - in the given context, the capability cannot be used.

x prohibited (excluded) - there is a requirement not to use this capability in the given context.

o.i qualified optional - for mutually exclusive or selectable options from a set. "i" is an integer which identifies an unique group of related optional items and the logic of their selection which is defined immediately following the table.

ci conditional - the requirement on the capability ("m", "o", "x" or "n/a") depends on the support of other optional or conditional items. "i" is an integer identifying an unique conditional status expression which is defined immediately following the table. For nested conditional expressions, the syntax "IF ... THEN (IF ... THEN ... ELSE...) ELSE ..." is used to avoid ambiguities.

Reference column

Entries in the reference column refer to subclauses of EN 301 152-1 [1], except where explicitly stated otherwise. Since EN 301 152-1 [1] is a delta document to ETS 300 374-1 [2], clauses which are missing in EN 301 152-1 [1] can be found in ETS 300 374-1 [2].

NOTE: A reference indicates only the location of the most essential information about an item. All additional requirements contained in EN 301 152-1 [1] have also to be taken into account when making a statement about the conformance of that particular item.

Support column

The support column shall be filled in by the supplier of the implementation. The following common notations, defined in ISO/IEC 9646-7 [4], are used for the support column:

Y or y supported by the implementation.

N or n not supported by the implementation.

N/A, n/a or - no answer required (allowed only if the status is n/a, directly or after evaluation of a conditional status).

NOTE: As stated in ISO/IEC 9646-7 [4], support for a Protocol Data Unit (PDU) requires the ability to parse all valid parameters of that PDU. Supporting a PDU while having no ability to parse a valid parameter is non-conformant. Support for a parameter on a PDU means that the semantics of that parameter are supported.

If this PICS proforma is completed in order to describe a multiple-profile support in a system, it is necessary to be able to answer that a capability is supported for one profile and not supported for another. In that case, the supplier shall enter the unique reference to a conditional expression, preceded by "?" (e.g. ?3). This expression shall be given in the cell provided at the bottom of the table. It uses predicates defined in the System Conformance Statement (SCS), each of which refers to a single profile and which takes the value TRUE if and only if that profile is to be used.

EXAMPLE: ?3: IF prof1 THEN Y ELSE N.

It is further possible to provide comments to an answer at the bottom of each table.

Values allowed column

The values allowed column contains the values or the ranges of values allowed.

Values supported column

The values supported column shall be filled in by the supplier of the implementation. In this column, the values or the ranges of values supported by the implementation shall be indicated.

References to items

For each possible item answer (answer in the support column) within the PICS proforma exists a unique reference, used, for example, in the conditional expressions. It is defined as the table identifier, followed by a solidus character "/", followed by the item number in the table. If there is more than one support column in a table, the columns shall be discriminated by letters (a, b, etc.), respectively.

EXAMPLE 1: A.5/4 is the reference to the answer of item 4 in table 5 of annex A.

EXAMPLE 2: A.6/3b is the reference to the second answer (i.e. in the second support column) of item 3 in table 6 of annex A.

A.1.3 Instructions for completing the PICS proforma

The supplier of the implementation shall complete the PICS proforma in each of the spaces provided using the notation described in subclause A.1.2.

Optional items in EN 301 152-1 [1] are dealt with as follows:

- mandatory protocol items need to be supported by both operation invokers and responders;

- optional protocol items are optional for operation invokers, but mandatory for operation responders; they may be mandatory also for the operation invokers if required by the CAMEL capability;

- network specific options are optional for both operation invokers and responders.

Table A.1 gives an overview of this rule tabular form.

Table A.1

Protocol item	Invoke request	Invoke indication
Mandatory	m	m
Optional	o	m
Network option	o	o

As a general rule, the ASN.1 "CHOICE" construct is indicated in the parameter tables:

- as an option (o.x) in the "Invoke request" column;

- as mandatory in the "Invoke indication" column.

When a (ASN.1) parameter which contains a "SIZE" field is not explicitly constrained in a table, then the complete size field has to be supported.

A.2   Identification of the implementation

Identification of the Implementation Under Test (IUT) and the system in which it resides (the System Under Test (SUT)) should be filled in so as to provide as much detail as possible regarding version numbers and configuration options.

The product supplier information and client information should both be filled in if they are different.

A person who can answer queries regarding information supplied in the PICS should be named as the contact person.

A.2.1   Date of the statement

....

A.2.2   Implementation Under Test (IUT) identification

IUT name:

....

....

IUT version:

....

A.2.3   System Under Test (SUT) identification

SUT name:

....

....

Hardware configuration:

....

....

....

Operating system:

....

A.2.4   Product supplier

Name:

....

Address:

....

....

....

Telephone number:

....

Facsimile number:

....

E-mail address:

....

Additional information:

....

....

....

A.2.5   Client

Name:

....

Address:

....

....

....

Telephone number:

....

Facsimile number:

....

E-mail address:

....

Additional information:

....

....

....

A.2.6   PICS contact person

Name:

....

Telephone number:

....

Facsimile number:

....

E-mail address:

....

Additional information:

....

....

....

A.3   Identification of the protocol

This PICS proforma applies to the following standard:

EN 301 152-1 (V1.2): "Intelligent Network (IN); IN Capability Set 1 (CS1) extension; Intelligent Network Application Protocol (INAP); Customized Application for Mobile network Enhanced Logic (CAMEL); Part 1: Protocol specification". That document is based on ETS 300 374-1[2].

A.4   PICS proforma tables

An explicit answer shall be entered, in each of the support or supported column boxes provided, using the notation described in subclause A.1.2.

The numbering of the following tables is not always consecutive but reflects the numbering of the corresponding tables of ETS 300 374-2 [8].

A.4.1   Global statement of conformance

Are all mandatory capabilities implemented? (Yes/No)   ....

> NOTE: Answering "No" to this question indicates non-conformance to the protocol specification. Non-supported mandatory capabilities are to be identified in this PICS, with an explanation of why the implementation is non-conforming, on pages attached to the PICS proforma.

A.4.2   Physical entities

Table A.2: Physical entities

Item	Name	Reference	Status	Support
1	SCP	4.2	n/a	
2	SSP	4.2	m	
3	IP	4.2	n/a	

Comments:

Table A.3: Capabilities

Item	Name	Reference	Status	Support
1	SSF-SRF-Relay-function	7.3.5	n/a	
2	Assisting-SSP-capability	7.3.5 (NOTE)	n/a	
NOTE:	See ETS 300 374-1, figure 25 cases c) and e).			

Comments:

A.4.3   External interfaces

Table A.4: External interfaces

Item	Name	Reference	Status	Support
1	SCF-SSF	(NOTE)	m	
2	SCF-SRF	(NOTE)	n/a	
NOTE:	It is assumed that the indicated external interfaces are between physical entities.			

Comments:

A.4.4   Application contexts

Table A.5: Application contexts

Item	Name	Reference	Initiator		Responder	
			Status	Support	Status	Support
1	Core-INAP-CS1-SSP-to-SCP-AC	6.5	n/a		n/a	
2	Core-INAP-CS1-assist-handoff-SSP-to-SCP-AC	6.5	n/a		n/a	
3	Core-INAP-CS1-IP-to-SCP-AC	6.5	n/a		n/a	
4	Core-INAP-CS1-SCP-to-SSP-AC	6.5	n/a		n/a	
5	Core-INAP-CS1-SCP-to-SSP-traffic-management-AC	6.5	n/a		n/a	
6	Core-INAP-CS1-SCP-to-SSP-service-management-AC	6.5	n/a		n/a	
7	Core-INAP-CS1-SSP-to-SCP-service-management-AC	6.5	n/a		n/a	
8	CAP-v1-gsmSSF-to-gsmSCF-AC	6.5	m		n/a	

Comments:

A.4.5   Operations

Table A.6: Application Service Elements (ASEs)

Item	Name	Reference	Invoke-Req		Invoke-Ind	
			Status	Support	Status	Support
1	initialDP	6.1, 6.4, 9.19	m		n/a	
2	assistRequestInstructions	6.1, 6.4, 9.5	n/a		n/a	
3	establishTemporaryConnection	6.1, 6.4, 9.15	n/a		n/a	
4	disconnectForwardConnection	6.1, 6.4, 9.14	n/a		n/a	
5	connectToResource	6.1, 6.4, 9.12	n/a		n/a	
6	connect	6.1, 6.4, 9.11	n/a		m	
7	releaseCall	6.1, 6.4, 9.23	n/a		m	
8	eventReportBCSM	6.1, 6.4, 9.17	m		n/a	
9	requestReportBCSMEvent	6.1, 6.4, 9.25	n/a		m	
10	eventNotificationCharging	6.1, 6.4, 9.16	n/a		n/a	
11	requestNotificationChargingEvent	6.1, 6.4, 9.24	n/a		n/a	
12	collectInformation	6.1, 6.4, 9.10	n/a		n/a	
13	continue	6.1, 6.4, 9.13	n/a		m	
14	initiateCallAttempt	6.1, 6.4, 9.20	n/a		n/a	
15	resetTimer	6.1, 6.4, 9.26	n/a		n/a	
16	furnishChargingInformation	6.1, 6.4, 9.18	n/a		n/a	
17	applyChargingReport	6.1, 6.4, 9.4	n/a		n/a	
18	applyCharging	6.1, 6.4, 9.3	n/a		n/a	
19	callGap	6.1, 6.4, 9.6	n/a		n/a	
20	serviceFilteringResponse	6.1, 6.4, 9.28	n/a		n/a	
21	activateServiceFiltering	6.1, 6.4, 9.1	n/a		n/a	
22	callInformationReport	6.1, 6.4, 9.7	n/a		n/a	
23	callInformationRequest	6.1, 6.4, 9.8	n/a		n/a	
24	sendChargingInformation	6.1, 6.4, 9.27	n/a		n/a	
25	specializedResourceReport	6.1, 6.4, 9.29	n/a		n/a	
26	playAnnouncement	6.1, 6.4, 9.21	n/a		n/a	
27	promptAndCollectUserInformation	6.1, 6.4, 9.22	n/a		n/a	
28	cancel	6.1, 6.4, 9.9	n/a		n/a	
29	activityTest	6.1, 6.4, 9.2	n/a		m	

Comments:

A.4.6   Arguments, results and errors

A.4.6.1   ActivateServiceFiltering

Not applicable for CAMEL.

A.4.6.2   ActivityTest

For the operation ActivityTest there are no invocation arguments, no result arguments and no errors.

A.4.6.3   ApplyCharging

Not applicable for CAMEL.

A.4.6.4 ApplyChargingReport

Not applicable for CAMEL.

A.4.6.5 AssistRequestInstructions

Not applicable for CAMEL.

A.4.6.6 CallGap

Not applicable for CAMEL.

A.4.6.7 CallInformationReport

Not applicable for CAMEL.

A.4.6.8 CallInformationRequest

Not applicable for CAMEL.

A.4.6.9 Cancel

Not applicable for CAMEL.

A.4.6.10 CollectInformation

Not applicable for CAMEL.

A.4.6.11 Connect

Table A.23: Connect invocation arguments

Item	Name	Reference	Invoke-Request				Invoke-Indication			
			Status	Support	Value		Status	Support	Value	
					Allowed	Supported			Allowed	Supported
1	**destinationRoutingAddress**	6.3	n/a				m			
2	**alertingPattern**	6.3	n/a				n/a			
3	**correlationID**	6.3	n/a				n/a			
4	**cutAndPaste**	6.3	n/a		0..22		n/a		0..22	
5	**originalCalledPartyID**	6.3	n/a				m			
6	**routeList**	6.3	n/a				n/a			
7	**scfID**	6.3	n/a				n/a			
8	**extensions**	6.3	n/a				o			
9	type-local Integer	6.3	n/a				n/a			
10	type-global OBJECT IDENTIFIER	6.3	n/a				c2306			
11	criticality	6.3	n/a		0		c2306		0	
12	value	6.3	n/a				c2306			
13	**serviceInteractionIndicators**	6.3	n/a				n/a			
14	**callingPartyNumber**	6.3	n/a				n/a			
15	**callingPartysCategory**	6.3	n/a				m			
16	**redirectingPartyID**	6.3	n/a				m			
17	**redirectionInformation**	6.3	n/a				m			
18	**suppressionOfAnnouncement**	6.3	n/a				m			
19	**oCSIApplicable**	6.3	n/a				m			
20	**genericNumbers**	6.3	n/a				m			

c2306: IF A.23/8b THEN m ELSE n/a

Comments:

Table A.24: Connect errors

Item	Name	Reference	Status	Support
1	missingParameter	6.2	o	
2	systemFailure	6.2	o	
3	taskRefused	6.2	o	
4	unexpectedComponentSequence	6.2	o	
5	unexpectedDataValue	6.2	o	
6	unexpectedParameter	6.2	o	

Comments:

A.4.6.12 ConnectToResource

Not applicable for CAMEL.

A.4.6.13 Continue

For the operation Continue there are no invocation arguments, no results and no errors.

A.4.6.14 DisconnectForwardConnection

Not applicable for CAMEL.

A.4.6.15 EstablishTemporaryConnection

Not applicable for CAMEL.

A.4.6.16 EventNotificationCharging

Not applicable for CAMEL.

A.4.6.17 EventReportBCSM

Table A.31: EventReportBCSM invocation arguments

Item	Name	Reference	Invoke-Request				Invoke-Indication			
			Status	Support	Value		Status	Support	Value	
					Allowed	Supported			Allowed	Supported
1	**eventTypeBCSM**	6.3	m		7, 9, 15, 17		n/a		7, 9, 15, 17	
2	**eventSpecificInformationBCSM**	6.3	m				n/a			
3	routeSelectFailureSpecificInfo	6.3	n/a				n/a			
4	oCalledPartyBusySpecificInfo	6.3	n/a				n/a			
5	oDisconnectSpecificInfo	6.3	c3104				n/a			
6	tCalledPartyBusySpecificInfo	6.3	n/a				n/a			
7	tDisconnectSpecificInfo	6.3	c3104				n/a			
8	**legID**	6.3	o				n/a			
9	receivingSideID	6.3	c3107		'01'H, '02'H		n/a		'01'H, '02'H	
10	**miscCallInfo**	6.3	o		0, 1 (note)		n/a		0, 1 (note)	
11	**extensions**	6.3, 6.6	o				n/a			
12	type-local Integer	6.3	n/a				n/a			
13	type-global OBJECT IDENTIFIER	6.3	c3111				n/a			
14	criticality	6.3	c3113		0		n/a		0	
15	value	6.3	c3111				n/a			
NOTE:	DP7 and DP15 are only notification (1).									

c3104: IF A.31/2a THEN o.1 ELSE n/a
c3107: IF A.31/8a THEN o.1 ELSE n/a

c3111: IF A.31/11a THEN m ELSE n/a
c3113: IF A.31/11a THEN o ELSE n/a

o.1: At least one of the options shall be supported.

Comments:

A.4.6.18 FurnishChargingInformation

Not applicable for CAMEL.

A.4.6.19 InitialDP

Table A.34: InitialDP invocation arguments

Item	Name	Reference	Invoke-Request				Invoke-Indication			
			Status	Support	Value		Status	Support	Value	
					Allowed	Supported			Allowed	Supported
1	**serviceKey**	6.3	m		$0..2^{31}-1$		n/a		$0..2^{31}-1$	
2	**calledPartyNumber**	6.3	m				n/a			
3	**callingPartyNumber**	6.3	m				n/a			
4	**callingPartysCategory**	6.3	m				n/a			
5	**cGEncountered**	6.3	n/a		1..2		n/a		1..2	
6	**iPSSPCapabilities**	6.3	n/a				n/a			
7	**iPAvailable**	6.3	n/a				n/a			
8	**locationNumber**	6.3	m				n/a			
9	**originalCalledPartyID**	6.3	m				n/a			
10	**extensions**	6.3, 6.6	o				n/a			
11	type-local Integer	6.3	n/a				n/a			
12	type-global OBJECT IDENTIFIER	6.3	c3405				n/a			
13	criticality	6.3	c3407		0		n/a		0	
14	value	6.3	c3405				n/a			
15	**highLayerCompatibility**	6.3	m				n/a			
16	**serviceInteractionIndicators**	6.3	n/a				n/a			
17	**additionalCallingPartyNumber**	6.3	m				n/a			
18	**forwardCallIndicators**	6.3	n/a				n/a			
19	**bearerCapability**	6.3	m				n/a			
20	**eventTypeBCSM**	6.3	m		2, 12		n/a		2, 12	
21	**redirectingPartyID**	6.3	m				n/a			
22	**redirectionInformation**	6.3	m				n/a			
23	**iMSI**	6.3	m				n/a			
24	**subscriberState**	6.3	m		(NOTE)		n/a		(NOTE)	
25	**locationInformation**	6.3	m				n/a			
26	**ext-basicServiceCode**	6.3	m				n/a			
27	**callReferenceNumber**	6.3	m				n/a			
28	**mscAddress**	6.3	m				n/a			
29	**calledPartyBCDNumber**	6.3	m				n/a			
NOTE:	Allowed values: camelBusy, assumedIdle, netDetNotReachable.									

c3405: IF A.34/10a THEN m ELSE n/a
c3407: IF A.34/10a THEN o ELSE n/a

Comments:

Table A.35: InitialDP errors

Item	Name	Reference	Status	Support
1	missingCustomerRecord	6.2	m	
2	missingParameter	6.2	m	
3	systemFailure	6.2	m	
4	taskRefused	6.2	m	
5	unexpectedComponentSequence	6.2	m	
6	unexpectedDataValue	6.2	m	
7	unexpectedParameter	6.2	m	

Comments:

A.4.6.20 InitiateCallAttempt

Not applicable for CAMEL.

A.4.6.21 PlayAnnouncement

Not applicable for CAMEL.

A.4.6.22 PromptAndCollectUserInformation

Not applicable for CAMEL.

A.4.6.23 ReleaseCall

For the operation ReleaseCall there are is only one mandatory invocation argument, there are no results and no errors, and therefore no table in the present document.

A.4.6.24 RequestNotificationChargingEvent

Not applicable for CAMEL.

A.4.6.25 RequestReportBCSMEvent

Table A.44: RequestReportBCSMEvent invocation arguments

Item	Name	Reference	Invoke-Request				Invoke-Indication			
			Status	Support	Value		Status	Support	Value	
					Allowed	Supported			Allowed	Supported
1	**bcsmEvents**	6.3	n/a				m			
2	eventTypeBCSM	6.3	n/a		7, 9, 15, 17		m		7, 9, 15, 17	
3	monitorMode	6.3	n/a		0..1 (note 2)		m		0..1 (note 2)	
4	legID	6.3	n/a				m			
5	sendingSideID	6.3	n/a		'01'H, '02'H		m		'01'H, '02'H	
6	dPSpecificCriteria	6.3	n/a				n/a			
7	numberOfDigits	6.3	n/a		1..255		n/a		1..255	
8	applicationTimer	6.3	n/a		0..2047		n/a		0..2047	
9	**extensions**	6.3, 6.6	n/a				o			
10	type-local Integer	6.3	n/a				n/a			
11	type-global OBJECT IDENTIFIER	6.3	n/a				c4410			
12	criticality	6.3	n/a		0		c4410		0	
13	value	6.3	n/a				c4410			
NOTE 1: For CAMEL The RequestReportBCSMEvent operation is only allowed in the state "Waiting for InstructionS".										
NOTE 2: DP7 and DP15 may be notifyAndContinue (1).										

c4410: IF A.44/9b THEN m ELSE n/a

Comments:

Table A.45: RequestReportBCSMEvent errors

Item	Name	Reference	Status	Support
1	missingParameter	6.2	o	
2	systemFailure	6.2	o	
3	taskRefused	6.2	o	
4	unexpectedComponentSequence	6.2	o	
5	unexpectedDataValue	6.2	o	
6	unexpectedParameter	6.2	o	

Comments:

A.4.6.26 ResetTimer

Not applicable for CAMEL.

A.4.6.27 SendChargingInformation

Not applicable for CAMEL.

A.4.6.28 ServiceFilteringResponse

Not applicable for CAMEL.

A.4.6.29 SpecializedResourceReport

Not applicable for CAMEL.

A.4.7   Timers

Table A.51: Operation timers

Item	Operation timer		Reference	Status	Values	
					allowed	supported
1	ActivateServiceFiltering	Tasf	6.1	n/a	1 - 60 s	
2	ActivityTest	Tat	6.1	n/a	1 - 20 s	
3	ApplyCharging	Tac	6.1	n/a	1 - 10 s	
4	ApplyChargingReport	Tacr	6.1	n/a	1 - 10 s	
5	AssistRequestInstructions	Tari	6.1	n/a	1 - 10 s	
6	CallGap	Tcg	6.1	n/a	1 - 10 s	
7	CallInformationReport	Tcirp	6.1	n/a	1 - 10 s	
8	CallInformationRequest	Tcirq	6.1	n/a	1 - 10 s	
9	Cancel	Tcan	6.1	n/a	1 - 10 s	
10	CollectInformation	Tci	6.1	n/a	1 - 60 s	
11	Connect	Tcon	6.1	n/a	1 - 20 s	
12	ConnectToResource	Tctr	6.1	n/a	1 - 10 s	
13	Continue	Tcue	6.1	n/a	1 - 20 s	
14	DisconnectForwardConnection	Tdfc	6.1	n/a	1 - 10 s	
15	EstablishTemporaryConnection	Tetc	6.1	n/a	1 - 60 s	
16	EventNotificationCharging	Tenc	6.1	n/a	1 - 10 s	
17	EventReportBCSM	Terb	6.1	m	1 - 20 s	
18	FurnishChargingInformation	Tfci	6.1	n/a	1 - 10 s	
19	InitialDP	Tidp	6.1	m	1 - 20 s	
20	InitiateCallAttempt	Tica	6.1	n/a	1 - 10 s	
21	ReleaseCall	Trc	6.1	n/a	1 - 20 s	
22	RequestNotificationChargingEvent	Trnc	6.1	n/a	1 - 10 s	
23	RequestReportBCSMEvent	Trrb	6.1	n/a	1 - 20 s	
24	ResetTimer	Trt	6.1	n/a	1 - 10 s	
27	SendChargingInformation	Tsci	6.1	n/a	1 - 10 s	
28	ServiceFilteringResponse	Tsfr	6.1	n/a	1 - 10 s	
29	PlayAnnouncement	Tpa	6.1	n/a	1 - 1800 s	
30	PromptAndCollectUserInformation	Tpc	6.1	n/a	1 - 1800 s	
31	SpecializedResourceReport	Tsrr	6.1	n/a	1 - 10 s	

Comments:

Table A.52: Timers

Item	Timer	Reference	Status	Values	
				allowed	supported
1	T_{SSF} after sending InitialDP	7.1.5 7.1.5.3	m	(NOTE)	
2	T_{SSF} after sending AssistRequestInstructions	7.1.5 7.1.6.2	n/a	(NOTE)	
3	T_{SSF} after entering state c "Waiting for Instructions"	7.1.5 7.1.5.3	m	(NOTE)	
4	T_{SSF} after entering state d "Waiting for End of User Interaction"	7.1.5 7.1.5.4	n/a	(NOTE)	
5	$T_{SCF-SSF}$ after receiving InitialDP	7.2.5 7.2.5.2	n/a	< 52/1	
6	$T_{SCF-SSF}$ after receiving AssistRequestInstructions	7.2.5 7.2.5.2	n/a	< 52/2	
7	$T_{SCF-SSF}$ after entering state 2.2.2 "Queueing FSM"	7.2.5 7.2.5.2.2.2	n/a	< 52/3	
8	$T_{SCF-SSF}$ after entering state 3.2 "Waiting for Assist Request Instructions"	7.2.5 7.2.5.3.2	n/a	< 52/4	
9	$T_{Assist/Hand-Off}$	7.2.5	n/a	(NOTE)	
10	T_{SRF}	7.3.4	n/a	(NOTE)	
11	$T_{ActTest}$	7.2.5	n/a	(NOTE)	
NOTE:	EN 301 152-1 and ETS 300 374-1 do not indicate the allowed values, so the implementor shall indicate the supported values.				

Comments:

A.4.8   Range constants

Table A.53: Range constants

Item	Name	Reference	Status	Support	Values	
					allowed	supported
1	minAChBillingChargingLength	6.3	n/a			
2	maxAChBillingChargingLength	6.3	n/a			
3	maxBearerCapabilityLength	6.3	c5302		11	
4	minCalledPartyNumberLength	6.3	m		3	
5	maxCalledPartyNumberLength	6.3	m		12	
6	minCallingPartyNumberLength	6.3	m		2	
7	maxCallingPartyNumberLength	6.3	m		10	
8	minCallResultLength	6.3	n/a			
9	maxCallResultLength	6.3	n/a			
10	minCauseLength	6.3	m		2	
11	maxCauseLength	6.3	m		2	
12	minDigitsLength	6.3	c5307		3	
13	maxDigitsLength	6.3	c5307		11	
14	minDisplayInformationLength	6.3	n/a			
15	maxDisplayInformationLength	6.3	n/a			
16	minEventSpecificInformationChargingLength	6.3	n/a			
17	maxEventSpecificInformationChargingLength	6.3	n/a			
18	minEventTypeChargingLength	6.3	n/a			
19	maxEventTypeChargingLength	6.3	n/a			
20	minFCIBillingChargingLength	6.3	n/a			
21	maxFCIBillingChargingLength	6.3	n/a			
22	minIPAvailableLength	6.3	n/a			
23	maxIPAvailableLength	6.3	n/a			
24	minIPSSPCapabilitiesLength	6.3	n/a			
25	maxIPSSPCapabilitiesLength	6.3	n/a			
26	minLocationNumberLength	6.3	c5314		2	
27	maxLocationNumberLength	6.3	c5314		10	
28	minMessageContentLength	6.3	n/a			
29	maxMessageContentLength	6.3	n/a			
30	minOriginalCalledPartyIDLength	6.3	m		2	
31	maxOriginalCalledPartyIDLength	6.3	m		10	
32	minRedirectingPartyIDLength	6.3	m		2	
33	maxRedirectingPartyIDLength	6.3	m		10	
34	minRouteListLength	6.3	n/a			
35	maxRouteListLength	6.3	n/a			
36	minScfIDLength	6.3	n/a			
37	maxScfIDLength	6.3	n/a			
38	minSCIBillingChargingLength	6.3	n/a			
39	maxSCIBillingChargingLength	6.3	n/a			
40	minServiceInteractionIndicatorsLength	6.3	n/a			
41	maxServiceInteractionIndicatorsLength	6.3	n/a			
42	minSFBillingChargingLength	6.3	n/a			
43	maxSFBillingChargingLength	6.3	n/a			
44	numOfBCSMEvents	6.3	m		10	
45	numOfChargingEvents	6.3	n/a			
46	numOfExtensions	6.3	c5325		10	
47	numOfMessageIDs	6.3	n/a			
48	minCalledPartyBCDNumberLength	6.3	m		1	
49	maxCalledPartyBCDNumberLength	6.3	m		41	
50	minGenericNumberLength	6.3	m		3	
51	maxGenericNumberLength	6.3	m		11	
52	numOfGenericNumbers	6.3	m		5	

c5302: IF A.34/19 THEN m ELSE n/a   -- bearerCapability
c5307: IF A.34/17 THEN m ELSE n/a   -- additionalCallingPartyNumber
c5314: IF A.34/8 THEN m ELSE n/a   -- locationNumber
c5325: IF A.23/8   -- extensions

OR A.31/11   -- extensions
OR A.34/10   -- extensions
OR A.44/9 THEN m ELSE n/a   -- extensions

Comments:

A.4.9   Additional tables

A.4.9.1   Error parameters

Table A.54: System failure

Item	Namer	Reference	Status	Values	
				allowed	supported
1	UnavailableNetworkResource	4.4	m	(note)	
NOTE:	The following values are allowqed: unavailableResources(0), componentFailure(1), basicCallProcessingException(2).				

Comments:

A.4.9.2   Detection points

Table A.55: Trigger detection points

Item	Name	Reference	Status	Support
1	DP2 CollectedInfo	9.19	o.1	
2	DP12 TerminatingAttemptAuthorized	9.19	o.1	

o.1:At least one of the options shall be supported.

Comments:

A.4.9.3   SCCP Addressing

Table A.56: Inter-PLMN addressing, Called Party Address

Item	Name	Reference	Status	Values	
				allowed	supported
1	SSN indicator	4.4	m	Note	
2	Point code indicator	4.4	m	0	
3	Global title indicator	4.4	m	0100	
4	Translation type	4.4	m	0	
5	Routing indicator	4.4	m	0	
NOTE:	The code point used shall be that specified for CAP in GSM 03.03, [7];i.e. 5.				

Comments:

Table A.57: Inter-PLMN addressing, Calling Party Address

Item	Name	Reference	Status	Values	
				allowed	supported
1	SSN indicator	4.4	m	Note	
2	Point code indicator	4.4	m	0	
3	Global title indicator	4.4	m	0100	
4	Translation type	4.4	m	0	
5	Routing indicator	4.4	m	0	
NOTE:	The code point used shall be that specified for CAP in GSM 03.03, [7];i.e. 5.				

Comments:

History

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<tr><td>V1.1.1</td><td>January 1998</td><td>Public Enquiry</td><td>PE 9822:</td><td>1998-01-30 to 1998-05-29</td></tr>
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