

EN 301 065-2 V1.2.2 (1998-10)

European Standard (Telecommunications series)

**Integrated Services Digital Network (ISDN);
Completion of Calls on No Reply (CCNR)
supplementary service;
Digital Subscriber Signalling System No. one (DSS1) protocol;
Part 2: Protocol Implementation Conformance
Statement (PICS) proforma specification**



Reference

DEN/SPS-05115-2 (9v0i0ipc.PDF)

Keywords

ISDN, DSS1, supplementary service, CCNR,
PICS, ICS

ETSI

Postal address

F-06921 Sophia Antipolis Cedex - FRANCE

Office address

650 Route des Lucioles - Sophia Antipolis
Valbonne - 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
Sous-Préfecture de Grasse (06) N° 7803/88

Internet

secretariat@etsi.fr
<http://www.etsi.org>

Copyright Notification

No part may be reproduced except as authorized by written permission.
The copyright and the foregoing restriction extend to reproduction in all media.

© European Telecommunications Standards Institute 1998.
All rights reserved.

Contents

Intellectual Property Rights.....	5
Foreword	5
1 Scope	6
2 References	6
2.1 Normative references	6
2.2 Informative references	7
3 Definitions, symbols and abbreviations	7
3.1 Definitions	7
3.2 Symbols	7
3.3 Abbreviations.....	8
4 Conformance.....	8
Annex A (normative): PICS proforma for EN 301 065-1	9
A.1 Guidance for completing the PICS proforma.....	9
A.1.1 Purposes and structure	9
A.1.2 Abbreviations and conventions	9
A.1.3 Instructions for completing the PICS proforma	11
A.2 Identification of the implementation.....	12
A.2.1 Date of the statement	12
A.2.2 Implementation Under Test (IUT) identification	12
A.2.3 System Under Test (SUT) identification.....	12
A.2.4 Product supplier	12
A.2.5 Client	13
A.2.6 PICS contact person.....	13
A.3 PICS/SCS relationship	14
A.4 Identification of the protocol	14
A.5 Global statement of conformance	14
A.6 Roles.....	15
A.7 User	15
A.7.1 Major capabilities	15
A.7.2 Subsidiary capabilities	16
A.7.3 Protocol data units	16
A.7.4 Protocol data unit parameters.....	17
A.7.5 Timers.....	18
A.7.6 Call states.....	18
A.8 Network.....	19
A.8.1 Major capabilities	19
A.8.2 Subsidiary capabilities	19
A.8.3 Protocol data units	19
A.8.4 Protocol data unit parameters.....	20
A.8.5 Timers.....	22
A.8.6 Call states.....	22
Annex B (normative): Requirements list	23
B.1 User	23
B.1.1 Requirements on items used in the basic call PICS	23
B.1.2 Requirements on items used in the generic functional protocol PICS	24
B.1.3 Requirements on items used in the supplementary service interactions PICS.....	25

B.2	Network.....	25
B.2.1	Requirements on items used in the basic call PICS	25
B.2.2	Requirements on items used in the generic functional protocol PICS	25
B.2.3	Requirements on items used in the supplementary service interactions PICS.....	26
History		27

Intellectual Property Rights

IPRs essential or potentially essential to the present document may have been declared to ETSI. The information pertaining to these essential IPRs, if any, is publicly available for **ETSI members and non-members**, and can be found in SR 000 314: *"Intellectual Property Rights (IPRs); Essential, or potentially Essential, IPRs notified to ETSI in respect of ETSI standards"*, which is available **free of charge** from the ETSI Secretariat. Latest updates are available on the ETSI Web server (<http://www.etsi.fr/ipr> or <http://www.etsi.org/ipr>).

Pursuant to the ETSI IPR Policy, no investigation, including IPR searches, has been carried out by ETSI. No guarantee can be given as to the existence of other IPRs not referenced in SR 000 314 (or the updates on the ETSI Web server) which are, or may be, or may become, essential to the present document.

Foreword

This European Standard (Telecommunications series) has been produced by ETSI Technical Committee Signalling Protocols and Switching (SPS).

The present document is part 2 of a multi-part standard covering the Digital Subscriber Signalling System No. one (DSS1) protocol specification for the Integrated Services Digital Network (ISDN) Completion of Calls on No Reply (CCNR) supplementary service, 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".

To evaluate conformance of a particular implementation, it is necessary to have a statement of which capabilities and options have been implemented for a given Open Systems Interconnection (OSI) protocol. Such a statement is called a Protocol Implementation Conformance Statement (PICS).

National transposition dates	
Date of adoption of this EN:	9 October 1998
Date of latest announcement of this EN (doa):	31 January 1999
Date of latest publication of new National Standard or endorsement of this EN (dop/e):	31 July 1999
Date of withdrawal of any conflicting National Standard (dow):	31 July 1999

1 Scope

This second part of EN 301 065 is applicable to the stage three of the Completion of Calls on No Reply (CCNR) supplementary service for the pan-European Integrated Services Digital Network (ISDN) as provided by European public telecommunications operators at the T reference point or coincident S and T reference point (as defined in ITU-T Recommendation I.411 [12]) by means of the Digital Subscriber Signalling System No. one (DSS1) protocol. Stage three identifies the protocol procedures and switching functions needed to support a telecommunications service (see CCITT Recommendation I.130 [11]).

The present document provides the Protocol Implementation Conformance Statement (PICS) proforma for the ISDN DSS1 CCNR supplementary service protocol as specified in EN 301 065-1 [8] in compliance with the relevant requirements and in accordance with the relevant guidance given in ISO/IEC 9646-7 [10].

The supplier of a protocol implementation which is claimed to conform to EN 301 065-1 [8] is required to complete a copy of the PICS proforma provided in annex A of the present document and is required to provide the information necessary to identify both the supplier and the implementation.

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 300 195-1: "Integrated Services Digital Network (ISDN); Supplementary service interactions; Digital Subscriber Signalling System No. one (DSS1) protocol; Part 1: Protocol specification".
- [2] EN 300 195-2: "Integrated Services Digital Network (ISDN); Supplementary service interactions; Digital Subscriber Signalling System No. one (DSS1) protocol; Part 2: Protocol Implementation Conformance Statement (PICS) proforma specification".
- [3] 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".
- [4] ETS 300 196-2: "Integrated Services Digital Network (ISDN); Generic functional protocol for the support of supplementary services; Digital Subscriber Signalling System No. one (DSS1) protocol; Part 2: Protocol Implementation Conformance Statement (PICS) proforma specification".
- [5] EN 300 359-1: "Integrated Services Digital Network (ISDN); Completion of Calls to Busy Subscriber (CCBS) supplementary service; Digital Subscriber Signalling System No. one (DSS1) protocol; Part 1: Protocol specification".
- [6] 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]".

- [7] 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".
- [8] EN 301 065-1 (V.1.2): "Integrated Services Digital Network (ISDN); Completion of Calls on No Reply (CCNR) supplementary service; Digital Subscriber Signalling System No. one (DSS1) protocol; Part 1: Protocol specification".

2.2 Informative references

- [9] ISO/IEC 9646-1: "Information technology - Open systems interconnection - Conformance testing methodology and framework - Part 1: General concepts".
- [10] ISO/IEC 9646-7: "Information technology - Open systems interconnection - Conformance testing methodology and framework - Part 7: Implementation Conformance Statements".
- [11] CCITT Recommendation I.130 (1988): "Method for the characterization of telecommunication services supported by an ISDN and network capabilities of an ISDN".
- [12] ITU-T Recommendation I.411 (1993): "ISDN user-network interfaces - Reference configurations".

3 Definitions, symbols and abbreviations

3.1 Definitions

For the purposes of the present document, the following definitions, in addition to those given in EN 301 065-1 [8] apply:

Protocol Implementation Conformance Statement (PICS): A statement made by the supplier of an Open Systems Interconnection (OSI) implementation or system, stating which capabilities have been implemented for a given OSI protocol (see ISO/IEC 9646-1 [9]).

PICS proforma: A document, in the form of a questionnaire, designed by the protocol specifier or conformance test suite specifier, which, when completed for an OSI implementation or system, becomes the PICS (see ISO/IEC 9646-1 [9]).

Static conformance review: A review of the extent to which the static conformance requirements are met by the IUT, accomplished by comparing the PICS with the static conformance requirements expressed in the relevant standard(s) (see ISO/IEC 9646-1 [9]).

3.2 Symbols

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

AND	Boolean "and"
C	Conditional requirement (to be observed if the relevant conditions apply)
M	Mandatory requirement (to be observed in all cases)
N/A	Not applicable, not supported or the conditions for status are not meet
No	not supported
NOT	Boolean "not"
O	Option (may be selected to suit the implementation, provided that any requirements applicable to the option are observed)
O.n	Options, but support required for either at least one or only one of the options in the group labelled with the same numeral "n"
OR	Boolean "or"
Yes	supported

3.3 Abbreviations

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

CCBS	Completion of Calls to Busy Subscriber
CCNR	Completion of Calls on No Reply
DSS1	Digital Subscriber Signalling System No. one
IET	Information Elements Transmitted
ISDN	Integrated Services Digital Network
IUT	Implementation Under Test
MC	Major Capabilities
MT	Messages Transmitted
OSI	Open Systems Interconnection
P	Parameters
PICS	Protocol Implementation Conformance Statement
R	Role
RL	Requirements List
SC	Subsidiary Capabilities
SCS	System Conformance Statement
SS	Supplementary Service
SUT	System Under Test
TM	Timers

4 Conformance

A PICS proforma which conforms to this PICS proforma specification shall be technically equivalent to annex A, and shall preserve the numbering and ordering of the items in annex A.

A PICS which conforms to this PICS proforma specification shall:

- a) describe an implementation which claims to conform to EN 301 065-1 [8];
- b) be a conforming ICS proforma which has been completed in accordance with the instructions for completion given in clause A.1;
- c) include the information necessary to uniquely identify both the supplier and the implementation.

Annex A (normative): PICS proforma for EN 301 065-1

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 Purposes and structure

The purpose of this PICS proforma is to provide a mechanism whereby a supplier of an implementation of the requirements defined in ETS <reference specification id> [1] may provide information about the implementation in a standardized manner.

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

- guidance for completing the PICS proforma;
- identification of the implementation;
- identification of the <reference specification type>;
- global statement of conformance;
- <further subclauses>.

A.1.2 Abbreviations and conventions

The PICS proforma contained in this annex is comprised of information in tabular form in accordance with the guidelines presented in ISO/IEC 9646-7 [10].

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 [10], 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, it is impossible to use the capability.
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 a 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 a unique conditional status expression which is defined immediately following the table.
i	irrelevant (out-of-scope) - capability outside the scope of the reference specification. No answer is requested from the supplier.

NOTE 1: This use of "i" status is not to be confused with the suffix "i" to the "o" and "c" statuses above.

Reference column

The reference column makes reference to ETS <reference specification id> **[Error! Bookmark not defined.]**, except where explicitly stated otherwise.

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 [10], 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).

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 space for comments provided at the bottom of the table. It uses predicates defined in the 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 1: ?3: IF prof1 THEN Y ELSE N.

NOTE 2: As stated in ISO/IEC 9646-7 [10], support for a received 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.

Values allowed column

The values allowed column contains the type, the list, the range, or the length of values allowed. The following notations are used:

- range of values: <min value> .. <max value>
 example: 5 .. 20
- list of values: <value1>, <value2>, ..., <valueN>
 example: 2 ,4 ,6 ,8, 9
 example: '1101'B, '1011'B, '1111'B
 example: '0A'H, '34'H, '2F'H
- list of named values: <name1>(<val1>), <name2>(<val2>), ..., <nameN>(<valN>)
 example: reject(1), accept(2)
- length: size (<min size> .. <max size>)
 example: size (1 .. 8)

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 a unique reference exists, 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 are discriminated by letters (a, b, etc.), respectively.

EXAMPLE 2: A.5/4 is the reference to the answer of item 4 in table 5 of annex A.

EXAMPLE 3: 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.

Prerequisite line

A prerequisite line takes the form: Prerequisite: <predicate>.

A prerequisite line after a clause or table title indicates that the whole clause or the whole table is not required to be completed if the predicate is FALSE.

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. In particular, 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.

However, the tables containing in "user role" subclause shall only be completed for user implementations, and the tables containing in "network role" subclause shall only be completed for network implementations.

If necessary, the supplier may provide additional comments in space at the bottom of the tables or separately.

More detailed instructions are given at the beginning of the different subclauses of the PICS proforma.

A.2 Identification of the implementation

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:

.....

Additional information:

.....

.....

.....

A.2.5 Client

Name:

.....

Address:

.....

.....

.....

Telephone number:

.....

Facsimile number:

.....

Additional information:

.....

.....

.....

A.2.6 PICS contact person

Name:

.....

Address:

.....

.....

.....

Telephone number:

.....

Facsimile number:

.....

Additional information:

.....

.....

.....

A.3 PICS/SCS relationship

Provide the relationship of the PICS with the SCS for the system:

.....

.....

.....

.....

A.4 Identification of the protocol

This PICS proforma applies to the following standard:

EN 301 065-1 (V1.2): "Integrated Services Digital Network (ISDN); Completion of Calls on No Reply (CCNR) supplementary service; Digital Subscriber Signalling System No. one (DSS1) protocol; Part 1: Protocol specification".

A.5 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 the PICS, with an explanation of why the implementation is non-conforming. Explanations may be entered in the comments field at the bottom of each table or on attached pages.

A.6 Roles

Table A.1: Roles

Item	Major role: Does the implementation...	Conditions for status	Status	Reference	Support
	Type of implementation				
R 1	support the CCNR supplementary service? (note)		O	5	[]Yes []No
R 2.1	support user requirements?		O.1	9	[]Yes []No
R 2.2	support network requirements?		O.1	9	[]Yes []No
R 3.1	support requirements at the coincident S and T reference point?	R 2.2 R 2.1	O.2 O.3	9	[]Yes []No
R 3.2	support procedures for interworking with private ISDN at the T reference point?	R 2.2 R 2.1	O.2 O.3	10	[]Yes []No
R 4.1	support user requirements at the interface of the called (remote) user	R 2.1 AND R 3.1 R 2.1 AND R 3.2 NOT R 2.1	O M N/A	9, 10	[]Yes []No []N/A
R 4.2	support user requirements at the interface of the calling (served) user	R 2.1 NOT R 2.1	M N/A	9, 10	[]Yes []No []N/A
R 4.3	support network requirements at the interface of the called (remote) user	R 2.2 NOT R 2.2	M N/A	9, 10	[]Yes []No []N/A
R 4.4	support network requirements at the interface of the calling (served) user	R 2.2 NOT R 2.2	M N/A	9, 10	[]Yes []No []N/A
O.1	Support of one and only one of these options is required.				
O.2	Support of at least one of these options is required.				
O.3	Support of one and only one of these options is required.				
NOTE:	EN 301 065-1 [8] contains requirements that can be implemented independently of the support of the supplementary service.				
Comments:					

A.7 User

A.7.1 Major capabilities

Table A.2: Major capabilities - user

Item	Major capability: Does the implementation support...	Conditions for status	Status	Reference	Support
MC 1	the offering of CCNR recall to all compatible terminals (global recall)?	R 1 AND R 3.1 NOT (R 1 AND R 3.1)	M N/A	6.1, 9.1.1	[]Yes []No []N/A
MC 2	the offering of CCNR recall to terminals which have activated the CCNR service (specific recall)?	R 1 AND R 3.1 NOT (R 1 AND R 3.1)	M N/A	6.1	[]Yes []No []N/A
MC 3	the call information retention procedure?	R 3.1 NOT R 3.1	M N/A	9.6, 9.1.1	[]Yes []No []N/A
MC 4	the CCBS request retention option?	R 1 AND R 3.2 NOT (R 1 AND R 3.2)	O N/A	6.1, 10.1.2.1, 10.1.6.2, 10.2.2.1, 10.2.6.2	[]Yes []No []N/A
Comments:					

A.7.2 Subsidiary capabilities

Table A.3: Subsidiary capabilities - user side

Item	Subsidiary capability: Does the implementation support...	Conditions for status	Status	Reference	Support
SC 1	the retention of the CallLinkageID on receipt of CallInfoRetain invoke component?	R 3.1 NOT R 3.1	O N/A	9.6.1	[] Yes [] No [] N/A
Comments:					

A.7.3 Protocol data units

No items requiring response.

A.7.4 Protocol data unit parameters

Table A.4: Facility information element components received by the user

Item	Facility information element components: Does the implementation support...	Conditions for status	Status	Reference	Support
P 1	CCBSRemoteUserFree invoke?	R 1 AND R 3.1 NOT (R 1 AND R 3.1)	M N/A	9.4.1.1, 9.4.2.1, 9.4.2.2	[]Yes []No []N/A
P 2	CCBSStopAlerting invoke?	R 1 AND R 3.1 NOT (R 1 AND R 3.1)	M N/A	9.4.2.1, 9.4.2.2	[]Yes []No []N/A
P 3	CCBSErase invoke?	R 1 AND R 3.1 NOT (R 1 AND R 3.1)	M N/A	9.4.4.1	[]Yes []No []N/A
P 4	CCBSBFree invoke?	R 1 AND R 3.1 NOT (R 1 AND R 3.1)	M N/A	9.4.5.1	[]Yes []No []N/A
P 5	CCBSStatusRequest invoke?	R 1 AND R 3.1 NOT (R 1 AND R 3.1)	M N/A	9.4.6.1, annex B	[]Yes []No []N/A
P 6.1	CallInfoRetain invoke? (note)	R 3.1 NOT R 3.1	M N/A	9.6.1	[]Yes []No []N/A
P 6.2	EraseCallLinkageID invoke? (note)	R 3.1 NOT R 3.1	M N/A	9.6.1	[]Yes []No []N/A
P 7.1	CCNRRequest return result?	R 1 AND R 3.1 NOT (R 1 AND R 3.1)	M N/A	9.1.1	[]Yes []No []N/A
P 7.2	CCNRRequest return error?	R 1 AND R 3.1 NOT (R 1 AND R 3.1)	M N/A	9.1.2	[]Yes []No []N/A
P 8.1	CCBSDeactivate return result?	R 1 AND R 3.1 NOT (R 1 AND R 3.1)	M N/A	9.2.1	[]Yes []No []N/A
P 8.2	CCBSDeactivate return error?	R 1 AND R 3.1 NOT (R 1 AND R 3.1)	M N/A	9.2.2	[]Yes []No []N/A
P 9.1	CCNRInterrogate return result?	R 1 AND R 3.1 NOT (R 1 AND R 3.1)	M N/A	9.3.1.1, 9.3.2.1	[]Yes []No []N/A
P 9.2	CCNRInterrogate return error?	R 1 AND R 3.1 NOT (R 1 AND R 3.1)	M N/A	9.3.1.2, 9.3.2.2	[]Yes []No []N/A
P 10	CCBSCall return error?	R 1 AND R 3.1 NOT R 3.1	M N/A	9.4.2.2	[]Yes []No []N/A
P 11	CCBS-T-Available invoke?	R 1 AND R 3.2 NOT (R 1 AND R 3.2)	M N/A	10.1.1.1, 10.1.6.2	[]Yes []No []N/A
P 12	CCBS-T-RemoteUserFree invoke?	R 1 AND R 3.2 NOT (R 1 AND R 3.2)	M N/A	10.1.3.1	[]Yes []No []N/A
P 13.1	CCNR-T-Request return result?	R 1 AND R 3.2 NOT (R 1 AND R 3.2)	M N/A	10.1.2.1	[]Yes []No []N/A
P 13.2	CCNR-T-Request return error?	R 1 AND R 3.2 NOT (R 1 AND R 3.2)	M N/A	10.1.2.2	[]Yes []No []N/A
P 14	CCNR-T-Request invoke?	R 1 AND R 3.2 NOT (R 1 AND R 3.2)	M N/A	10.2.2.1, 10.2.2.2	[]Yes []No []N/A
P 15	CCBS-T-Suspend invoke?	R 1 AND R 3.2 NOT (R 1 AND R 3.2)	M N/A	10.2.4.1	[]Yes []No []N/A
P 16	CCBS-T-Resume invoke?	R 1 AND R 3.2 NOT (R 1 AND R 3.2)	M N/A	10.2.5.1	[]Yes []No []N/A
P 17	CCBS-T-Call invoke?	R 1 AND R 3.2 NOT (R 1 AND R 3.2)	M N/A	10.2.6.1	[]Yes []No []N/A
NOTE : The call information retention procedure is a generic procedure which can be supported independently from the CCNR supplementary service.					
Comments:					

Table A.5: Facility information element components sent by the user

Item	Facility information element components: Does the implementation support...	Conditions for status	Status	Reference	Support
P 18	CCNRRequest invoke?	R 1 AND R 3.1 NOT (R 1 AND R 3.1)	M N/A	9.1.1	[]Yes []No []N/A
P 19	CCBSDeactivate invoke?	R 1 AND R 3.1 NOT (R 1 AND R 3.1)	M N/A	9.2.1	[]Yes []No []N/A
P 20	CCNRInterrogate invoke?	R 1 AND R 3.1 NOT (R 1 AND R 3.1)	M N/A	9.3.3.1, 9.3.2.1	[]Yes []No []N/A
P 21	CCBSCall invoke?	R 1 AND R 3.1 NOT (R 1 AND R 3.1)	M N/A	9.4.2.1, 9.4.3.1	[]Yes []No []N/A
P 22	CCBSStatusRequest return result?	R 1 AND R 3.1 NOT (R 1 AND R 3.1)	M N/A	9.4.6.1, 9.4.6.2	[]Yes []No []N/A
P 23	CCNR-T-Request invoke?	R 1 AND R 3.2 NOT (R 1 AND R 3.2)	M N/A	10.1.2.1, 10.1.2.2	[]Yes []No []N/A
P 24	CCBS-T-Suspend invoke?	R 1 AND R 3.2 NOT (R 1 AND R 3.2)	M N/A	10.1.4.1	[]Yes []No []N/A
P 25	CCBS-T-Resume invoke?	R 1 AND R 3.2 NOT (R 1 AND R 3.2)	M N/A	10.1.5.1	[]Yes []No []N/A
P 26	CCBS-T-Call invoke?	R 1 AND R 3.2 NOT (R 1 AND R 3.2)	M N/A	10.1.6.1	[]Yes []No []N/A
P 27	CCBS-T-Available invoke?	R 1 AND R 3.2 NOT (R 1 AND R 3.2)	M N/A	10.2.1.1, 10.2.6.2	[]Yes []No []N/A
P 28	CCBS-T-RemoteUserFree invoke?	R 1 AND R 3.2 NOT (R 1 AND R 3.2)	M N/A	10.2.3.1	[]Yes []No []N/A
P 29.1	CCNR-T-Request return result?	R 1 AND R 3.2 NOT (R 1 AND R 3.2)	M N/A	10.2.2.1	[]Yes []No []N/A
P 29.2	CCNR-T-Request return error?	R 1 AND R 3.2 NOT (R 1 AND R 3.2)	M N/A	10.2.2.2	[]Yes []No []N/A
Comments:					

A.7.5 Timers

No items requiring response.

A.7.6 Call states

No items requiring response.

A.8 Network

A.8.1 Major capabilities

Table A.6: Major capabilities - network

Item	Major capability: Does the implementation...	Conditions for status	Status	Reference	Support
MC 5	provide the call information retention procedure?	R 3.1 NOT R 3.1	M N/A	9.1.1, 9.6	[]Yes []No []N/A
MC 6	support CCBS request retention option?	R 1 NOT R 1	O N/A	9.4.3.2, 10.1.2.1	[]Yes []No []N/A
MC 7.1	offer the CCNR recall to all compatible terminals (global recall)?	R 1 AND R 3.1 NOT (R 1 AND R 3.1)	O.4 N/A	6.1	[]Yes []No []N/A
MC 7.2	offer the CCNR recall to the terminal which has activated the CCNR supplementary service (specific recall)?	R 1 AND R 3.1 NOT (R 1 AND R 3.1)	O.4 N/A	6.1	[]Yes []No []N/A
MC 8	support check for identical calls option?	R 1 AND R 3.1 NOT (R 1 AND R 3.1)	O N/A	6.1	[]Yes []No []N/A
O.4	Support of at least one of these options is required				
Comments:					

A.8.2 Subsidiary capabilities

Table A.7: Subsidiary capabilities - network

Item	Subsidiary capability: Does the implementation...	Conditions for status	Status	Reference	Support
SC 1	Call information retention				
SC 1.1	support the restriction of the number of calls being subject to the retention procedure?	R 3.1 NOT R 3.1	O N/A	9.6.1	[]Yes []No []N/A
SC 1.2	support the release of retained call information prior to the expiry of timer T-RETENTION, if it has knowledge that no other supplementary service will need this information?	R 3.1 NOT R 3.1	O.5 N/A	9.6.1	[]Yes []No []N/A
SC 1.3	support the retention of call information until timer T-RETENTION expires?	R 3.1 NOT R 3.1	O.5 N/A	9.6.1	[]Yes []No []N/A
SC 1.4	support, on receipt of a reject component including invoke identifier, the release of retained call information prior to the expiry of timer T-RETENTION?	R 3.1 NOT R 3.1	O.6 N/A	9.6.2	[]Yes []No []N/A
SC 1.5	support, on receipt of a reject component including invoke identifier, the retention of call information until timer T-RETENTION expires?	R 3.1 NOT R 3.1	O.6 N/A	9.6.2	[]Yes []No []N/A
O.5	Support of one and only one of these options is required				
O.6	Support of one and only one of these options is required				
Comments:					

A.8.3 Protocol data units

No items requiring response.

A.8.4 Protocol data unit parameters

Table A.8: Facility information element components received by the network

Item	Facility information element components: Does the implementation support the ...	Conditions for status	Status	Reference	Support
P 30	CCNRRequest invoke?	R 1 AND R 3.1 NOT (R 1 AND R 3.1)	M N/A	9.1.1	[]Yes []No []N/A
P 31	CCBSDeactivate invoke?	R 1 AND R 3.1 NOT (R 1 AND R 3.1)	M N/A	9.2.1	[]Yes []No []N/A
P 32	CCNRInterrogate invoke?	R 1 AND R 3.1 NOT (R 1 AND R 3.1)	M N/A	9.3.1.1, 9.3.2.1	[]Yes []No []N/A
P 33	CCBSCall invoke?	R 1 AND R 3.1 NOT (R 1 AND R 3.1)	M N/A	9.4.2.1, 9.4.3.1	[]Yes []No []N/A
P 34	CCBSStatusRequest return result?	R 1 AND R 3.1 NOT (R 1 AND R 3.1)	M N/A	9.4.6.1, 9.4.6.2	[]Yes []No []N/A
P 35	CCNR-T-Request invoke?	R 1 AND R 3.2 NOT (R 1 AND R 3.2)	M N/A	10.1.2.1, 10.1.2.2	[]Yes []No []N/A
P 36	CCBS-T-Suspend invoke?	R 1 AND R 3.2 NOT (R 1 AND R 3.2)	M N/A	10.1.4.1	[]Yes []No []N/A
P 37	CCBS-T-Resume invoke?	R 1 AND R 3.2 NOT (R 1 AND R 3.2)	M N/A	10.1.5.1	[]Yes []No []N/A
P 38	CCBS-T-Call invoke?	R 1 AND R 3.2 NOT (R 1 AND R 3.2)	M N/A	10.1.6.1	[]Yes []No []N/A
P 39	CCBS-T-Available invoke?	R 1 AND R 3.2 NOT (R 1 AND R 3.2)	M N/A	10.2.1.1, 10.2.6.2	[]Yes []No []N/A
P 40	CCBS-T-RemoteUserFree invoke?	R 1 AND R 3.2 NOT (R 1 AND R 3.2)	M N/A	10.2.3.1	[]Yes []No []N/A
P 41.1	CCNR-T-Request return result?	R 1 AND R 3.2 NOT (R 1 AND R 3.2)	M N/A	10.2.2.1	[]Yes []No []N/A
P 41.2	CCNR-T-Request return error?	R 1 AND R 3.2 NOT (R 1 AND R 3.2)	M N/A	10.2.2.2	[]Yes []No []N/A
Comments:					

Table A.9: Facility information element components sent by the network

Item	Facility information element components: Does the implementation support...	Conditions for status	Status	Reference	Support
P 42	CCBSRemoteUserFree invoke?	R 1 AND R 3.1 NOT (R 1 AND R 3.1)	M N/A	9.4.1.1, 9.4.2.1, 9.4.2.2	[]Yes []No []N/A
P 43	CCBSStopAlerting invoke?	R 1 AND R 3.1 NOT (R 1 AND R 3.1)	M N/A	9.4.2.1, 9.4.2.2	[]Yes []No []N/A
P 44	CCBSErase invoke?	R 1 AND R 3.1 NOT (R 1 AND R 3.1)	M N/A	9.4.4.1	[]Yes []No []N/A
P 45	CCBSBFree invoke?	R 1 AND R 3.1 NOT (R 1 AND R 3.1)	M N/A	9.4.5.1	[]Yes []No []N/A
P 46	CCBSStatusRequest invoke?	R 1 AND R 3.1 NOT (R 1 AND R 3.1)	M N/A	9.4.6.1	[]Yes []No []N/A
P 47	CallInfoRetain invoke? (note)	R 3.1 NOT R 3.1	M N/A	9.6.1	[]Yes []No []N/A
P 48	EraseCallLinkageID invoke? (note)	R 3.1 NOT R 3.1	M N/A	9.6.1	[]Yes []No []N/A
P 49.1	CCNRRequest return result?	R 1 AND R 3.1 NOT (R 1 AND R 3.1)	M N/A	9.1.1	[]Yes []No []N/A
P 49.2	CCNRRequest return error?	R 1 AND R 3.1 NOT (R 1 AND R 3.1)	M N/A	9.1.2	[]Yes []No []N/A
P 50.1	CCBSDeactivate return result?	R 1 AND R 3.1 NOT (R 1 AND R 3.1)	M N/A	9.2.1	[]Yes []No []N/A
P 50.2	CCBSDeactivate return error?	R 1 AND R 3.1 NOT (R 1 AND R 3.1)	M N/A	9.2.2	[]Yes []No []N/A
P 51.1	CCNRInterrogate return result?	R 1 AND R 3.1 NOT (R 1 AND R 3.1)	M N/A	9.3.1.1, 9.3.2.1	[]Yes []No []N/A
P 51.2	CCNRInterrogate return error?	R 1 AND R 3.1 NOT (R 1 AND R 3.1)	M N/A	9.3.1.2, 9.3.2.2	[]Yes []No []N/A
P 52	CCBSCall return error?	R 1 AND R 3.1 NOT (R 1 AND R 3.1)	M N/A	9.4.2.2	[]Yes []No []N/A
P 53	CCBS-T-Available invoke?	R 1 AND R 3.2 NOT (R 1 AND R 3.2)	M N/A	10.1.1.1, 10.1.6.2	[]Yes []No []N/A
P 54	CCBS-T-RemoteUserFree invoke?	R 1 AND R 3.2 NOT (R 1 AND R 3.2)	M N/A	10.1.3.1	[]Yes []No []N/A
P 55.1	CCNR-T-Request return result?	R 1 AND R 3.2 NOT (R 1 AND R 3.2)	M N/A	10.1.2.1	[]Yes []No
P 55.2	CCNR-T-Request return error?	R 1 AND R 3.2 NOT (R 1 AND R 3.2)	M N/A	10.1.2.2	[]Yes []No
P 56	CCNR-T-Request invoke?	R 1 AND R 3.2 NOT (R 1 AND R 3.2)	M N/A	10.2.2.1, 10.2.2.2	[]Yes []No
P 57	CCBS-T-Suspend invoke?	R 1 AND R 3.2 NOT (R 1 AND R 3.2)	M N/A	10.2.4.1	[]Yes []No
P 58	CCBS-T-Resume invoke?	R 1 AND R 3.2 NOT (R 1 AND R 3.2)	M N/A	10.2.5.1	[]Yes []No
P 59	CCBS-T-Call invoke?	R 1 AND R 3.2 NOT (R 1 AND R 3.2)	M N/A	10.2.6.1	[]Yes []No
NOTE: The call information retention procedure is a generic procedure which can be supported independently from the CCNR supplementary service					
Comments:					

A.8.5 Timers

Table A.10: Timers - network

Item	Timer: Does the implementation support...	Conditions for status	Status	Reference	Support
TM 1	T-CCBS1?	R 1 AND R 3.1 NOT (R 1 AND R 3.1)	M N/A	9.4.6.1, 9.4.6.2, 13	[]Yes []No []N/A
TM 2	T-CCBS2?	R 1 AND R 3.1 NOT (R 1 AND R 3.1)	M N/A	9.1.1, 9.1.2, 13	[]Yes []No []N/A
TM 3	T-CCBS3?	R 1 AND R 3.1 NOT (R 1 AND R 3.1)	M N/A	9.4.1.1, 9.4.1.2, 13	[]Yes []No []N/A
TM 4	T-CCBS4?	R 1 AND R 3.1 NOT (R 1 AND R 3.1)	M N/A	9.5.3.1, 9.5.3.2, 13	[]Yes []No []N/A
TM 5	T-CCBS5?	R 1 AND R 3.2 NOT (R 1 AND R 3.2)	M N/A	10.2.2.1, 13	[]Yes []No []N/A
TM 6	T-CCBS6?	R 1 AND R 3.2 NOT (R 1 AND R 3.2)	M N/A	10.1.2.1, 13	[]Yes []No []N/A
TM 7	T-RETENTION?	MC 5 NOT MC 5	M N/A	9.1.1, 9.6.1, 9.6.2, 13	[]Yes []No []N/A
Comments:					

A.8.6 Call states

No items requiring response.

Annex B (normative): Requirements list

This annex repeats in the form of a requirements list some items of the basic call, generic functional protocol and supplementary service interactions PICS proforma required for support of EN 301 065-1 [8]. No support column is provided as the answers are to be entered in the relevant base PICS proforma.

In the tables which follow in this annex, the status of the base PICS proforma is indicated as "C" (conditional) or "O" (optional). The "C" status is used where the base PICS proforma contains a number of interdependent items which need not be repeated in the present document. "O" indicates that the item in the base PICS proforma is dependent on one or more other items, at least one of which has an optional status. The exact interdependency is fully specified in the base PICS proforma specification.

B.1 User

B.1.1 Requirements on items used in the basic call PICS

In the tabulations which follow in this subclause all item numbers are as contained in EN 300 403-3 [7]. All references are to EN 301 065-1 [8] unless otherwise stated.

Table B.1: Major capabilities - user (from EN 300 403-3 [7])

Item	Major capability: Does the implementation support...	Status base	SS conditions for status	SS status	Reference
MCu 1	outgoing calls?	O	R 4.2 NOT R 4.2	M N/A	[6] 5.1
MCu 2	incoming calls?	O	R 4.1 NOT R 4.1	M N/A	[6] 5.2
MCu 23.1	status request procedures for "existing services"? (note)	O	R 3.1 AND R 4.2 NOT (R 3.1 AND R 4.2)	M N/A	[6] 5.13
NOTE: At the calling (served) user, the generic procedure of EN 300 196-1 [3] is applicable, with the exception that the CCBSStatusRequest components are used instead of the components of the StatusRequest operation.					

Table B.2: Messages transmitted - user (from EN 300 403-3 [7])

Item	Message: Does the implementation support the transmission of...	Status base	SS conditions for status	SS status	Reference
MTu 1	ALERTING?	C	R 3.2 AND R 4.1 NOT (R 3.2 AND R 4.1)	M N/A	10.2; [6] 5.2.5.2

B.1.2 Requirements on items used in the generic functional protocol PICS

In the tabulations which follow in this subclause all item numbers are as contained in ETS 300 196-2 [4]. All references are to EN 301 065-1 [8] unless otherwise stated.

Table B.3: Major capabilities - user (from ETS 300 196-2 [4])

Item	Major capability: Does the implementation support...	Status base	SS conditions for status	SS status	Reference
MCu 2	the functional protocol (common information element category) for the control of supplementary services?	O	R 2.1 NOT R 2.1	M N/A	[3] 6.3, 8
MCu 2.1	bearer related supplementary service procedure?	O	R 2.1 NOT R 2.1	M N/A	9.4, 9.6, 10.1, 10.2; [3] 8.3.1
MCu 2.5	point-to-point (bearer independent) connection oriented transport mechanism?	O	R 2.1 AND R 3.2 NOT (R 2.1 AND R 3.2)	M N/A	10.1, 10.2; [3] 8.3.2.1
MCu 2.6	point-to-point (bearer independent) connectionless transport mechanism?	O	R 3.1 AND R 4.2 NOT (R 3.1 AND R 4.2)	O.7 N/A	9.4, 9.6; [3] 8.3.2.2
MCu 2.7	broadcast (bearer independent) connectionless transport mechanism?	O	R 3.1 AND R 4.2 NOT (R 3.1 AND R 4.2)	O.7 N/A	9.4, 9.6; [3] 8.3.2.4
MCu 5.1	activation?	O	R 3.1 AND R 4.2 NOT (R 3.1 AND R 4.2)	M N/A	9.1; [3] 10.2.2
MCu 5.2	deactivation?	O	R 3.1 AND R 4.2 NOT (R 3.1 AND R 4.2)	M N/A	9.2; [3] 10.2.3
MCu 5.3	interrogation?	O	R 3.1 AND R 4.2 NOT (R 3.1 AND R 4.2)	M N/A	9.3; [3] 10.2.4
MCu 6	status request procedure? (note)	O	R 3.1 AND R 4.2 NOT (R 3.1 AND R 4.2)	M N/A	9.4, 9.5, annex B; [3] 10.3
O.7 Support of at least one of these options is required					
NOTE: At the calling (served) user, the generic procedure of EN 300 196-1 [3] is applicable, with the exception that the CCBSStatusRequest components are used instead of the components of the StatusRequest operation. At the called (remote) user, the generic procedure of EN 300 196-1 [3] is applicable. Support of the generic status request procedures is mandatory for any implementation conforming to ETS 301 065-1 [8] that provides a circuit-mode basic telecommunication service that is not an existing service (i.e. that is not solely associated with speech, 3,1 kHz audio or 64 kbit/s unrestricted bearer capabilities).					

Table B.4: Messages transmitted - user (from ETS 300 196-2 [4])

Item	Message: Does the implementation support...	Status base	SS conditions for status	SS status	Reference
MTu 1	the inclusion of FACILITY?	C	R 2.1 NOT R 2.1	M N/A	[3] 8.3

Table B.5: REGISTER PDU parameters transmitted - user

Item	REGISTER PDU parameters: Does the implementation support...	Status base	SS conditions for status	SS status	Reference
IETu 5.4	Facility?	O	R 3.2 AND R 4.2 NOT (R 3.2 AND R 4.2)	M N/A	10.1.2, 10.1.3; [3] 8.3.2.1.1

Table B.6: ALERTING PDU parameters transmitted - user

Item	ALERTING PDU parameters: Does the implementation support...	Status base	SS conditions for status	SS status	Reference
IETu 9.1	Facility?	O	R 3.2 AND R 4.1 NOT (R 3.2 AND R 4.1)	M N/A	10.2; [3] 11.2.2.1

B.1.3 Requirements on items used in the supplementary service interactions PICS

In the tabulations which follow in this subclause all item numbers are as contained in EN 300 195-2 [2]. All references are to EN 301 065-1 [8] unless otherwise stated.

Table B.7: Major capabilities - user

Item	Major capability: Does the implementation support...	Status base	SS conditions for status	SS status	Reference
MC 1.28	the CCNR supplementary service interactions with other implemented supplementary services?	O	R 1 AND R 2.1 NOT (R 1 AND R 2.1)	M N/A	9.1, 9.3.1, 9.5.4, 10.1.2, 10.2.2, 12; [1] 5.57 to 5.66

B.2 Network

B.2.1 Requirements on items used in the basic call PICS

No additional requirements.

B.2.2 Requirements on items used in the generic functional protocol PICS

In the tabulations which follow in this subclause all item numbers are as contained in ETS 300 196-2 [4]. All references are to EN 301 065-1 [8] unless otherwise stated.

Table B.8: Major capabilities - network (from ETS 300 196-2 [4])

Item	Major capability: Does the implementation support...	Status base	SS conditions for status	SS status	Reference
MCn 2	the functional protocol (common information element category) for the control of supplementary services?	O	R 2.2 NOT R 2.2	M N/A	[3] 6.3, 8
MCn 2.1	bearer related supplementary service procedure?	O	R 2.2 NOT R 2.2	M N/A	9.4, 9.6, 10.1, 10.2; [3] 8.3.1
MCn 2.5	point-to-point (bearer independent) connection oriented transport mechanism?	O	R 2.2 AND R 3.2 NOT (R 2.2 AND R 3.2)	M N/A	10.1, 10.2; [3] 8.3.2.1
MCn 2.6	point-to-point (bearer independent) connectionless transport mechanism?	O	R 3.1 AND R 4.4 NOT (R 3.1 AND R 4.4)	O.8 N/A	9.4, 9.6; [3] 8.3.2.2
MCn 2.7	broadcast (bearer independent) connectionless transport mechanism?	O	R 3.1 AND R 4.4 NOT (R 3.1 AND R 4.4)	O.8 N/A	9.4, 9.6; [3] 8.3.2.4
MCn 5.1	activation?	O	R 3.1 AND R 4.4 NOT (R 3.1 AND R 4.4)	M N/A	9.1; [3] 10.2.2
MCn 5.2	deactivation?	O	R 3.1 AND R 4.4 NOT (R 3.1 AND R 4.4)	M N/A	9.2; [3] 10.2.3
MCn 5.3	interrogation?	O	R 3.1 AND R 4.4 NOT (R 3.1 AND R 4.4)	M N/A	9.3; [3] 10.2.4
MCn 6	status request procedure? (note)	O	R 3.1 AND R 4.4 NOT (R 3.1 AND R 4.4)	M N/A	9.4, 9.5, annex B; [3] 10.3
O.8	Support of at least one of these options is required				
NOTE:	The generic procedure of EN 300 196-1 [3] is applicable, with the exception that the CCBSSStatusRequest components are used instead of the components of the StatusRequest operation.				

Table B.9: REGISTER PDU parameters transmitted - network

Item	REGISTER PDU parameters: Does the implementation support...	Status base	SS conditions for status	SS status	Reference
IETn 5.4	Facility?	O	R 3.2 AND R 4.3 NOT (R 3.2 AND R 4.3)	M N/A	10.2.2, 10.2.3, [3] 8.3.2.1.1

Table B.10: ALERTING PDU parameters transmitted - network

Item	ALERTING PDU parameters: Does the implementation support...	Status base	SS conditions for status	SS status	Reference
IETn 9.1	Facility?	O	R 3.1 AND R 4.4 NOT (R 3.1 AND R 4.4)	M N/A	9.6.1
IETn 19.1	Facility?	O	R 3.2 AND R 4.4 NOT (R 3.2 AND R 4.4)	M N/A	10.1.1.1

B.2.3 Requirements on items used in the supplementary service interactions PICS

In the tabulations which follow in this subclause all item numbers are as contained in EN 300 195-2 [2]. All references are to EN 301 065-1 [8] unless otherwise stated.

Table B.11: Major capabilities - network

Item	Major capability: Does the implementation support...	Status base	SS conditions for status	SS status	Reference
MC 2.28	the CCNR supplementary service interactions with other implemented supplementary services?	O	R 1 AND R 2.2 NOT (R 1 AND R 2.2)	M N/A	9.1, 9.3.1, 9.5.4, 10.1.2, 10.2.2, 12; [1] 5.57 to 5.66

History

Document history				
V1.1.1	December 1997	Public Enquiry	PE 9815:	1997-12-12 to 1998-04-10
V1.2.1	August 1998	Vote	V 9840:	1998-08-04 to 1998-10-02
V1.2.2	October 1998	Publication		