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European Standard (Telecommunications series)

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

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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 ETSI standards One-step Approval Procedure.

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 to Busy Subscriber (CCBS) 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).

The present version updates the references to the basic call specifications.

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 300 359 is applicable to the stage three of the Completion of Calls to Busy Subscriber (CCBS) 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 [11]) 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 [10]).

The present document provides the Protocol Implementation Conformance Statement (PICS) proforma for the ISDN DSS1 CCBS supplementary service protocol as specified in EN 300 359-1 [7] in compliance with the relevant requirements and in accordance with the relevant guidance given in ISO/IEC 9646-7 [9].

The supplier of a protocol implementation which is claimed to conform to EN 300 359-1 [7] 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 Normative 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.

[1] 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]".

[2] EN 300 195-1: "Integrated Services Digital Network (ISDN); Supplementary service interactions; Digital Subscriber Signalling System No. one (DSS1) protocol; Part 1: Protocol specification".

[3] 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".

[4] 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".

[5] EN 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".

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

[7] EN300 359-1 (V1.2): "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".

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

[9] ISO/IEC 9646-7: "Information technology - Open systems interconnection - Conformance testing methodology and framework - Part 7: Implementation Conformance Statements".

[10] CCITT Recommendation I.130 (1988): "Method for the characterization of telecommunication services supported by an ISDN and network capabilities of an ISDN".

[11] ITU-T Recommendation I.411 (1993): "ISDN user-network interfaces - Reference configurations".

3 Definitions

For the purposes of the present document, the following definitions apply, in addition to those given in ETS 300 359-1 [7]:

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 [8]).

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 [8]).

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 [8]).

4 Abbreviations

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

AND	Boolean "and"
C	Conditional requirement (to be observed if the relevant conditions apply)
CCBS	Completion of Calls to Busy Subscriber
DSS1	Digital Subscriber Signalling System No. one
IET	Information Elements Transmitted
ISDN	Integrated Services Digital Network
IUT	Implementation Under Test
M	Mandatory requirement (to be observed in all cases)
MC	Major Capabilities
MT	Messages Transmitted
N/A	Not applicable, not supported or the conditions for status are not met
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"
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
Yes	supported

5 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 300 359-1 [7];

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

A.1 Instructions for completing the PICS proforma

A.1.1 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.

The SCS as defined in ISO/IEC 9646-1 [8] is a document supplied by the client or product supplier that summarizes which OSI International Standards, ITU-T (CCITT) Recommendations, ETSs or other standards are implemented and to which conformance is claimed. The PICS/SCS subclause should describe the relationship of the PICS to the SCS.

A.1.2 Global statement of conformance

If the answer to the statement in this subclause is "Yes", all subsequent subclauses should be completed to facilitate selection of test cases for optional functions.

If the answer to the statement in this subclause is "No", all subsequent subclauses should be completed, and all non-supported mandatory capabilities should be identified and explained. Explanations may be entered in the comments field at the bottom of each table or on attached sheets of paper.

A.1.3 Explanation of PICS proforma subclauses

The PICS proforma contains a Roles clause and thereafter is presented in two parts (for user and network) with the following subclauses, as required:

- major capabilities;
- subsidiary capabilities;
- protocol data unit support;
- protocol data unit parameters;
- timers;
- call states.

The User clause shall only be completed for user implementations (including private network implementations) while the Network clause shall only be completed for network implementations. The Roles subclause shall be completed for all implementations.

The relationship between this PICS proforma and other related PICS proforma (e.g. the basic call PICS proforma) is expressed in the Requirements List (RL) contained in annex B. This provides the additional restrictions placed on the related proforma (different conditions, different status, etc.).

A.1.4 Symbols, abbreviations and terms

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 [9].

The reference column contained in the tables gives reference to the appropriate part(s) of EN 300 359-1 [7] describing the particular item. Note, however, that a reference merely indicates the place where the core of a description of an item can be found. Any additional information contained in EN 300 359-1 [7] has to be taken into account when making a statement about the conformance of that particular item.

The following common notations, defined in ISO/IEC 9646-7 [9], are used for the status column:

M	mandatory
O	optional
N/A	not applicable
O.<integer>	for mutually exclusive or selectable options from a set

The following common notations, defined in ISO/IEC 9646-7 [9], are used for the support column:

Y for supported/implemented

N for not supported/not implemented

A.2 Identification of the implementation

A.2.1 Implementation Under Test (IUT) identification

IUT name:

.....

.....

IUT version:

.....

A.2.2 System Under Test (SUT) identification

SUT name:

.....

.....

Hardware configuration:

.....

.....

.....

Operating system:

.....

.....

A.2.3 Product supplier

Name:

.....

Address:

.....

.....

.....

Telephone number:

.....

Facsimile number:

.....

Additional information:

.....

.....

.....

A.2.4 Client

Name:

.....

Address:

.....

.....

.....

Telephone number:

.....

Facsimile number:

.....

Additional information:

.....

.....

.....

A.2.5 PICS contact person

Name:

.....

Address:

.....

.....

.....

Telephone number:

.....

Facsimile number:

.....

Additional information:

.....

.....

.....

A.3 PICS/System Conformance Statement (SCS)

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 300 359-1 (V1.2): "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".

A.5 Global statement of conformance

The implementation described in this PICS meets all the mandatory requirements of the referenced standard?

[ ] 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 sheets of paper.

In the tabulations which follow, all references are to ETS 300 359-1 [7] unless another numbered reference is explicitly indicated.

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 CCBS 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 300 359-1 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 CCBS 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 CCBS recall to terminals which have activated the CCBS 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? (note 1)	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 2)	R 3.1 NOT R 3.1	M N/A	9.6.1	[ ]Yes [ ]No [ ]N/A
P 6.2	EraseCallLinkageID invoke? (note 2)	R 3.1 NOT R 3.1	M N/A	9.6.1	[ ]Yes [ ]No [ ]N/A
P 7.1	CCBSRequest 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	CCBSRequest 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	CCBSInterrogate 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	CCBSInterrogate 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	CCBS-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	CCBS-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	CCBS-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 1: Support of the status request procedures is mandatory for any implementation conforming to EN 300 359-1 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).

NOTE 2: The call information retention procedure is a generic procedure which can be supported independently from the CCBS 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	CCBSRequest 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	CCBSInterrogate 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	CCBS-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	CCBS-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	CCBS-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 CCBS 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 CCBS recall to the terminal which has activated the CCBS 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 O.6	Support of one and only one of these options is required 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	CCBSRequest 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	CCBSInterrogate 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	CCBS-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	CCBS-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	CCBS-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	CCBSRequest 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	CCBSRequest 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	CCBSInterrogate 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	CCBSInterrogate 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	CCBS-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	CCBS-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	CCBS-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 CCBS 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 3.12	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	9.6.1, 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 300 359-1 [7]. 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 [6]. All references are to EN 300 359-1 [7] unless otherwise stated.

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

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	[1] 5.1
MCu 2	incoming calls?	O	R 4.1 NOT R 4.1	M N/A	[1] 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 EN 300 196-2 [5]. All references are to EN 300 359-1 [7] unless otherwise stated.

Table B.2: Major capabilities - user (from EN 300 196-2)

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	[4] 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, [4] 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, [4] 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, [4] 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, [4] 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, [4] 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, [4] 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, [4] 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, [4] 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 [4] 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 [4] is applicable. Support of the generic status request procedures is mandatory for any implementation conforming to EN 300 359-1 [7] 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.3: Messages transmitted - user (from EN 300 196-2)

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	[4] 8.3

Table B.4: 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, [] 8.3.2.1.1

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 [3]. All references are to EN 300 359-1 [7] unless otherwise stated.

Table B.5: Major capabilities - user

Item	Major capability: Does the implementation support...	Status base	SS conditions for status	SS status	Reference
MC 1.7	the CCBS 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, [2] 5, 4.47

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 EN 300 196-2 [5]. All references are to EN 300 359-1 [7] unless otherwise stated.

Table B.6: Major capabilities - network (from EN 300 196-2)

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	[4] 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, [4] 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, [4] 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, [4] 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, [4] 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, [4] 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, [4] 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, [4] 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, [4] 10.3
O.8	Support of at least one of these options is required				
NOTE:	The generic procedure of EN 300 196-1 [4] is applicable, with the exception that the CCBSStatusRequest components are used instead of the components of the StatusRequest operation.				

Table B.7: 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, [] 8.3.2.1.1

Table B.8: DISCONNECT PDU parameters transmitted - network

Item	DISCONNECT PDU parameters: Does the implementation support...	Status base	SS conditions for status	SS status	Reference
IETn 13.1	Facility?	O	R 3.1 AND R 4.4 NOT (R 3.1 AND R 4.4)	M N/A	9.6.1

Table B.9: RELEASE PDU parameters transmitted - network

Item	RELEASE PDU parameters: Does the implementation support...	Status base	SS conditions for status	SS status	Reference
IETn 16.1	Facility?	O	R 3.1 AND R 4.4 NOT (R 3.1 AND R 4.4)	M N/A	9.6.1

Table B.10: RELEASE COMPLETE PDU parameters transmitted - network

Item	RELEASE COMPLETE PDU parameters: Does the implementation support...	Status base	SS conditions for status	SS status	Reference
IETn 17.1	Facility?	O	R 3.1 AND R 4.4 NOT (R 3.1 AND R 4.4)	M N/A	9.6.1

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 [3]. All references are to EN 300 359-1 [7] 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 2.7	the CCBS 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, [2] 5, 4.47

Annex C (informative): Changes with respect to the previous ETS 300 359-2

The following changes have been done:

- conversion to EN layout;
- replacement of references to ETS 300 102 with EN 300 403;
- replacement of references to I-ETSs with EN 300 403;
- substitution of non-specific references to basic standards where the intention is to refer to the latest version.

History

Document history		
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