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Integrated Services Digital Network (ISDN); Digital Subscriber Signalling System No. one (DSS1) Protocol Implementation Conformance Statement (PICS) proforma specification for data link layer protocol for general application (basic access, user)

ETSI

European Telecommunications Standards Institute

ETSI Secretariat

Postal address: F-06921 Sophia Antipolis CEDEX - FRANCE
Office address: 650 Route des Lucioles - Sophia Antipolis - Valbonne - FRANCE
X.400: c=fr, a=atlas, p=etsi, s=secretariat - **Internet:** secretariat@etsi.fr

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

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Foreword

This Interim European Telecommunication Standard (I-ETS) has been produced by the Signalling Protocols and Switching (SPS) Technical Committee of the European Telecommunications Standards Institute (ETSI).

An ETSI standard may be given I-ETS status either because it is regarded as a provisional solution ahead of a more advanced standard, or because it is immature and requires a "trial period". The life of an I-ETS is limited to three years after which it can be converted into an ETS, have it's life extended for a further two years, be replaced by a new version or be withdrawn.

This I-ETS forms part of a set of I-ETSs completing the documentation of ETS 300 125 (ISDN data link layer protocol) as specified in ISO/IEC 9646-1 (e.g. conformance testing) as follows:

I-ETS 300 305: **"Protocol Implementation Conformance Statement (PICS) proforma specification (basic access, user)";**

I-ETS 300 306: "PICS proforma specification (primary rate access, user)";

I-ETS 300 307: "PICS proforma specification (basic access, network)";

I-ETS 300 308: "PICS proforma specification (primary rate access, network)";

I-ETS 300 309: "Protocol Implementation eXtra Information for Testing (PIXIT) proforma specification (basic access, user)";

I-ETS 300 310: "PIXIT proforma specification (primary rate access, user)";

I-ETS 300 313: "Abstract test suite (user)".

Proposed announcement date	
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Introduction

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).

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1 Scope

This Interim European Telecommunication Standard (I-ETS) provides the Protocol Implementation Conformance Statement (PICS) proforma for the Integrated Services Digital Network (ISDN) data link layer protocol (basic access, user) as specified in ETS 300 125 [1] in compliance with the relevant requirements and in accordance with the relevant guidance given in ISO/IEC 9646-2 [3].

2 Normative references

This I-ETS incorporates by dated and undated reference, provisions from other publications. These normative references are cited at the appropriate places in the text and the publications are listed hereafter. For dated references, subsequent amendments to or revisions of any of these publications apply to this I-ETS only when incorporated in it by amendment or revision. For undated references the latest edition of the publication referred to applies.

[1] ETS 300 125 (1991): "Integrated Services Digital Network (ISDN); User-network interface data link layer specification; Application of CCITT Recommendations Q.920/I.440 and Q.921/I.441".

[2] ISO/IEC 9646-1 (1990): "Information technology - Open Systems Interconnection - Conformance testing methodology and framework - Part 1: General concepts" (see also CCITT Recommendation X.290 (1991)).

[3] ISO/IEC 9646-2 (1990): "Information technology - Open Systems Interconnection - Conformance testing methodology and framework - Part 2: Abstract test suite specification" (see also CCITT Recommendation X.291 (1991)).

3 Definitions

For the purposes of this I-ETS, the following definitions apply:

Network: the equipment existing at the network side of the user-network interface.

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 [2]).

PICS proforma: a document, in the form of a questionnaire, which when completed for an OSI implementation or system becomes the PICS (see ISO/IEC 9646-1 [2]).

Static conformance review: a review of the extent to which the static conformance requirements are met by the Implementation Under Test (IUT), accomplished by comparing the PICS with the static conformance requirements expressed in the relevant standard(s) (see ISO/IEC 9646-1 [2]).

User: the equipment existing at the user side of the user-network interface.

4 Abbreviations

For the purposes of this I-ETS, the following abbreviations apply:

Ai	Action indicator
ASP	Assignment Source Point
CPE	Customer Premises Equipment
DISC	Disconnect
DLCI	Data Link Connection Identifier
DLE	Data Link Entity
DM	Disconnect Mode
FCS	Frame Check Sequence
FR	prefix for index numbers for the Frames group
FRMR	Frame Reject
ISDN	Integrated Services Digital Network
IUT	Implementation Under Test
LAPB	Link Access Procedure - Balanced
LAPD	Link Access Procedure on the D-channel
M	Mandatory
MF	Multiple Frame
N/A	Not Applicable (to ETSI networks)
O	Optional
O.n	Optional, but, if chosen, support is required for either at least one or only one of the options in the group labelled by the same numeral <n>
OSI	Open Systems Interconnection.
PC	prefix for index numbers for Protocol Capabilities group
PICS	Protocol Implementation Conformance Statement
PIXIT	Protocol Implementation eXtra Information for Testing
REJ	Reject
Ri	Reference number
SABME	Set Asynchronous Balanced Mode Extended
SAP	Service Access Point
SAPI	Service Access Point Identifier
SCS	System Conformance Statement
SP	prefix for index numbers for the System Parameters group
SUT	System Under Test
TEI	Terminal End-point Identifier
UA	Unnumbered Acknowledgement
UI	Unnumbered Information
XID	eXchange IDentification
Yes:_No:_Value:_	Tick "Yes" if item is supported, tick "No" if item is not supported and insert value where appropriate.
Yes:_No:_X:_	Tick "Yes" if item is supported, tick "No" if item is not supported and insert additional information at "X" where necessary (see also clause A.3)

5 Conformance

The supplier of a protocol implementation which is claimed to conform to ETS 300 125 [1] is required to complete a copy of the PICS proforma provided in this I-ETS and is required to provide the information necessary to identify both the supplier and the implementation.

6 PICS proforma

6.1 Identification of the implementation

6.1.1 Implementation Under Test (IUT) identification

IUT name:

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IUT version:

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6.1.2 System Under Test (SUT) identification

SUT name:

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Hardware configuration:

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Operating system:

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6.1.3 Product supplier

Name:

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Address:

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Telephone number:

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Facsimile number:

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Additional information:

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6.1.4 Client

Name:

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Address:

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Telephone number:

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Facsimile number:

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Additional information:

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6.1.5 PICS contact person

Name:

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Telephone number:

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Facsimile number:

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Additional information:

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6.2 PICS/System Conformance Statement (SCS)

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

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6.3 Identification of the protocol

This PICS proforma applies to the following standard:

ETS 300 125 (1991): "Integrated Services Digital Network (ISDN); User-network interface data link layer specification; Application of CCITT Recommendations Q.920/I.440 and Q.921/I.441".

6.4 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.

6.5 Protocol capabilities

Unless otherwise indicated all references in table 1 are to ETS 300 125 [1], Part II.

Table 1: Protocol capabilities

Index	Protocol feature	Status	Reference	Support
PC 1.1	Is the CPE of the non-automatic TEI assignment category?	O.1	3.3.4.2	Yes:_No:_X:_
PC 1.2	Is the CPE of the automatic TEI assignment category?	O.1	3.3.4.2	Yes:_No:_X:_
PC 1.3	Does the CPE only support point-to-point configurations using a single data link connection? If this option is supported then PC 1.2 is not applicable and it is permissible to respond "No" to items PC 2.1, PC 10, PC 17 and PC 20 to PC 34. See also note.	O	annex A	Yes:_No:_X:_
PC 2.1	Does the CPE support the broadcast data link for layer management (SAPI = 63)?	M	5.2	Yes:_No:_X:_
PC 2.2	Does the CPE provide a broadcast data link service to layer 3?	M	5.2	Yes:_No:_X:_
PC 3	Does the CPE support the TEI verification procedure?	O	5.3.5	Yes:_No:_X:_
PC 4	Does the CPE support data link monitor function?	O	5.10	Yes:_No:_X:_
PC 5	Does the CPE support reject retransmission procedure?	N/A	3.6.7, 5.8.1, appendix I	
PC 6.1	Does the DLE support automatic negotiation of data link layer parameters?	N/A	appendix IV	
PC 6.2	Does the DLE support internal parameter initialization?	M	5.4, appendix IV	Yes:_No:_X:_
PC 7	Does the CPE permit concurrent LAPB data link connection within the D-channel?	O	2.3	Yes:_No:_X:_
	Service Access Point Identifier (SAPI)			
PC 8	If the CPE supports call control procedures, is SAPI=0 supported?	M	3.3.3	Yes:_No:_X:_
PC 9	If the CPE supports packet communication conforming to X.25 level 3 procedures, is SAPI=16 supported?	M	3.3.3	Yes:_No:_X:_
PC 10	Is SAPI=63 supported?	M	3.3.3	Yes:_No:_X:_

(continued)

Table 1 (continued): Protocol capabilities

Index	Protocol feature	Status	Reference	Support
PC 11.1	Does the CPE support the association of a given TEI with all SAPs which the CPE supports?	O	5.3.1, 3.4.3, (Part I, 3.4.3)	Yes:_No:_X:_
PC 11.2	If the CPE is an X.31 type of packet mode terminal equipment, is a given TEI for point-to-point data link connection (<127) associated with all SAPs which the CPE supports?	M	5.3.1, 3.3.4, (Part I, 3.4.3)	Yes:_No:_X:_
PC 12	Does the implementation support modulus 128 for frames numbering?	M	3.5.2.1, 5.5.1	Yes:_No:_X:_
	Peer-to-Peer Procedures			
	Unacknowledged information transfer			
PC 13	Does the CPE support UI-command?	M	5.2.2	Yes:_No:_X:_
PC 14	Is the P/F bit set to 0?	M	5.1.1	Yes:_No:_X:_
PC 15	Does the CPE recognize an indication of persistent layer 1 deactivation?	O	5.2.2, 5.5.3.1	Yes:_No:_X:_
PC 16	If the CPE recognizes persistant layer 1 deactivation does it discard all UI queues?	M	5.2.2	Yes:_No:_X:_
	TEI Management			
PC 17	Does the CPE transmit management entity messages in UI frames with DLCI = (63, 127)?	M	5.3.1	Yes:_No:_X:_
	TEI Assignment Procedures			
PC 18.1	Does the CPE initiate TEI assignment for reasons not related to call establishment (e.g. on power-up or operator interaction)?	O.2	5.3.1	Yes:_No:_X:_
PC 18.2	Does the CPE initiate TEI assignment on the occurrence of a call related event if there is no TEI assigned?	O.2	5.3.1	Yes:_No:_X:_
PC 19	If the CPE is of the non-automatic category, does the CPE side management entity assign TEI value?	M	5.3.2	Yes:_No:_X:_

(continued)

Table 1 (continued): Protocol capabilities

Index	Protocol feature	Status	Reference	Support
	If the CPE is of the automatic category:			
PC 20	Does the CPE side management entity initiate TEI assignment?	M	5.3.2	Yes:_No:_X:_
PC 21	Is the Ri randomly generated?	M	5.3.2	Yes:_No:_X:_
PC 22	Is the Ai value in the Identity Request message always equal to 127?	M	5.3.2	Yes:_No:_X:_
PC 23	Does the CPE retransmit an Identity Request message upon timer T202 expiry?	M	5.3.2.1	Yes:_No:_X:_
PC 24	Does the CPE use a new value of Ri in the above instance (PC 21)?	M	5.3.2.1	Yes:_No:_X:_
	TEI Check Response/Removal/Identity Verify			
	If the Ai value in the received Identity Check Request message is equal to 127:			
PC 25.1	Does the CPE either; - send a single Identity Check Response message, or - send an individual Identity Check Response message for each TEI which is assigned to it?	O.3	5.3.3.2, 5.3.6.1	Yes:_No:_X:_
PC 25.2	Does the CPE either; - send a single Identity Check Response message, or - send any combination of (multiple) "single" and "individual" Identity Check Response messages in order to report all the TEIs assigned to it?	O.3	5.3.3.2, 5.3.6.1	Yes:_No:_X:_
PC 26	Does the CPE support transmitting one Identity Check Response message in response to an Identity Check Request message with Ai<127, if the TEI value being checked is in use?	M	5.3.3.2	Yes:_No:_X:_
PC 27	Does the CPE send nothing if the TEI value under check is not in use?	M	5.3.3.2	Yes:_No:_X:_
PC 28	Does the DLE enter the TEI Unassigned state, upon removal of an automatic TEI?	M	5.3	Yes:_No:_X:_
PC 29	Does the CPE send an Identity Request message, at any time after removal of an automatic TEI?	M	5.3.4	Yes:_No:_X:_

(continued)

Table 1 (continued): Protocol capabilities

Index	Protocol feature	Status	Reference	Support
	If an Identity Request message is outstanding:			
PC 30.1	Does the CPE remove the TEI from the DLE on receipt of an Identity Assigned message containing a TEI value which is already in use?	O.4	5.3.4.2, 5.3.2	Yes:_ No:_ X:_
PC 30.2	Does the CPE initiate TEI identity verify procedures on receipt of an Identity Assigned message containing a TEI value which is already in use?	O.4	5.3.2	Yes:_ No:_ X:_
PC 31	If the CPE is of the non-automatic TEI category, does the CPE notify to the equipment user the need for corrective action after non-automatic TEI removal?	M	5.3.4, 5.3.4.2	Yes:_ No:_ X:_
	If the CPE checks the TEI of all Identity Assign messages:			
PC 32.1	Does the CPE remove the TEI from the DLE on receipt of an Identity Assigned message containing a TEI value which is already in use?	O.5	5.3.4.2, 5.3.3	Yes:_ No:_ X:_
PC 32.2	Does the CPE initiate TEI identity verify procedures on receipt of an Identity Assigned message containing a TEI value which is already in use?	O.5	5.3.2	Yes:_ No:_ X:_
PC 33	If the CPE initiates a TEI identity verify procedure, does the Ai contain the own TEI which has been assigned by ASP (automatic TEI) or entered (non-automatic TEI), respectively?	M	5.3.5.2	Yes:_ No:_ X:_
PC 34	If the CPE initiates the TEI identity verify procedure, does the CPE remove the TEI from the DLE, if no Identity Check Request message with Ai=127 or an Ai value equal to Ai value in the Identity Verify Request message has been received when timer T202 (again) expired after retransmission of the Identity Verify Request message upon expiry of timer T202?	M	5.3.5.3	Yes:_ No:_ X:_

(continued)

Table 1 (continued): Protocol capabilities

Index	Protocol feature	Status	Reference	Support
	Establishment and release of MF operation			
PC 35	Does the CPE support MF operation?	M	5.5	Yes:_No:_X:_
	Does the DLE initiate MF establishment			
PC 36.1	a) immediately after TEI assignment?	O.6	5.5	Yes:_No:_X:_
PC 36.2	b) when there are call related reasons?	O.6	5.5	Yes:_No:_X:_
PC 37.1	Does the DLE remain in TEI Assigned state when the MF operation is released?	O.7	5.5.3	Yes:_No:_X:_
PC 37.2	Does the DLE initiate immediate re-establishment when the MF operation is released?	O.7	5.5.3	Yes:_No:_X:_
PC 38	If the CPE recognizes persistant layer 1 deactivation does it discard all I queues?	M	5.5.3.1	Yes:_No:_X:_
	Does the implementation re-establish the MF operation:			
PC 39.1	On receiving a SABME command while in the MF mode of operation?	M	5.7.1	Yes:_No:_X:_
PC 39.2	If N200 retransmission failures occur while in the timer recovery condition?	M	5.7.1	Yes:_No:_X:_
PC 39.3	On receiving an undefined frame?	M	3.6.1, 5.8.5	Yes:_No:_X:_
PC 39.4	On receiving a supervisory or unnumbered frame with incorrect length?	M	5.7.1, 5.8.5	Yes:_No:_X:_
PC 39.5	On receiving an invalid sequential number N(R)?	M	5.7.1, 5.8.5	Yes:_No:_X:_
PC 39.6	On receiving a frame with an information field exceeding N201 (maximum number of octets)?	M	5.7.1, 5.8.5	Yes:_No:_X:_
PC 39.7	On receiving a FRMR response?	M	5.7.1, 5.8.6	Yes:_No:_X:_
PC 39.8	On receiving an unsolicited DM (F=0) response while in MF operation?	M	5.7.1	Yes:_No:_X:_
PC 39.9	On receiving an unsolicited DM (F=1) response while in the timer recovery condition?	M	5.7.1	Yes:_No:_X:_
PC 40	Does the CPE transmit a REJ frame in the event of a N(S) sequence error if the receiver condition is normal?	M	5.8.1	Yes:_No:_X:_

(continued)

Table 1 (continued): Protocol capabilities

Index	Protocol feature	Status	Reference	Support
PC 41.1	Does the DLE issue an MDL-ERROR-IND (C) or MDL-ERROR-IND (D) and does the layer management initiate TEI identity verify procedure on the receipt of an unsolicited UA response in the TEI assigned state?	O.8	5.3.4.2, 5.5.4, 5.8.7, appendix II	Yes:_ No:_ X:_
PC 41.2	Does the DLE issue an MDL-ERROR-IND (C) or MDL-ERROR-IND (D) and does the layer management remove TEI from the DLE on the receipt of an unsolicited UA response in the TEI assigned state?	O.8	5.3.4.2, 5.5.4, 5.8.7 appendix II	Yes:_ No:_ X:_
PC 42.1	Does the DLE issue an MDL-ERROR-IND (D) and does the layer management initiate TEI identity verify procedure on the receipt of an unsolicited UA response in the Awaiting establishment state?	O.9	5.3.4.2, 5.8.7, appendix II	Yes:_ No:_ X:_
PC 42.2	Does the DLE issue an MDL-ERROR-IND (D) and does the layer management remove TEI from the DLE on the receipt of an unsolicited UA response in the Awaiting establishment state?	O.9	5.3.4.2, 5.8.7, appendix II	Yes:_ No:_ X:_
PC 43.1	Does the DLE issue an MDL-ERROR-IND (D) and does the layer management initiate TEI identity verify procedure on the receipt of an unsolicited UA response in the Awaiting release state?	O.10	5.3.4.2, 5.8.7, appendix II	Yes:_ No:_ X:_
PC 43.2	Does the DLE issue an MDL-ERROR-IND (D) and does the layer management remove TEI from the DLE on the receipt of an unsolicited UA response in the Awaiting release state?	O.10	5.3.4.2, 5.8.7, appendix II	Yes:_ No:_ X:_
PC 44.1	Does the DLE issue an MDL-ERROR-IND (C) or MDL-ERROR-IND (D) and does the layer management initiate TEI identity verify procedure on the receipt of an unsolicited UA response in the MF established state?	O.11	5.3.4.2, 5.8.7, appendix II	Yes:_ No:_ X:_
PC 44.2	Does the DLE issue an MDL-ERROR-IND (C) or MDL-ERROR-IND (D) and does the layer management remove TEI from the DLE on the receipt of an unsolicited UA response in the MF established state?	O.11	5.3.4.2, 5.8.7, appendix II	Yes:_ No:_ X:_
PC 45.1	Does the DLE issue an MDL-ERROR-IND (C) or MDL-ERROR-IND (D) and does the layer management initiate TEI identity verify procedure on the receipt of an unsolicited UA response in the Timer recovery state?	O.12	5.3.4.2, 5.8.7, appendix II	Yes:_ No:_ X:_
PC 45.2	Does the DLE issue an MDL-ERROR-IND (C) or MDL-ERROR-IND (D) and does the layer management remove TEI from the DLE on the receipt of an unsolicited UA response in the Timer recovery state?	O.12	5.3.4.2, 5.8.7, appendix II	Yes:_ No:_ X:_

(continued)

Table 1 (concluded): Protocol capabilities

Index	Protocol feature	Status	Reference	Support
PC 46.1	Does the DLE issue an MDL-ERROR-IND (G) and does the layer management initiate TEI identity verify procedure, after N200 unsuccessful retransmissions of SABME in the Awaiting establishment state?	O.13	5.3.4.2, 5.5.1.3, appendix II	Yes:_ No:_ X:_
PC 46.2	Does the DLE issue an MDL-ERROR-IND (G) and does the layer management remove TEI from the DLE, after N200 unsuccessful retransmissions of SABME in the Awaiting establishment state	O.13	5.3.4.2, 5.5.1.3, appendix II	Yes:_ No:_ X:_
PC 47.1	Does the DLE issue an MDL-ERROR-IND (H) and does the layer management initiate TEI identity verify procedure, after N200 unsuccessful retransmissions of DISC in the Awaiting release state?	O.14	5.3.4.2, 5.5.3.3, appendix II	Yes:_ No:_ X:_
PC 47.2	Does the DLE issue an MDL-ERROR-IND (H) and does the layer management remove TEI from the DLE, after N200 unsuccessful retransmissions of DISC in the Awaiting release state?	O.14	5.3.4.2, 5.5.3.3, appendix II	Yes:_ No:_ X:_

O.1	PC 1.1 and PC 1.2	Support of at least one of these items is required.
O.2	PC 18.1 and PC 18.2	Support of at least one of these items is required.
O.3	PC 25.1 and PC 25.2	Support of one, and only one, of these items is required.
O.4	PC 30.1 and PC 30.2	Support of one, and only one, of these items is required.
O.5	PC 32.1 and PC 32.2	Support of one, and only one, of these items is required.
O.6	PC 36.1 and PC 36.2	Support of at least one of these items is required.
O.7	PC 37.1 and PC 37.2	Support of at least one of these items is required.
O.8	PC 41.1 and PC 41.2	Support of one, and only one, of these items is required.
O.9	PC 42.1 and PC 42.2	Support of one, and only one, of these items is required.
O.10	PC 43.1 and PC 43.2	Support of one, and only one, of these items is required.
O.11	PC 44.1 and PC 44.2	Support of one, and only one, of these items is required.
O.12	PC 45.1 and PC 45.2	Support of one, and only one, of these items is required.
O.13	PC 46.1 and PC 46.2	Support of one, and only one, of these items is required.
O.14	PC 47.1 and PC 47.2	Support of one, and only one, of these items is required.

NOTE: The layer 2 management procedures are optional on point-to-point configurations using a single data link connection and a non-automatic TEI value. See ETS 300 125 [1] annex A.

Comments:

6.6 Frames - protocol data units

Unless otherwise indicated all references in table 2 are to ETS 300 125 [1], Part II.

Table 2: Frames, protocol data units

Index	Protocol feature	Status	Reference	Support
	Frame Format			
FR 1	Format A	M	2.1	Yes:_No:_X:_
FR 2	Format B	M	2.1	Yes:_No:_X:_
	Flag Sequence			
FR 3	Opening flag	M	2.2	Yes:_No:_X:_
FR 4	Closing flag	M	2.2	Yes:_No:_X:_
	Address Field			
FR 5	Two octets	M	2.3	Yes:_No:_X:_
FR 6	If the DLE permits concurrent LAPB data link connection with the D-channel, is the one octet address field recognized?	M	2.3	Yes:_No:_X:_
	Control Field			
	Unacknowledged operation			
FR 7	Single octet	M	2.4	Yes:_No:_X:_
	MF operation			
FR 8	Two octets	M	2.4	Yes:_No:_X:_
FR 9	Single octet (unnumbered frame)	M	2.4	Yes:_No:_X:_
	Order of Bit Transmission			
FR 10	Ascending numerical order	M	2.8.2	Yes:_No:_X:_
	Field Mapping Convention			
FR 11	Lowest bit number = Lowest order value	M	2.8.3	Yes:_No:_X:_

(continued)

Table 2 (concluded): Frames, protocol data units

Index	Protocol feature	Status	Reference	Support
	Do all transmitted frames contain the following fields?			
FR 12.1	- Flag	M	2.2	Yes:_No:_X:_
FR 12.2	- Address	M	2.3	Yes:_No:_X:_
FR 12.3	- Control	M	2.4	Yes:_No:_X:_
FR 12.4	- FCS	M	2.7	Yes:_No:_X:_
FR 13	Is the CPE capable of accepting the closing flag as the opening flag of the next frame?	M	2.2	Yes:_No:_X:_
FR 14	Does the CPE generate a single flag as above?	O	2.2	Yes:_No:_X:_
FR 15	Does the CPE ignore one flag, or two or more consecutive flags that do not delimit frames?	M	2.2	Yes:_No:_X:_
FR 16	Are all invalid frames discarded and no action taken?	M	2.9	Yes:_No:_X:_
FR 17	Are seven or more contiguous 1 bits interpreted as an abort and the associated frames ignored?	M	2.10	Yes:_No:_X:_
FR 18	If the CPE supports the automatic negotiation of data link layer parameters, does it support XID frames?	N/A	3.6.12, appendix IV	
FR 19	Does the implementation discriminate invalid frames and frames with information field exceeding N201 value?	M	5.8.5	Yes:_No:_X:_
FR 20	Does the implementation discard frame types associated with an application which is not implemented?	M	3.6.1	Yes:_No:_X:_
FR 21	Does the implementation discard unbounded frames?	M	5.8.5	Yes:_No:_X:_

Comments:

6.7 System parameters

Unless otherwise indicated all references in table 3 are to ETS 300 125 [1], Part II.

Table 3: System parameters

Index	System parameter	Status	Reference	Support
	If the DLE supports MF operation, does it support:			
SP 1	Retransmission time (T200)	M	5.9.1	Yes:_No:_Value:_
SP 2	Maximum number of retransmissions (N200)	M	5.9.2	Yes:_No:_Value:_
	Maximum number of octets in information field (N201):			
SP 3	For SAP supporting basic access signalling	M	5.9.3	Yes:_No:_Value:_
SP 4	For SAP supporting basic access packet procedures on the D-channel	M	5.9.3	Yes:_No:_Value:_
	Maximum number of outstanding I frames (k)			
SP 5	For SAP supporting basic access signalling	M	5.9.5	Yes:_No:_Value:_
SP 6	For SAP supporting basic access packet procedures on the D-channel	M	5.9.5	Yes:_No:_Value:_
	If the CPE is of the automatic TEI assignment category:			
SP 7	Maximum number of transmissions of TEI Identity Request message (N202)	M	5.9.4	Yes:_No:_Value:_
SP 8	Minimum time between retransmission of TEI Identity Request messages (T202)	M	5.9.7	Yes:_No:_Value:_
	If the CPE supports the data link monitor function:			
SP 9	Maximum time allowed without frames being exchanged (T203)	M	5.9.8	Yes:_No:_Value:_
	If the CPE supports the automatic negotiation of data link parameters,			
SP 10	Retransmission time of XID frame (TM20)	N/A	appendix IV.2	
SP 11	Maximum number of retransmissions of XID frame (NM20)	N/A	appendix IV.2	

Comments:

Annex A (informative): Instructions for completing the PICS proforma

A.1 Identification of the implementation

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

The product supplier and client information should both be filled in if they are not one and the same.

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

The System Conformance Statement (SCS) as defined in ISO/IEC 9646-1 [2] is a document supplied by the client or product supplier that summarizes which OSI International Standards, ITU-T (CCITT) Recommendations 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.2 Global statement of conformance

If the answer to the statement in this subclause is "Yes", all subsequent subclauses shall 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 shall be identified and explained.

A.3 General note on tabulations

A supplier may also provide, additional information, categorized as either Exceptional Information or Supplementary Information (other than PIXIT). When present, each kind of additional information is to be provided as items labelled X.<i> or S.<i>, respectively, for cross reference purposes, where <i> is any unambiguous identification of an item. An exception item should contain the appropriate rationale. The Supplementary Information is not mandatory and the PICS is complete without such information. The presence of optional supplementary or exceptional information should not affect test execution, and will in no way affect static conformance verification.

NOTE: Where an implementation is capable of being configured in more than one way, a single PICS may be able to describe all such configurations. However, the supplier has the choice of providing more than one PICS, each covering some subset of the implementation's configuration capabilities, in case this makes for easier or clearer presentation of the information.

In the case in which an IUT does not implement a condition listed, such as in PC 8, where a CPE may not support layer 3 call procedures, the Support column of the PICS proforma table should be completed as: "Yes:_No:_X: X2". The entry of the exceptional information would read: "X2 This CPE does not support layer 3 call procedures".

A.4 Protocol capabilities

Each question in this subclause refers to a major function of the protocol or to the special cases of procedures such as information transfer, TEI management, etc. which require clarification in the PICS. Answering "Yes" to a particular question states that the implementation supports all the mandatory procedures for that function defined in the referenced subclauses of the standard. Answering "No" to a particular question in this subclause states that the implementation does not support that function of the protocol. Some of the items are optional and in some cases the option is dependant on the implementation of other items. In these cases, if the invoking capability is supported, the ability to support the item is mandatory. These conditions are made clear in the text of each item.

A.5 Frames - protocol data units

Indicating support for an item in this subclause states that the implementation has the capability to support the Frames or Protocol Data Units (PDUs) that may exist.

A.6 System parameters

Indicating support for an item in this subclause states that the implementation has a parameter that operates in accordance with the description in the standard. Specific values for the parameters implemented should be stated here, or, where appropriate, in the PIXIT.

Annex B (informative): Bibliography

1) CCITT Recommendation Q.920 (1988): "Digital subscriber signalling system No.1 (DSS1) - ISDN user-network interface data link layer - General aspects".

2) CCITT Recommendation Q.921 (1988): "Digital subscriber signalling system No.1 (DSS1) - ISDN user-network interface - Data link layer specification".

3) CCITT Recommendation I.430 (1988): "Basic user-network interface - Layer 1 specification".

History

Document history	
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