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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 (primary rate access, network)**

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it can be converted into an ETS, have its life extended for a further two years, be replaced by a new version or be withdrawn.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)".

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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 (primary rate access, network) 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

Notwithstanding the provisions of the copyright clause related to the text of this I-ETS, ETSI grants that users of this I-ETS may freely reproduce the PICS proforma in this clause so that it can be used for its intended purposes and may further publish the completed PICS.

6.1 Identification of the implementation

6.1.1 Implementation Under Test (IUT) identification

IUT name:

.....
.....

IUT version:

.....

6.1.2 System Under Test (SUT) identification

SUT name:

.....
.....

Hardware configuration:

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.....
.....

Operating system:

.....

6.1.3 Product supplier

Name:

.....

Address:

.....
.....
.....

Telephone number:

.....

Facsimile number:

.....

Additional information:

.....
.....
.....

6.1.4 Client

Name:

.....

Address:

.....
.....
.....

Telephone number:

.....

Facsimile number:

.....

Additional information:

.....
.....
.....

6.1.5 PICS contact person

Name:

.....

Telephone number:

.....

Facsimile number:

.....

Additional information:

.....
.....
.....

6.2 PICS/System Conformance Statement (SCS)

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

.....
.....
.....
.....

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 implementation of the non-automatic TEI assignment category?	M	3.3.4.2	Yes:_No:_X:_
PC 1.2	Is the implementation of the automatic TEI assignment category?	M	3.3.4.2	Yes:_No:_X:_
PC 1.3	Does the implementation 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 and PC 27 to PC 33. See also note.	O	annex A	Yes:_No:_X:_
PC 2.1	Does the implementation support the broadcast data link for layer management (SAPI = 63)?	M	5.2	Yes:_No:_X:_
PC 2.2	Does the implementation provide a broadcast data link service to layer 3?	M	5.2	Yes:_No:_X:_
PC 3	Does the implementation support the TEI verification procedure?	O	5.3.5	Yes:_No:_X:_
PC 4	Does the implementation support data link monitor function?	M	5.10	Yes:_No:_X:_
PC 5	Does the implementation support reject retransmission procedure?	N/A	3.6.7, 5.8.1, appendix I	
PC 6.1	Does the implementation support automatic negotiation of data link layer parameters?	N/A	appendix IV	
PC 6.2	Does the implementation support internal parameter initialization?	M	5.4, appendix IV	Yes:_No:_X:_
PC 7	Does the implementation 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 implementation supports call control procedures, is SAPI=0 supported?	O.1	3.3.3	Yes:_No:_X:_
PC 9	If the implementation supports packet communication conforming to X.25 level 3 procedures, is SAPI=16 supported?	O.1	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	Does the implementation give priority to SAPI=0 information?	M	Part I, 5.2	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 implementation 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 implementation recognize an indication of persistent layer 1 deactivation?	O	5.2.2, 5.5.3.1	Yes:_No:_X:_
PC 16	If the implementation recognizes persistent layer 1 deactivation does it discard all UI queues?	M	5.2.2	Yes:_No:_X:_
TEI Management				
PC 17	Does the ASP transmit management entity messages in UI frames with DLCI = (63, 127)?	M	5.3.1	Yes:_No:_X:_
PC 18	Does the ASP allocate, select and assign TEI values?	M	5.3.1	Yes:_No:_X:_
PC 19.1	Does the ASP support a map of the full range of automatic TEI values?	O.2	5.3.2	Yes:_No:_X:_
PC 19.2	Does the ASP support an updated list of all automatic TEI values available for assignment or a smaller subset?	O.2	5.3.2	Yes:_No:_X:_
TEI Assignment Procedures				
PC 20	Does the ASP ignore identity request messages containing identical Ri values?	M	5.3.2	Yes:_No:_X:_
PC 21	Does the ASP ignore identity request messages with Ai=0 to 63?	M	5.3.2	Yes:_No:_X:_
PC 22	Does the ASP deny identity request messages with Ai=64 to 126?	M	5.3.2	Yes:_No:_X:_
PC 23	Does the ASP initiate TEI check procedure if available TEI values are exhausted?	M	5.3.2	Yes:_No:_X:_
(continued)				

Table 1 (continued): Protocol capabilities

Index	Protocol feature	Status	Reference	Support
	TEI Check Procedures			
PC 24	Does the ASP transmit an identity check request message containing either a specific TEI value to be checked or the value 127 when all TEI values are to be checked?	M	5.3.3.2	Yes: _ No: _ X: _
PC 25	When the TEI check procedure is used to test whether a TEI value is in use, does the ASP retransmit an Identity check request message once if no answer is received?	M	5.3.3.2	Yes: _ No: _ X: _
PC 26	Does the ASP accept a multiple identity check response message in response to an identity check request message with Ai=127?	M	5.3.3.2	Yes: _ No: _ X: _
PC 27	Does the ASP assume that the TEI value under check is free if no response is received from the user after T201 expires for the second time?	M	5.3.3.2	Yes: _ No: _ X: _
PC 28	Does the ASP assume that the TEI value being checked is in use on receipt of one identity check response message?	M	5.3.3.2	Yes: _ No: _ X: _
PC 29	Does the ASP assume duplicate TEI assignment on receipt of more than one identity check response message received in either the first or the second time period defined by T201 containing the same TEI value?	M	5.3.3.2	Yes: _ No: _ X: _
	TEI Removal/Identity Verify Procedures			
PC 30	Does the ASP remove a non-automatic TEI value when duplicate TEI assignment has occurred?	M	5.3.4.2	Yes: _ No: _ X: _
PC 31	Does the ASP remove an automatic TEI value when either it is no longer in use or duplicate TEI assignment has occurred?	M	5.3.4.2	Yes: _ No: _ X: _
PC 32	Does the ASP transmit twice in succession an Identity remove message containing either the specific TEI value to be removed or Ai=127 when all TEI values are to be removed?	M	5.3.4.2	Yes: _ No: _ X: _
PC 33	Does the ASP respond with an Identity check request message if the TEI Identity verify procedure is implemented and if an Identity verify message is received from the user?	M	5.3.5	Yes: _ No: _ X: _
	(continued)			

Table 1 (continued): Protocol capabilities

Index	Protocol feature	Status	Reference	Support
	Establishment and release of MF operation			
PC 34	Does the implementation support MF operation?	M	5.5	Yes:_No:_X:_
	Does the implementation re-establish the MF operation:			
PC 35.1	On receiving a SABME command while in the MF mode of operation?	M	5.7.1	Yes:_No:_X:_
PC 35.2	If N200 retransmission failures occur while in the timer recovery condition?	M	5.7.1	Yes:_No:_X:_
PC 35.3	On receiving an undefined frame?	M	3.6.1, 5.8.5	Yes:_No:_X:_
PC 35.4	On receiving a supervisory or unnumbered frame with incorrect length?	M	5.7.1, 5.8.5	Yes:_No:_X:_
PC 35.5	On receiving an invalid sequential number N(R)?	M	5.7.1, 5.8.5	Yes:_No:_X:_
PC 35.6	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 35.7	On receiving a FRMR response?	M	5.7.1, 5.8.6	Yes:_No:_X:_
PC 35.8	On receiving an unsolicited DM (F=0) response while in MF operation?	M	5.7.1	Yes:_No:_X:_
PC 35.9	On receiving an unsolicited DM (F=1) response while in the timer recovery condition?	M	5.7.1	Yes:_No:_X:_
	Error conditions			
PC 36	Does the implementation 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:_
PC 37.1	Does the implementation issue an MDL-ERROR-IND (C) or MDL-ERROR-IND (D) and initiate TEI check on the receipt of an unsolicited UA response in the TEI assigned state?	O.3	5.3.4.2, 5.5.4, 5.8.7 appendix II	Yes:_No:_X:_
PC 37.2	Does the implementation issue an MDL-ERROR-IND (C) or MDL-ERROR-IND (D) and remove TEI on the receipt of an unsolicited UA response in the TEI assigned state?	O.3	5.3.4.2, 5.5.4, 5.8.7 appendix II	Yes:_No:_X:_
	(continued)			

Table 1 (continued): Protocol capabilities

Index	Protocol feature	Status	Reference	Support
PC 38.1	Does the implementation issue an MDL-ERROR-IND (D) and initiate TEI check procedure on the receipt of an unsolicited UA response in the Awaiting establishment state?	O.4	5.3.4.2, 5.8.7, appendix II	Yes: _ No: _ X: _
PC 38.2	Does the implementation issue an MDL-ERROR-IND (D) and remove TEI on the receipt of an unsolicited UA response in the Awaiting establishment state?	O.4	5.3.4.2, 5.8.7, appendix II	Yes: _ No: _ X: _
PC 39.1	Does the implementation issue an MDL-ERROR-IND (D) and initiate TEI check procedure on the receipt of an unsolicited UA response in the Awaiting release state?	O.5	5.3.4.2, 5.8.7, appendix II	Yes: _ No: _ X: _
PC 39.2	Does the implementation issue an MDL-ERROR-IND (D) and remove TEI on the receipt of an unsolicited UA response in the Awaiting release state?	O.5	5.3.4.2, 5.8.7, appendix II	Yes: _ No: _ X: _
PC 40.1	Does the implementation issue an MDL-ERROR-IND (C) or MDL-ERROR-IND (D) and initiate TEI check procedure on the receipt of an unsolicited UA response in the MF established state?	O.6	5.3.4.2, 5.8.7, appendix II	Yes: _ No: _ X: _
PC 40.2	Does the implementation issue an MDL-ERROR-IND (C) or MDL-ERROR-IND (D) and remove TEI on the receipt of an unsolicited UA response in the MF established state?	O.6	5.3.4.2, 5.8.7, appendix II	Yes: _ No: _ X: _
PC 41.1	Does the implementation issue an MDL-ERROR-IND (C) or MDL-ERROR-IND (D) and initiate TEI check procedure on the receipt of an unsolicited UA response in the Timer recovery state?	O.7	5.3.4.2, 5.8.7, appendix II	Yes: _ No: _ X: _
PC 41.2	Does the implementation issue an MDL-ERROR-IND (C) or MDL-ERROR-IND (D) and remove TEI on the receipt of an unsolicited UA response in the Timer recovery state?	O.7	5.3.4.2, 5.8.7, appendix II	Yes: _ No: _ X: _
PC 42	Does the implementation issue an MDL-ERROR-IND (G) and initiate TEI check procedure, after N200 unsuccessful retransmissions of SABME in the Awaiting establishment state?	O.8	5.3.4.2, 5.5.1.3, appendix II	Yes: _ No: _ X: _
(continued)				

Table 1 (concluded): Protocol capabilities

Index	Protocol feature	Status	Reference	Support
PC 43	Does the implementation issue an MDL-ERROR-IND (H) and initiate TEI check procedure, after N200 unsuccessful retransmissions of DISC in the Awaiting release state?	O.9	5.3.4.2, 5.5.3.3, appendix II	Yes: _ No: _ X: _
	Other network management actions:			
PC 44.1	Does the implementation log the event on error code A?	O	appendix II	Yes: _ No: _ X: _
PC 44.2	Does the implementation log the event on error code B?	O	appendix II	Yes: _ No: _ X: _
PC 44.3	Does the implementation log the event on error code E?	O	appendix II	Yes: _ No: _ X: _
PC 44.4	Does the implementation log the event on error code F?	O	appendix II	Yes: _ No: _ X: _
PC 44.5	Does the implementation log the event on error code I?	O	appendix II	Yes: _ No: _ X: _
PC 44.6	Does the implementation log the event on error code J?	O	appendix II	Yes: _ No: _ X: _
PC 44.7	Does the implementation log the event on error code K?	O	appendix II	Yes: _ No: _ X: _
PC 44.8	Does the implementation log the event on error code L?	O	appendix II	Yes: _ No: _ X: _
PC 44.9	Does the implementation log the event on error code N?	O	appendix II	Yes: _ No: _ X: _
PC 44.10	Does the implementation log the event on error code O?	O	appendix II	Yes: _ No: _ X: _
O.1	PC 8 and PC 9	Support of at least one of these items is required.		
O.2	PC 19.1 and PC 19.2	Support of at least one of these items is required.		
O.3	PC 37.1 and PC 37.2	Support of one, and only one, of these items is required.		
O.4	PC 38.1 and PC 38.2	Support of one, and only one, of these items is required.		
O.5	PC 39.1 and PC 39.2	Support of one, and only one, of these items is required.		
O.6	PC 40.1 and PC 40.2	Support of one, and only one, of these items is required.		
O.7	PC 41.1 and PC 41.2	Support of one, and only one, of these items is required.		
O.8	PC 42	Support of this item is required.		
O.9	PC 43	Support of this item 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 implementation 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 implementation capable of accepting the closing flag as the opening flag of the next frame?	M	2.2	Yes: _ No: _ X: _
FR 14	Does the implementation generate a single flag as above?	O	2.2	Yes: _ No: _ X: _
FR 15	Does the implementation 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 implementation 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
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 primary rate access signalling	M	5.9.3	Yes:_No:_Value:_
SP 4	For SAP supporting primary rate 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 primary rate access signalling	M	5.9.5	Yes:_No:_Value:_
SP 6	For SAP supporting primary rate access packet procedures on the D-channel	M	5.9.5	Yes:_No:_Value:_
SP 7	Minimum time between retransmission of TEI Identity Check Request messages (T201)	M	5.9.6	Yes:_No:_Value:_
	If the implementation supports the data link monitor function:			
SP 8	Maximum time allowed without frames being exchanged (T203)	M	5.9.8	Yes:_No:_Value:_
	If the implementation supports the automatic negotiation of data link parameters,			
SP 9	Retransmission time of XID frame (TM20)	N/A	appendix IV.2	
SP 10	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.431 (1988): "Primary rate user-network interface - Layer 1 specification".

History

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