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Integrated Services Digital Network (ISDN); Digital Subscriber Signalling System No. one (DSS1) Protocol Implementation Conformance Statement (PICS) proforma specification for signalling network layer protocol for circuit-mode basic call control (basic access, network)

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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it can be converted into an ETS, have it's life extended for a further two years, be replaced by a new version or be withdrawn.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 300 102-1 (ISDN signalling network layer protocol) as specified in ISO/IEC 9646-1 (e.g. conformance testing) as follows:

I-ETS 300 314: "Protocol Implementation Conformance Statement (PICS) proforma specification (basic access, user)";

I-ETS 300 315: "PICS proforma specification (primary rate access, user)";

I-ETS 300 316: "PICS proforma specification (basic access, network)";

I-ETS 300 317: "PICS proforma specification (primary rate access, network)";

I-ETS 300 318: "Protocol Implementation eXtra Information for Testing (PIXIT) proforma specification (basic access, user)";

I-ETS 300 319: "PIXIT proforma specification (primary rate access, user)";

I-ETS 300 322: "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 ISDN network layer protocol (circuit-mode, basic access, network) as specified in ETS 300 102-1 [1] in compliance with the relevant requirements and in accordance with the relevant guidance given in ISO/IEC 9646-2 [3].

Both the packet interworking (clause 6 of ETS 300 102-1 [1]) and the User-to-User Signalling (UUS) procedures (clause 7 of ETS 300 102-1 [1]) are excluded from the present PICS proforma.

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 300 102-1 (1990): "Integrated Services Digital Network (ISDN); User-network interface layer 3; Specifications for basic call control".

[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:

Absent	Not relevant to this proforma
AND	Boolean "and"
CS	prefix for index numbers for the Call States group
IER	prefix for index numbers for the Received Information Elements group
IET	prefix for index numbers for the Transmitted Information Elements group
IS	prefix for index numbers for the Information element Structure group
ISDN	Integrated Services Digital Network
IUT	Implementation Under Test
M	Mandatory requirements (these are to be observed in all cases)
MC	prefix for index numbers for the Major Capabilities group
MR	prefix for index numbers for the Received Messages group
MT	prefix for index numbers for the Transmitted Messages group
N/A	Not supported, not applicable or the conditions for status are not met
N/A 1	Not Applicable in this direction of transmission
N/A 2	Not Applicable at the implementation of this interface
N/A 3	Not Applicable to ETSI networks
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
PICS	Protocol Implementation Conformance Statement
PIXIT	Protocol Implementation eXtra Information for Testing
SC	prefix for index numbers for Subsidiary Capabilities group
SCS	System Conformance Statement
SUT	System Under Test
TM	prefix for index numbers for the Timers group
UUS	User-to-User Signalling
[ ] Yes [ ] No	Tick "Yes" if item is supported, tick "No" if item is not supported

5 Conformance

The supplier of a protocol implementation which is claimed to conform to ETS 300 102-1 [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:

.....

.....

IUT version:

.....

6.1.2 System Under Test (SUT) identification

SUT name:

.....

.....

Hardware configuration:

.....

.....

.....

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:

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.....

6.3 Identification of the protocol

This PICS proforma applies to the following standard:

ETS 300 102-1 (1990): "Integrated Services Digital Network (ISDN); User-network interface layer 3; Specifications for basic call control".

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 Information for conformance testing

6.5.1 Major capabilities

Unless otherwise indicated all references in the tables are to subclauses in ETS 300 102-1 [1].

Table 1: Major capabilities

Item	Major capability Does the implementation...	Conditions for status	Status	Reference	Support
MC 1	support call establishment at the originating interface (outgoing calls from the user's point of view)?		M	5.1	[ ]Yes [ ]No
MC 1.1	support procedures of en-bloc receiving (sending from the user's point of view)?		M	5.1.1, 5.1.5.1, 5.1.8	[ ]Yes [ ]No
MC 1.2	support procedures of overlap receiving (sending from the user's point of view)?		M	5.1.3, 5.1.5.2, 5.1.8	[ ]Yes [ ]No
MC 1.3	interpret notification of interworking received from the calling user?		M	5.1.6	[ ]Yes [ ]No
MC 1.4	support transit network selection?		O	5.1.10, annex C	[ ]Yes [ ]No
MC 1.5	provide in-band information and in-band tones/announcements?		O	5.1.2, 5.1.3, 5.1.7, 5.3.4.1, 5.4	[ ]Yes [ ]No
MC 1.6	send notification of interworking from the called user or network to the calling user?		M	5.1.6	[ ]Yes [ ]No
MC 2	support call establishment at the destination interface (incoming calls from the user's point of view)?		M	5.2	[ ]Yes [ ]No
MC 2.1	support procedures of en-bloc sending (receiving from the user's point of view)?		O.1	5.2.1, 5.2.5.1	[ ]Yes [ ]No
MC 2.2	support procedures of overlap sending (receiving from the user's point of view)?		O.1	5.2.1, 5.2.4	[ ]Yes [ ]No
MC 2.3	send notification of interworking received from the calling user or network?		M	5.2.6	[ ]Yes [ ]No
MC 2.4	support delivery of the SETUP message to the called user on the point-to-point data link?		O.2	5.2.1, 5.2.3.1	[ ]Yes [ ]No
MC 2.5	support delivery of the SETUP message to the called user on the broadcast data link?		O.2	5.2.1, 5.2.3.2	[ ]Yes [ ]No

(continued)

Table 1 (continued): Major capabilities

Item	Major capability Does the implementation...	Conditions for status	Status	Reference	Support
MC 2.6	send notification of interworking at the destination interface to the calling user?		M	5.2.6	[ ]Yes [ ]No
MC 3	accept user-initiated call clearing?		M	5.3.3	[ ]Yes [ ]No
MC 4.1	support call clearing initiated by the network with tones/announcements provided?	MC 1.5 NOT MC 1.5	M N/A	5.3.4.1	[ ]Yes [ ]No
MC 4.2	support call clearing initiated by the network with tones/announcements not provided?		M	5.3.4.2	[ ]Yes [ ]No
MC 5	support the restart procedure?		see note 1	5.5	[ ]Yes [ ]No
					[ ]Yes [ ]No
MC 6	support call rearrangement procedures?		O	5.6	[ ]Yes [ ]No
MC 7.1	support response to Status enquiry message?		M	5.8.10	[ ]Yes [ ]No
MC 7.2	support sending of Status enquiry message?		O	5.8.10	[ ]Yes [ ]No
MC 8	support symmetric call operation?		N/A 3	annex D	
MC 9	support network specific facility selection?		O	annex E	[ ]Yes [ ]No
MC 10	support Low layer compatibility information element negotiation?		N/A 2	annex M	

(continued)

Table 1 (concluded): Major capabilities

Item	Major capability Does the implementation...	Conditions for status	Status	Reference	Support
MC 11.1	support user-to-user signalling during the set-up and clearing phases of a call (service 1)?		N/A 3 (note 2)	7.1.1, 7.1.3	
MC 11.2	support user-to-user signalling during call establishment (service 2)?		N/A 3 (note 2)	7.1.1, 7.1.4	
MC 11.3	support user-to-user signalling in the Active state of a call (service 3)?		N/A 3 (note 2)	7.1.1, 7.1.5	
MC 12	support procedures for establishment of bearer connection prior to call acceptance?		O	annex N	[ ]Yes [ ]No
MC 13	support message segmentation procedures?		O	annex K	[ ]Yes [ ]No
MC 14	D-channel back-up procedure?		N/A 2	annex F	
MC 15	support procedures for bearer service change?		N/A 3	annex O	
O.1	MC 2.1 and MC 2.2	Support of at least one of these options is required.			
O.2	MC 2.4 and MC 2.5	Support of at least one of these options is required.			
NOTE 1:	If point-to-point configuration then Status = Mandatory, otherwise Status = Optional				
NOTE 2:	These capabilities appear in the PICS proforma for UUS supplementary service. The designation of not applicable to ETSI networks is therefore only in the context of basic call control.				

Comments:

6.5.2 Subsidiary capabilities

Table 2: Subsidiary capabilities

Item	Subsidiary capability Does the implementation...	Conditions for status	Status	Reference	Support
	Call procedures				
SC 1	include the Sending complete information element in the SETUP message to the called user?		O	5.2.1, 5.2.4	[ ]Yes [ ]No
SC 2	support the indication "no B-channel available" in the SETUP message to the called user?		O	5.2.3.1	[ ]Yes [ ]No
SC 3	use a 1 octet call reference value in an outgoing SETUP message?		M	4.3	[ ]Yes [ ]No
SC 4.1	accept only one SETUP ACKNOWLEDGE message from the called user on point-to-point data link?	MC 2.2 NOT MC 2.2	M N/A	5.2.4	[ ]Yes [ ]No
SC 4.2	accept up to 8 SETUP ACKNOWLEDGE messages from the called user on broadcast data link?	MC 2.2 AND MC 2.5 NOT MC 2.2 OR NOT MC 2.5	O N/A	5.2.4	[ ]Yes [ ]No
SC 5	clear subsequent responding users after the first SETUP ACKNOWLEDGE message on broadcast data link?	MC 2.5 NOT MC 2.5	O N/A	5.2.4	[ ]Yes [ ]No
SC 6	clear non-selected users on broadcast data link?	MC 2.5 NOT MC 2.5	M N/A	5.2.9	[ ]Yes [ ]No
SC 7	support priority to incoming call (form the user's point of view) on call collision?		M	5.7	[ ]Yes [ ]No
SC 8	check calling side compatibility?		M	5.1.5, annex B.2	[ ]Yes [ ]No
	General errors				
SC 9	ignore a received message with protocol discriminator error?		M	5.8.1	[ ]Yes [ ]No
SC 10	ignore a received message too short to contain a complete information element?		M	5.8.2	[ ]Yes [ ]No
	Call reference errors				
SC 11	ignore a received message with Call reference octet 1 bits 5 to 8 not equal to 0?		M	5.8.3.1	[ ]Yes [ ]No

(continued)

Table 2 (continued): Subsidiary capabilities

Item	Subsidiary capability Does the implementation...	Conditions for status	Status	Reference	Support
SC 12.1	ignore a received message if the Call reference information element octet 1, bits 1 through 4 indicate a length greater than the maximum length supported?		M	5.8.3.1	[ ]Yes [ ]No
SC 12.2	ignore a received message related to basic call containing the dummy Call reference value?		M	5.8.3.1	[ ]Yes [ ]No
SC 12.3	ignore a Call reference information element of a length other than those supported? Specifically:			5.8.3.1	
SC 12.3.1	greater than 1?		O		[ ]Yes [ ]No
SC 12.3.2	less than 2?		N/A 2		
SC 12.3.3	greater than 2?		O		[ ]Yes [ ]No
SC 13	clear call on receiving any message other than SETUP, RELEASE, RELEASE COMPLETE, STATUS, RESUME, with unrecognizable Call reference value?		M	5.8.3.2 (a)	[ ]Yes [ ]No
SC 14	transmit a RELEASE COMPLETE message on receiving a RELEASE message with unrecognizable Call reference value?		M	5.8.3.2 (b)	[ ]Yes [ ]No
SC 15	take no action on receiving a RELEASE COMPLETE message with unrecognizable Call reference value?		M	5.8.3.2 (c)	[ ]Yes [ ]No
SC 16	ignore a received SETUP or RESUME message with unrecognizable Call reference value or with a Call reference flag incorrectly set to "1"?		M	5.8.3.2 (d)	[ ]Yes [ ]No
SC 17	ignore a SETUP message containing a Call reference value relating to an existing call?		M	5.8.3.2 (e)	[ ]Yes [ ]No
SC 18	transmit a STATUS message on receiving any message other than RESTART, RESTART ACKNOWLEDGE, STATUS, with global Call reference value?		M	5.8.3.2 (f)	[ ]Yes [ ]No

(continued)

Table 2 (continued): Subsidiary capabilities

Item	Subsidiary capability Does the implementation...	Conditions for status	Status	Reference	Support
	Message type, message sequence errors				
SC 19	transmit a STATUS message on receipt of an unexpected message other than RELEASE, RELEASE COMPLETE or of an unrecognizable message in any other state than the Null state?		O.1	5.8.4	[ ]Yes [ ]No
SC 20	initiate status enquiry procedures on receipt of an unexpected message other than RELEASE, RELEASE COMPLETE or of an unrecognizable message in any other state than the Null state?		O.1	5.8.4, 5.8.10	[ ]Yes [ ]No
SC 21	clear call on receipt of an unexpected RELEASE, RELEASE COMPLETE message?		M	5.8.4	[ ]Yes [ ]No
	General information element errors				
SC 22	support general information element error procedures in codesets other than 0?		M	5.8.5	[ ]Yes [ ]No
SC 23	process information elements regardless of their order in the message?		O.2	5.8.5.1	[ ]Yes [ ]No
SC 24	ignore out of sequence information elements?		O.2	5.8.5.1	[ ]Yes [ ]No
SC 25	ignore not permitted repetitions of an information element?		M	5.8.5.2	[ ]Yes [ ]No
SC 26	handle permitted repetitions (up to a limit) of an information element?		M	5.8.5.2	[ ]Yes [ ]No
	Mandatory information element errors				
SC 27	take no action, except for the sending of a STATUS message, on receipt of a message other than SETUP, DISCONNECT, RELEASE, RELEASE COMPLETE, - with mandatory information elements missing or - with mandatory information elements having invalid content or - with unrecognized information elements encoded to indicate "comprehension required"?		M	5.8.6.1, 5.8.6.2, 5.8.7.1	[ ]Yes [ ]No

(continued)

Table 2 (continued): Subsidiary capabilities

Item	Subsidiary capability Does the implementation...	Conditions for status	Status	Reference	Support
SC 28	return a RELEASE COMPLETE message, on receipt of a SETUP or RELEASE message, - with mandatory information elements missing or - with mandatory information elements having invalid content or - with unrecognized information elements encoded to indicate "comprehension required"?		M	5.8.6.1, 5.8.6.2, 5.8.7.1	[ ]Yes [ ]No
SC 29	clear the call on receipt of a DISCONNECT message, - with the Cause information element missing or - with mandatory information elements missing or - with mandatory information elements having invalid content or - with unrecognized information elements encoded to indicate "comprehension required"?		M	5.8.6.1, 5.8.6.2, 5.8.7.1	[ ]Yes [ ]No
SC 30	handle a RELEASE COMPLETE message as normal even if it, - has the Cause information element missing or - has mandatory information elements missing or - has mandatory information elements with invalid content or - has unrecognized information elements encoded to indicate "comprehension required"?		M	5.8.6.1, 5.8.6.2, 5.8.7.1	[ ]Yes [ ]No
SC 31	treat information elements with length exceeding the maximum as with invalid content?		M	5.8.6.2	[ ]Yes [ ]No
	Non-mandatory information element errors				
SC 32	transmit a STATUS message on receipt of a message other than DISCONNECT, RELEASE, RELEASE COMPLETE, with unrecognized non-mandatory information elements not encoded to indicate "comprehension required"?		M	5.8.7.1	[ ]Yes [ ]No
SC 33	transmit a RELEASE message on receipt of a DISCONNECT message with unrecognized non-mandatory information elements?		M	5.8.7.1	[ ]Yes [ ]No

(continued)

Table 2 (continued): Subsidiary capabilities

Item	Subsidiary capability Does the implementation...	Conditions for status	Status	Reference	Support
SC 34	transmit a RELEASE COMPLETE message on receipt of a RELEASE message with unrecognized non-mandatory information elements?		M	5.8.7.1	[ ]Yes [ ]No
SC 35	take no action on the unrecognized information on receipt of a RELEASE COMPLETE message with unrecognized non-mandatory information elements?		M	5.8.7.1	[ ]Yes [ ]No
SC 36	ignore incorrect or unrecognizable non-mandatory information elements?		O.3	5.8.7.2	[ ]Yes [ ]No
SC 37	transmit a STATUS message on receipt of a message with incorrect non-mandatory information elements?		O.3	5.8.7.2	[ ]Yes [ ]No
SC 38	truncate and process non-mandatory information elements which are too long?		N/A 3	5.8.7.2	
SC 39	treat as incorrect non-mandatory information elements which are too long?		M	5.8.7.2	[ ]Yes [ ]No
SC 40	truncate and process a Call identity information element too long?	MC 6 NOT MC 6	M N/A	5.8.7.2	[ ]Yes [ ]No
	Data link reset				
SC 41	clear calls in overlap sending/receiving?		M	5.8.8 (a)	[ ]Yes [ ]No
SC 42	maintain calls in the establishment phase and in Active, Suspend Request and Resume Request states?		M	5.8.8 (c)	[ ]Yes [ ]No
	Data link failure				
SC 43	clear all calls not in the active state?		M	5.8.9 (a)	[ ]Yes [ ]No
SC 44	proceed to layer 2 re-establishment?		M	5.8.9 (b)	[ ]Yes [ ]No
SC 45	transmit either a STATUS ENQUIRY or a STATUS message when layer 2 is re-established?		M	5.8.9 (b)	[ ]Yes [ ]No
SC 46	clear all calls in the Active state if layer 2 fails to be re-established?		M	5.8.9 (b)	[ ]Yes [ ]No

(continued)

Table 2 (concluded): Subsidiary capabilities

Item	Subsidiary capability Does the implementation...	Conditions for status	Status	Reference	Support
	Status enquiry procedure				
SC 47	retransmit STATUS ENQUIRY message a number of times up to a limit?	MC 7.2 NOT MC 7.2	O N/A	5.8.10	[ ]Yes [ ]No
SC 48	clear call if the limit of SC 47 is reached?	SC 47 NOT SC 47	M N/A	5.8.10	[ ]Yes [ ]No
O.1	SC 19 and SC 20	Support of one at least of these options is required.			
O.2	SC 23 and SC 24	Support of one, and only one, of these options is required.			
O.3	SC 36 and SC 37	Support of at least one of these options is required.			

Comments:

6.5.3 Call states

Table 3: Call states

Item	Call state Does the implementation support the ...	Conditions for status	Status	Reference	Support
CS 1	Null state (N0)?		M	2.1.2.1	[ ]Yes [ ]No
CS 2	Call Initiated state (N1)?		M	2.1.2.2	[ ]Yes [ ]No
CS 3	Overlap Sending state (N2)?		M	2.1.2.3	[ ]Yes [ ]No
CS 4	Outgoing Call Proceeding state (N3)?		M	2.1.2.4	[ ]Yes [ ]No
CS 5	Call Delivered state (N4)?		M	2.1.2.5	[ ]Yes [ ]No
CS 6	Call Present state (N6)?		M	2.1.2.6	[ ]Yes [ ]No
CS 7	Call Received state (N7)?		M	2.1.2.7	[ ]Yes [ ]No
CS 8	Connect Request state (N8)?		M	2.1.2.8	[ ]Yes [ ]No
CS 9	Incoming Call Proceeding state (N9)?		M	2.1.2.9	[ ]Yes [ ]No
CS 10	Active state (N10)?		M	2.1.2.10	[ ]Yes [ ]No
CS 11	Disconnect Request state (N11)?		M	2.1.2.11	[ ]Yes [ ]No
CS 12	Disconnect Indication state (N12)?		M	2.1.2.12	[ ]Yes [ ]No
CS 13	Suspend Request state (N15)?	MC 6 NOT MC 6	M N/A	2.1.2.13	[ ]Yes [ ]No
CS 14	Resume Request state (N17)?	MC 6 NOT MC 6	M N/A	2.1.2.14	[ ]Yes [ ]No
CS 15	Release Request state (N19)?		M	2.1.2.15	[ ]Yes [ ]No
CS 16	Call Abort state (N22)?		M	2.1.2.16	[ ]Yes [ ]No
CS 17	Overlap Receiving state (N25)?	MC 2.2 NOT MC 2.2	M N/A	2.1.2.17	[ ]Yes [ ]No

(continued)

Table 3 (concluded): Call states

Item	Call state Does the implementation support the ...	Conditions for status	Status	Reference	Support
CS 18	Null state (Rest 0)?	MC 5 NOT MC 5	M N/A	2.4.1.1	[ ]Yes [ ]No
CS 19	Restart Request state (Rest 1)?	MC 5 NOT MC 5	M N/A	2.4.1.2	[ ]Yes [ ]No
CS 20	Restart state (Rest 2)?	MC 5 NOT MC 5	M N/A	2.4.1.3	[ ]Yes [ ]No

Comments:

6.5.4 Supported messages

6.5.4.1 User to network (received by the network)

For the purposes of this subclause, "interpretation" means that the message type is recognized and acted upon to the extent required by ETS 300 102-1 [1].

Table 4: Supported messages, user to network (received by the network)

Item	Message Does the implementation support the interpretation of...	Conditions for status	Status	Reference	Support
MR 1	ALERTING?		M	3.1.1, 5.1.7	[ ]Yes [ ]No
MR 2	CALL PROCEEDING?		M	3.1.2, 5.1.5	[ ]Yes [ ]No
MR 3	CONGESTION CONTROL?		N/A 3 (note)	3.1.3, 7.1.5.7	
MR 4	CONNECT?		M	3.1.4, 5.1.8	[ ]Yes [ ]No
MR 5	CONNECT ACKNOWLEDGE?		M	3.1.5, 5.2.8	[ ]Yes [ ]No
MR 6	DISCONNECT?		M	3.1.6, 5.3.4	[ ]Yes [ ]No
MR 7	FACILITY?		N/A 3	3.1.7	
MR 8	INFORMATION?		M	3.1.8, 5.2.4	[ ]Yes [ ]No
MR 9	NOTIFY?		O	3.1.9, 5.9	[ ]Yes [ ]No
MR 10	PROGRESS?		M	3.1.10, 5.1.6, 5.2.6, 5.4, annex N	[ ]Yes [ ]No
MR 11	RELEASE?		M	3.1.11, 5.3	[ ]Yes [ ]No
MR 12	RELEASE COMPLETE?		M	3.1.12, 5.3	[ ]Yes [ ]No
MR 13	RESTART?	MC 5 NOT MC 5	M N/A	3.4.1, 5.5.2	[ ]Yes [ ]No
MR 14	RESTART ACKNOWLEDGE?	MC 5 NOT MC 5	M N/A	3.4.2, 5.5.1	[ ]Yes [ ]No
MR 15	RESUME?	MC 6 NOT MC 6	M N/A	3.1.13, 5.6.4	[ ]Yes [ ]No
MR 16	RESUME ACKNOWLEDGE?		N/A 1	3.1.14, 5.6.4	
MR 17	RESUME REJECT?		N/A 1	3.1.15, 5.6.5	

(continued)

Table 4 (concluded): Supported messages, user to network (received by the network)

Item	Message Does the implementation support the interpretation of...	Conditions for status	Status	Reference	Support
MR 18	SEGMENT?	MC 13 NOT MC 13	M N/A	annex K	[ ]Yes [ ]No
MR 19	SETUP?		M	3.1.16, 5.2.1	[ ]Yes [ ]No
MR 20	SETUP ACKNOWLEDGE?	MC 2.2 NOT MC 2.2	M N/A	3.1.17, 5.1.3	[ ]Yes [ ]No
MR 21	STATUS?		M	3.1.18, 3.4.3, 5.8.11	[ ]Yes [ ]No
MR 22	STATUS ENQUIRY?		M	3.1.19, 5.8.10	[ ]Yes [ ]No
MR 23	SUSPEND?	MC 6 NOT MC 6	M N/A	3.1.20, 5.6.1	[ ]Yes [ ]No
MR 24	SUSPEND ACKNOWLEDGE?		N/A 1	3.1.21, 5.6.2	
MR 25	SUSPEND REJECT?		N/A 1	3.1.22, 5.6.3	
MR 26	USER INFORMATION?		N/A 3 (note)	3.1.23, 7.1.4, 7.1.5	
NOTE:	These capabilities appear in the PICS proforma for UUS supplementary service. The designation of not applicable to ETSI networks is therefore only in the context of basic call control.				

Comments:

6.5.4.2 Network to user (transmitted by the network)

Table 5: Supported messages, network to user (transmitted by the network)

Item	Message Does the implementation support the inclusion of...	Conditions for status	Status	Reference	Support
MT 1	ALERTING?		M	3.1.1, 5.2.5.2	[ ]Yes [ ]No
MT 2	CALL PROCEEDING?		M	3.1.2, 5.2.5.2	[ ]Yes [ ]No
MT 3	CONGESTION CONTROL?		N/A 3 (note)	3.1.3, 7.1.5.7	
MT 4	CONNECT?		M	3.1.4, 5.2.7	[ ]Yes [ ]No
MT 5	CONNECT ACKNOWLEDGE?		M	3.1.5, 5.1.8	[ ]Yes [ ]No
MT 6	DISCONNECT?		M	3.1.6, 5.3.3	[ ]Yes [ ]No
MT 7	FACILITY?		N/A 3	3.1.7	
MT 8	INFORMATION?	MC 2.2 NOT MC 2.2	M O	3.1.8, 5.1.3	[ ]Yes [ ]No
MT 9	NOTIFY?	MC 6 NOT MC 6	M O	3.1.9, 5.6.2, 5.6.4, 5.6.7, 5.9	[ ]Yes [ ]No
MT 10	PROGRESS?		M	3.1.10, 5.1.6	[ ]Yes [ ]No
MT 11	RELEASE?		M	3.1.11, 5.3	[ ]Yes [ ]No
MT 12	RELEASE COMPLETE?		M	3.1.12, 5.3	[ ]Yes [ ]No
MT 13	RESTART?	MC 5 NOT MC 5	M N/A	3.4.1, 5.5	[ ]Yes [ ]No
MT 14	RESTART ACKNOWLEDGE?	MC 5 NOT MC 5	M N/A	3.4.2, 5.5	[ ]Yes [ ]No
MT 15	RESUME?		N/A 1	3.1.13, 5.6.4	
MT 16	RESUME ACKNOWLEDGE?	MC 6 NOT MC 6	M N/A	3.1.14, 5.6.4	[ ]Yes [ ]No
MT 17	RESUME REJECT?	MC 6 NOT MC 6	M N/A	3.1.15, 5.6.5	[ ]Yes [ ]No

(continued)

Table 5 (concluded): Supported messages, network to user (transmitted by the network)

Item	Message Does the implementation support the inclusion of...	Conditions for status	Status	Reference	Support
MT 18	SEGMENT?	MC 13 NOT MC 13	M N/A	annex K	[ ]Yes [ ]No
MT 19	SETUP?		M	3.1.16, 5.1.1	[ ]Yes [ ]No
MT 20	SETUP ACKNOWLEDGE?		M	3.1.17, 5.2.4	[ ]Yes [ ]No
MT 21	STATUS?		M	3.1.18, 3.4.3, 5.8.11	[ ]Yes [ ]No
MT 22	STATUS ENQUIRY?	MC 7.2 NOT MC 7.2	M N/A	3.1.19, 5.8.10	[ ]Yes [ ]No
MT 23	SUSPEND?		N/A 1	3.1.20, 5.6.1	
MT 24	SUSPEND ACKNOWLEDGE?	MC 6 NOT MC 6	M N/A	3.1.21, 5.6.2	[ ]Yes [ ]No
MT 25	SUSPEND REJECT?	MC 6 NOT MC 6	M N/A	3.1.22, 5.6.3	[ ]Yes [ ]No
MT 26	USER INFORMATION?		N/A 3 (note)	3.1.23, 7.1.4, 7.1.5	
NOTE:	These capabilities appear in the PICS proforma for UUS supplementary service. The designation of not applicable to ETSI networks is therefore only in the context of basic call control.				

Comments:

6.5.5 Information elements

6.5.5.1 User to network (received by the network)

For the purposes of this subclause, "interpretation" means that the contents of the information element are recognized and acted upon to the extent required by ETS 300 102-1 [1].

Table 6: Information elements, user to network (received by the network)

Item	Information element Does the implementation support the interpretation of...	Conditions for status	Status	Reference	Support
IER 1	Bearer capability?		M	4.5.5	[ ]Yes [ ]No
IER 2	Call identity?	MC 6 NOT MC 6	M N/A	4.5.6, 5.6.1	[ ]Yes [ ]No
IER 3	Call state?		M	4.5.7	[ ]Yes [ ]No
IER 4	Called party number?		M	4.5.8	[ ]Yes [ ]No
IER 5	Called party subaddress?		M	4.5.9	[ ]Yes [ ]No
IER 6	Calling party number?		M	4.5.10	[ ]Yes [ ]No
IER 7	Calling party subaddress?		M	4.5.11	[ ]Yes [ ]No
IER 8	Cause?		M	4.5.12	[ ]Yes [ ]No
IER 9	Channel identification?		M	4.5.13	[ ]Yes [ ]No
IER 10	Congestion level?		N/A 3 (note)	4.5.14	
IER 11	Date/time?		N/A 1	4.6.1	
IER 12	Display?		N/A 1	4.5.15	
IER 13	Facility?		N/A 3	4.6.2	
IER 14	High layer compatibility?		O	4.5.16	[ ]Yes [ ]No
IER 15	Keypad facility?		M	4.5.17	[ ]Yes [ ]No
IER 16	Low layer compatibility?		N/A 2	4.5.18	
IER 17	More data?		N/A 2	4.5.19	

(continued)

Table 6 (concluded): Information elements, user to network (received by the network)

Item	Information element Does the implementation support the interpretation of...	Conditions for status	Status	Reference	Support
IER 18	Network specific facilities?	MC 9 NOT MC 9	M N/A	4.5.20	[ ]Yes [ ]No
IER 19	Notification indicator?		O	4.5.21	[ ]Yes [ ]No
IER 20	Progress indicator?		M	4.5.22	[ ]Yes [ ]No
IER 21	Repeat indicator?		N/A 3	4.5.23	
IER 22	Restart indicator?	MC 5 NOT MC 5	M N/A	4.5.24	[ ]Yes [ ]No
IER 23	Segmented message?	MC 13 NOT MC 13	M N/A	4.5.25	[ ]Yes [ ]No
IER 24	Sending complete?		M	4.5.26, 5.1.1	[ ]Yes [ ]No
IER 25	Shift?		M	4.5.3, 4.5.4	[ ]Yes [ ]No
IER 26	Signal?		N/A 1	4.5.27	
IER 27	Transit network selection?	MC 1.4 NOT MC 1.4	M N/A	4.5.28	[ ]Yes [ ]No
IER 28	User-user?		N/A 3 (note)	4.5.29	
NOTE:	These capabilities appear in the PICS proforma for UUS supplementary service. The designation of not applicable to ETSI networks is therefore only in the context of basic call control.				

Comments:

6.5.5.2 Network to user (transmitted by the network)

Table 7: Information elements, network to user (transmitted by the network)

Item	Information element Does the implementation support the inclusion of...	Conditions for status	Status	Reference	Support
IET 1	Bearer capability?		M	4.5.5	[ ]Yes [ ]No
IET 2	Call identity?	MC 6 NOT MC 6	M N/A	4.5.6, 5.6.4	[ ]Yes [ ]No
IET 3	Call state?		M	4.5.7	[ ]Yes [ ]No
IET 4	Called party number?		M	4.5.8	[ ]Yes [ ]No
IET 5	Called party subaddress?		M	4.5.9	[ ]Yes [ ]No
IET 6	Calling party number?		M	4.5.10	[ ]Yes [ ]No
IET 7	Calling party subaddress?		M	4.5.11	[ ]Yes [ ]No
IET 8	Cause?		M	4.5.12	[ ]Yes [ ]No
IET 9	Channel identification?		M	4.5.13	[ ]Yes [ ]No
IET 10	Congestion level?		N/A 3 (note)	4.5.14, 7.1.5.7	
IET 11	Date/time?		O	4.6.1	[ ]Yes [ ]No
IET 12	Display?		O	4.5.15	[ ]Yes [ ]No
IET 13	Facility?		N/A 3	4.6.2	
IET 14	High layer compatibility?		N/A 2	4.5.16	
IET 15	Keypad facility?		O	4.5.17	[ ]Yes [ ]No
IET 16	Low layer compatibility?		O	4.5.18, 3.1.4	[ ]Yes [ ]No
IET 17	More data?		N/A 2	4.5.19	

(continued)

Table 7 (concluded): Information elements, network to user (transmitted by the network)

Item	Information element Does the implementation support the inclusion of...	Conditions for status	Status	Reference	Support
IET 18	Network specific facilities?	MC 9 NOT MC 9	M N/A	4.5.20	[ ]Yes [ ]No
IET 19	Notification indicator?	MC 6 NOT MC 6	M O	4.5.21, 5.6.2, 5.6.4	[ ]Yes [ ]No
IET 20	Progress indicator?		M	4.5.22	[ ]Yes [ ]No
IET 21	Repeat indicator?		N/A 3	4.5.23	
IET 22	Restart indicator?	MC 5 NOT MC 5	M N/A	4.5.24	[ ]Yes [ ]No
IET 23	Segmented message?	MC 13 NOT MC 13	M N/A	4.5.25	[ ]Yes [ ]No
IET 24	Sending complete?		O	4.5.26, 5.2.4	[ ]Yes [ ]No
IET 25	Shift?		O	4.5.3, 4.5.4	[ ]Yes [ ]No
IET 26	Signal?		O	4.5.27	[ ]Yes [ ]No
IET 27	Transit network selection?		N/A 1	4.5.28	
IET 28	User-user?		N/A 3 (note)	4.5.29	
NOTE:	These capabilities appear in the PICS proforma for UUS supplementary service. The designation of not applicable to ETSI networks is therefore only in the context of basic call control.				

Comments:

6.5.6 Timers

Table 8: Timers

Item	Timer Does the implementation support...	Conditions for status	Status	Reference	Support
TM 1	T301?		M (note)	Table 9.1	[ ]Yes [ ]No
TM 2	T302?		M	Table 9.1	[ ]Yes [ ]No
TM 3	T303?		M	Table 9.1	[ ]Yes [ ]No
TM 4	T304?	MC 2.2 NOT MC 2.2	O N/A	Table 9.1	[ ]Yes [ ]No
TM 5	T305?		M	Table 9.1	[ ]Yes [ ]No
TM 6	T306?	MC 1.5 NOT MC 1.5	M N/A	Table 9.1	[ ]Yes [ ]No
TM 7	T307?	MC6 NOT MC 6	M N/A	Table 9.1	[ ]Yes [ ]No
TM 8	T308?		M	Table 9.1	[ ]Yes [ ]No
TM 9	T309?		M	Table 9.1	[ ]Yes [ ]No
TM 10	T310?		M	Table 9.1	[ ]Yes [ ]No
TM 11	T312?		M	Table 9.1	[ ]Yes [ ]No
TM 12	T313?		N/A 2	Table 9.1	
TM 13	T314?	MC 13 NOT MC 13	M N/A	Table 9.1	[ ]Yes [ ]No
TM 14	T316?	MC 5 NOT MC 5	M N/A	Table 9.1	[ ]Yes [ ]No
TM 15	T317?	MC 5 NOT MC 5	M N/A	Table 9.1	[ ]Yes [ ]No
TM 16	T318?		N/A 2	Table 9.1	

(continued)

Table 8 (concluded): Timers

Item	Timer Does the implementation support...	Conditions for status	Status	Reference	Support
TM 17	T319?		N/A 2	Table 9.1	
TM 18	T321?		N/A 3	Table 9.1	
TM 19	T322?	MC 7.2 NOT MC 7.2	M N/A	Table 9.1	[ ]Yes [ ]No
NOTE:	Timer T301 is not used if the network has already applied an internal alerting supervision timing function.				

Comments:

6.6 Additional information for interoperability

6.6.1 Information element structure

Table 9: Information element structure

Item	Information element parts Does the information element include...	Status	Values	Support
IS 1	**Bearer capability** (ETS 300 102-1 [1], table 4-6, figure 4-11)			
IS 1.1	Octet 3 bits 6 and 7, coding standard?	M		[ ]Yes [ ]No
	1. CCITT 2. International 3. National 4. Network	O N/A 3 N/A 3 N/A 3	0 1 2 3	[ ]Yes [ ]No
IS 1.2	Octet 3 bits 1 to 5, information transfer capability?	M		[ ]Yes [ ]No
	1. Speech 2. Unrestricted digital 3. Restricted digital 4. 3,1 kHz audio 5. 7 kHz audio 6. Video	O O N/A 3 O O O	0 8 9 16 17 24	[ ]Yes [ ]No [ ]Yes [ ]No [ ]Yes [ ]No [ ]Yes [ ]No [ ]Yes [ ]No
IS 1.3	Octet 4 bits 6 and 7, transfer mode?	M		[ ]Yes [ ]No
	1. Circuit	O	0	[ ]Yes [ ]No
IS 1.4	Octet 4 bits 1 to 5, information transfer rate, origination to destination if octet 4b is present, bi-directional otherwise?	M		[ ]Yes [ ]No
	1. 64 kbit/s 2. 2 x 64 kbit/s	O O	16 17	[ ]Yes [ ]No [ ]Yes [ ]No
IS 1.5	Octet 4a bits 5 to 7, structure?	O		[ ]Yes [ ]No
	1. Default 2. 8 kHz integrity 3. Service data unit integrity 4. Unstructured	O O O O	0 1 4 7	[ ]Yes [ ]No [ ]Yes [ ]No [ ]Yes [ ]No [ ]Yes [ ]No
IS 1.6	Octet 4a bits 3 and 4, configuration?	O		[ ]Yes [ ]No
	1. Point-to-point	O	0	[ ]Yes [ ]No
IS 1.7	Octet 4a bits 1 and 2, establishment?	O		[ ]Yes [ ]No
	1. Demand	O	0	[ ]Yes [ ]No

(continued)

Table 9 (continued): Information element structure

Item	Information element parts Does the information element include...	Status	Values	Support
IS 1	**Bearer capability** (ETS 300 102-1 [1], table 4-6, figure 4-11)			
IS 1.8	Octet 4b bits 6 and 7, symmetry?	O		[ ]Yes [ ]No
	1. Bi-directional symmetric	O	0	[ ]Yes [ ]No
IS 1.9	Octet 4b bits 1 to 5, information transfer rate, destination to origination?	O		[ ]Yes [ ]No
	1. 64 kbit/s	O	16	[ ]Yes [ ]No
	2. 2 x 64 kbit/s	O	17	[ ]Yes [ ]No
IS 1.10	Octet 5 bits 1 to 5, user information layer 1 protocol?	O		[ ]Yes [ ]No
	1. V.110/X.30	O	1	[ ]Yes [ ]No
	2. G.711 µ-law	N/A 3	2	
	3. G.711 A-law	O	3	[ ]Yes [ ]No
	4. G.721 32 kbit/s ADPCM and I.460	O	4	[ ]Yes [ ]No
	5. G.722 and G.725 7 kHz audio	O	5	[ ]Yes [ ]No
	6. G.7xx 384 kbit/s video	O	6	[ ]Yes [ ]No
	7. Non-CCITT rate adaption	O	7	[ ]Yes [ ]No
	8. V.120	N/A 3	8	
	9. X.31 HDLC	O	9	[ ]Yes [ ]No
IS 1.11	Octet 5a bit 7, synchronous/asynchronous?	O		[ ]Yes [ ]No
	1. Synchronous	O	0	[ ]Yes [ ]No
	2. Asynchronous	O	1	[ ]Yes [ ]No
IS 1.12	Octet 5a bit 6, negotiation indicator?	O		[ ]Yes [ ]No
	1. In-band negotiation not possible	O	0	[ ]Yes [ ]No
	2. In-band negotiation possible	O	1	[ ]Yes [ ]No

(continued)

Table 9 (continued): Information element structure

Item	Information element parts Does the information element include...	Status	Values	Support
IS 1	**Bearer capability** (ETS 300 102-1 [1], table 4-6, figure 4-11)			
IS 1.13	Octet 5a bits 1 to 5, user rate?	O		[ ]Yes [ ]No
	1. Rate indicated by E bits (I.460)	O	0	[ ]Yes [ ]No
	2. 0,6 kbit/s CCITT V.6 and X.1	O	1	[ ]Yes [ ]No
	3. 1,2 kbit/s CCITT V.6	O	2	[ ]Yes [ ]No
	4. 2,4 kbit/s CCITT V.6 and X.1	O	3	[ ]Yes [ ]No
	5. 3,6 kbit/s CCITT V.6	O	4	[ ]Yes [ ]No
	6. 4,8 kbit/s CCITT V.6 and X.1	O	5	[ ]Yes [ ]No
	7. 7,2 kbit/s CCITT V.6	O	6	[ ]Yes [ ]No
	8. 8 kbit/s CCITT I.460	O	7	[ ]Yes [ ]No
	9. 9,6 kbit/s CCITT V.6 and X.1	O	8	[ ]Yes [ ]No
	10. 14,4 kbit/s CCITT V.6	O	9	[ ]Yes [ ]No
	11. 16 kbit/s CCITT I.460	O	10	[ ]Yes [ ]No
	12. 19,2 kbit/s CCITT V.6	O	11	[ ]Yes [ ]No
	13. 32 kbit/s CCITT I.460	O	12	[ ]Yes [ ]No
	14. 48 kbit/s CCITT V.6 and X.1	O	14	[ ]Yes [ ]No
	15. 56 kbit/s CCITT V.6	O	15	[ ]Yes [ ]No
	16. 64 kbit/s CCITT X.1	O	16	[ ]Yes [ ]No
	17. 0,1345 kbit/s CCITT X.1	O	21	[ ]Yes [ ]No
	18. 0,100 kbit/s CCITT X.1	O	22	[ ]Yes [ ]No
	19. 0,075/1,2 kbit/s CCITT V.6 and X.1	O	23	[ ]Yes [ ]No
	20. 1,2/0,075 kbit/s CCITT V.6 and X.1	O	24	[ ]Yes [ ]No
	21. 0,050 kbit/s CCITT V.6 and X.1	O	25	[ ]Yes [ ]No
	22. 0,075 kbit/s CCITT V.6 and X.1	O	26	[ ]Yes [ ]No
	23. 0,110 kbit/s CCITT V.6 and X.1	O	27	[ ]Yes [ ]No
	24. 0,150 kbit/s CCITT V.6 and X.1	O	28	[ ]Yes [ ]No
	25. 0,200 kbit/s CCITT V.6 and X.1	O	29	[ ]Yes [ ]No
	26. 0,300 kbit/s CCITT V.6 and X.1	O	30	[ ]Yes [ ]No
	27. 12 kbit/s CCITT V.6	O	31	[ ]Yes [ ]No
	Octet 5b, case 1 (note)			
IS 1.14	Octet 5b bits 6 and 7, intermediate rate?	O		[ ]Yes [ ]No
	1. Not used	O	0	[ ]Yes [ ]No
	2. 8 kbit/s	O	1	[ ]Yes [ ]No
	3. 16 kbit/s	O	2	[ ]Yes [ ]No
	4. 32 kbit/s	O	3	[ ]Yes [ ]No
IS 1.15	Octet 5b bit 5, network independent clock (NIC) on transmission?	O		[ ]Yes [ ]No
	1. Not required to send data with NIC	O	0	[ ]Yes [ ]No
	2. Required to send data with NIC	O	1	[ ]Yes [ ]No
IS 1.16	Octet 5b bit 4, NIC on reception?	O		[ ]Yes [ ]No
	1. Cannot accept data with NIC	O	0	[ ]Yes [ ]No
	2. Can accept data with NIC	O	1	[ ]Yes [ ]No

(continued)

Table 9 (continued): Information element structure

Item	Information element parts Does the information element include...	Status	Values	Support
IS 1	**Bearer capability** (ETS 300 102-1 [1], table 4-6, figure 4-11)			
IS 1.17	Octet 5b bit 3, flow control on transmission?	O		[ ]Yes [ ]No
	1. Not required to send data with flow control	O	0	[ ]Yes [ ]No
	2. Required to send data with flow control	O	1	[ ]Yes [ ]No
IS 1.18	Octet 5b bit 2, flow control on reception?	O		[ ]Yes [ ]No
	1. Cannot accept data with flow control mechanism	O	0	[ ]Yes [ ]No
	2. Can accept data with flow control mechanism	O	1	[ ]Yes [ ]No
	Octet 5b, case 2 (note)			
IS 1.19	Octet 5b bit 7, rate adaption header?	O		[ ]Yes [ ]No
	1. Header not included	O	0	[ ]Yes [ ]No
	2. Header included	O	1	[ ]Yes [ ]No
IS 1.20	Octet 5b bit 6, multiple frame establishment (MFE) support in data link?	O		[ ]Yes [ ]No
	1. MFE not supported, only UI frames allowed	O	0	[ ]Yes [ ]No
	2. MFE supported	O	1	[ ]Yes [ ]No
IS 1.21	Octet 5b bit 5, mode of operation?	O		[ ]Yes [ ]No
	1. Bit transparent mode	O	0	[ ]Yes [ ]No
	2. Protocol sensitive mode	O	1	[ ]Yes [ ]No
IS 1.22	Octet 5b bit 4, logical link identifier (LLI) negotiation?	O		[ ]Yes [ ]No
	1. Default LLI = 256 only	O	0	[ ]Yes [ ]No
	2. Full protocol negotiation	O	1	[ ]Yes [ ]No
IS 1.23	Octet 5b bit 3, assignor/assignee?	O		[ ]Yes [ ]No
	1. Message originator is "default assignee"	O	0	[ ]Yes [ ]No
	2. Message originator is "assignor only"	O	1	[ ]Yes [ ]No
IS 1.24	Octet 5b bit 2, in-band/out-band negotiation?	O		[ ]Yes [ ]No
	1. Negotiation performed with USER INFORMATION messages	O	0	[ ]Yes [ ]No
	2. Negotiation performed in-band	O	1	[ ]Yes [ ]No
IS 1.25	Octet 5c bits 6 and 7, number of stop bits?	O		[ ]Yes [ ]No
	1. Not used	O	0	[ ]Yes [ ]No
	2. 1 bit	O	1	[ ]Yes [ ]No
	3. 1,5 bits	O	2	[ ]Yes [ ]No
	4. 2 bits	0	3	[ ]Yes [ ]No

(continued)

Table 9 (continued): Information element structure

Item	Information element parts Does the information element include...	Status	Values	Support
IS 1	**Bearer capability** (ETS 300 102-1 [1], table 4-6, figure 4-11)			
IS 1.26	Octet 5c bits 4 and 5, number of data bits excluding parity?	O		[ ]Yes [ ]No
	1. Not used	O	0	[ ]Yes [ ]No
	2. 5 bits	O	1	[ ]Yes [ ]No
	3. 7 bits	O	2	[ ]Yes [ ]No
	4. 8 bits	O	3	[ ]Yes [ ]No
IS 1.27	Octet 5c bits 1 to 3, parity information?	O		[ ]Yes [ ]No
	1. Odd	O	0	[ ]Yes [ ]No
	2. Even	O	2	[ ]Yes [ ]No
	3. None	O	0	[ ]Yes [ ]No
	4. Forced to 0	O	4	[ ]Yes [ ]No
	5. Forced to 1	O	5	[ ]Yes [ ]No
IS 1.28	Octet 5d bit 7, duplex mode?	O		[ ]Yes [ ]No
	1. Half duplex	O	0	[ ]Yes [ ]No
	2. Full duplex	O	1	[ ]Yes [ ]No
IS 1.29	Octet 5d bits 1 to 6, modem type?	O		[ ]Yes [ ]No
	1. V.21	O	33	[ ]Yes [ ]No
	2. V.22	O	34	[ ]Yes [ ]No
	3. V.22 bis	O	35	[ ]Yes [ ]No
	4. V.23	O	36	[ ]Yes [ ]No
	5. V.26	O	37	[ ]Yes [ ]No
	6. V.26 bis	O	38	[ ]Yes [ ]No
	7. V.26 ter	O	39	[ ]Yes [ ]No
	8. V.27	O	40	[ ]Yes [ ]No
	9. V.27 bis	O	41	[ ]Yes [ ]No
	10. V.27 ter	O	42	[ ]Yes [ ]No
	11. V.29	O	43	[ ]Yes [ ]No
	12. V.32	O	44	[ ]Yes [ ]No
IS 1.30	Octet 6 bits 1 to 5, user information layer 2 protocol?	O		[ ]Yes [ ]No
	1. Q.921	O	2	[ ]Yes [ ]No
	2. X.25 link level	O	6	[ ]Yes [ ]No
IS 1.31	Octet 7 bits 1 to 5, user information layer 3 protocol?	O		[ ]Yes [ ]No
	1. Q.931	O	2	[ ]Yes [ ]No
	2. X.25 packet layer	O	6	[ ]Yes [ ]No

(continued)

Table 9 (continued): Information element structure

Item	Information element parts Does the information element include...	Status	Values	Support
IS 2	**Channel identification** (ETS 300 102-1 [1], table 4-15, figure 4-20)			
IS 2.1	Octet 3 bit 7, interface identifier present?	M		[ ]Yes [ ]No
	1. Interface implicitly identified 2. Interface explicitly identified	M N/A 3	0 1	[ ]Yes [ ]No
IS 2.2	Octet 3 bit 6, interface type?	M		[ ]Yes [ ]No
	1. Basic rate interface	O	0	[ ]Yes [ ]No
IS 2.3	Octet 3 bit 4, preferred/exclusive?	M		[ ]Yes [ ]No
	1. Indicated channel preferred 2. Exclusive, indicated channel only accepted	O O	0 1	[ ]Yes [ ]No [ ]Yes [ ]No
IS 2.4	Octet 3 bit 3, D-channel indicator?	M		[ ]Yes [ ]No
	1. Channel not the D-channel 2. Channel is the D-channel	O O	0 1	[ ]Yes [ ]No [ ]Yes [ ]No
IS 2.5	Octet 3 bits 1 and 2. information channel selection?	M		[ ]Yes [ ]No
	1. No channel 2. B1 channel 3. B2 channel 4. Any channel	O O O O	0 1 2 3	[ ]Yes [ ]No [ ]Yes [ ]No [ ]Yes [ ]No [ ]Yes [ ]No
IS 2.6	Octet 3.1, bits 1 to 7, interface identifier?	N/A 3		
IS 2.7	Octet 3.2, bits 6 and 7, coding standard?	N/A 2		
IS 2.8	Octet 3.2 bit 5, number/map?	N/A 2		
IS 2.9	Octet 3.2 bits 1 to 4, channel type/map element type?	N/A 2		
IS 2.10	Octet 3.3, channel number/slot map?	N/A 2		

(continued)

Table 9 (concluded): Information element structure

Item	Information element parts Does the information element include...	Status	Values	Support
IS 3	**High layer compatibility** (ETS 300 102-1 [1], table 4-17, figure 4-24)			
IS 3.1	Octet 3 bits 6 and 7, coding standard?	M		[ ]Yes [ ]No
	1. CCITT standardized	O	0	[ ]Yes [ ]No
	2. International	O	1	[ ]Yes [ ]No
	3. National	O	2	[ ]Yes [ ]No
	4. Network	O	3	[ ]Yes [ ]No
IS 3.2	Octet 4 bits 1 to 7, HL characteristics?	M		[ ]Yes [ ]No
	1. Telephony	O	1	[ ]Yes [ ]No
	2. Fax group 2/3 (F.182)	O	4	[ ]Yes [ ]No
	3. Fax group 4 class 1 (F.184)	O	33	[ ]Yes [ ]No
	4. Teletex, F.230, Fax group 4, classes II & III (F.184)	O	36	[ ]Yes [ ]No
	5 Teletex, basic and processable mode (F.220)	O	40	[ ]Yes [ ]No
	6. Teletex basic mode (F.200)	O	49	[ ]Yes [ ]No
	7. Syntax based videotex (F.300, T.102)	O	50	[ ]Yes [ ]No
	8. International videotex interworking via gateways or interworking units (F.300, T.101)	O	51	[ ]Yes [ ]No
	9. Telex (F.60)	O	53	[ ]Yes [ ]No
	10. MHS (X.400)	O	56	[ ]Yes [ ]No
	11. OSI application (X.200)	O	65	[ ]Yes [ ]No
	12. Maintenance	O	94	[ ]Yes [ ]No
	13. Management	O	95	[ ]Yes [ ]No
IS 3.3	Octet 4a bits 1 to 7, extended HL characteristics?	O		[ ]Yes [ ]No
	1. Telephony	O	1	[ ]Yes [ ]No
	2. Fax group 2/3 (F.182)	O	4	[ ]Yes [ ]No
	3. Fax group 4 class 1 (F.184)	O	33	[ ]Yes [ ]No
	4. Teletex, F.230, Fax group 4, classes II & III (F.184	O	36	[ ]Yes [ ]No
	5 Teletex, basic and processable mode (F.220)	O	40	[ ]Yes [ ]No
	6. Teletex basic mode (F.200)	O	49	[ ]Yes [ ]No
	7. Syntax based videotex (F.300, T.102)	O	50	[ ]Yes [ ]No
	8. International videotex interworking via gateways or interworking units (F.300, T.101)	O	51	[ ]Yes [ ]No
	9. Telex (F.60)	O	53	[ ]Yes [ ]No
	10. MHS (X.400)	O	56	[ ]Yes [ ]No
	11. OSI application (X.200)	O	65	[ ]Yes [ ]No
NOTE:	Octet 5b case 1 is for V.110/X.30 rate adaption, octet 5b case 2 is for V.120 rate adaption.			

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

A.1 PICS proforma partitioning

The proforma is divided into two parts:

subclause 6.5: information for conformance testing, must be completed in its entirety when submitting an implementation for conformance testing;

subclause 6.6: additional information for interoperability, is not required for conformance testing but is required to be completed in order to assist the establishment of interoperability capabilities between various implementations and interfaces.

A.2 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.3 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.4 Explanation of PICS proforma subclauses

A.4.1 Major capabilities

Each question in this subclause refers to a major function of the protocol. 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 Recommendation. Answering "No" to a particular question in this subclause states that the implementation does not support that function of the protocol.

A.4.2 Subsidiary capabilities

Indicating support for an item in this subclause states that the implementation has the ability to support the special cases of procedures such as call establishment, call clearing, restart, re-arrangements, segmentation, error handling, etc. which require clarification in the PICS. Some of the items are optional and in some cases the option is dependant on the implementation of a major capability. For some the status is conditional based on whether or not a major capability is supported. In these cases, if the major capability is supported, the ability to support the item is mandatory. If not, the ability to support the item element is optional.

A.4.3 Call states

Indicating support for an item in this subclause states that the implementation has the capability to support the call states that may exist on the relevant side of the user-network interface. The status of some call states is conditional based on whether or not a major capability is supported.

A.4.4 Supported messages, received by the IUT

Indicating support for an item in this subclause states that the implementation has the ability to recognize the message listed in that item. The status of some messages is conditional based on whether or not a major capability is supported. In these cases, if the major capability is supported, the ability to recognize the message is either mandatory or, in certain cases, optional. If not, the ability to recognize the message is optional or not applicable. The table also provides the identity value of each message in decimal notation.

A.4.5 Supported messages, transmitted by the IUT

Indicating support for an item in this subclause states that the implementation has the ability of transmitting the message listed in that item. The status of some messages is conditional based on whether or not a major capability is supported. In these cases, if the major capability is supported, the ability to transmit the message is either mandatory or, in certain cases, optional. If not, the ability to transmit the message is optional or not applicable. The table also provides the identity value of each message in decimal notation.

A.4.6 Information elements, received by the IUT

Indicating support for an item in this subclause states that the implementation has the ability to recognize the information elements listed in the items, (codeset 0), contained in the received messages. The status of some information elements is conditional based on whether or not a major capability is supported. In these cases, if the major capability is supported, the ability to interpret the message is either mandatory or, in certain cases, optional. If not, the ability to interpret the message is optional or not applicable. The tabulation indicates the identity value of the information element in decimal notation.

A.4.7 Information elements, transmitted by the IUT

Indicating support for an item in this subclause states that the implementation has the ability to recognize the information elements listed in the items, (codeset 0), contained in the transmitted messages. The status of some information elements is conditional based on whether or not a major capability is supported. In these cases, if the major capability is supported, the ability to transmit the message is either mandatory or, in certain cases, optional. If not, the ability to transmit the message is optional or not applicable. The tabulation indicates the identity value of the information element in decimal notation.

A.4.8 Supported timers

Indicating support for an item in this subclause states that the implementation has a timer that operates in accordance with the description in clause 9 of ETS 300 102-1 [1] and the relevant behaviour in clause 5 of ETS 300 102-1 [1]. Specific values for the timers implemented should be stated in the PIXIT.

A.4.9 Information elements structure

The information requested in subclause 6.6 on information element structure is required for interoperability but is not necessary for the purposes of conformance testing.

Indicating support for an item in this section states that the implementation has the ability to support the contents of the main information elements, particularly those which affect interworking, listed in the items. Additional information is provided against most elements.

History

Document history	
December 1994	First Edition
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