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Digitalno omrežje z integriranimi storitvami (ISDN) - Protokol digitalne naročniške signalizacije št. 1 (DSS1) - Podatkovna povezovalna plast - 4. del: Izjava o skladnosti izvedbe protokola (PICS) - Proforma specifikacije za splošni protokol

Integrated Services Digital Network (ISDN); Digital Subscriber Signalling System No. one (DSS1) protocol; Data link layer; Part 4: Protocol Implementation Conformance Statement (PICS) proforma specification for the general protocol

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ICS:

33.080	Digitalno omrežje z integriranimi storitvami (ISDN)	Integrated Services Digital Network (ISDN)
35.100.20	Podatkovni povezovalni sloj	Data link layer

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**Integrated Services Digital Network (ISDN);
Digital Subscriber Signalling System No. one (DSS1) protocol;
Data link layer;
Part 4: Protocol Implementation Conformance Statement (PICS)
proforma specification for the general protocol**

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Foreword

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

This ETS is part 4 of a multi-part standard covering the Integrated Services Digital Network (ISDN) Digital Subscriber Signalling System No. one (DSS1) data link layer specification as described below:

- Part 1: "General aspects [ITU-T Recommendation Q.920 (1993), modified]";
- Part 2: "General protocol specification [ITU-T Recommendation Q.921 (1993), modified]";
- Part 3: "Frame relay protocol specification";
- Part 4: "Protocol Implementation Conformance Statement (PICS) proforma specification for the general protocol";**
- Part 5: "PICS proforma specification for the frame relay protocol";
- Part 6: "Test Suite Structure and Test Purposes (TSS&TP) specification for the general protocol";
- Part 7: "Abstract Test Suite (ATS) and partial Protocol Implementation eXtra Information for Testing (PIXIT) proforma specification for the general protocol".

Transposition dates	
Date of adoption of this ETS:	6 September 1996
Date of latest announcement of this ETS (doa):	31 December 1996
Date of latest publication of new National Standard or endorsement of this ETS (dop/e):	30 June 1997
Date of withdrawal of any conflicting National Standard (dow):	30 June 1997

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 an Implementation Conformance Statement (ICS). An ICS stating what capabilities and options have been implemented for a particular protocol is called a protocol ICS. This is commonly abbreviated to "PICS".

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1 Scope

This fourth part of ETS 300 402 provides the Protocol Implementation Conformance Statement (PICS) proforma for the Integrated Services Digital Network (ISDN) Digital Subscriber Signalling System No. one (DSS1) protocol data link layer general protocol as specified in ETS 300 402-2 [1] in compliance with the relevant requirements and in accordance with the relevant guidance given in ISO/IEC 9646-7 [3].

The supplier of an implementation that is claimed to conform to ETS 300 402-2 [1] is required to complete a copy of the PICS proforma provided in annex A of this ETS.

The supplier of an implementation that is claimed to conform to annex ZA of ETS 300 402-2 [1] is required to complete a copy of the PICS proforma provided in annex B of this ETS.

2 Normative references

This 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 ETS only when incorporated in it by amendment or revision. For undated references the latest edition of the publication referred to applies.

- [1] ETS 300 402-2 (1995): "Integrated Services Digital Network (ISDN); Digital Subscriber Signalling System No. one (DSS1) protocol; Data link layer; Part 2: General protocol specification [ITU-T Recommendation Q.921 (1993), modified]".
- [2] ISO/IEC 9646-1: "Information technology - Open Systems Interconnection - Conformance testing methodology and framework - Part 1: General concepts".
- [3] ISO/IEC 9646-7: "Information technology - Open Systems Interconnection - Conformance testing methodology and framework - Part 7: Implementation Conformance Statements".

3 Definitions and abbreviations

3.1 Definitions

For the purposes of this ETS, the following definitions apply, in addition to those in ETS 300 402-2 [1], ISO/IEC 9646-1 [2] and ISO/IEC 9646-7 [3]:

Implementation Conformance Statement (ICS): A statement made by the supplier of an implementation or system claimed to conform to a given specification, stating which capabilities have been implemented. The ICS can take several forms: protocol ICS, profile ICS, profile specific ICS, and information object ICS (see ISO/IEC 9646-1 [2]).

network: The DSS1 protocol entity at the network side of the user-network interface.

Protocol Implementation Conformance Statement (PICS): An ICS for an implementation or system claimed to conform to a given specification (see ISO/IEC 9646-1 [2]).

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

user: The DSS1 protocol entity at the user side of the user-network interface.

3.2 Abbreviations

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

AND	Boolean "and"
DL	Data Link
DSS1	Digital Subscriber Signalling System No. one
FR	Frames Received
FT	Frames Transmitted
ICS	Implementation Conformance Statement
ISDN	Integrated Services Digital Network
IUT	Implementation Under Test
M	Mandatory requirement (to be observed in all cases)
MC	Major Capabilities
N/A	Not applicable, not supported or the conditions for status are not met
No	not supported
NOT	Boolean "not"
O	Option (may be selected to suit the implementation, provided that any requirements applicable to the option are observed)
O.n	Options, but support required for either at least one or only one of the options in the group labelled with the same numeral "n"
OR	Boolean "or"
OSI	Open Systems Interconnection
PDU	Protocol Data Unit
PICS	Protocol Implementation Conformance Statement
PR	Parameter Received
PT	Parameter Transmitted
R	Role
SAP	Service Access Point
SAPI	Service Access Point Identifier
SC	Subsidiary Capabilities
SCS	System Conformance Statement
SDU	Service Data Unit
SP	System Parameter
SUT	System Under Test
TEI	Terminal Endpoint Identifier
TM	Timer
Yes	supported

4 Conformance

A PICS proforma that conforms to this PICS proforma specification shall be technically equivalent to either annex A or annex B, and shall preserve the numbering and ordering of the items in annex A or annex B, respectively.

A PICS that conforms to this PICS proforma specification shall:

- a) describe an implementation which conforms to the main text or to annex ZA of ETS 300 402-2 [1] ;
- b) be a conforming PICS proforma, which has been completed in accordance with the instructions for completion given in clauses A.1 or B.1, respectively; and
- c) include the information necessary to uniquely identify both the supplier and the implementation.

Annex A (normative): PICS proforma for ETS 300 402-2

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

A.1 Guidance for completing the PICS proforma**A.1.1 Purpose and structure**

The purpose of this PICS proforma is to provide a mechanism whereby a supplier of an implementation of the requirements defined in ETS 300 402-2 [1] may provide information in a standardized manner.

The PICS proforma is subdivided into clauses as follows:

- A.1: instructions for completing the various parts of the PICS proforma;
- A.2: identification of the implementation;
- A.3: identification of the protocol to which this PICS proforma applies;
- A.4: explanation of the PICS proforma tables;
- A.5: global statement of conformance;
- A.6: questions to determine roles;
- A.7: questions for the user role; and
- A.8: questions for the network role.

A.1.2 Symbols, abbreviations and conventions

The PICS proforma contained in this annex is comprised of information in tabular form in accordance with the guidelines presented in ISO/IEC 9646-7 [3].

Item column:

The item column contains a unique reference (a mnemonic plus a number) for each item within the PICS proforma.

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An additional lower case letter has been added to differentiate PICS items related to the user role (e.g. MCu) and PICS items related to the network role (e.g. MCn). In earlier PICS proformas both these cases were identified by the same mnemonic (e.g. MC).

Item description column:

The item description contains a brief summary of the static requirement for which a support answer is required.

Conditions for status column:

The conditions for status column contains a specification, if appropriate, of the predicate upon which a conditional status is based.

Status column:

The following notations, defined in ISO/IEC 9646-7 [3], are used for the status column:

M	Mandatory - the capability is required to be supported.
O	Optional - the capability may be supported or not.
N/A	Not Applicable - in the given context, it is impossible to use the capability.
O.i	qualified optional - for mutually exclusive or selectable options from a set. "i" is an integer that identifies an unique group of related optional items and the logic of their selection, defined below the table.
X	eXcluded or prohibited - there is a requirement not to use this capability in a given context.

NOTE: To support a capability means that the capability is implemented in conformance to ETS 300 402-2 [1].

Reference column:

Except where explicitly stated, the reference column refers to the appropriate parts of ETS 300 402-2 [1] describing the particular item.

NOTE: A reference indicates only the location of the most essential information about an item. All additional requirements contained in ETS 300 402-2 [1] have also to be taken into account when making a statement about the conformance of that particular item.

Support column:

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The following notation, defined in ISO/IEC 9646-7 [3], is used for the support column:

<input type="checkbox"/> Yes <input type="checkbox"/> No	Tick "Yes" if item is supported, tick "No" if item is not supported.
<input type="checkbox"/> N/A	Tick "N/A" if the item is "not applicable".

Prerequisite line:

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

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

A.1.3 Instructions for completing the PICS proforma

The supplier of the implementation shall complete the PICS proforma. For each row in each PICS proforma table the supplier shall enter an explicit answer (i.e. by ticking the appropriate "Yes", "No", or "N/A" in each of the support column boxes provided. Where a support column box is left blank, or where it is marked "N/A" without any tick box, no answer is required. If necessary, the supplier may enter additional comments at the end of each table, or separately.

More detailed instructions may be found at the beginning of each subclause of the proforma.