
Digitalno omrežje z integriranimi storitvami (ISDN) – Protokol digitalne naročniške signalizacije št. 1 (DSS1) – Signalizacijska omrežna plast za krmiljenje vodovnega osnovnega klica – 3. del: Izjava o skladnosti izvedbe protokola (PICS) – Proforma specifikacija

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

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European Standard (Telecommunications series)

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

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Foreword

This European Standard (Telecommunications series) has been produced by ETSI Technical Committee Services and Protocols for Advanced Networks (SPAN).

The present document is part 3 of a multi-part deliverable covering the Integrated Services Digital Network (ISDN); Digital Subscriber Signalling System No. one (DSS1) protocol; Signalling network layer for circuit-mode basic call control, as described below:

- Part 1: "Protocol specification [ITU-T Recommendation Q.931 (1993), modified]";
- Part 2: "Specification and Description Language (SDL) diagrams";
- Part 3: "Protocol Implementation Conformance Statement (PICS) proforma specification";**
- Part 4: "Test Suite Structure and Test Purposes (TSS&TP) specification for the user";
- Part 5: "Abstract Test Suite (ATS) and partial Protocol Implementation eXtra Information for Testing (PIXIT) proforma specification for the user";
- Part 6: "Test Suite Structure and Test Purposes (TSS&TP) specification for the network";
- Part 7: "Abstract Test Suite (ATS) and partial Protocol Implementation eXtra Information for Testing (PIXIT) proforma specification for the network".

National transposition dates

Date of adoption of this EN:	25 May 2001
Date of latest announcement of this EN (doa):	31 August 2001
Date of latest publication of new National Standard or endorsement of this EN (dop/e):	28 February 2002
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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 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".

ETS 300 403-1 [1] is derived from ITU-T Recommendation Q.931 [5]. However, no PICS proforma exists for this Recommendation. Therefore, ETSI has created a PICS proforma that is specific to the European environment. This PICS proforma reflects the requirements contained in ITU-T Recommendation Q.931 [5] with the modifications applied by ETS 300 403-1 [1]. This has been done to assist understanding of how the European requirements relate to the requirements contained within ITU-T Recommendation Q.931 [5] (and in particular, to the options specified in that Recommendation that are selected by the ETS). In practical terms, this means that a number of capabilities specified by ITU-T Recommendation Q.931 [5] appear as items in this PICS proforma with a status more akin to the status that would be expected in a profile ICS (i.e. out-of-scope (I), prohibited (X)).

Annex B of the present document describes the differences between the proforma contained in annex A and the proforma for the earlier version of the DSS1 protocol as specified in ETS 300 102-1 (see Bibliography).

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1 Scope

The present document provides the Protocol Implementation Conformance Statement (PICS) proforma for the Integrated Services Digital Network (ISDN) Digital Subscriber Signalling System No. one (DSS1) protocol signalling network layer for circuit-mode basic call control as specified in ETS 300 403-1 [1] and ETS 300 403-2 [2] in compliance with the relevant requirements and in accordance with the relevant guidance given in ISO/IEC 9646-7 [4].

Both the packet communication procedures (see clause 6 of ETS 300 403-1 [1]) and the User Signalling Bearer Service (USBS) procedures (see clause 7 of ETS 300 403-1 [1]) are excluded from this PICS proforma.

The supplier of an implementation that is claimed to conform to ETS 300 403-1 [1] and ETS 300 403-2 [2] is required to complete a copy of the PICS proforma provided in annex A of the present document and is required to provide the information necessary to identify both the supplier and the implementation.

2 References

The following documents contain provisions which, through reference in this text, constitute provisions of the present document.

- References are either specific (identified by date of publication and/or edition number or version number) or non-specific.
- For a specific reference, subsequent revisions do not apply.
- For a non-specific reference, the latest version applies.

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- [1] ETSI ETS 300 403-1 (1995): "Integrated Services Digital Network (ISDN); Digital Subscriber Signalling System No. one (DSS1) protocol; Signalling network layer for circuit-mode basic call control; Part 1: Protocol specification [ITU-T Recommendation Q.931 (1993), modified]".
- [2] ETSI ETS 300 403-2 (1995): "Integrated Services Digital Network (ISDN); Digital Subscriber Signalling System No. one (DSS1) protocol; Signalling network layer for circuit-mode basic call control; Part 2: Specification and Description Language (SDL) diagrams".
- [3] ISO/IEC 9646-1 (1994): "Information technology - Open Systems Interconnection - Conformance testing methodology and framework - Part 1: General concepts".
- [4] ISO/IEC 9646-7 (1995): "Information technology - Open Systems Interconnection - Conformance testing methodology and framework - Part 7: Implementation Conformance Statements".
- [5] ITU-T Recommendation Q.931 (1993): "ISDN user-network interface layer 3 specification for basic call control".

3 Definitions and abbreviations

3.1 Definitions

For the purposes of the present document, the terms and definitions given in ETS 300 403-1 [1], ETS 300 403-2 [2], ISO/IEC 9646-1 [3], ISO/IEC 9646-7 [4] and the following apply.

Implementation Conformance Statement (ICS): 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 [3]).

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

Protocol Implementation Conformance Statement (PICS): ICS for an implementation or system claimed to conform to a given specification (see ISO/IEC 9646-1 [3])

PICS proforma: document, in the form of a questionnaire, which when completed for an implementation or system becomes a PICS (see ISO/IEC 9646-1 [3])

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

3.2 Abbreviations

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

AND	Boolean "and"
BC	Bearer Capability information element
CDP	Called Party information element
CGP	Calling Party information element
DSS1	Digital Subscriber Signalling System No. one
HLC	High Layer Compatibility information element
ICS	Implementation Conformance Statement
IE	Information Element
ISDN	Integrated Services Digital Network
IUT	Implementation Under Test
LLC	Low Layer Compatibility information element
M	Mandatory requirement (to be observed in all cases)
MC	Major Capabilities
MR	Messages Received
MT	Messages Transmitted
N/A	Not applicable, not supported or the conditions for status are not met
No	not supported
NOT	Boolean "not"
O	Option (may be selected to suit the implementation, provided that any requirements applicable to the option are observed)
O.n	Options, but support required for either at least one or only one of the options in the group labelled with the same numeral "n"
OR	Boolean "or"
OSI	Open Systems Interconnection
PABX	Private Automatic Branch eXchange
PDU	Protocol Data Unit
PICS	Protocol Implementation Conformance Statement
R	Roles
SC	Subsidiary Capabilities
SUT	System Under Test
(T)	Transparent (PDU parameter)
TI	Type of Implementation
TM	Timer
USBS	User Signalling Bearer Service
Yes	supported

4 Conformance

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

A PICS that conforms to this PICS proforma specification shall:

- a) describe an implementation which conforms to ETS 300 403-1 [1] and ETS 300 403-2 [2];
- b) be a conforming PICS proforma, which has been completed in accordance with the instructions for completion given in clause A.1; and
- c) include the information necessary to uniquely identify both the supplier and the implementation.

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Annex A (normative): PICS proforma for ETS 300 403-1 and ETS 300 403-2

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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 300 403-1 [1] and ETS 300 403-2 [2] 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 [4].

Item column:

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

NOTE: Where possible, backwards compatibility has been maintained between the item references used in this PICS proforma and those used in the PICS proforma for the earlier version of the DSS1 protocol described in ETS 300 102-1 (see Bibliography).

In general, the same mnemonics have been used in this PICS proforma as in earlier proforma. 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 proforma both these cases were identified by the same mnemonic (e.g. MC).

A further consequence of maintaining backwards compatibility is the appearance of discontinuities in the numeric part of the item reference. There are, for example, PICS items listed as messages transmitted by the network with the references "MTn 2" and "MTn 4"; the reference between, "MTn 3" is not used.

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 contain 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 [4], are used for the status column:

i	irrelevant or out-of-scope - this capability is outside the scope of the ETS to which this PICS proforma applies and is not subject to conformance testing in this context.
m	mandatory - the capability is required to be supported.
n/a	not applicable - in the given context, it is impossible to use the capability. No answer in the support column is required.
o	optional - the capability may be supported or not.
o.i	qualified optional - for mutually exclusive or selectable options from a set. "i" is an integer that identifies a unique group of related optional items and the logic of their selection, defined below the table.
x	prohibited (excluded) - 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 300 403-1 [1] and ETS 300 403-2 [2].

Reference column:

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Except where explicitly stated, the reference column refers to the appropriate parts of ETS 300 403-1 [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 300 403-1 [1] and ETS 300 403-2 [2] have also to be taken into account when making a statement about the conformance of that particular item.

Support column:

The following notation, defined in ISO/IEC 9646-7 [4], 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 clause heading or table title indicates that the whole clause 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 tickbox, 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 clause of the proforma.

A.2 Identification of the implementation

Identification of the Implementation Under Test (IUT) and the system in which it resides (the System Under Test (SUT)) should be filled in 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 different.

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

A.2.1 Date of the statement

.....

A.2.2 Implementation Under Test (IUT) identification

IUT name:

.....

IUT version:

.....

A.2.3 System Under Test (SUT) identification

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SUT name:

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Hardware configuration:

.....

Operating system:

.....

A.2.4 Product supplier

Name:

.....

E-mail address:

.....

Address:

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

Telephone number:

.....

Facsimile number:

.....

Additional information:

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

A.2.5 Client

Name:

.....

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E-mail address:

.....

Address:

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.....

.....

Telephone number:

.....

Facsimile number:

.....

Additional information:

.....

.....

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