SLOVENSKI STANDARD
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Inteligentno omrežje (IN) - Aplikacijski (uporabovni) protokol inteligentnega omrežja (INAP) – Drugi nabor zmožnosti inteligentnega omrežja (CS2) – 2. del: Izjava o skladnosti izvedbe protokola (PICS) - Proforma specifikacije

Intelligent Network (IN); Intelligent Network Application Protocol (INAP); Capability Set 2 (CS2); Part 2: Protocol Implementation Conformance Statement (PICS) proforma specification

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Intelligent Network (IN);
Intelligent Network Application Protocol (INAP);
Capability Set 2 (CS2);
Part 2: 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).

NOTE: The present document was originally released on Public Enquiry with the PICS proforma for the SSP only. The present version also contains the CUSF PICS proforma.

The present document is part 2 of a multi-part deliverable covering the Intelligent Network Application Protocol (INAP) Capability Set 2 (CS2) as identified below:

Part 1: "Protocol specification";

Part 2: "Protocol Implementation Conformance Statement (PICS) proforma specification";

Part 3: "Test Suite Structure and Test Purposes (TSS&TP) specification for Service Switching Function (SSF)";

Part 4: "Abstract Test Suite (ATS) specification and Partial Protocol Implementation eXtra Information for Testing (PIXIT) proforma for Service Switching Function (SSF)";

Part 5: "Distributed Functional Plane (DFP) [ITU-T Recommendation Q.1224 (1997), modified]".

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).

National transposition dates	
Date of adoption of this EN:	19 July 2002
Date of latest announcement of this EN (doa):	31 October 2002
Date of latest publication of new National Standard or endorsement of this EN (dop/e):	30 April 2003
Date of withdrawal of any conflicting National Standard (dow):	30 April 2003

1   Scope

The present document is applicable to Intelligent Network Application Protocol (INAP) Capability Set 2 (CS2).

The present document provides the Protocol Implementation Conformance Statement (PICS) proforma for the Core INAP CS2 for:

- the physical element SSP on the interfaces SSF/SRF-SCF and CUSF-SCF in compliance with the relevant requirements and in accordance with the relevant guidance given in ISO/IEC 9646-7 [3];

- the physical element SCP on the interfaces SSF-SCF, SRF-SCF and CUSF-SCF in compliance with the relevant requirements and in accordance with the relevant guidance given in ISO/IEC 9646-7 [3].

The supplier of a protocol implementation which is claimed to conform to EN 301 140-1 [1] 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.

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- For a specific reference, subsequent revisions do not apply.

- For a non-specific reference, the latest version applies.

[1]   ETSI EN 301 140-1: "Intelligent Network (IN); Intelligent Network Application Protocol (INAP); Capability Set 2 (CS2); Part 1: Protocol specification"

[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, symbols and abbreviations

3.1   Definitions

For the purposes of the present document, the terms and definitions given in EN 301 140-1 [1], ISO/IEC 9646-1 [2], ISO/IEC 9646-7 [3] and the following apply:

ICS proforma: document, in the form of a questionnaire, which when completed for an implementation or system becomes an ICS

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

   NOTE: The ICS can take several forms: protocol ICS, profile ICS, profile specific ICS, information object ICS, etc.

Protocol ICS (PICS): ICS for an implementation or system claimed to conform to a given protocol specification

static conformance review: review of the extent to which the static conformance requirements are met by the IUT, accomplished by comparing the PICS with the static conformance requirements expressed in the relevant standard(s)

> NOTE: See ISO/IEC 9646-1 [2].

3.2   Symbols

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

AND	Boolean "and"
NOT	Boolean "not"
OR	Boolean "or"

3.3   Abbreviations

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

ASE	Application Service Element
CS2	Capability Set 2
ICS	Implementation Conformance Statement
IN	Intelligent Network
INAP	Intelligent Network Application Protocol
IUT	Implementation Under Test
OSI	Open Systems Interconnection
PICS	Protocol Implementation Conformance Statement
SCP	Service Control Point
SCS	System Conformance Statement
SSP	Service Switching Point
SUT	System Under Test

4   Conformance

If it claims to conform to the present document, the actual Implementation Conformance Statement (ICS) proforma to be filled in by a supplier shall be technically equivalent to the text of the ICS proforma given in annex A, and shall preserve the numbering/naming and ordering of the proforma items.

An ICS which conforms to the present document shall be a conforming ICS proforma completed in accordance with the guidance for completion given in clause A.1.

Annex A (normative):
PICS proforma for EN 301 140-1

Notwithstanding the provisions of the copyright clause related to the text of the present document, ETSI grants that users of the present document 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 ICS proforma

A.1.1   Purposes and structure

The purpose of this ICS proforma is to provide a mechanism whereby a supplier of an implementation of the requirements defined in EN 301 140-1 may provide information about the implementation in a standardized manner.

The ICS proforma is subdivided into clauses for the following categories of information:

-    guidance for completing the ICS proforma;

-    identification of the implementation;

-    identification of the protocol;

-    global statement of conformance;

-    physical entity;

-    external interfaces;

-    application contexts;

-    operations;

-    arguments, results and errors;

-    timers;

-    range constants;

-    explicit statements about the implemented capabilities.

A.1.2   Abbreviations and conventions

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

Item column

The item column contains a number which identifies the item in the table.

Item description column

The item description column describes in free text each respective item (e.g. parameters, timers, etc.). It implicitly means "is <item description> supported by the implementation?".

Status column

The following notations, defined in ISO/IEC 9646-7, 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.
x	prohibited (excluded) - there is a requirement not to use this capability in the given context.
o.i	qualified optional - for selectable options from a set. "i" is an integer which identifies an unique group of related optional items and the logic of their selection which is defined immediately following the table.
ci	conditional - the requirement on the capability ("m", "o", "x" or "n/a") depends on the support of other optional or conditional items. "i" is an integer identifying an unique conditional status expression which is defined immediately following the table.
c:o	optional if the hierarchically preceding option is implemented.
c:o.i	qualified optional if the hierarchically preceding option is implemented.- for selectable options from a set. "i" is an integer which identifies an unique group of related optional items and the logic of their selection which is defined immediately following the table.
c:m	mandatory if the hierarchically preceding option is implemented.
i	irrelevant (out-of-scope) - capability outside the scope of the reference specification. No answer is requested from the supplier.

NOTE 1: This use of "i" status is not to be confused with the suffix "i" to the "o" and "c" statuses above.

Reference column

The reference column makes reference to EN 301 140-1, except where explicitly stated otherwise.

Support column

The support column shall be filled in by the supplier of the implementation. The following common notations, defined in ISO/IEC 9646-7, are used for the support column:

Y or y	supported by the implementation.
N or n	not supported by the implementation.
N/A, n/a or -	no answer required (allowed only if the status is n/a, directly or after evaluation of a conditional status).

If this ICS proforma is completed in order to describe a multiple-profile support in a system, it is necessary to be able to answer that a capability is supported for one profile and not supported for another. In that case, the supplier shall enter the unique reference to a conditional expression, preceded by "?" (e.g. ?3). This expression shall be given in the space for comments provided at the bottom of the table. It uses predicates defined in the System Conformance Statement (SCS), each of which refers to a single profile and which takes the value TRUE if and only if that profile is to be used.

EXAMPLE 1:   ?3: IF prof1 THEN Y ELSE N

NOTE 2: As stated in ISO/IEC 9646-7, support for a received PDU requires the ability to parse all valid parameters of that PDU. Supporting a PDU while having no ability to parse a valid parameter is non-conformant. Support for a parameter on a PDU means that the semantics of that parameter are supported.

Values allowed column

The values allowed column contains the type, the list, the range, or the length of values allowed. The following notations are used:

- range of values: <min value> .. <max value>

  example: 5 .. 20

- list of values: <value1>, <value2>, ..., <valueN>

  example: 2, 4, 6, 8, 9

  example: '1101'B, '1011'B, '1111'B

  example: '0A'H, '34'H, '2F'H

- list of named values: <name1>(<val1>), <name2>(<val2>), ..., <nameN>(<valN>)

  example: reject(1), accept(2)

- length: size (<min size> .. <max size>)

  example: size (1 .. 8)

Values supported column

The values supported column shall be filled in by the supplier of the implementation. In this column, the values or the ranges of values supported by the implementation shall be indicated.

References to items

For each possible item answer (answer in the support column) within the ICS proforma a unique reference exists, used, for example, in the conditional expressions. It is defined as the table identifier, followed by a solidus character "/", followed by the item number in the table. If there is more than one support column in a table, the columns are discriminated by letters (a, b, etc.), respectively.

EXAMPLE 2:   A.5/4 is the reference to the answer of item 4 in table 5 of annex A.

EXAMPLE 3:   A.6/3b is the reference to the second answer (i.e. in the second support column) of item 3 in table 6 of annex A.

Prerequisite line

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

A prerequisite line after a clause 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 ICS proforma

The supplier of the implementation shall complete the ICS proforma in each of the spaces provided. In particular, an explicit answer shall be entered, in each of the support or supported column boxes provided, using the notation described in clause A.1.2.

If necessary, the supplier may provide additional comments in space at the bottom of the tables or separately.

More detailed instructions are given at the beginning of the different clauses of the ICS proforma.

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

The product supplier information 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.

The System Conformance Statement (SCS) as defined in ISO/IEC 9646-1 is a document supplied by the client or product supplier that summarizes which OSI standards are implemented and to which conformance is claimed. The PICS/SCS clause should describe the relationship of the PICS to the SCS.

If the answer to the statement in clause A.5 is "Yes", all subsequent clauses should be completed to facilitate selection of test cases for optional functions.

If the answer to the statement in clause A.5 is "No", all subsequent clauses should be completed, and all non-supported mandatory capabilities should be identified and explained. Explanations may be entered in the comments field at the bottom of each table or on attached sheets of paper.

A.1.4   Guidelines for reading the PICS

Optional items in EN 301 140-1 are dealt with as follows:

- mandatory protocol items need to be supported by both operation invokers and responders;

- optional protocol items are optional for operation invokers, but mandatory for operation responders;

- network specific options are optional for both operation invokers and responders.

A.2   Identification of the implementation

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

SUT name:

....

....

Hardware configuration:

....

....

....

Operating system:

....

....

A.2.4   Product supplier

Name:

....

Address:

....

....

....

Telephone number:

....

Facsimile number:

....

Additional information:

....

....

....

A.2.5   Client

Name:

....

Address:

....

....

....

Telephone number:

....

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