



# SLOVENSKI STANDARD

## SIST EN 301 668-2:2001

01-februar-2001

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**Intelligentno omrežje (IN) - Razširitev prvega nabora zmožnosti inteligentnega omrežja (CS1) - Aplikacijski protokol inteligentnega omrežja (INAP) - 2. del: Izjava o skladnosti izvedbe protokola (PICS) - Proforma specifikacije**

Intelligent Network (IN); Intelligent Network Capability Set 1 (CS1) extension; Intelligent Network Application Protocol (INAP); Part 2: Protocol Implementation Conformance Statement (PICS) proforma specification

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**ICS:**

33.040.35      Telefonska omrežja      Telephone networks

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# ETSI EN 301 668-2 V1.1.3 (2000-07)

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*European Standard (Telecommunications series)*

**Intelligent Network (IN);  
Intelligent Network Capability Set 1 (CS1) extension;  
Intelligent Network Application Protocol (INAP);  
Part 2: Protocol Implementation Conformance  
Statement (PICS) proforma specification**

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**Keywords**

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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 2 of a multi-part EN covering the IN Capability Set 1 (CS1) extension; Intelligent Network Application Protocol (INAP); Customized Applications for Mobile network Enhanced Logic (CAMEL) Phase 2 as described below:

Part 1: "Protocol specification for Camel Phase 2";

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

NOTE: Further parts of the present document may be identified later.

### (standards.iteh.ai) National transposition dates

Date of adoption of this EN:	<a href="https://standards.iteh.ai/catalog/standards/sist/80067c79-f5ba-4dec-a5b8-1f9a2e62e0c/sist-en-301-668-2-2001">SIST EN 301 668-2:2001</a>	7 July 2000
Date of latest announcement of this EN (doa):	<a href="https://standards.iteh.ai/catalog/standards/sist/80067c79-f5ba-4dec-a5b8-1f9a2e62e0c/sist-en-301-668-2-2001">https://standards.iteh.ai/catalog/standards/sist/80067c79-f5ba-4dec-a5b8-1f9a2e62e0c/sist-en-301-668-2-2001</a>	31 October 2000
Date of latest publication of new National Standard or endorsement of this EN (dop/e):		30 April 2001
Date of withdrawal of any conflicting National Standard (dow):		30 April 2001

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# 1 Scope

The present document provides the Implementation Conformance Statement (ICS) proforma for the core Intelligent Network Application Protocol (INAP) of Intelligent Network (IN) Capability Set 1 (CS1) defined in ETS 300 374-1 [2] extended by the Intelligent Network Application Protocol (INAP) of Intelligent Network (IN) Capability Set 1 (CS1) extension defined in EN 301 668-1 [1] in compliance with the relevant requirements, and in accordance with the relevant guidance given in ISO/IEC 9646-7 [4].

ETS 300 374-2 [5] was taken as an editorial basis for the present document. Enhancements and modifications in respect to EN 301 668-1 [1] are covered by appropriate updates of existing tables or by new tables. For the CAMEL capability only a restricted subset of the protocol aspects of ETS 300 374-1 [2] is necessary. These restrictions are covered in the present document too.

---

# 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, edition number, version number, etc.) or non-specific.
- For a specific reference, subsequent revisions do not apply.
- For a non-specific reference, the latest version applies.
- A non-specific reference to an ETS shall also be taken to refer to later versions published as an EN with the same number.

- STANDARD PREVIEW**  
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- [1] ETSI EN 301 668-1 (V1.2): "Intelligent Network (IN); Intelligent Network Capability Set 1 (CS1) extension; Intelligent Network Application Protocol (INAP); Part 1: Protocol specification for Camel Phase 2".  
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- [2] ETSI ETS 300 374-1: "Intelligent Network (IN); Intelligent Network Capability Set 1 (CS1); Core Intelligent Network Application Protocol (INAP); Part 1: Protocol specification".
- [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] ETSI ETS 300 374-2: "Intelligent Network (IN); Intelligent Network Capability Set 1 (CS1); Core Intelligent Network Application Protocol (INAP); Part 2: Protocol Implementation Conformance Statement (PICS) proforma specification for Service Switching Function (SSF), Specialized Resource Function (SRF) and Service Control Function (SCF)".

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# 3 Definitions and abbreviations

## 3.1 Definitions

For the purposes of the present document, the following terms and definitions apply:

- terms defined in EN 301 668-1 [1];
- terms defined in ISO/IEC 9646-1 [3] and in ISO/IEC 9646-7 [4].



In particular, the following terms defined in ISO/IEC 9646-1 [3] 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, information object ICS, etc.

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

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

## 3.2 Abbreviations

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

AC	Application Context
ASE	Application Service Element
BCSM	Basic Call State Model
CS1	Capability Set 1
ICS	Implementation Conformance Statement
IN	Intelligent Network
INAP	Intelligent Network Application Protocol
IP	Intelligent Peripheral
IUT	Implementation Under Test
PDU	Protocol Data Unit
PICS	Protocol Implementation Conformance Statement
SCF	Service Control Function
SCP	Service Control Point
SCS	System Conformance Statement
SRF	Specialized Resource Function
SSF	Service Switching Function
SSP	Service Switching Point
SUT	System Under Test

Within the present document the terms gsmSSF and SSF and the terms gsmSCF and SCF respectively are used synonymously.

---

## 4 Conformance

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

A PICS which conforms to the present document shall be a conforming PICS proforma completed in accordance with the instructions for completion given in annex A, clause A.1.

## Annex A (normative): PICS proforma for core INAP CS1

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 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 EN 301 668-1 may provide information about the implementation in a standardized manner.

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

- instructions for completing the ICS proforma;
- identification of the implementation;
- identification of the protocol;
- PICS proforma tables; iTeh STANDARD PREVIEW
- global statement of conformance; (standards.iteh.ai)
- physical entities;
- external interfaces; [SIST EN 301 668-2:2001](https://standards.iteh.ai/catalog/standards/sist/80067c79-f5ba-4dec-a5b8-0165a2e62e0c/sist-en-301-668-2-2001)
- application contexts; <https://standards.iteh.ai/catalog/standards/sist/80067c79-f5ba-4dec-a5b8-0165a2e62e0c/sist-en-301-668-2-2001>
- operations;
- arguments, results and errors;
- timers;
- range constants.

#### A.1.2 Symbols, abbreviations and terms

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.

The table numbering is in accordance with ETS 300 374-1 and not continuous.

##### **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, the capability cannot be used;
x	prohibited (excluded) - there is a requirement not to use this capability in the given context;
o.i	qualified optional - for mutually exclusive or 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. For nested conditional expressions, the syntax "IF... THEN (IF... THEN... ELSE...) ELSE..." is used to avoid ambiguities.

### Reference column

Entries in the reference column refer to subclauses of EN 301 668-1, except where explicitly stated otherwise. Since EN 301 668-1 is a delta document to ETS 300 374-1, clauses which are missing in EN 301 668-1 can be found in ETS 300 374-1.

NOTE: A reference indicates only the location of the most essential information about an item. All additional requirements contained in EN 301 668-1 have also to be taken into account when making a statement about the conformance of that particular item.

### 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).

NOTE: As stated in ISO/IEC 9646-7, support for a Protocol Data Unit (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.

If this PICS 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 cell 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: ?3: IF prof1 THEN Y ELSE N.

It is further possible to provide comments to an answer at the bottom of each table.

### Values allowed column

The values allowed column contains the values or the ranges of values allowed.

### 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 PICS proforma exists a unique reference, 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 shall be discriminated by letters (a, b, etc.), respectively.

EXAMPLE 1: A.5/4 is the reference to the answer of item 4 in table 5 of annex A.

EXAMPLE 2: 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.

## A.1.3 Instructions for completing the PICS proforma

The supplier of the implementation shall complete the PICS proforma in each of the spaces provided using the notation described in subclause A.1.2.

Optional items in EN 301 668-1 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; they may be mandatory also for the operation invokers if required by the CAMEL capability;
- network specific options are optional for both operation invokers and responders.

Table A.1 gives an overview of this rule tabular form.

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<https://standards.iteh.ai/catalog/standards/sist/80067c79-f5ba-4dec-a5b8-0165a2e62e0c/sist-en-301-668-2-2001>  
**Table A.1**

Protocol item	Invoke request	Invoke indication
Mandatory	m	m
Optional	o	m
Network option	o	o

As a general rule, the ASN.1 "CHOICE" construct is indicated in the parameter tables:

- as an option (o.x) in the "Invoke request" column;
- as mandatory in the "Invoke indication" column.

When a (ASN.1) parameter which contains a "SIZE" field is not explicitly constrained in a table, then the complete size field has to be supported.

## 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 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.

### A.2.1 Date of the statement

.....

### A.2.2 Implementation Under Test (IUT) identification

IUT name:

.....

.....

IUT version:

.....

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### A.2.3 System Under Test (SUT) identification

SUT name:

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.....

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Hardware configuration:

.....

.....

Operating system:

.....

### A.2.4 Product supplier

Name:

.....

Address:

.....

.....

.....

Telephone number:

.....

Facsimile number:

.....

E-mail address:

.....

Additional information:

.....

.....

.....

## A.2.5 Client

Name:

.....

Address:

.....

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Facsimile number:

.....

E-mail address:

.....

Additional information:

.....

.....

.....

## A.2.6 PICS contact person

Name:

.....

Telephone number:

.....

Facsimile number:

.....

E-mail address:

.....

Additional information:

.....

.....

.....

## A.3 Identification of the protocol

This PICS proforma applies to the following standard.

EN 301 668-1: "Intelligent Network (IN); Intelligent Network Capability Set 1 (CS1) extension; Intelligent Network Application Protocol (INAP); Part 1: Protocol specification for Camel Phase 2".

That document is based on ETS 300 374-1: "Intelligent Network (IN); Intelligent Network Capability Set 1 (CS1); Core Intelligent Network Application Protocol (INAP); Part 1: Protocol specification".

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## A.4 PICS proforma tables

An explicit answer shall be entered, in each of the support or supported column boxes provided, using the notation described in subclause A.1.2.

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### A.4.1 Global statement of conformance

Are all mandatory capabilities implemented? (Yes/No) .....

NOTE: Answering "No" to this question indicates non-conformance to the protocol specification. Non-supported mandatory capabilities are to be identified in this PICS, with an explanation of why the implementation is non-conforming, on pages attached to the PICS proforma.

### A.4.2 Physical entities

**Table A.2: Physical entities**

Item	Name	Reference	Status	Support
1	SCP	4.2	n/a	
2	SSP	4.2	o,1	
3	IP	4.2	o,1	

o.1: Only one of these items shall be supported per completed PICS response.

Comments:

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.....

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