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SIST ETS 300 374-6:1999

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Inteligentno omrežje (IN) - Prvi nabor zmožnosti (CS1) inteligentnega omrežja - Jedrni aplikacijski protokol inteligentnega omrežja (INAP) - 6. del: Izjava o skladnosti izvedbe protokola (PICS) - Proforma specifikacije za vmesnik med funkcijo krmiljenja storitve (SCF) in funkcijo storitvenih podatkov (SDF)

Intelligent Network (IN); Intelligent Network Capability Set 1 (CS1); Core Intelligent Network Application Protocol (INAP); Part 6: Protocol Implementation Conformance Statement (PICS) proforma specification for the Service Control Function (SCF) - Service Data Function (SDF) interface

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Part 6: Protocol Implementation Conformance Statement (PICS)
proforma specification for the Service Control Function (SCF) -
Service Data Function (SDF) interface**

ETSI

European Telecommunications Standards Institute

ETSI Secretariat

Postal address: F-06921 Sophia Antipolis CEDEX - FRANCE

Office address: 650 Route des Lucioles - Sophia Antipolis - Valbonne - FRANCE

Internet: secretariat@etsi.fr - <http://www.etsi.fr> - <http://www.etsi.org>

Tel.: +33 4 92 94 42 00 - Fax: +33 4 93 65 47 16

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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).

The present document is part 6 of a multi-part standard covering the Capability Set 1 (CS1) core Intelligent Network Application Protocol (INAP) as described below:

- Part 1: "Protocol specification";
- Part 2: "Protocol Implementation Conformance Statement (PICS) proforma specification for Service Switching Function (SSF), Specialized Resource Function (SRF) and Service Control Function (SCF)";
- Part 3: "Test Suite Structure and Test Purposes (TSS&TP) specification for Service Switching Function (SSF) and Specialized Resource Function (SRF)";
- Part 4: "Abstract Test Suite (ATS) and partial Protocol Implementation eXtra Information for Testing (PIXIT) proforma specification for Service Switching Function (SSF) and Specialized Resource Function (SRF)";
- Part 5: "Protocol specification for the Service Control Function (SCF) - Service Data Function (SDF) interface";
- Part 6: "Protocol Implementation Conformance Statement (PICS) proforma specification for the Service Control Function (SCF) - Service Data Function (SDF) interface";**
- Part 9: "Test Suite Structure and Test Purposes (TSS&TP) specification for the Service Control Function (SCF) to Service Switching Function (SSF) and the SCF to Specialized Resource Function (SRF) interfaces";

NOTE: Parts 7 and 8 are currently not planned.

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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 telecommunication specification. Such a statement is called a Protocol Implementation Conformance Statement (PICS).

This ETS has been produced to facilitate the interconnection of telecommunication systems to provide directory services as part of the core Intelligent Network Application Protocol (INAP). The set of all such systems, together with the directory information which they hold, can be viewed as an integrated whole, called the Directory. The information held by the Directory, collectively known as the Directory Information Base (DIB), is typically used to facilitate communication between, with or about objects such as application entities of the Intelligent Network (IN) Capability Set 1 (CS1) Service Control Function (SCF) - Service Data Function (SDF) interface.

The Directory plays a significant role in Open Systems Interconnection (OSI), whose aim is to allow, with a minimum of technical agreement outside of the interconnection standards themselves, the interconnection of telecommunication systems:

- from different manufacturers;
- under different managements;
- of different levels of complexity; and
- of different ages.

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1 Scope

This sixth part of ETS 300 374 provides the Protocol Implementation Conformance Statement (PICS) proforma for the Intelligent Network (IN) Capability Set 1 (CS1) core Intelligent Network Application Protocol (INAP) for the Service Control Function (SCF) - Service Data Function (SDF) interface as defined in ETS 300 374-5 [1] in compliance with the relevant requirements and in accordance with the relevant guidance given in ISO/IEC 9646-7 [9] and in ETS 300 406 [2].

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 300 374-5 (1996): "Intelligent Network (IN); Intelligent Network Capability Set 1 (CS1); Core Intelligent Network Application Protocol (INAP); Part 5: Protocol specification for the Service Control Function (SCF) - Service Data Function (SDF) interface".
- [2] ETS 300 406 (1995): "Methods for Testing and Specification (MTS); Protocol and profile conformance testing specifications; Standardization methodology".
- [3] ITU-T Recommendation X.501 (1997) | ISO/IEC 9594-2 (1997): "Information technology - Open systems interconnection - The Directory: The Models".
- [4] ITU-T Recommendation X.509 (1997) | ISO/IEC 9594-8 (1997): "Information technology - Open systems interconnection - The Directory: Authentication Framework".
- [5] ITU-T Recommendation X.511 (1997) | ISO/IEC 9594-3 (1997): "Information technology - Open systems interconnection - The Directory: Abstract Service Definition".
- [6] ITU-T Recommendation X.519 (1997) | ISO/IEC 9594-5 (1997): "Information technology - Open systems interconnection - The Directory: Protocol Specifications".
- [7] ITU-T Recommendation X.520 (1997) | ISO/IEC 9594-6 (1997): "Information technology - Open systems interconnection - The Directory: Selected Attribute Types".
- [8] ISO/IEC 9646-1: "Information technology - Open systems interconnection - Conformance testing methodology and framework - Part 1: General concepts".
- [9] ISO/IEC 9646-7: "Information technology - Open systems interconnection - Conformance testing methodology and framework - Part 7: Implementation Conformance Statements".
- [10] ITU-T Recommendation Q.1218 (1995): "Interface Recommendation for intelligent network CS-1".

3 Definitions and abbreviations

3.1 Definitions

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

- terms defined in ETS 300 374-5 [1];
- terms defined in ISO/IEC 9646-1 [8] and in ISO/IEC 9646-7 [9].

In particular, the following terms defined in ISO/IEC 9646-1 [8] apply:

Protocol Implementation Conformance Statement (PICS): A statement made by the supplier of an implementation or system claimed to conform to a given specification, stating which capabilities have been implemented.

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

The following definitions also apply:

centralized DSA: A DSA that is not capable of holding knowledge information about other DSAs. Such a DSA is not capable of returning referrals.

co-operating DSA: A DSA that is capable of holding knowledge references. Such a DSA is capable of returning referrals, and may also be a chaining DSA.

chaining DSA: A co-operating DSA that is capable of invoking chained operations, functioning as a DSP invoker. A chaining DSA is also a co-operating DSA.

For the INAP SCF-SDF interface, the DUA is the SCF, and the DSA is the SDF (this is a centralized DSA).

3.2 Abbreviations

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

DSA	Directory System Agent
DSP	Directory System Protocol
DUA	Directory User Agent
IUT	Implementation Under Test
PICS	Protocol Implementation Conformance Statement
SCF	Service Control Function
SCS	System Conformance Statement
SDF	Service Data Function
SUT	System Under Test
TBS	To Be Supplied ("?" in the status has similar meaning)

4 Conformance to this PICS proforma specification

If it claims to conform to this PICS proforma specification, 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 this PICS proforma specification shall be a conforming PICS proforma completed in accordance with the guidance for completion given in annex A, clause A.1.

Annex A (normative): PICS proforma for ETS 300 374-5

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 Purposes 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 300 374-5 [1] may provide information about the implementation in a standardized manner.

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

- instructions for completing the PICS proforma;
- identification of the implementation;
- identification of the reference specification;
- PICS proforma tables;
 - global statement of conformance;
 - IN Directory information objects supported;
 - operations and extensibility supported;
 - parameters;
 - Directory schema.

A.1.2 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 [9] and ETS 300 406 [2].

Item column

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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 [9], 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.
i	irrelevant or out-of-scope - this capability is outside the scope of this specification, and hence irrelevant and not subject to conformance testing for this specification.
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.
c:o	conditional optional - the capability may be supported or not if the hierarchically preceding capability is supported.
c:m	conditional mandatory - the capability is required to be supported if the hierarchically preceding capability is supported.

Reference column

The reference column gives reference to the requirements defined in ETS 300 374-5 [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 [9], 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 or i, directly or after evaluation of a conditional status).

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 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 also possible to provide a comment to an answer in the space provided at the bottom of the table.

NOTE: As stated in ISO/IEC 9646-7 [9], support for a 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 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.