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Prizemni snopovni radio (TETRA) – Optimiran sistem za prenos paketiranih podatkov (PDO) – 11. del: Izjava o skladnosti izvedbe protokola (PICS) – Proforma specifikacija

Terrestrial Trunked Radio (TETRA); Packet Data Optimized (PDO); Part 11: Protocol Implementation Conformance Statement (PICS) proforma specification

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Foreword

This European Telecommunication Standard (ETS) has been produced by the Terrestrial Trunked Radio (TETRA) Project of the European Telecommunications Standards Institute (ETSI).

This ETS is a multi-part standard and will consist of the following parts:

Part 1: "General network design";

Part 2: "Air Interface (AI)";

Part 7: "Security";

Part 10: "SDL model of the Air Interface (AI)";

Part 11: "Protocol Implementation Conformance Statement (PICS) proforma specification".

Transposition dates	
Date of adoption of this ETS:	27 November 1998
Date of latest announcement of this ETS (doa):	28 February 1999
Date of latest publication of new National Standard or endorsement of this ETS (dop/e):	31 August 1999
Date of withdrawal of any conflicting National Standard (dow):	31 August 1999

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1 Scope

This ETS provides the Protocol Implementation Conformance Statement (PICS) proforma for the TETRA Mobile Station (MS), Packet Data Optimized (PDO) Air Interface (AI) defined in ETS 300 393-2 [1] in compliance with the relevant requirements, and in accordance with the relevant guidance given in ISO/IEC 9646-7 [5], ETS 300 406 [2], and in ETR 212 [3].

The details of Supplementary Services (SS) and security aspects of PDO are outside the scope 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 300 393-2 (1996): "Radio Equipment and Systems (RES); Trans-European Trunked Radio (TETRA); Packet Data Optimized (PDO); Part 2: Air Interface (AI)".

[2] ETS 300 406 (1995): "Methods for Testing and Specification (MTS); Protocol and profile conformance testing specifications; Standardization methodology".

[3] ETR 212 (1995): "Methods for Testing and Specification (MTS); Implementation Conformance Statement (ICS) proforma style guide".

[4] ISO/IEC 9646-1 (1994): "Information technology - Open Systems Interconnection - Conformance testing methodology and framework - Part 1: General concepts".

[5] ISO/IEC 9646-7 (1995): "Information technology - Open Systems Interconnection - Conformance testing methodology and framework - Part 7: Implementation Conformance Statements".

[6] ISO/IEC 8208 (1995): "Information technology - Data Communications - X25 Packet Layer Protocol for Data Terminal equipment".

[7] ISO/IEC 8348 (1997): "Information technology - Open Systems Interconnection - Network Service Definition".

3 Definitions and abbreviations

3.1 Definitions

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

- terms defined in ETS 300 393-2 [1];
- terms defined in ISO/IEC 9646-1 [4] and in ISO/IEC 9646-7 [5].

In particular, the following terms defined in ISO/IEC 9646-1 [4] apply:

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, information object ICS, etc.

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

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

3.2 Abbreviations

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

AI	Air Interface
BS	Base Station
CONP	Connection Oriented Network Protocol
DTMF	Dual Tone Multi Frequency
ETS	European Telecommunication Standard
ICS	Implementation Conformance Statement
ITSI	Individual TETRA Subscriber Identity
IUT	Implementation Under Test
LLC	Logical Link Control
LLME	Lower Layer Management Entity
MAC	Medium Access Control
MCC	Mobile Country Code
MLE	Mobile Link Entity
MM	Mobility Management
MNC	Mobile Network Code
MS	Mobile Station
PDO	Packet Data Optimized
PDU	Protocol Data Unit
PICS	Protocol Implementation Conformance Statement
PTT	Push To Talk
RES	Radio Equipment and Systems
RPDI	Radio Packet Data Infrastructure
SAP	Service Access Point
SCLNP	Specific Connectionless Network Protocol
SCS	System Conformance Statement
SDU	Service Data Unit
SP	Service Primitive
SS	Supplementary Services
SUT	System Under Test

4 Conformance to this PICS proforma specification

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

Annex A (normative): Protocol ICS proforma for ETS 300 393-2

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 300 393-2 [1] may provide information about the implementation in a standardized manner.

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

- guidance for completing the PICS proforma;
- identification of the implementation;
- identification of the protocol;
- global statement of conformance;
- Mobility Management (MM);
- Mobile Link Entity (MLE);
- Logical Link Control (LLC);
- Medium Access Control (MAC);
- Connection Oriented Network Protocol (CONP);
- Specific Connectionless Network Protocol (SCLNP).

A.1.2 Abbreviations and conventions

The PICS proforma contained in this annex is comprising information in tabular form in accordance with the guide-lines presented in ISO/IEC 9646-7 [5].

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. elements, timers, etc.). It implicitly means "is <item description> supported by the implementation?".

Status column

The following notations, defined in ISO/IEC 9646-7 [5], 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 mutually exclusive or selectable options from a set. "i" is an integer which identifies a 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 a unique conditional status expression which is defined immediately following the table.

Reference column

The reference column gives reference to ETS 300 393-2 [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 [5], 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)

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

NOTE 1: As stated in ISO/IEC 9646-7 [5], support for a received Protocol Data Unit (PDU) requires the ability to encode/decode all mandatory elements of that PDU. Supporting a PDU while having no ability to encode/decode a mandatory element is non-conformant. Support for an element of a PDU means that the semantics of that element are supported. It does not mean that the element shall always be present in the PDU.

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 1: 5 .. 20

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

EXAMPLE 2: 2, 4, 6, 8, 9

EXAMPLE 3: '1101'B, '1011'B, '1111'B