



SLOVENSKI STANDARD
SIST EN 300 396-8-2 V1.1.1:2003
01-december-2003

Df]nYa b]gbc dc j b]fUX]c`fH9HF5Ł!`HY b] bY`nU hYj Y`nU`bYdcgfYXbc`cVfUrcj Ub`Y`
 f8 ACŁ!, "XY.`nUj Uc`g`UXbcgh]`nj YXVY`dfc`c`UfD`7 GŁ!`DfcZ`fa U
 gdYWZ`UW`U!`&`dcXXY.`FUX]`g`j] a Ygb]`f5`Ł`h]dU`%dcbUj``U`b]`UffYdYh]c`f`UŁ

Terrestrial Trunked Radio (TETRA); Technical requirements for Direct Mode Operation (DMO); Part 8: Protocol Implementation Conformance Statement (PICS) proforma specification; Sub-part 2: Type 1 repeater Air Interface (AI)

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Ta slovenski standard je istoveten z: EN 300 396-8-2 Version 1.1.1

ICS:

| | | |
|-----------|---------------------------------|-----------------------------------|
| 33.070.10 | Prizemni snopovni radio (TETRA) | Terrestrial Trunked Radio (TETRA) |
|-----------|---------------------------------|-----------------------------------|

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ETSI EN 300 396-8-2 V1.1.1 (2001-01)

European Standard (Telecommunications series)

**Terrestrial Trunked Radio (TETRA);
Technical requirements for Direct Mode Operation (DMO);
Part 8: Protocol Implementation Conformance
Statement (PICS) proforma specification;
Sub-part 2: Type 1 repeater Air Interface (AI)**

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Reference

DEN/TETRA-02007-8-2

Keywords

ICS, PICS, TETRA, DMO, radio

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Sous-Préfecture de Grasse (06) N° 7803/88

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Foreword

This European Standard (Telecommunications series) has been produced by ETSI Project Terrestrial Trunked Radio (TETRA).

The present document had been submitted to Public Enquiry as ETS 300 396-8-2. During the processing for Vote it was converted into an EN.

The present document is part 8 of a multi-part deliverable covering the Terrestrial Trunked Radio (TETRA); Technical requirements for Direct Mode Operation (DMO); as identified below:

Part 1: "General network design";

Part 2: "Radio aspects";

Part 3: "Mobile Station to Mobile Station (MS-MS) Air Interface (AI) protocol";

Part 4: "Type 1 repeater air interface"; [SIST EN 300 396-8-2 V1.1.1:2003](https://standards.iteh.ai/catalog/standards/sist/3f220dfd-153c-4b3d-9aca-1683f542b1de/sist-en-300-396-8-2-v1-1-1-2003)
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Part 5: "Gateway air interface"; [1683f542b1de/sist-en-300-396-8-2-v1-1-1-2003](https://standards.iteh.ai/catalog/standards/sist/3f220dfd-153c-4b3d-9aca-1683f542b1de/sist-en-300-396-8-2-v1-1-1-2003)

Part 6: "Security";

Part 7: "Type 2 repeater air interface";

Part 8: "Protocol Implementation Conformance Statement (PICS) proforma specification";

Part 9: "Service and Description Language (SDL) model";

Part 10: "Managed Direct Mode Operation (DMO)".

National transposition dates

| | |
|--|-------------------|
| Date of adoption of this EN: | 22 December 2000 |
| Date of latest announcement of this EN (doa): | 31 March 2001 |
| Date of latest publication of new National Standard or endorsement of this EN (dop/e): | 30 September 2001 |
| Date of withdrawal of any conflicting National Standard (dow): | 30 September 2001 |

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 an Implementation Conformance Statement (ICS).

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1 Scope

The present document provides the Protocol Implementation Conformance Statement (PICS) proforma for TETRA Direct Mode Operation (DMO) Mobile Stations (MS) connected to type 1 repeater (MS-REP1) and for TETRA Direct Mode Operation type 1 repeaters (DM-REP1) Air Interface (AI) protocol, defined in EN 300 396-4 [1] in compliance with the relevant requirements, and in accordance with the relevant guidance given in ISO/IEC 9646-7 [5] and ETS 300 406 [3].

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.

- [1] ETSI EN 300 396-4: "Terrestrial Trunked Radio (TETRA); Technical requirements for Direct Mode Operation (DMO); Part 4: Type 1 repeater air interface".
- [2] ETSI ETS 300 396-8-1: "Terrestrial Trunked Radio (TETRA); Technical requirements for Direct Mode Operation (DMO); Part 8: Protocol Implementation Conformance Statement (PICS) proforma specification; Sub-part 1: Mobile Station to Mobile Station (MS-MS) Air Interface (AI)".
- [3] ETSI ETS 300 406: "Methods for Testing and Specification (MTS); Protocol and profile conformance testing specifications, Standardization Methodology".
- [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] ETSI ETS 300 396-3 (1998): "Terrestrial Trunked Radio (TETRA); Technical requirements for Direct Mode Operation (DMO); Part 3: Mobile Station to Mobile Station (MS-MS) Air Interface (AI) protocol".

3 Definitions and abbreviations

3.1 Definitions

For the purposes of the present document, the terms and definitions given in EN 300 396-4 [1], ISO/IEC 9646-1 [4], ISO/IEC 9646-7 [5] 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, 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:

| | |
|------|---|
| ICS | Implementation Conformance Statement |
| IUT | Implementation Under Test |
| PICS | Protocol Implementation Conformance Statement |
| SCS | System Conformance Statement |
| SUT | System Under Test |

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4 Conformance to this PICS proforma specification

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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 guidance for completion given in clause A.1.

Annex A (normative): Protocol ICS proforma (PICS) for EN 300 396-4

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 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 EN 300 396-4 [1] may provide information about the implementation in a standardized manner.

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

- guidance for completing the PICS proforma;
- identification of the implementation;
- global statement of conformance;
- identification of the roles, MS-REPI or DM-REPI;
- MS-REPI layer 3 protocol part;
- MS-REPI layer 2 protocol part; [SIST EN 300 396-8-2 V1.1.1:2003](https://standards.iteh.ai/catalog/standards/sist/3f220dfd-153c-4b3d-9aca-1683f542b1de/sist-en-300-396-8-2-v1-1-1-2003)
- DM-REPI part (layer 2); <https://standards.iteh.ai/catalog/standards/sist/3f220dfd-153c-4b3d-9aca-1683f542b1de/sist-en-300-396-8-2-v1-1-1-2003>
- PDU parameters at layer 3 and layer 2.

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 [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. parameters, 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 makes reference to EN 300 396-4 [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).

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 space for comments 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 [5], 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 PICS 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 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.

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 PICS proforma

The supplier of the implementation shall complete the PICS 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 on sheets of paper.

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

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A.2 Identification of the implementation

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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:

A.2.3 System Under Test (SUT) identification

SUT name:

.....

Hardware configuration:

.....