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Methods for Testing and Specification (MTS);
TTCN-3 Conformance Test Suite;
Part 1: Implementation Conformance Statement (ICS)

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Contents

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Foreword

This Technical Specification (TS) has been produced by ETSI Technical Committee Methods for Testing and Specification (MTS).

The present document is part 1 of a multi-part deliverable covering a TTCN-3 conformance test suite, as identified below:

Part 1: "Implementation Conformance Statement (ICS)";

Part 2: "Test Suite Structure and Test Purposes (TSS&TP)";

Part 3: "Abstract Test Suite (ATS) and Implementation eXtra Information for Testing (IXIT)".

Modal verbs terminology

In the present document "**shall**", "**shall not**", "**should**", "**should not**", "**may**", "**need not**", "**will**", "**will not**", "**can**" and "**cannot**" are to be interpreted as described in clause 3.2 of the ETSI Drafting Rules (Verbal forms for the expression of provisions).

"**must**" and "**must not**" are **NOT** allowed in ETSI deliverables except when used in direct citation.

1 Scope

The present document provides the Implementation Conformance Statement (ICS) pro forma for the conformance test suite for TTCN-3 as defined in ETSI ES 201 873-1 [1] in compliance with the relevant guidance given in the pro forma for TTCN-3 reference test suite ETSI TS 102 950-2 [4]. In the present document only the core language features, specified in ETSI ES 201 873-1 [1] have been considered but not the tool implementation (see ETSI ES 201 873-5 [i.1] and ETSI ES 201 873-6 [i.2]), language mapping (see ETSI ES 201 873-7 [i.3], ETSI ES 201 873-8 [i.4] and ETSI ES 201 873-9 [i.5]) and language extension (see ETSI ES 202 781 [i.6], ETSI ES 202 784 [i.7] and ETSI ES 202 785 [i.8]) aspects.

The supplier of an implementation which is claimed to conform to ETSI ES 201 873-1 [1] is required to complete a copy of the ICS pro forma provided in the annex A of the present document.

2 References

2.1 Normative references

References are either specific (identified by date of publication and/or edition number or version number) or non-specific. For specific references, only the cited version applies. For non-specific references, the latest version of the referenced document (including any amendments) applies.

Referenced documents which are not found to be publicly available in the expected location might be found at https://docbox.etsi.org/Reference/.

NOTE: While any hyperlinks included in this clause were valid at the time of publication, ETSI cannot guarantee their long term validity.

The following referenced documents are necessary for the application of the present document.

[1] ETSI ES 201 873-1 (V4.11.1): "Methods for Testing and Specification (MTS); The Testing and Test Control Notation version 3; Part 1: TTCN-3 Core Language".

[2] ISO/IEC 9646-7: " Information Technology - Open Systems Interconnection -- Conformance testing methodology and framework -- Part 7: Implementation Conformance Statements".

[3] ISO/IEC 9646-1: "Information Technology -- Open Systems Interconnection -- Conformance testing methodology and framework -- Part 1: General concepts".

[4] ETSI TS 102 950-2: "Methods for Testing and Specification (MTS); TTCN-3 Conformance Test Suite; Part 2: Test Suite Structure and Test Purposes (TSS&TP)".

2.2 Informative references

References are either specific (identified by date of publication and/or edition number or version number) or non-specific. For specific references, only the cited version applies. For non-specific references, the latest version of the referenced document (including any amendments) applies.

NOTE: While any hyperlinks included in this clause were valid at the time of publication, ETSI cannot guarantee their long term validity.

The following referenced documents are not necessary for the application of the present document but they assist the user with regard to a particular subject area.

[i.1] ETSI ES 201 873-5: "Methods for Testing and Specification (MTS); The Testing and Test Control Notation version 3; Part 5: TTCN-3 Runtime Interface (TRI)".

[i.2] ETSI ES 201 873-6: "Methods for Testing and Specification (MTS); The Testing and Test Control Notation version 3; Part 6: TTCN-3 Control Interface (TCI)".

[i.3] ETSI ES 201 873-7: "Methods for Testing and Specification (MTS); The Testing and Test Control Notation version 3; Part 7: Using ASN.1 with TTCN-3".

[i.4] ETSI ES 201 873-8: "Methods for Testing and Specification (MTS); The Testing and Test Control Notation version 3; Part 8: The IDL to TTCN-3 Mapping".

[i.5] ETSI ES 201 873-9: "Methods for Testing and Specification (MTS); The Testing and Test Control Notation version 3; Part 9: Using XML schema with TTCN-3".

[i.6] ETSI ES 202 781: "Methods for Testing and Specification (MTS); The Testing and Test Control Notation version 3; TTCN-3 Language Extensions: Configuration and Deployment Support".

[i.7] ETSI ES 202 784: "Methods for Testing and Specification (MTS); The Testing and Test Control Notation version 3; TTCN-3 Language Extensions: Advanced Parameterization".

[i.8] ETSI ES 202 785: "Methods for Testing and Specification (MTS); The Testing and Test Control Notation version 3; TTCN-3 Language Extensions: Behaviour Types".

3 Definition of terms, symbols and abbreviations

3.1 Terms

For the purposes of the present document, the terms given in ISO/IEC 9646-1 [3], ISO/IEC 9646-7 [2], ETSI ES 201 873-1 [1] (TTCN-3) and the following apply:

Abstract Test Suite (ATS): test suite composed of abstract test cases

ICS pro forma: 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 claimed to conform to a given specification, stating which capabilities have been implemented

Implementation Under Test (IUT): implementation of one or more OSI protocols in an adjacent user/provider relationship, being part of a real open system which is to be studied by testing

Implementation eXtra Information for Testing (IXIT): statement made by a supplier or implementor of an IUT which contains or references all of the information related to the IUT and its testing environment, which will enable the test laboratory to run an appropriate test suite against the IUT

IXIT pro forma: document, in the form of a questionnaire, which when completed for the IUT becomes the IXIT

3.2 Symbols

Void.

3.3 Abbreviations

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

ATS	Abstract Test Suite
ICS	Implementation Conformance Statement
IUT	Implementation Under Test
IXIT	Implementation eXtra Information for Testing
SUT	System Under Test
TCI	TTCN-3 Control Interface
TP	Test Purpose
TRI	TTCN-3 Runtime Interface
TS	Test System

TSS	Test Suite Structure
TSS&TP	Test Suite Structure and Test Purposes
TTCN-3	Testing and Test Control Notation edition 3

4 Conformance requirement concerning ICS

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

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

Annex A (normative): TTCN-3 conformance ICS pro forma

A.1 Instructions for completing the ICS pro forma

A.1.1 Other information

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

The supplier of the implementation shall complete the ICS pro forma in each of the spaces provided. If necessary, the supplier may provide additional comments separately in clause A.4.

A.1.2 Purposes and structure

The purpose of this ICS pro forma is to provide a mechanism whereby a TTCN-3 tool vendor of the TTCN-3 core language [1] may provide information about the implementation in a standardized manner.

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

- instructions for completing the ICS pro forma;
- identification of the implementation;
- ICS pro forma tables (containing the global statement of conformance).

A.1.3 Conventions

The ICS pro forma is composed of information in tabular form in accordance with the guidelines presented in ISO/IEC 9646-7 [2].

Item column

It contains a number that identifies the item in the table.

Item description column

It describes each respective item (e.g. parameters, timers, etc.).

Reference column

It gives reference to the TTCN-3 core language [1], except where explicitly stated otherwise.

Status column

The following notations, defined in ISO/IEC 9646-7 [2], are used for the status column:

m mandatory - the capability is required to be supported

n/a not applicable - in the given context, it is impossible to use the capability. No answer in the support column is required

o optional - the capability may be supported or not

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" or "n/a") depends on the support of other optional or conditional items. "i" is an integer identifying a unique conditional status expression that is defined immediately following the table. For nested conditional expressions, the syntax "IF ... THEN (IF ... THEN ... ELSE...) ELSE ..." shall be used to avoid ambiguities. If an ELSE clause is omitted, "ELSE n/a" shall be implied

NOTE: Support of a capability means that the capability is implemented in conformance to the TTCN-3 core language [1].

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[2], are used for the support column:

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

Values allowed column

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

Values supported column

The support 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 pro forma, a unique reference exists. It is defined as the table identifier, followed by a slash 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: 5/4 is the reference to the answer of item 4 in Table 5.

A.2 Identification of the implementation

A.2.1 Date of the statement

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 ICS should be named as the contact person.

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:	
E-mail address:	
Additional information:	

A.2.5 Client

Name:	
Address:	
Telephone number:	
Facsimile number:	
E-mail address:	
Additional information:	

A.2.6 ICS contact person

Name:	
Telephone number:	
Facsimile number:	
E-mail address:	
Additional information:	

A.3 ICS pro forma tables

A.3.1 Global statement of conformance

	(Yes/No)
Are all mandatory capabilities implemented?	

NOTE: Answering "No" to this question indicates non-conformance to the TTCN-3 core language. All test cases defined in ETSI TS 102 950-2 [4] are mandatory. Non-supported mandatory capabilities are to be identified in the ICS, with an explanation of why the implementation is non-conforming.

A.4 Additional information for ICS

This clause contains all additional comments provided by the supplier of the implementation.

History

Document history		
V1.1.1	April 2011	Publication
V1.2.1	April 2012	Publication
V1.3.1	October 2013	Publication
V1.4.1	August 2014	Publication
V1.5.1	February 2016	Publication
V1.6.1	August 2017	Publication
V1.7.1	November 2018	Publication
V1.8.1	February 2020	Publication