



**IMS Network Testing (INT);
Closed User Group (CUG) using IP Multimedia (IM)
Core Network (CN) subsystem;
Conformance Test Specification;
Part 1: Protocol Implementation Conformance
Statement (PICS)**

Reference

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Contents

Intellectual Property Rights	4
Foreword.....	4
Introduction	4
1 Scope	5
2 References	5
2.1 Normative references	5
2.2 Informative references.....	5
3 Definitions and abbreviations.....	6
3.1 Definitions	6
3.2 Abbreviations	6
4 PICS proforma for TS 124 654	6
4.1 Guidance for completing the PICS proforma	6
4.1.1 Purposes and structure	6
4.1.2 Abbreviations and conventions.....	7
4.1.3 Instructions for completing the PICS proforma.....	8
4.2 Identification of the implementation	8
4.2.1 Date of the statement	8
4.2.2 Implementation Under Test (IUT) identification.....	8
4.2.3 System Under Test (SUT) identification	8
4.2.4 Product supplier	9
4.2.5 Client (if different from product supplier)	9
4.2.6 PICS contact person.....	10
4.3 Identification of the TS 124 654.....	10
4.4 Global statement of conformance.....	10
4.5 Roles.....	11
4.6 User role	11
4.6.1 Major capabilities	11
4.7 Network role.....	11
History	13

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Foreword

This Technical Specification (TS) has been produced by ETSI Technical Committee IMS Network Testing (INT).

The present document is part 1 of a multi-part deliverable covering the Conformance Test Specification of Closed User Group (CUG) using IP Multimedia (IM) Core Network (CN) subsystem, as identified below:

Part 1: "Protocol Implementation Conformance Statement (PICS)";

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

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).

1 Scope

The present document provides the Implementation Conformance Statement (ICS) proforma for the Closed User Group (CUG) using IP Multimedia (IM) Core Network (CN) subsystem defined in Closed User Group (CUG) using IP Multimedia (IM) Core Network (CN) subsystem [1] in compliance with the relevant requirements, and in accordance with the relevant guidance given in ISO/IEC 9646-7 [4] and ETS 300 406 [2].

2 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 <http://docbox.etsi.org/Reference>.

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2.1 Normative references

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

- [1] ETSI TS 124 654: "Digital cellular telecommunications system (Phase 2+); Universal Mobile Telecommunications System (UMTS); LTE; Closed User Group (CUG) using IP Multimedia (IM) Core Network (CN) subsystem, Protocol Specification (3GPP TS 24. Release 10)".
- [2] ETSI ETS 300 406 (1995): "Methods for testing and Specification (MTS); Protocol and profile conformance testing specifications; Standardization methodology".
- [3] ISO/IEC 9646-1: "Information technology -- Open Systems Interconnection -- Conformance testing methodology and framework -- Part 1: General concepts".
- [4] ISO/IEC 9646-7: "Information technology -- Open Systems Interconnection -- Conformance testing methodology and framework -- Part 7: Implementation Conformance Statements".

2.2 Informative references

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 TS 124 605: "Digital cellular telecommunications system (Phase 2+); Universal Mobile Telecommunications System (UMTS); LTE; Conference (CONF) using IP Multimedia (IM) Core Network (CN) subsystem; Protocol specification (3GPP TS 24.605 Release 10)".
- [i.2] ETSI TS 124 604: "Digital cellular telecommunications system (Phase 2+); Universal Mobile Telecommunications System (UMTS); LTE; Communication Diversion (CDIV) using IP Multimedia (IM) Core Network (CN) subsystem; Protocol specification (3GPP TS 24.604 Release 10)".
- [i.3] ETSI TS 124 629: "Digital cellular telecommunications system (Phase 2+); Universal Mobile Telecommunications System (UMTS); LTE; Explicit Communication Transfer (ECT) using IP Multimedia (IM) Core Network (CN) subsystem; Protocol specification (3GPP TS 24.629 Release 10)".

- [i.4] ETSI TS 124 611 "Digital cellular telecommunications system (Phase 2+); Universal Mobile Telecommunications System (UMTS); LTE; Anonymous Communication Rejection (ACR) and Communication Barring (CB) using IP Multimedia (IM) Core Network (CN) subsystem; Protocol specification (3GPP TS 24.611 Release 10)".

3 Definitions and abbreviations

3.1 Definitions

For the purposes of the present document, the terms and definitions given in TS 124 654 [1], ISO/IEC 9646-1 [3], ISO/IEC 9646-7 [4] and the following apply.

ICS proforma: 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 or system claimed to conform to a given specification, stating which capabilities have been implemented

NOTE: The ICS can take several forms: protocol ICS, profile ICS, profile specific ICS, information object ICS, API ICS, etc.

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

NOTE: This may contain additional information.

3.2 Abbreviations

For the purposes of the present document, the abbreviations given in TS 124 654 [1] and the following apply:

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

4 PICS proforma for TS 124 654

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4.1 Guidance for completing the PICS proforma

4.1.1 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 TS 124 654 [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;
- identification of the TS 124 654 [1];

- global statement of conformance;
- roles;
- user role:
 - major capabilities;
- network role.

4.1.2 Abbreviations and conventions

The PICS proforma contained in this clause is comprised of information in tabular form in accordance with the guidelines presented in ISO/IEC 9646-7 [4].

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 [4], 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.
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.

Reference column

The reference column makes reference to TS 124 654 [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 [4], 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).

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: 4.5/4 is the reference to the answer of item 4 in table 4.5 of clause 4.

EXAMPLE 2: 4.6/3b is the reference to the second answer (i.e. in the second support column) of item 3 in table 4.6 of clause 4.

4.1.3 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 column boxes provided, using the notation described in clause 4.1.2.

If necessary, the supplier may provide additional comments in space at the bottom of the tables or separately.

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

4.2 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.

4.2.1 Date of the statement

.....

4.2.2 Implementation Under Test (IUT) identification

IUT name:

.....
.....

IUT version:

.....

4.2.3 System Under Test (SUT) identification

SUT name:

.....
.....

Hardware configuration:

.....
.....
.....

Operating system:

.....

4.2.4 Product supplier

Name:

.....

Address:

.....

.....

.....

Telephone number:

.....

Facsimile number:

.....

E-mail address:

.....

Additional information:

.....

.....

.....

4.2.5 Client (if different from product supplier)

Name:

.....

Address:

.....

.....

.....

Telephone number:

.....

Facsimile number:

.....

E-mail address:

.....

Additional information:

.....

.....

4.2.6 PICS contact person

(A person to contact if there are any queries concerning the content of the PICS)

Name:

.....

Telephone number:

.....

Facsimile number:

.....

E-mail address:

.....

Additional information:

.....

.....

.....

4.3 Identification of the TS 124 654

This PICS proforma applies to the following standard:

TS 124 654 [1]: Digital cellular telecommunications system (Phase 2+); Universal Mobile Telecommunications System (UMTS); LTE; Closed User Group (CUG) using IP Multimedia (IM) Core Network (CN) subsystem, Protocol Specification (3GPP TS 24.654 Release 10)".

4.4 Global statement of conformance

Are all mandatory capabilities implemented? (Yes/No)

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

4.5 Roles

Table 4.5.1: Roles

Item	Role	Reference	Status	Support
1	User	1.3	o.1	
2	Network	1.2	o.1	
o.1: It is mandatory to support exactly one of these items.				
Comments:				

4.6 User role

This clause contains the PICS proforma tables related to the user role. They need to be completed only for user implementations:

Prerequisite: 4.5.1/1 -- user role

4.6.1 Major capabilities

Table 4.6.1: Call directions

Item	Call direction	Reference	Status	Support
1	The user equipment supports the "cug" XML schema?	4.5.2.1 4.4.1	o	
2	The user equipment is able to send the 'cugCallOperation' element without the 'cugIndex' sub element	4.5.2.1 4.4.1	c4611	
c4611: IF x.4.6.1/1 THEN o ELSE n/a.				
Comments:				

4.7 Network role

This clause contains the PICS proforma tables related to the network role. They need to be completed only for Application Server implementations:

Prerequisite: 4.5.1/2 network role

Table 4.7.1: Network capabilities

Item	Item description	Reference	Status	Support
1	Is the CUG without preference supported?	4.5.2.4	o.1	
2	Is the CUG Outgoing access, explicit request required without preference supported?	4.5.2.4	o.1	
3	Is the CUG Outgoing access, implicit outgoing access for all communications without preference supported?	4.5.2.4	o.1	
4	Is the CUG with preference supported?	4.5.2.4	o.1	
5	Is the CUG+OAE with preference supported?	4.5.2.4	o.1	
6	Is the CUG Outgoing access, implicit outgoing access for all communications with preference supported?	4.5.2.4	o.1	
7	The network supports the Conference (CONF) using IP Multimedia (IM) Core Network (CN) subsystem simulation service?	[i.1]	o	
8	The network supports the Communication Diversion (CDIV) using IP Multimedia (IM) Core Network (CN) subsystem simulation service?	[i.2]	o	
9	The network supports the Explicit Communication Transfer (ECT) using IP Multimedia (IM) Core Network (CN) subsystem simulation service?	[i.3]	o	
10	The network supports the Anonymous Communication Rejection (ACR) and Communication Barring (CB) using IP Multimedia (IM) Core Network (CN) subsystem	[i.4]	o	
o.1: It is mandatory to support at least one of these items.				
Comments:				

History

Document history		
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