



Technical Specification

**IMS Network Testing (INT);
Explicit Communication Transfer (ECT) using
IP Multimedia (IM) Core Network (CN) subsystem;
Conformance Test Specification;
Part 1: Protocol Implementation Conformance
Statement (PICS)**

Reference

DTS/INT-00071-1

Keywords

ECT, IMS, PICS, testing

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

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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 Explicit Communication Transfer (ECT) using IP Multimedia (IM) Core Network (CN) subsystem; Conformance Test Specification, 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 Protocol Implementation Conformance Statement (PICS) proforma for the protocol specification as defined in ETSI TS 124 629 [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>.

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

2.1 Normative references

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

- [1] 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)".
- [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".
- [5] ETSI TS 123 228: "Digital cellular telecommunications system (Phase 2+); Universal Mobile Telecommunications System (UMTS); LTE; IP Multimedia Subsystem (IMS); Stage 2 (3GPP TS 23.228 Release 10)".
- [6] ETSI TS 124 628: "Digital cellular telecommunications system (Phase 2+); Universal Mobile Telecommunications System (UMTS); LTE; Common Basic Communication procedures using IP Multimedia (IM) Core Network (CN) subsystem; Protocol specification (3GPP TS 24.628 Release 10)".

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 124 607: "Digital cellular telecommunications system (Phase 2+); Universal Mobile Telecommunications System (UMTS); LTE; Originating Identification Presentation (OIP) and Originating Identification Restriction (OIR) using IP Multimedia (IM) Core Network (CN) subsystem; Protocol specification (3GPP TS 24.607 Release 10)".

- [i.2] 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)".
- [i.3] 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)".

3 Definitions, symbols and abbreviations

3.1 Definitions

For the purposes of the present document, the terms and definitions given in TS 124 629 [1], ETS 300 406 [2], ISO/IEC 9646-1 [3], ISO/IEC 9646-7 [4] 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

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

For the purposes of the present document, the symbols given in [1] apply.

3.3 Abbreviations

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

ICS	Implementation Conformance Statement
IUT	Implementation Under Test
PICS	Protocol ICS
SUT	System Under Test
UE	User Equipment
URI	Uniform Resource Identifier

4 PICS proforma for TS 124 629

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 clause so that it can be used for its intended purposes and may further publish the completed PICS.

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 124 629 [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 124 629 [1];
- global statement of conformance;
- roles;
- user equipment role;
 - major capabilities;
- network role;
 - major capabilities.

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.
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 an unique conditional status expression which is defined immediately following the table.

Reference column

The reference column makes reference to TS 124 629 [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: 4.5.1/4 is the reference to the answer of item 4 in table 4.5.1 of clause 4.

EXAMPLE 2: 4.6.1/3b is the reference to the second answer (i.e. in the second support column) of item 3 in table 4.6.1 of clause 4.

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.

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.

However, the tables containing in "user role" clause shall only be completed for user implementations, and the tables containing in "network role" clause shall only be completed for network implementations.

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 ICS)

Name:

.....

Telephone number:

.....

Facsimile number:

.....

E-mail address:

.....

Additional information:

.....

.....

.....

4.3 Identification of the TS 124 629

This PICS proforma applies to the following standard:

ETSI TS 124 629 (2011-05): "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)".

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 Equipment	4.4	o.1	
2	Network (Application Server)	4.5	o.1	
o..1: It is mandatory to support exactly one of these items.				
Comments:				

4.6 User Equipment role

This clause contains the PICS proforma tables related to the User Equipment 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: Major capabilities

Item	Item description	Reference	Status	Support
1	Is the blind transfer supported?	5.11.6 [5]	o.11	
2	Is the assured transfer supported?	5.11.6 [5]	o.11	
3	Is the consultative transfer supported?	5.11.6 [5]	o.11	
4	[Transferor] Is the UE able to Issue a REFER request in the original communications dialog to invoke the transfer of the session?	4.5.2.1	c11	
5	[Transferee] Is the UE able to handle a received REFER to transfer the current session?	4.5.2.5 [5]	o	
o.11: It is mandatory to support at least one of these items.				
c11: IF 4.6.1/1 OR 4.6.1/2 OR 4.6.1/3 THEN m ELSE n/a.				
Comments:				

4.7 Network role

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

Prerequisite: 4.5.1/2 -- network role

4.7.1 Major capabilities

Table 4.7.1: Major capabilities

Item	Item description	Reference	Status	Support
1	Is the blind transfer supported?	5.11.6 [5]	o.21	
2	Is the assured transfer supported?	5.11.6 [5]	o.21	
3	Is the consultative transfer supported?	5.11.6 [5]	o.21	
4	The AS initiate the special REFER handling procedures when a 403 Forbidden or 501 Not implemented is received after the REFER request is forwarded to the Transferee?	4.5.2.4.1.2.3, 4.7.2.9.7 [6]	o	
5	The AS of the initiator of the REFER request that has prior knowledge that the remote party is not allowed to receive or does not support the REFER method, initiates the special REFER handling procedures directly?	4.5.2.4.1.2.3, 4.7.2.9.7 [6]	o	
6	Does the Transferee AS reject the INVITE request sent to the Transfer Target if the Referred-By header does not match the stored Referred-By header of the received REFER?	4.5.2.7.3	c21	
7	Does the Transferee AS replaces the URI of the Referred-By header in the INVITE sent to the Transfer Target with the URI stored from the received REFER request, if there is no match?	4.5.2.7.3	c22	
8	Does the Transferee AS inserts a Referred-By header in the INVITE request sent to the Transfer Target if the Referred-By header is absent and the value is equal to the stored value received in the REFER request.	4.5.2.7.3	o	
o.21: It is mandatory to support at least one of these items.				
c21: IF NOT 4.7.1/7 THEN o ELSE n/a.				
c22: IF NOT 4.7.1/6 THEN o ELSE n/a.				
Comments:				

4.7.2 Supplementary service capabilities

Table 4.7.2: Supplementary service capabilities

Item	Item description	Reference	Status	Support
1	Does the network supports the Originating Identification Restriction (OIR) supplementary services?	[i.1]	o	
2	Does the Network supports the Anonymous Communication Rejection (ACR) and Communication Barring (CB) supplementary services?	[i.2]	o	
3	Does the network supports the Conference (CONF) supplementary services?	[i.3]	o	
Comments:				

History

Document history		
V5.1.1	October 2012	Publication