ETSI TS 101 553-1 V2.1.1 (2016-09)

Core Network and Interoperability Testing (INT);
Testing of the IBCF requirements;
(3GPP Release 12);
Part 1: Protocol Implementation Conformance Statement (PICS)

Reference
RTS/INT-00133-1

Keywords
IBCF, PICS, SIP, testing

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Contents

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Foreword

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

The present document is part 1 of a multi-part deliverable covering the Testing of the IBCF requirements, as identified below:

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

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

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 covers the Protocol Implementation Conformance Statement of testing the IBCF requirements. The focus is the Ic interface as the interconnection point between two network operators.

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 TS 124 229: "Digital cellular telecommunications system (Phase 2+); Universal Mobile Telecommunications System (UMTS); LTE; IP multimedia call control protocol based on Session Initiation Protocol (SIP) and Session Description Protocol (SDP); Stage 3 (3GPP TS 24.229 Release 9)".

[2] ETSI TS 129 165: "Digital cellular telecommunications system (Phase 2+); Universal Mobile Telecommunications System (UMTS); LTE; Inter-IMS Network to Network Interface (NNI) (3GPP TS 29.165 Release 9)".

[3] IETF RFC 3261: "SIP: Session Initiation Protocol".

[4] ETSI TS 124 407: "Digital cellular telecommunications system (Phase 2+); Universal Mobile Telecommunications System (UMTS); LTE; TISPAN; PSTN/ISDN simulation services; Originating Identification Presentation (OIP) and Originating Identification Restriction (OIR); Protocol specification (3GPP TS 24.407 Release 8)".

[5] ETSI TS 124 508: "Digital cellular telecommunications system (Phase 2+); Universal Mobile Telecommunications System (UMTS); LTE; PSTN/ISDN simulation services Terminating Identification Presentation (TIP) and Terminating Identification Restriction (TIR); Protocol specification (3GPP TS 24.508 Release 8)".

[6] ETSI TS 124 505: "Digital cellular telecommunications system (Phase 2+); Universal Mobile Telecommunications System (UMTS); LTE; TISPAN; PSTN/ISDN simulation services: Conference (CONF); Protocol specification (3GPP TS 24.505 Release 8)".

[7] ETSI TS 124 406: "Digital cellular telecommunications system (Phase 2+); Universal Mobile Telecommunications System (UMTS); LTE; TISPAN; PSTN/ISDN simulation services; Message Waiting Indication (MWI): Protocol specification (3GPP TS 24.406 Release 8)".

[8] ETSI TS 124 410 (V8.0.0): "Digital cellular telecommunications system (Phase 2+); Universal Mobile Telecommunications System (UMTS); TISPAN; NGN Signalling Control Protocol; Communication HOLD (HOLD) PSTN/ISDN simulation services; Protocol specification (3GPP TS 24.410 version 8.0.0 Release 8)".

[9] ETSI TS 124 411: "Digital cellular telecommunications system (Phase 2+); Universal Mobile Telecommunications System (UMTS); LTE; TISPAN; PSTN/ISDN simulation services: Anonymous Communication Rejection (ACR) and Communication Barring (CB); Protocol specification (3GPP TS 24.411 Release 8)".

[10] ETSI TS 124 516: "Digital cellular telecommunications system (Phase 2+); Universal Mobile Telecommunications System (UMTS); LTE; TISPAN; PSTN/ISDN simulation services; Malicious Communication Identification (MCID); Protocol specification (3GPP TS 24.516 Release 8)".

[11] ETSI TS 124 529: "Digital cellular telecommunications system (Phase 2+); Universal Mobile Telecommunications System (UMTS); LTE; TISPAN; PSTN/ISDN simulation services: Explicit Communication Transfer (ECT); Protocol specification (3GPP TS 24.529 Release 8)".

[12] ETSI TS 124 454: "Digital cellular telecommunications system (Phase 2+); Universal Mobile Telecommunications System (UMTS); LTE; TISPAN; PSTN/ISDN simulation services; Protocol specification Closed User Group (CUG) (3GPP TS 24.454 Release 8)".

[13] ETSI TS 123 002: "Digital cellular telecommunications system (Phase 2+); Universal Mobile Telecommunications System (UMTS); LTE; Network architecture (3GPP TS 23.002 Release 9)".

[14] 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 9)".

[15] IETF RFC 4244: "An Extension to the Session Initiation Protocol (SIP) for Request History Information".

[16] IETF RFC 3325: "Private Extensions to the Session Initiation Protocol (SIP) for Asserted Identity within Trusted Networks".

[17] ETSI TS 129 658: "Digital cellular telecommunications system (Phase 2+); Universal Mobile Telecommunications System (UMTS); LTE; SIP Transfer of IP Multimedia Service Tariff Information; Protocol specification (3GPP TS 29.658)".

[18] ETSI TS 129 162: "Digital cellular telecommunications system (Phase 2+); Universal Mobile Telecommunications System (UMTS); LTE; Interworking between the IM CN subsystem and IP networks (3GPP TS 29.162)".

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

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

[21] IETF RFC 4412: "Communications Resource Priority for the Session Initiation Protocol (SIP)".

[22] IETF RFC 5626: "Managing Client-Initiated Connections in the Session Initiation Protocol (SIP)".

[23] IETF RFC 6442: "Location Conveyance for the Session Initiation Protocol".

[24] IETF RFC 6086: "Session Initiation Protocol (SIP) INFO Method and Package Framework".

[25] IETF RFC 3911: "The Session Initiation Protocol (SIP) "Join" Header".

[26] IETF RFC 5393: "Addressing an Amplification Vulnerability in Session Initiation Protocol (SIP) Forking Proxies".

[27] IETF RFC 4028: "Session Timers in the Session Initiation Protocol (SIP)".

[28] IETF RFC 3265: "Session Initiation Protocol (SIP)-Specific Event Notification".

[29] IETF RFC 5373: "Requesting Answering Modes for the Session Initiation Protocol (SIP)".

[30] IETF RFC 6809: "Mechanism to Indicate Support of Features and Capabilities in the Session Initiation Protocol (SIP)".

[31] IETF RFC 3455: "Private Header (P-Header) Extensions to the Session Initiation Protocol (SIP) for the 3rd-Generation Partnership Project (3GPP)".

[32] IETF RFC 7433: "A Mechanism for Transporting User-to-User Call Control Information in SIP".

[33] IETF RFC 5002: "The Session Initiation Protocol (SIP) P-Profile-Key Private Header (P-Header)".

[34] IETF RFC 5502: "The SIP P-Served-User Private-Header (P-Header) for the 3GPP IP Multimedia (IM) Core Network (CN) Subsystem".

[35] IETF RFC 6050: "A Session Initiation Protocol (SIP) Extension for the Identification of Services".

[36] IETF RFC 5009: "Private Header (P-Header) Extension to the Session Initiation Protocol (SIP) for Authorization of Early Media".

[37] IETF RFC 4457: "The Session Initiation Protocol (SIP) P-User-Database Private-Header (P-Header)".

[38] IETF RFC 3841: "Caller Preferences for the Session Initiation Protocol (SIP)".

[39] IETF RFC 5360: "A Framework for Consent-Based Communications in the Session Initiation Protocol (SIP)".

[40] IETF RFC 4964: "The P-Answer-State Header Extension to the Session Initiation Protocol for the Open Mobile Alliance Push to Talk over Cellular".

[41] IETF RFC 7316: "The Session Initiation Protocol (SIP) P-Private-Network-Indication Private Header (P-Header)".

[42] IETF RFC 5318: "The Session Initiation Protocol (SIP) P-Refused-URI-List Private-Header (P-Header)".

[43] IETF RFC 3327: "Session Initiation Protocol (SIP) Extension Header Field for Registering Non-Adjacent Contacts".

[44] IETF RFC 6794: "A Framework for Session Initiation Protocol (SIP) Session Policies".

[45] IETF RFC 3262: "Reliability of Provisional Responses in the Session Initiation Protocol (SIP)".

[46] IETF RFC 3326: "The Reason Header Field for the Session Initiation Protocol (SIP)".

[47] IETF RFC 3892: "The Session Initiation Protocol (SIP) Referred-By Mechanism".

[48] IETF RFC 4488: "Suppression of Session Initiation Protocol (SIP) REFER Method Implicit Subscription".

[49] IETF RFC 3515: "The Session Initiation Protocol (SIP) Refer Method".

[50] IETF RFC 3891: "The Session Initiation Protocol (SIP) "Replaces" Header".

[51] IETF RFC 3311: "The Session Initiation Protocol (SIP) UPDATE Method".

[52] IETF RFC 3428: "Session Initiation Protocol (SIP) Extension for Instant Messaging".

[53] IETF RFC 3608: " Session Initiation Protocol (SIP) Extension Header Field for Service Route Discovery During Registration ".

[54] IETF RFC 7329: "A Session Identifier for the Session Initiation Protocol (SIP) ".

[55] IETF RFC 3903: "Session Initiation Protocol (SIP) Extension for Event State Publication".

[56] IETF RFC 5839: "An Extension to Session Initiation Protocol (SIP) Events for Conditional Event Notification".

[57] IETF RFC 4538: "Request Authorization through Dialog Identification in the Session Initiation Protocol (SIP)".

[58] IETF RFC 2976: "The SIP INFO Method".

[59] IETF RFC 3323: "A Privacy Mechanism for the Session Initiation Protocol (SIP)".

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.

Not applicable.

3 Definitions, symbols and abbreviations

3.1 Definitions

For the purposes of the present document, the terms and definitions given in [1] to [21] and the following apply:

Back-to-Back User Agent (B2BUA): As given in IETF RFC 3261 [3].

NOTE: In addition, for the usage in the IM CN subsystem, a SIP element being able to handle a collection of "n" User Agents (behaving each one as UAC and UAS, according to SIP rules), which are linked by some application logic that is fully independent of the SIP rules.

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

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

Protocol Implementation Conformance Statement (PICS): statement made by the supplier of an implementation or system claimed to conform to a given protocol specification, stating which capabilities have been implemented

roaming: UE is in a geographic area that is outside the serving geographic area of the home IM CN subsystem

topology hiding: limiting the amount of topology information given to external parties

3.2 Symbols

For the purposes of the present document, the symbols given in [1] to [21] apply.

3.3 Abbreviations

For the purposes of the present document, the abbreviations given in [1] to [21] and the following apply:

ACR	Anonymous Communication Rejection
AOC	Advice Of Charge
B2BUA	Back-to-Back User Agent
CB	Communication Barring
CCBS	Call Completion on Busy Subscriber
CCNR	Call Completion on No Reply
CDIV	Communication DIVersion
CN	Core Network
CONF	Conference using IP Multimedia (IM) Core Network (CN) subsystem
CUG	Closed User Group
CW	Communication Waiting
ECT	Explicit Communication Transfer
HOLD	Communication Hold

IBCF	Interconnect Border Control Function
ICS	Implementation Conformance Statement
IM	IP Multimedia
IMS	IP Multimedia Subsystem
IMS-ALG	IMS Application Level Gateway
INT	Core Network and Interoperability Testing
IP	Internet Protocol
IUT	Implementation Under Test
MCID	Mallicious Call IDentification
MIME	Multipurpose Internet Mail Extensions
MWI	Message Waiting Indication
OIP/OIR	Originating Identification Presentation (OIP) and Originating Identification Restriction (OIR)
PICS	Protocol ICS
SIP	Session Initiation Protocol
SUT	System Under Test
TCP	Transmission Control Protocol
TIP/TIR	Terminating Identification Presentation (TIP) and Terminating Identification Restriction (TIR) using IP Multimedia (IM) Core Network (CN) subsystem
TS	Technical Specification
UAC	User Agent Client
UAS	User Agent Server
UDP	User Datagram Protocol
UE	User Equipment

4 Conformance to this PICS proforma specification

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 clause 4, 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 5.1.

5 PICS proforma for ETSI TS 124 229

5.0 Introduction

5.1 Guidance for completing the PICS proforma

5.2 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 ETSI TS 124 229 [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;

- roles;
- IBCF capabilities.

5.3 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 [20].

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 [20], 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", "x" 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 ETSI TS 124 229 [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 [20], 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).

5.4 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 5.3.

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.

6 Identification of the implementation

6.0 Introduction

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.

6.1 Date of the statement

.....

6.2 Implementation Under Test (IUT) identification

IUT name:

.....

.....

IUT version:

.....

6.3 System Under Test (SUT) identification

SUT name:

.....

.....

Hardware configuration:

.....

.....

.....

Operating system:

.....

6.4 Product supplier

Name:

.....

Address:

.....

.....

.....

Telephone number:

.....

Facsimile number:

.....

E-mail address:

.....

Additional information:

.....

.....

.....

6.5 Client (if different from product supplier)

Name:

.....

Address:

.....

.....

.....

Telephone number:

.....

Facsimile number:

.....

E-mail address:

.....

Additional information:

.....

.....

6.6 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:

.....

.....

.....

6.7 Global statement of conformance

Are all mandatory capabilities implemented? (Yes/No) .....

NOTE: Answering "No" to this question indicates non-conformance to ETSI TS 124 229 [1]. 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.

7 Statement of conformance to ETSI TS 124 229 and ETSI TS 129 165

7.1 Roles

Table 7.1.1: Roles

Item	Item description	Reference	Status	Support
1	The IUT supports Topology hiding, it means the SIP **headers** Via, Route, Record-Route, service-Route and Path are encrypted.	5.10.4	o.1	
2	The IUT is configured for IMS-ALG. The IUT acts as a Back-to-Back user agent.	5.10.5	o.1	
3	The IUT performs the screening of SIP signalling functionality.	5.10.7	o.1	
o.1:	It is mandatory to support one of these items.			
Comments:				

7.2 IBCF capabilities

Table 7.2.1: Configuration of IBCF

Item	Item description	Reference	Status	Support
1	The IUT allows Roaming of users in the network.	5.10.2.1, 5.10.3.1	o	
2	The other network in an untrusted network.	4.4	o	
3	The external network is a non IMS IP network.	7.2.2/[19]	o	
4	The IUT is configured with two entry points to other network (see note).	5.10.2.1, 3)	o	
5	IUT is configured for requiring periodic refreshment.	5.10.2.3	o	
6	The IUT is configured to allow the receipt of private network traffic from the other network.	5.10.2.2, 5A)	o	
7	IUT is configured with two entry points to its own network.	5.10.3.1	o	
NOTE: Only **one** network is involved in the test.				
Comments:				

Table 7.2.2: Handling of headers

Item	Item description	Reference	Status	Support
1	The IUT **passes** the P-Charging-Vector header unchanged.	5.10.6, annex A/[2], 4.6/[31]	o	
2	The IUT **removes some values** of the P-Charging-Vector header in requests or responses.	5.10.6, annex A/[2], 4.6/[31]	o	
3	The IUT **removes** the P-Charging-Vector header from requests or responses.	5.10.6, annex A/[2], 4.6/[31]	o	
4	The IUT determines to remove the P-Profile-Key header field.	5.10.6, annex A/[2], 5/[33]	o	
5	The IUT determines to remove the P-Served-User header field.	5.10.6, annex A/[2], 6/[34]	o	
6	IUT remove the P-Asserted-Service header field if crosses the boundary of the trust domain.	5.10.6, annex A/[2], 4.1/[35]	o	
7	The IUT adds a P-Early-Media header in an INVITE request.	5.10.6, annex A/[2], 8/[36]	o	
8	The IUT adds a P-Early-Media header in a response.	5.10.6, annex A/[2], 8/[36]	o	
9	The IUT removes a received P-Early-Media header in an INVITE request.	5.10.6, annex A/[2], 8/[36]	o	
10	The IUT removes a received P-Early-Media header in a response.	5.10.6, annex A/[2], 8/[36]	o	
11	The IUT modifies a received P-Early-Media header in a response.	5.10.6, annex A/[2], 8/[36]	o	
12	The IUT adds a P-Asserted-Identity header field into a SIP response.	5.10.6, annex A/[2], 9.1/[16]	o	
13	The IUT omits a P-Asserted-Identity header field from a SIP response.	5.10.6, annex A/[2], 9.1/[16]	o	
14	The IUT supports the P-User-Database private header extension.	5.10.6, annex A/[2], 4/[37]	c7221	
15	The IUT supports the P-Visited-Network-ID header extension.	5.10.6, annex A/[2], 4.6/[31]	c7221	
16	The IUT supports the 'Session Timers in the Session Initiation Protocol'.	5.10.6, annex A/[2], 4/[27]	o	
17	The IUT supports the transporting of user to user information for call centres using SIP.	5.10.6, annex A/[2], 4.1 [32]	o	
18	The IUT supports the 'caller preferences for the Session Initiation Protocol'.	5.10.6, annex A/[2], [38]	o	
19	The IUT adds a P-Asserted-Identity header field into an INVITE request.	5.10.6, annex A/[2], 9.1/[16]	o	
20	The IUT omits a P-Asserted-Identity header field from the INVITE request.	5.10.6, annex A/[2], 9.1/[16]	o	
21	The IUT supports the "Record Route" procedure.	20/[3]	o	

Item	Item description	Reference	Status	Support
22	The IUT supports the Resource-Priority header.	[21]	o	
23	The IUT supports the Require header.	20/[3]	o	
24	The IUT supports the Call-Info header in request and responses.	20/[3]	c7229	
25	The IUT supports the **Accept** header in requests and responses.	20/[3]	o	
26	The IUT supports the **Accept-Encoding** header in requests and responses.	20/[3]	o	
27	The IUT supports the **Accept-Language** header in requests and responses.	20/[3]	o	
28	The IUT supports the **Alert-Info** header in request and responses.	20/[3]	o	
29	The IUT supports the **Accept-Resource-Priority** header in requests and responses.	[21]	o	
30	The IUT supports the **Allow** header in requests and responses.	20/[3]	o	
31	The IUT supports the **Allow-Events** header in requests and responses.	6.3/[28]	o	
32	The IUT supports the **Authentication-Info** header in requests and responses.	20/[3]	c7221	
33	The IUT supports the **Authorization** header in requests and responses.	20/[3]	c7221	
34	The IUT supports the **Answer-Mode** header in requests and responses.	2/[29]	o	
35	The IUT supports the **Content-Disposition** header in requests and responses.	20/[3]	o	
36	The IUT supports the **Content-Encoding** header in requests and responses.	20/[3]	o	
37	The IUT supports the **Content-Language** header in requests and responses.	20/[3]	o	
38	The IUT supports the **Date** header in request and responses.	20/[3]	o	
39	The IUT supports the **Error-Info** header in responses.	20/[3]	o	
40	The IUT supports the **Event** header in request and responses.	6.3/[28]	c7223	
41	The IUT supports the **Expires** header in request and responses.	20/[3]	o	
42	The IUT supports the **Flow-Timer** header in request and responses.	10/[22]	c7221	
43	The IUT supports the **Geolocation** header in request and responses.	4/[23]	o	
44	The IUT supports the **Geolocation-Error** header in request and responses.	4/[23]	o	
45	The IUT supports the **Geolocation-Routing** header in request and responses.	4/[23]	o	
46	The IUT supports the **Feature-Caps** header in request and responses.	6.2.1/[30]	o	
47	The IUT supports the **History-Info** header in request and responses.	4/[15]	c7222	
48	The IUT supports the **Info-Package** header in request and responses.	9/[24]	o	
49	The IUT supports the **In-Reply-To** header in request and responses.	20/[3]	o	
50	The IUT supports the **Join** header in request and responses.	7.1/[25]	o	
51	The IUT supports the **Max-Breadth** header in request and responses.	5.8/[26]	o	
52	The IUT supports the **MIME-Version** header in request and responses.	20/[3]	o	
53	The IUT supports the **Min-Expires** header in request and responses.	20/[3]	o	
54	The IUT supports the **Organization** header in request and responses.	20/[3]	o	

Item	Item description	Reference	Status	Support
55	The IUT supports the **P-Access-Network-Info** header in request and responses.	5.4/[31]	o	
56	The IUT supports the **P-Answer-State** header in request and responses.	6/[40]	o	
57	The IUT supports the **P-Associated-URI** header in request and responses.	6/[31]	c7221	
58	The IUT supports the **P-Called-Party-ID** header in request and responses.	6/[31]	o	
59	The IUT supports the **P-Charging-Function-Addresses** in request and responses.	7/[41]	o	
60	The IUT supports the **P-Preferred-Service** header in request and responses.	4.1/[35]	o	
61	The IUT supports the **P-Private-Network-Indication** in request and responses.	7/[41]	o	
62	The IUT supports the **P-Refused-URI-List** header in request and responses.	5/[42]	o	
63	The IUT supports the **Path** header in request and responses.	4/[43]	c7221	
64	The IUT supports the **Permission-Missing** header in request and responses.	5/[39]	o	
65	The IUT supports the **Policy-Contact** header in request and responses.	4.4.5/[44]	o	
66	The IUT supports the **Priority** header in request and responses.	20/[3]	o	
67	The IUT supports the **Priv-Answer-Mode** header in request and responses.	2/[29]	o	
67	The IUT supports the **Privacy** header in request and responses.	4.2/[59]	o	
68	The IUT supports the **Proxy-Authenticate** header in request and responses.	20/[3]	c7221	
69	The IUT supports the **Proxy-Authorization** header in request and responses.	20/[3]	c7221	
70	The IUT supports the **Proxy-Require** header in request and responses.	20/[3]	o	
71	The IUT supports the **RAck** header in request and responses.	7/[45]	o	
72	The IUT supports the **Reason** header in request and responses.	2/[46]	o	
73	The IUT supports the **Record-Route** header in request and responses.	20/[3]	o	
74	The IUT supports the **Recv-Info** header in request and responses.	7.3/[24]	o	
75	The IUT supports the **Referred-By** header in request and responses.	3/[47]	c7226	
76	The IUT supports the **Refer-Sub** header in request and responses.	4/[48]	c7227	
77	The IUT supports the **Refer-To** header in request and responses.	2.1/[49]	c7224	
78	The IUT supports the **Relayed-Charge** header in request and responses.	7.2.12/[1]	o	
79	The IUT supports the **Replaces** header in request and responses.	6/[50]	c7225	
80	The IUT supports the **Reply-To** header in request and responses.	20/[3]	o	
81	The IUT supports the **Retry-After** header in request and responses.	20/[3]	o	
82	The IUT supports the **Restoration-Info** header in request and responses.	7.2.11/[1]	o	
83	The IUT supports the **Route** header in request and responses.	20/[3]	o	
84	The IUT supports the **RSeq** header in request and responses.	7/[45]	o	
85	The IUT supports the **Server** header in request and responses.	20/[3]	o	

Item	Item description	Reference	Status	Support
86	The IUT supports the **Service-Route** header in request and responses.	5/[53]	c7221	
87	The IUT supports the **Session-ID** header in request and responses.	7/[54]	o	
88	The IUT supports the **SIP-ETag** header in request and responses.	11/[55]	c72210	
89	The IUT supports the **SIP-If-Match** header in request and responses.	11/[55]	c72211	
90	The IUT supports the **Subject** header in request and responses.	20/[3]	o	
91	The IUT supports the **Subscription-State** header in request and responses.	6.3/[28]	c7223	
92	The IUT supports the **Suppress-If-Match** header in request and responses.	7/[56]	o	
93	The IUT supports the **Supported** header in request and responses.	20/[3]	o	
94	The IUT supports the **Target-Dialog** header in request and responses.	7/[57]	o	
95	The IUT supports the **Timestamp** header in request and responses.	20/[3]	o	
96	The IUT supports the **Trigger-Consent** header in request and responses.	5/[39]	o	
97	The IUT supports the **Unsupported** header in request and responses.	20/[3]	o	
98	The IUT supports the **User-Agent** header in request and responses.	20/[3]	o	
99	The IUT supports the **Warning** header in responses.	20/[3]	o	
100	The IUT supports the **MESSAGE** method request and responses.	9/[52]	o	
101	The IUT supports the **OPTIONS** method request and responses.	25/[3]	o	
102	The IUT supports the **PRACK** method request and responses.	6/[45]	o	
103	The IUT supports the **REGISTER** method request and responses.	25/[3]	c7221	
104	The IUT supports the **SUBSCRIBE** method request and responses.	[28]	o	
105	The IUT supports the **UPDATE** method request and responses.	7/[51]	o	
106	The IUT supports the **PUBLISH** method request and responses.	11/[55]	o	
107	The IUT supports the **REFER** method. request and responses.	12.13/[2], 12.19/[2]	c7228	
108	The IUT supports the **INFO** method. request and responses.	[58]	o	

c7221: IF 7.1.1/3 AND 7.2.1/1 THEN o ELSE n/a.
c7222: IF 7.2.3/3 THEN m ELSE n/a.
c7223: IF 7.2.3/8 OR 7.2.3/10 OR 7.2.3/11 OR 7.2.3/12 OR 7.2.3/13 THEN m ELSE n/a.
c7224: IF (7.2.3/10 OR 7.2.3/11 OR 7.2.3/12 OR 7.2.3/13) AND 7.2.2/107 THEN m ELSE n/a.
c7225: IF 7.2.3/12 OR 7.2.3/13 THEN o ELSE n/a.
c7226: IF 7.2.3/12 OR 7.2.3/13 THEN m ELSE n/a.
c7227: IF 7.2.2/107 THEN o ELSE n/a.
c7228: IF 7.2.3/12 OR 7.2.3/13 THEN o ELSE n/a.
c7229: IF 7.2.3/10 OR 7.2.3/11 THEN o ELSE n/a.
c72210: IF 7.2.2/108 THEN m ELSE n/a.
c72211: IF 7.2.2/108 THEN o ELSE n/a.

Comments:

Table 7.2.3: Support of simulation services

Item	Item description	Reference	Status	Support
1	The IUT supports the OIP/OIR simulation service.	12.3/[2]	o	
2	The IUT supports the TIP/TIR simulation service.	12.4/[2]	o	
3	The IUT supports the CDIV simulation service.	12.6/[2]	o	
4	The IUT supports the MCID simulation service.	12.2/[2]	o	
5	The IUT supports the ACR simulation service.	12.5/[2]	o	
6	The IUT supports the CW simulation service.	12.7/[2]	o	
7	The IUT supports the HOLD simulation service.	12.8/[2]	o	
8	The IUT supports the MWI simulation service.	12.9/[2]	o	
9	The IUT supports the CB simulation service.	12.10/[2]	o	
10	The IUT supports the CCBS simulation service.	12.11/[2]	o	
11	The IUT supports the CCNR simulation service.	12.12/[2]	o	
12	The IUT supports the ECT simulation service.	12.13/[2]	o	
13	The IUT supports the CONF simulation service.	12.19/[2]	o	
14	The IUT supports the CUG simulation service.	12.16/[2]	o	
15	The IUT supports 'Advice Of Charge (AOC) using IP Multimedia (IM) Core Network (CN) subsystem'.	12.22/[2]	o	
16	The IUT supports 'SIP Transfer of IP Multimedia Service Tariff Information'.	[17]	o	
17	The IUT supports the INFO request containing the "application/vnd.etsi.mcid+xml" MIME body.	12.2/[2]	c7231	
18	The IUT supports the NOTIFY request containing the "application/ conference-info+xml" MIME body.	12.19/[2]	c7232	
19	The IUT supports the Response code 480 (Temporarily Unavailable) including a Reason header field set to cause 19.	12.7/[2]	o	
20	No agreement between the originating network and the terminating network exists to support the CUG supplementary service.	12.16/[2]	o	
c7231: IF 7.2.3/4 THEN o ELSE n/a. c7232: IF 7.2.3/13 THEN o ELSE n/a.				
Comments:				

Table 7.2.4: IP configuration

Item	Item description	Reference	Status	Support
1	UDP Transport protocol is used.	5.10.5, 17/[3]	o	
2	TCP Transport protocol is used.	5.10.5, 17/[3]	o	
3	The other network is an IPv4 network.	5.10.5, 9/[19]	o	
4	The other network is an IPv6 network.	5.10.5, 9/[19]	o	
5	The own network is an IPv4.	5.10.5, 9/[19]	o	
6	The own network is an IPv6 network.	5.10.5, 9/[19]	o	
7	The own network: UDP Transport protocol is used.	5.10.5, 17/[3]		
8	The own network: TCP Transport protocol is used.	5.10.5, 17/[3]		
Comments:				

Table 7.2.5: Codec handling

Item	Item description	Reference	Status	Support
1	The IUT performs the media transcoding control in order to allow establishing communication between IM CN subsystems using different media codecs based on the interworking agreement and session information.	5.10.7.2	c7251	
2	Before forwarding the request to the answerer, the IUT adds to the selected media one or more codecs at the end of the codec list.	5.10.7.2	c7251	
c7251: If 7.1.1/2 THEN o ELSE n/a.				
Comments:				

Annex A (informative): Bibliography

IETF RFC 6665: "SIP-Specific Event Notification".

IETF RFC 3313: "Private Session Initiation Protocol (SIP) Extensions for Media Authorization".

IETF RFC 3329: "Security Mechanism Agreement for the Session Initiation Protocol (SIP)".

History

Document history		
V1.1.1	October 2011	Publication
V1.2.1	July 2014	Publication
V2.1.1	September 2016	Publication