



TECHNICAL SPECIFICATION

**Core Network and Interoperability Testing (INT);
Terminating Identification Presentation (TIP) and Terminating
Identification Restriction (TIR) using IP Multimedia (IM)
Core Network (CN) subsystem;
Conformance Test Specification;
(3GPP™ Release 12);
Part 2: Test Suite Structure and Test Purposes (TSS&TP)**

Reference

RTS/INT-00142-2

Keywords

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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 2 of a multi-part deliverable covering the Terminating Identification Presentation (TIP) and Terminating Identification Restriction (TIR) 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)".

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).

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1 Scope

The present document provides the Test suite structure and test purposes for the Terminating Identification Presentation (TIP) and Terminating Identification Restriction (TIR) using IP Multimedia (IM) Core Network (CN) subsystem; Conformance Test Specification (based on ETSI TS 124 608 (3GPP Release 12) [1]).

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 124 608: "Digital cellular telecommunications system (Phase 2+); Universal Mobile Telecommunications System (UMTS); LTE; Terminating Identification Presentation (TIP) and Terminating Identification Restriction (TIR) using IP Multimedia (IM) Core Network (CN) subsystem; Protocol specification (3GPP TS 24.608 Release 12)".
- [2] ETSI TS 101 596-1: "IMS Network Testing (INT); Terminating Identification Presentation (TIP) and Terminating Identification Restriction (TIR) using IP Multimedia (IM) Core Network (CN) subsystem; Conformance Test Specification; Part 1: Protocol Implementation Conformance Statement (PICS)".

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] apply.

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:

| | |
|--------|---|
| AS | Application Server |
| CDIV | Communication DIVersion |
| CN | Core Network |
| CSCF | Call Session Control Function |
| IM | IP Multimedia |
| IP | Internet Protocol |
| ISC | IP Multimedia Subsystem Service Control |
| IUT | Implementation Under Test |
| NNI | Network-Network Interface |
| P-CSCF | Proxy - CSCF |
| SIP | Session Initiation Protocol |
| SUT | System Under Test |
| TIP | Terminating Identification Presentation |
| TIR | Terminating Identification Restriction |
| TP | Test Purposes |
| TSS | Test Suite Structure |
| UA | User Agent |
| UE | User Equipment |
| URI | Universal Resource Identifier |

4 Test Suite Structure (TSS)

4.0 Table of Test suite Structure

| | | |
|----------------|------------------|--------------------|
| User | | |
| | OrigUserE | TIP_U01_xxx |
| | TermUserE | TIP_U02_xxx |
| Network entity | | |
| | OrigAS | TIP_N01_xxx |
| | DestAS | TIP_N02_xxx |
| Interaction | | |
| | CDIV | TIP_N03_xxx |

Figure 4.0-1: Test suite structure

4.1 Configuration

4.1.0 Introduction

The scope of the present document is to test the signalling and procedural aspects of the stage 3 requirements as described in ETSI TS 124 608 [1]. The stage 3 description describes the requirements for several network entities and also the requirements regarding terminal devices. Therefore several interfaces (reference points) are addressed to satisfy the test of the different entities.

Therefore to test the appropriate entities the configurations below are applicable.

4.1.1 Testing of the AS

The AS entity is responsible for performing and managing services. The ISC interface is the appropriate access point for testing.

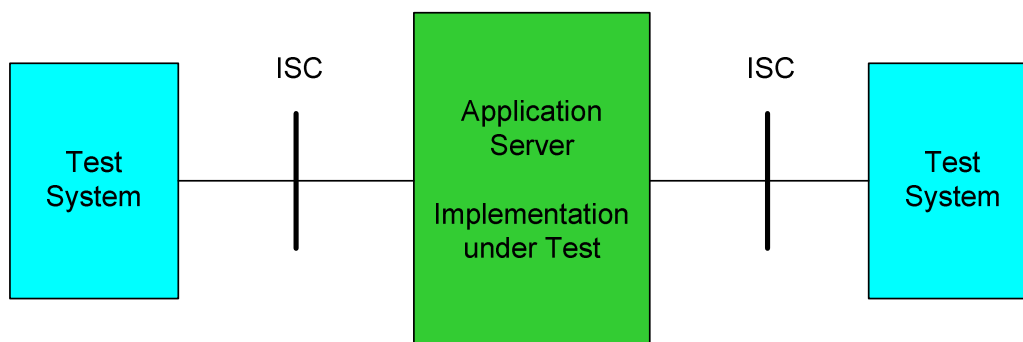


Figure 4.1.1-1: Applicable interface to test AS functionalities

If the ISC interface is not accessible it is also possible to perform the test of the terminating AS using any NNI (Mw, Mg, Mx,) interface (see figure 4.1.1-2) or originating AS using any NNI (Mw, Mg, Mx,) interface (see figure 4.1.1-3).

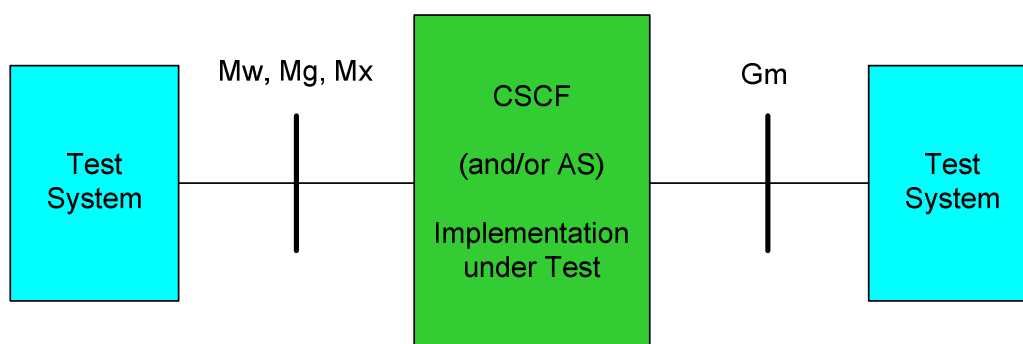


Figure 4.1.1-2: Applicable interfaces for tests using a (generic) NNI interface for terminating AS

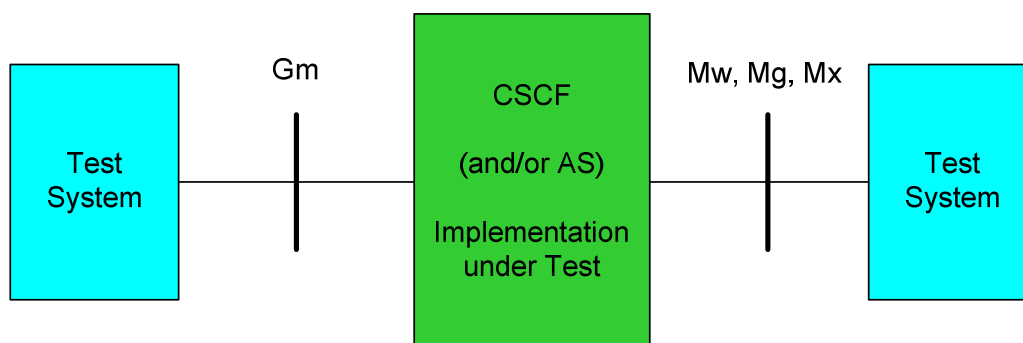


Figure 4.1.1-3: Applicable interfaces for tests using a (generic) NNI interface for originating AS

4.1.2 Testing of the UE

There are special clauses in the protocol standard describing the procedures that apply at the originating and terminating user equipment. Therefore the test configuration in figure 4.1.2-1 has been chosen.

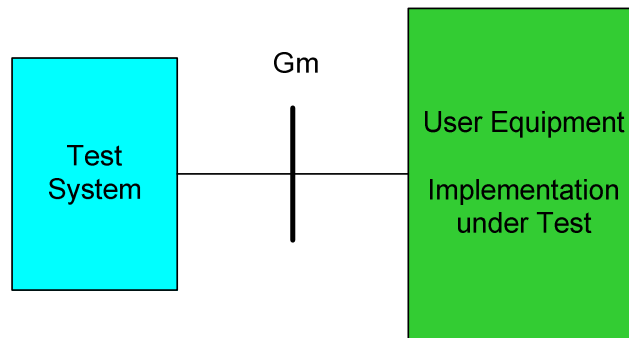


Figure 4.1.2-1: Applicable configuration to test UE functionalities

5 Test Purposes (TP)

5.1 TP naming convention

TPs are numbered, starting at 001, within each group. Groups are organized according to the TSS. Additional references are added to identify the actual test suite and whether it applies to the network or the user (see table 5.1-1).

Table 5.1-1: TP identifier naming convention scheme

| | | |
|----------------------|--|---|
| Identifier: | <ss>_<iut><group>_<nnn> | |
| <ss> | = supplementary service: | e.g. "TIP" |
| <iut> | = type of IUT: | U User N Network entity, e.g. P-CSCF |
| <group> | = group | 2 digit field representing group reference according to TSS |
| <nnn> | = sequential number | (001-999) |

5.2 Test strategy

As the base standard ETSI TS 124 608 [1] contains no explicit requirements for testing, the TPs were generated as a result of an analysis of the base standard and the PICS specification ETSI TS 101 596-1 [2].

All PICS items referred to in this clause are as specified in ETSI TS 101 596-1 [2] unless indicated otherwise by another numbered reference.

5.3 TPs for Terminating Identification Presentation (TIP) and Terminating Identification Restriction (TIR)

5.3.1 Actions at the originating UE

| TSS User/OrigUserE | TP TIP_U01_001 | TIP/TIR reference 4.5.2.1 | Selection expression PICS 4.5.1/1 | | | | | | | | | | | | |
|---|-------------------|------------------------------|--------------------------------------|-----------------------|--|--|-----------------------|--|---|--|--------|--|---|--|----------------|
| Test purpose: <i>The originating UE receives one P-Asserted-Identity in a sip URI.</i> Ensure that the Originating UE, receiving any non 100 response message defined as SIP_MESSAGE_VA containing a P-Asserted-Identity header with a valid sip URI accepts the call following the basic request handling procedures. | | | | | | | | | | | | | | | |
| SIP message: SIP_MESSAGE_VA P-Asserted-Identity: <sip:[any value]> | | | | | | | | | | | | | | | |
| Comments: <table border="0" style="width: 100%;"> <tr> <td style="width: 50%;">User equipment</td> <td style="width: 10%;"></td> <td style="width: 10%;"></td> <td style="width: 20%;">Test equipment</td> </tr> <tr> <td></td> <td style="text-align: center;">→</td> <td></td> <td>INVITE</td> </tr> <tr> <td></td> <td style="text-align: center;">←</td> <td></td> <td>SIP_MESSAGE_VA</td> </tr> </table> | | | | User equipment | | | Test equipment | | → | | INVITE | | ← | | SIP_MESSAGE_VA |
| User equipment | | | Test equipment | | | | | | | | | | | | |
| | → | | INVITE | | | | | | | | | | | | |
| | ← | | SIP_MESSAGE_VA | | | | | | | | | | | | |

| TSS User/OrigUserE | TP TIP_U01_002 | TIP/TIR reference 4.5.2.1 | Selection expression PICS 4.5.1/1 | | | | | | | | | | | | |
|---|-------------------|------------------------------|--------------------------------------|-----------------------|--|--|-----------------------|--|---|--|--------|--|---|--|----------------|
| Test purpose: <i>The originating UE receives one P-Asserted-Identity in a tel URI.</i> Ensure that the Originating UE, receiving any non 100 response message defined as SIP_MESSAGE_VA containing a P-Asserted-Identity header with a valid tel URI , accepts the call following the basic request handling procedures. | | | | | | | | | | | | | | | |
| SIP message: SIP_MESSAGE_VA P-Asserted-Identity: <tel:[any value]> | | | | | | | | | | | | | | | |
| Comments: <table border="0" style="width: 100%;"> <tr> <td style="width: 50%;">User equipment</td> <td style="width: 10%;"></td> <td style="width: 10%;"></td> <td style="width: 20%;">Test equipment</td> </tr> <tr> <td></td> <td style="text-align: center;">→</td> <td></td> <td>INVITE</td> </tr> <tr> <td></td> <td style="text-align: center;">←</td> <td></td> <td>SIP_MESSAGE_VA</td> </tr> </table> | | | | User equipment | | | Test equipment | | → | | INVITE | | ← | | SIP_MESSAGE_VA |
| User equipment | | | Test equipment | | | | | | | | | | | | |
| | → | | INVITE | | | | | | | | | | | | |
| | ← | | SIP_MESSAGE_VA | | | | | | | | | | | | |

| TSS User/OrigUserE | TP TIP_U01_003 | TIP/TIR reference 4.5.2.1 | Selection expression PICS 4.5.1/1 | | | | | | | | | | | | |
|---|-------------------|------------------------------|--------------------------------------|-----------------------|--|--|-------------|--|---|--|--------|--|---|--|----------------|
| Test purpose: <i>The originating UE receives two P-Asserted-Identity headers in a sip URI and a tel URI.</i> Ensure that the Originating UE, receiving any non 100 response message defined as SIP_MESSAGE_VA containing one P-Asserted-Identity header with a valid sip URI and one P-Asserted-Identity header with a valid tel URI, accepts the call following the basic request handling procedures. | | | | | | | | | | | | | | | |
| SIP message: SIP_MESSAGE_VA P-Asserted-Identity: <sip:[any value]> P-Asserted-Identity: <tel:[any value]> | | | | | | | | | | | | | | | |
| Comments: <table border="0" style="width: 100%;"> <tr> <td style="width: 50%;">User equipment</td> <td style="width: 10%;"></td> <td style="width: 10%;"></td> <td style="width: 20%;">UA S</td> </tr> <tr> <td></td> <td style="text-align: center;">→</td> <td></td> <td>INVITE</td> </tr> <tr> <td></td> <td style="text-align: center;">←</td> <td></td> <td>SIP_MESSAGE_VA</td> </tr> </table> | | | | User equipment | | | UA S | | → | | INVITE | | ← | | SIP_MESSAGE_VA |
| User equipment | | | UA S | | | | | | | | | | | | |
| | → | | INVITE | | | | | | | | | | | | |
| | ← | | SIP_MESSAGE_VA | | | | | | | | | | | | |

| | | | |
|---|--------------------------|-------------------------------------|---|
| TSS User/OrigUserE | TP TIP_U01_004 | TIP/TIR reference 4.5.2.1 | Selection expression PICS 4.5.1/1 |
| Test purpose: <i>The originating UE receives a Privacy header field value 'id' indicating the TIR service.</i> Ensure that the Originating UE, receiving any non 100 response message defined as SIP_MESSAGE_VA with a Privacy header with privacy type of "id" and without P-Asserted-Identity headers, accepts the call following the basic request handling procedures. | | | |
| SIP message: SIP_MESSAGE_VA Privacy: id | | | |
| Comments: User equipment | | Test equipment | |
| | | → INVITE | |
| | | ← SIP_MESSAGE_VA | |

| Values for tests purposes TIP_U01_001 to TIP_U02_004 | |
|--|----------------------|
| VA_01 | 180 Ringing |
| VA_02 | 183 Session progress |
| VA_03 | 200 OK |

| | | | |
|---|--------------------------|-------------------------------------|---|
| TSS User/OrigUserE | TP TIP_U01_005 | TIP/TIR reference 4.5.2.1 | Selection expression PICS 4.5.1/1 AND PICS 4.6.1/1 |
| Test purpose: <i>The originating user is able to send the "from-change" tag in the Supported header in the initial INVITE.</i> Ensure that the Originating UE sends a "from-change" tag in the Supported header in the initial INVITE. | | | |
| SIP message: INVITE Supported "from-change" | | | |
| Comments: User equipment | | Test equipment | |
| | | → INVITE with "from-change" tag | |

| | | | |
|--|--------------------------|-------------------------------------|---|
| TSS Syntax/OrigUserE | TP TIP_U01_006 | TIP/TIR reference 4.5.2.1 | Selection expression PICS 4.5.1/1 AND PICS 4.6.1/1 |
| Test purpose: <i>The originating user is able to receive a connected identity in the From header of an UPDATE request.</i> Ensure that the Originating UE is able to receive a second identity in the From header of an UPDATE request if the UE indicates the support of this procedure by sending the "from-change" tag in the Supported header in the initial INVITE and this identity is displayed to the user. | | | |
| SIP message: INVITE Supported "from-change" UPDATE From <second identity> | | | |
| Comments: User equipment | | SUT | Test equipment |
| | | → | INVITE with "from-change" tag |
| | | ← | 180 Ringing |
| | | ← | 200 OK INVITE |
| | | → | ACK |
| | | ← | UPDATE with new URI in From header |
| | | → | 200 OK UPDATE |

5.3.2 Actions at the AS serving the originating UE

| | | | |
|--|--------------------------|-----------------------------------|---|
| TSS Signalling/OrigNetw | TP TIP_N01_001 | TIP/TIR reference 4.3.2 | Selection expression PICS 4.5.1/2 AND PICS 4.7.1/3 |
| Test purpose: <i>The originating user subscribes to the TIP service.</i> Ensure that for originating users that subscribe to TIP simulation service, if network provided identity information about the terminator is available, and if presentation is not restricted, the AS shall pass that information in any non 100 response message defined as SIP_MESSAGE_VA. | | | |
| Precondition: The originating user has subscribed to the TIP service | | | |
| SIP messages: SIP_MESSAGE_VA1: P-Asserted-Identity SIP_MESSAGE_VA2: P-Asserted-Identity | | | |
| Comments: | | | |
| Test equipment | AS | Test equipment | |
| INVITE | → | → INVITE | |
| SIP_MESSAGE_VA 2 | ← | ← SIP_MESSAGE_VA 1 | |

| | | | |
|--|--------------------------|-------------------------------------|---|
| TSS Network entity/OrigNetw | TP TIP_N01_002 | TIP/TIR reference 4.5.2.4 | Selection expression PICS 4.5.1/2 AND PICS 4.7.1/3 |
| Test purpose: <i>The originating user does not subscribe to the TIP service P-Asserted-Identity header not present.</i> Ensure that the IUT acting as AS serving the originating user that does not subscribe to the TIP service removes any P-Asserted-Identity header fields included in the SIP response defined as SIP_MESSAGE_VA before forwarding the response. | | | |
| Precondition: The originating user has not subscribed to the TIP service | | | |
| SIP messages: SIP_MESSAGE_VA1: P-Asserted-Identity SIP_MESSAGE_VA2: P-Asserted-Identity not present | | | |
| Comments: | | | |
| Test equipment | AS | Test equipment | |
| INVITE | → | → INVITE | |
| SIP_MESSAGE_VA 2 | ← | ← SIP_MESSAGE_VA 1 | |

| | | | |
|--|--------------------------|-------------------------------------|---|
| TSS Network entity/OrigNetw | TP TIP_N01_003 | TIP/TIR reference 4.5.2.4 | Selection expression PICS 4.5.1/2 AND PICS 4.7.1/3 |
| Test purpose: <i>The originating user does not subscribe to the TIP service Privacy header not present.</i> Ensure that the IUT acting as AS serving the originating user that does not subscribe to the TIP service removes any Privacy header fields included in the SIP response defined as SIP_MESSAGE_VA before forwarding the response. | | | |
| Precondition: The originating user has not subscribed to the TIP service | | | |
| SIP messages: SIP_MESSAGE_VA1: Privacy: id SIP_MESSAGE_VA2: Privacy header not present | | | |
| Comments: | | | |
| Test equipment | AS | Test equipment | |
| INVITE | → | → INVITE | |
| SIP_MESSAGE_VA 2 | ← | ← SIP_MESSAGE_VA 1 | |

| | | | |
|--|--------------------------|-----------------------------------|---|
| TSS Signalling/TIR | TP TIP_N01_004 | TIP/TIR reference 4.6.3 | Selection expression PICS 4.5.1/2 AND PICS 4.7.1/3 AND PICS 4.7.1/7 |
| Test purpose: <i>The originating user has TIR override category.</i> Ensure that, if the originating user has the override category, the AS removes Privacy header fields restricting the presentation of the terminating identity and sends the P-Asserted-Identity header in the SIP response defined as SIP_MESSAGE_VA before forwarding the response. | | | |
| Precondition: The originating user has subscribed to the TIP service and Originating user has the override category | | | |
| SIP messages: SIP_MESSAGE_VA1: P-Asserted-Identity, Privacy = id SIP_MESSAGE_VA2: P-Asserted-Identity, no Privacy header or Privacy = none | | | |
| Comments: | | | |
| Test equipment | AS | Test equipment | |
| INVITE | → | → INVITE | |
| SIP_MESSAGE_VA2 | ← | ← SIP_MESSAGE_VA1 | |

| Values for tests purposes TIP_N01_001 to TIP_N02_004 | |
|--|----------------------|
| VA_01 | 180 Ringing |
| VA_02 | 183 Session progress |
| VA_03 | 200 OK |

| | | | |
|--|--------------------------|-------------------------------------|---|
| TSS Network entity/OrigAS | TP TIP_N01_005 | TIP/TIR reference 4.5.2.4 | Selection expression PICS 4.5.1/2 AND PICS 4.7.1/3 |
| Test purpose: <i>The originating user subscribes to the TIP service. The "from-change" tag is passed on.</i> Ensure that the IUT acting as AS serving the originating user that subscribes to the TIP service passes on the "from change" tag within the Supported header in a received initial INVITE request before forwarding the request. | | | |
| Precondition: The originating user has subscribed to the TIP service | | | |
| SIP message: INVITE1 Supported "from-change" INVITE2 Supported "from-change" | | | |
| Comments: | | | |
| Test equipment | AS | Test equipment | |
| INVITE1 with "from-change" tag | → | → INVITE2 with "from-change" tag | |

| | | | |
|--|--------------------------|-------------------------------------|---|
| TSS Network entity/OrigAS | TP TIP_N01_006 | TIP/TIR reference 4.5.2.4 | Selection expression PICS 4.5.1/2 AND PICS 4.7.1/3 |
| Test purpose: <i>The originating user subscribes to the TIP service. The "from-change" tag is not received.</i> Ensure that the IUT acting as AS serving the originating user that subscribes to the TIP service, receiving an initial INVITE request without the "from-change" tag in the Supported header, does not insert the "from-change" tag into the Supported header before forwarding the request. | | | |
| Precondition: The originating user has subscribed to the TIP service | | | |
| SIP message: INVITE1 Supported "from-change" not included INVITE2 Supported "from-change" not included | | | |
| Comments: | | | |
| Test equipment | AS | Test equipment | |
| INVITE1 without "from-change" tag | → | → INVITE2 with "from-change" tag | |

| | | | |
|--|--------------------------|-------------------------------------|---|
| TSS Network entity/OrigAS | TP TIP_N01_007 | TIP/TIR reference 4.5.2.4 | Selection expression PICS 4.5.1/2 AND PICS 4.7.1/3 |
| Test purpose: <i>The originating user does not subscribe to the TIP service. The "from-change" tag is removed from the Supported header.</i> Ensure that the IUT acting as AS serving the originating user that does not subscribe to the TIP service removes the "from-change" tag from the Supported header in a received initial INVITE request before forwarding the request. | | | |
| Precondition: The originating user has not subscribed to the TIP service | | | |
| SIP message: INVITE1 Supported "from-change" INVITE2 Supported "from-change" not included | | | |
| Comments: | | | |
| Test equipment | AS | Test equipment | |
| INVITE1 with "from-change" tag | → | → INVITE2 | |

5.3.3 Actions at the AS serving the terminating UE

| | | | |
|--|--------------------------|-------------------------------------|---|
| TSS Network entity/DestAS | TP TIP_N02_001 | TIP/TIR reference 4.5.2.9 | Selection expression PICS 4.5.1/2 AND PICS 4.7.1/4 AND PICS 4.7.1/6 |
| Test purpose: <i>The AS inserts the Privacy id value in the response if the response does not contain any Privacy. The terminating user subscribes to TIR in permanent mode.</i> Ensure that the IUT acting as AS serving the terminating user that subscribes to TIR in "permanent mode", receiving a 1xx or 2xx response message defined as SIP_MESSAGE_VA without a Privacy header, the AS shall insert a Privacy header with privacy value "id" before forwarding the response. | | | |
| Precondition: The terminating user has subscribed to the TIR service in permanent mode | | | |
| SIP messages: SIP_MESSAGE_VA1 SIP_MESSAGE_VA2: Privacy: id | | | |
| Comments: | | | |
| Test equipment | AS | Test equipment | |
| INVITE SIP_MESSAGE_VA 2 | → ← | → INVITE ← SIP_MESSAGE_VA 1 | |

| | | | |
|---|--------------------------|-------------------------------------|---|
| TSS Network entity/DestAS | TP TIP_N02_002 | TIP/TIR reference 4.5.2.9 | Selection expression PICS 4.5.1/2 AND PICS 4.7.1/4 AND PICS 4.7.1/6 |
| Test purpose: <i>The AS inserts the Privacy id value in the response if the response contains Privacy "none". The terminating user subscribes to TIR in permanent mode.</i> Ensure that the IUT acting as AS serving the terminating user that subscribes to TIR in "permanent mode", receiving a 1xx or 2xx response message defined as SIP_MESSAGE_VA with a Privacy header "none", the AS shall remove the "none" and insert a Privacy header with privacy value "id" before forwarding the response. | | | |
| Precondition: The terminating user has subscribed to the TIR service in permanent mode | | | |
| SIP messages: SIP_MESSAGE_VA1 Privacy: none SIP_MESSAGE_VA2: Privacy: id | | | |
| Comments: | | | |
| Test equipment | AS | Test equipment | |
| INVITE SIP_MESSAGE_VA 2 | → ← | → INVITE ← SIP_MESSAGE_VA 1 | |

| | | | |
|--|--------------------------|-------------------------------------|---|
| TSS Network entity/DestAS | TP TIP_N02_003 | TIP/TIR reference 4.5.2.9 | Selection expression PICS 4.5.1/2 AND PICS 4.7.1/4 AND PICS 4.7.1/5 |
| Test purpose: <i>The AS inserts the Privacy id value in the response if the response does not contain any Privacy. The user subscribes TIR temporary mode with default "presentation restricted".</i> Ensure that the IUT acting as AS serving the terminating user that subscribes to TIR in "temporary mode" with default value "presentation restricted", receiving a 1xx or 2xx response message defined as SIP_MESSAGE_VA without a Privacy header, the AS shall insert a Privacy header with privacy value "id" before forwarding the response. | | | |
| Precondition: The terminating user has subscribed to the TIR service in temporary mode "presentation restricted" | | | |
| SIP messages: SIP_MESSAGE_VA1 SIP_MESSAGE_VA2: Privacy: id | | | |
| Comments: | | | |
| Test equipment | AS | Test equipment | |
| INVITE | → | → INVITE | |
| SIP_MESSAGE_VA 2 | ← | ← SIP_MESSAGE_VA 1 | |

| | | | |
|--|--------------------------|-------------------------------------|---|
| TSS Network entity/DestAS | TP TIP_N02_004 | TIP/TIR reference 4.5.2.9 | Selection expression PICS 4.5.1/2 AND PICS 4.7.1/4 AND PICS 4.7.1/5 |
| Test purpose: <i>The AS passes the Privacy value 'id' in the response. The user subscribes TIR temporary mode with default "presentation not restricted".</i> Ensure that the IUT acting as AS serving the terminating user that subscribes to TIR in "temporary mode" with default value "presentation not restricted", receiving a 1xx or 2xx response message defined as SIP_MESSAGE_VA with a Privacy header set to 'id', the AS shall pass Privacy header with the privacy value before forwarding the response. | | | |
| Precondition: The terminating user has subscribed to the TIR service in temporary mode "presentation not restricted" | | | |
| SIP messages: SIP_MESSAGE_VA1: Privacy: id SIP_MESSAGE_VA2: Privacy: id | | | |
| Comments: | | | |
| Test equipment | AS | Test equipment | |
| INVITE | → | → INVITE | |
| SIP_MESSAGE_VA | ← | ← SIP_MESSAGE_VA | |

| Values for tests purposes TIP_N02_001 to TIP_N01_004 | |
|--|----------------------|
| VA_01 | 180 Ringing |
| VA_02 | 183 Session progress |
| VA_03 | 200 OK |

| | | | |
|--|--------------------------|-------------------------------------|---|
| TSS Network entity/DestAS | TP TIP_N02_005 | TIP/TIR reference 4.5.2.9 | Selection expression PICS 4.5.1/2 AND PICS 4.7.1/4 AND PICS 4.7.1/6 |
| Test purpose: <i>The AS remove the "from-change" tag from the Supported header. The user subscribes TIR in permanent mode.</i> Ensure that the IUT acting as AS serving the terminating user that subscribes to the TIR service in "permanent mode" removes the "from-change" tag from the Supported header in a received initial INVITE request before forwarding the request. | | | |
| Precondition: The terminating user has subscribed to the TIR service in permanent mode | | | |
| SIP messages: INVITE1 Supported: "from-change" INVITE2 Supported without "from-change" | | | |
| Comments: | | | |
| Test equipment | AS | Test equipment | |
| INVITE1 with "from-change" tag | → | → INVITE2 without "from-change" tag | |

| | | | |
|---|---------------------------------|--|---|
| TSS Signalling/DestAS | TP TIP_N02_006 | TIP/TIR reference 4.5.2.9 | Selection expression PICS 4.5.1/2 AND PICS 4.7.1/8 |
| Test purpose: <i>The terminating user is not subscribed to the "no screening" special arrangement From header value does not match.</i> | | | |
| Ensure that, if the IUT attempt to match the information in the From header with the set of registered public user identities for the served user and if no match is found, the AS changes the value of the From header in the UPDATE to the public user identity of the served user if the terminating user is not subscribed to the "no screening" special arrangement. | | | |
| SIP messages: INVITE: Supported: from-change UPDATE1: From <connected user identity> UPDATE2: From <public user identity> | | | |
| Precondition: Terminating user is not subscribed to the "no screening" special arrangement | | | |
| Comments: | | | |
| Test equipment | AS | Test equipment | |
| INVITE | → | → | INVITE |
| 180 Ringing | ← | ← | 180 Ringing |
| 200 OK INVITE | ← | ← | 200 OK INVITE |
| ACK | → | → | ACK |
| UPDATE2 | ← | ← | UPDATE1 |
| 200 OK UPDATE | → | → | 200 OK UPDATE |

| | | | |
|--|---------------------------------|--|---|
| TSS Signalling/DestAS | TP TIP_N02_007 | TIP/TIR reference 4.5.2.9 | Selection expression PICS 4.5.1/2 AND PICS 4.7.1/8 |
| Test purpose: <i>The terminating user is not subscribed to the "no screening" special arrangement From header value matches.</i> | | | |
| Ensure that, if the IUT attempt to match the information in the From header with the set of registered public user identities for the served user and if a match is found, the AS passes the value of the From header in the UPDATE if the terminating user is not subscribed to the "no screening" special arrangement. | | | |
| SIP messages: INVITE: Supported: from-change 18x/200: Supported: from-change UPDATE1: From <public user identity> UPDATE2: From <public user identity> | | | |
| Precondition: Terminating user is not subscribed to the "no screening" special arrangement | | | |
| Comments: | | | |
| Test equipment | AS | Test equipment | |
| INVITE | → | → | INVITE |
| 180 Ringing | ← | ← | 180 Ringing |
| 200 OK INVITE | ← | ← | 200 OK INVITE |
| ACK | → | → | ACK |
| UPDATE2 | ← | ← | UPDATE1 |
| 200 OK UPDATE | → | → | 200 OK UPDATE |

| | | | |
|--|--------------------------|-------------------------------------|---|
| TSS Signalling/DestAS | TP TIP_N02_008 | TIP/TIR reference 4.5.2.9 | Selection expression PICS 4.5.1/2 AND PICS 4.7.1/8 |
| Test purpose: <i>The terminating user is subscribed to the "no screening" special arrangement.</i> Ensure that, if the IUT passes the information in the From header in the UPDATE request if the terminating user is subscribed to the "no screening" special arrangement. | | | |
| SIP messages: INVITE: Supported: from-change 18x/200: Supported: from-change UPDATE1: From <connected user identity> UPDATE2: From <connected user identity> | | | |
| Precondition: Terminating user is subscribed to the "no screening" special arrangement | | | |
| Comments: | | | |
| Test equipment | AS | | Test equipment |
| INVITE | → | | → INVITE |
| 180 Ringing | ← | | ← 180 Ringing |
| 200 OK INVITE | ← | | ← 200 OK INVITE |
| ACK | → | | → ACK |
| UPDATE2 | ← | | ← UPDATE1 |
| 200 OK UPDATE | → | | → 200 OK UPDATE |

5.3.4 Actions at the terminating UE

| | | | |
|--|--------------------------|--------------------------------------|---|
| TSS User/TermUserE | TP TIP_U02_001 | TIP/TIR reference 4.5.2.12 | Selection expression PICS 4.5.1/1 AND PICS 4.6.1/1 |
| Test purpose: <i>The Terminating UE supports the "from-change" tag in the Supported header.</i> Ensure that the Terminating UE supports the "from-change" tag in the Supported header. If the UE receives a "from-change" tag in a Supported header in an initial INVITE, the UE sends the "from-change" tag in the Supported header in any provisional or final response message (e.g. 180, 183, 200). | | | |
| SIP messages: INVITE: Supported: from-change SIP_MESSAGE_VA: Supported: from-change | | | |
| Comments: | | | |
| Test equipment | | | User equipment |
| INVITE with "from-change" tag | → | | |
| SIP_MESSAGE_VA | ← | | |

| | | | |
|--|--------------------------|--------------------------------------|---|
| TSS User/TermUserE | TP TIP_U02_002 | TIP/TIR reference 4.5.2.12 | Selection expression PICS 4.5.1/1 AND PICS 4.6.1/2 |
| Test purpose: <i>The Terminating UE sends an UPDATE request with an updated From and To header.</i> Ensure that the Terminating UE supports the "from-change" tag in the Supported header. If the UE receives a "from-change" tag in a Supported header in an initial INVITE, the user equipment sends an UPDATE request after the ACK for the 200 OK INVITE was received containing a connected identity in the From header. | | | |
| SIP messages: INVITE: Supported: from-change 180/200: Supported: from-change UPDATE: From <identity user equipment> | | | |
| Comments: | | | |
| Test equipment | | | User equipment |
| INVITE with "from-change" tag | → | | |
| 180 Ringing | ← | | |
| 200 OK INVITE | ← | | |
| ACK | → | | |
| UPDATE with updated From and To header | ← | | |
| 200 OK UPDATE | → | | |

| | | | |
|--|--------------------------|--------------------------------------|---|
| TSS User/TermUserE | TP TIP_U02_003 | TIP/TIR reference 4.5.2.12 | Selection expression PICS 4.5.1/1 |
| Test purpose: <i>The Terminating UE overrides a default "Presentation not restricted" by sending Privacy "id".</i> Ensure that the Terminating UE having subscribed to TIR temporary mode, default value "presentation not restricted", to override the default TIR setting, sends a Privacy header with value "id" in any non 100 response message (e.g. 180, 183, 200). | | | |
| SIP messages: SIP_MESSAGE_VA: Privacy: "id" | | | |
| Comments: | | | |
| Test equipment | | | User equipment |
| INVITE | → | | |
| SIP_MESSAGE_VA | ← | | |

| | | | |
|--|--------------------------|--------------------------------------|---|
| TSS User/TermUserE | TP TIP_U02_004 | TIP/TIR reference 4.5.2.12 | Selection expression PICS 4.5.1/1 |
| Test purpose: <i>The Terminating UE overrides a default "Presentation restricted" by sending Privacy "none".</i> Ensure that the Terminating UE having subscribed to TIR temporary mode, default value "presentation restricted", to override the default TIR setting, sends a Privacy header with value "none" in any non 100 response message (e.g. 180, 183, 200). | | | |
| SIP messages: SIP_MESSAGE_VA: Privacy: "none" | | | |
| Comments: | | | |
| Test equipment | | | User equipment |
| INVITE | → | | |
| SIP_MESSAGE_VA | ← | | |

Values for tests purposes TIP_U02_001 and TIP_U02_003 to TIP_U02_004

| | |
|-------|----------------------|
| VA_01 | 180 Ringing |
| VA_02 | 183 Session progress |
| VA_03 | 200 OK |

5.4 Interaction with other services

5.4.1 Communication diversion services

| | | | |
|--|--------------------------|-----------------------------------|--|
| TSS Interaction/CDIV | TP TIP_N03_001 | TIP/TIR reference 4.6.7 | Selection expression PICS 4.5.1/2 AND PICS 4.7.1/1 AND PICS 4.7.1/9 AND PICS 4.7.1/10 |
| Test purpose: Ensure that if the served (diverting) user of the communication diversion service selects the option that the originating user is notified of diversion with the diverted-to address and the diverted-to user has subscribed to the TIR service in permanent mode and the originating user has subscribed to the TIP service, no P-Asserted-Identity header including the URI of the diverted-to user and no history-entry identifying the diverted-to user is sent within the SIP_MESSAGE_VA response to the originating user. The History-Info Header entry identifying the diverted-to user is removed from the History -Info header. | | | |
| Precondition: Test equipment (Diverting user) activates Communication diversion unconditional with option "originating user is notified of diversion with the diverted-to address". | | | |
| SIP messages: 181: History-Info diverted-to URI not present SIP_MESSAGE_VA 2 History-Info diverted-to URI not present Privacy: id | | | |
| Comments: | | | |
| Test equipment (Originating user) | SUT | | Test equipment (Diverted-to user) |
| INVITE | → | | → INVITE |
| 181 Call is being forwarded | ← | | |
| History-Info header without URI of the diverted-to user | | | |
| SIP_MESSAGE_VA 2 without P-Asserted-Identity | ← | | ← SIP_MESSAGE_VA 1 |

| | | | |
|--|--------------------------|-----------------------------------|--|
| TSS Interaction/CDIV | TP TIP_N03_002 | TIP/TIR reference 4.6.7 | Selection expression PICS 4.5.1/2 AND PICS 4.7.1/1 AND PICS 4.7.1/9 AND PICS 4.7.1/10 |
| Test purpose: Ensure that if the served (diverting) user of the communication diversion service selects the option that the originating user is notified of diversion with the diverted-to address and the diverted-to user has subscribed to the TIR service in temporary mode default "presentation restricted" and the originating user has subscribed to the TIP service, when the diverted-to user has send no Privacy header within the SIP_MESSAGE_VA response, no P-Asserted-Identity header including the URI of the diverted-to user is sent within the SIP_MESSAGE_VA response to the originating user. The History-Info Header entry identifying the diverted-to user is removed from the History-Info header. | | | |
| Precondition: Test equipment (Diverting user) activates Communication diversion unconditional with option "originating user is notified of diversion with the diverted-to address". | | | |
| SIP messages: 181: History-Info diverted-to URI not present SIP_MESSAGE_VA 2 History-Info diverted-to URI not present Privacy: id | | | |
| Comments: | | | |
| Test equipment (Originating user) | SUT | | Test equipment (Diverted-to user) |
| INVITE | → | | → INVITE |
| 181 Call is being forwarded | ← | | |
| History-Info header without URI of the diverted-to user | | | |
| SIP_MESSAGE_VA 2 without P-Asserted-Identity | ← | | ← SIP_MESSAGE_VA 1 |

| | | | |
|--|--------------------------|--|--|
| TSS Interaction/CDIV | TP TIP_N03_003 | TIP/TIR reference 4.6.7 | Selection expression PICS 4.5.1/2 AND PICS 4.7.1/1 AND PICS 4.7.1/9 AND PICS 4.7.1/10 |
| Test purpose: Ensure that if the served (diverting) user of the communication diversion service selects the option that the originating user is notified of diversion with the diverted-to address and the diverted-to user has subscribed to the TIR service in temporary mode default "presentation not restricted" and the originating user has subscribed to the TIP service, when the diverted-to user has send a Privacy header with value "id" within the SIP_MESSAGE_VA response, no P-Asserted-Identity header including the URI of the diverted-to user is sent within the SIP_MESSAGE_VA response to the originating user. The History-Info Header entry identifying the diverted-to user is removed from the History-Info header. | | | |
| Precondition: Test equipment (Diverting user) activates Communication diversion unconditional with option "originating user is notified of diversion with the diverted-to address". | | | |
| SIP messages: 181: History-Info diverted-to URI not present SIP_MESSAGE_VA 1 Privacy: id SIP_MESSAGE_VA 2 History-Info diverted-to URI not present Privacy: id | | | |
| Comments: | | | |
| Test equipment (Originating user) | SUT | Test equipment (Diverted-to user) | |
| INVITE | → | → | INVITE |
| 181 Call is being forwarded | ← | | |
| History-Info header without URI of the diverted-to user | | | |
| SIP_MESSAGE_VA 2 | ← | ← | SIP_MESSAGE_VA 1 |
| without P-Asserted-Identity | | | with Privacy "id" |

| Values for tests purposes TIP_N03_001 to TIP_N03_003 | |
|--|----------------------|
| VA_01 | 180 Ringing |
| VA_02 | 183 Session progress |
| VA_03 | 200 OK |

History

| Document history | | |
|-------------------------|--------------|-------------|
| V5.1.1 | October 2012 | Publication |
| V6.1.1 | January 2018 | Publication |
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