

ETSI TS 186 018-2 V1.0.0 (2008-06)

Technical Specification

Telecommunications and Internet converged Services and Protocols for Advanced Networking (TISPAN); PSTN/ISDN simulation services; Malicious Communication Identification (MCID); Part 2: Test Suite Structure and Test Purposes (TSS&TP)

iTeh STANDARD PREVIEW
(standards.iteh.ai)

Full standard:
<https://standards.iteh.ai/catalog/standards/sist/16543c5c-6a11-489c-952d-5134f9d4ca98/etsi-ts-186-018-2-v1.0.0-2008-06>



ReferenceDTS/TISPAN-06042-2-NGN

KeywordsIMS, MCID, testing, TSS&TP

ETSI

650 Route des Lucioles
F-06921 Sophia Antipolis Cedex - FRANCE

Tel.: +33 4 92 94 42 00 Fax: +33 4 93 65 47 16

Siret N° 348 623 562 00017 - NAF 742 C
Association à but non lucratif enregistrée à la
Sous-Préfecture de Grasse (06) N° 7803/88

Important notice

Individual copies of the present document can be downloaded from:

<http://www.etsi.org>

The present document may be made available in more than one electronic version or in print. In any case of existing or perceived difference in contents between such versions, the reference version is the Portable Document Format (PDF). In case of dispute, the reference shall be the printing on ETSI printers of the PDF version kept on a specific network drive within ETSI Secretariat.

Users of the present document should be aware that the document may be subject to revision or change of status. Information on the current status of this and other ETSI documents is available at

<http://portal.etsi.org/tb/status/status.asp>

If you find errors in the present document, please send your comment to one of the following services:

http://portal.etsi.org/chaicor/ETSI_support.asp

Copyright Notification

No part may be reproduced except as authorized by written permission.
The copyright and the foregoing restriction extend to reproduction in all media.

© European Telecommunications Standards Institute 2008.
All rights reserved.

DECT™, PLUGTESTS™, UMTS™, TIPHON™, the TIPHON logo and the ETSI logo are Trade Marks of ETSI registered for the benefit of its Members.

3GPP™ is a Trade Mark of ETSI registered for the benefit of its Members and of the 3GPP Organizational Partners.

Contents

Intellectual Property Rights	4
Foreword.....	4
1 Scope	5
2 References	5
2.1 Normative references	5
2.2 Informative references.....	6
3 Definitions and abbreviations.....	6
3.1 Definitions.....	6
3.2 Abbreviations	6
4 Test Suite Structure (TSS).....	7
5 Test Purposes (TP)	7
5.1 Introduction	7
5.1.1 TP naming convention	7
5.1.2 Test strategy.....	7
5.2 TPs for Malicious Communication Identification (MCID)	8
5.2.1 Actions at the terminating S-CSCF.....	8
5.2.2 Actions at the AS of the terminating user.....	9
5.2.3 Actions at the destination UE	13
5.3 Interaction with other services.....	13
5.3.1 Communication Diversion Services (CDIV)	13
5.4 Test purposes for the ISUP/SIP Interworking	14
5.4.1 Interworking at the I-MGCF	14
5.4.2 Interworking at the O-MGCF	15
History	18

Intellectual Property Rights

IPRs essential or potentially essential to the present document may have been declared to ETSI. The information pertaining to these essential IPRs, if any, is publicly available for **ETSI members and non-members**, and can be found in ETSI SR 000 314: "*Intellectual Property Rights (IPRs); Essential, or potentially Essential, IPRs notified to ETSI in respect of ETSI standards*", which is available from the ETSI Secretariat. Latest updates are available on the ETSI Web server (<http://webapp.etsi.org/IPR/home.asp>).

Pursuant to the ETSI IPR Policy, no investigation, including IPR searches, has been carried out by ETSI. No guarantee can be given as to the existence of other IPRs not referenced in ETSI SR 000 314 (or the updates on the ETSI Web server) which are, or may be, or may become, essential to the present document.

Foreword

This Technical Specification (TS) has been produced by ETSI Technical Committee Telecommunications and Internet converged Services and Protocols for Advanced Networking (TISPAN).

The present document is part 2 of a multi-part deliverable covering the Malicious Communication Identification (MCID) service, related to PSTN/ISDN simulation services, as identified below:

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

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

ETSI STANDARD PREVIEW
(standards.iteh.ai)
Full standard:
<https://standards.iteh.ai/catalog/standards/sist/16543c5c-6a11-489c-952d-5134f9d4ca98/etsi-ts-186-018-2-v1.0.0-2008-06>

1 Scope

The present document specifies the test suite structure and test purposes of the Malicious Communication Identification (MCID) service based on the stage three of IMS MCID simulation service. Within the Next Generation Network (NGN) the stage 3 description is specified using the IP-Multimedia Call Control Protocol based on Session Initiation Protocol (SIP) and Session Description Protocol (SDP). The MCID service will store session related information independent of the service requested.

2 References

References are either specific (identified by date of publication and/or edition number or version number) or non-specific.

- For a specific reference, subsequent revisions do not apply.
- Non-specific reference may be made only to a complete document or a part thereof and only in the following cases:
 - if it is accepted that it will be possible to use all future changes of the referenced document for the purposes of the referring document;
 - for informative references.

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

For online referenced documents, information sufficient to identify and locate the source shall be provided. Preferably, the primary source of the referenced document should be cited, in order to ensure traceability. Furthermore, the reference should, as far as possible, remain valid for the expected life of the document. The reference shall include the method of access to the referenced document and the full network address, with the same punctuation and use of upper case and lower case letters.

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 indispensable for the application of the present document. For dated references, only the edition cited applies. For non-specific references, the latest edition of the referenced document (including any amendments) applies.

- [1] ETSI TS 183 016: "Telecommunications and Internet converged Services and Protocols for Advanced Networking (TISPAN); PSTN/ISDN simulation services; Malicious Communication Identification (MCID); Protocol Specification".
- [2] ETSI TS 186 018-1: "Telecommunications and Internet converged Services and Protocols for Advanced Networking (TISPAN); PSTN/ISDN simulation services; Malicious Communication Identification (MCID); Part 1: Protocol Implementation Conformance Statement (PICS)".
- [3] ETSI TS 181 002: "Telecommunications and Internet converged Services and Protocols for Advanced Networking (TISPAN); Multimedia Telephony with PSTN/ISDN simulation services".
- [4] ETSI TS 181 006: "Telecommunications and Internet converged Services and Protocols for Advanced Networking (TISPAN); Direct Communication Service in NGN; Service Description [Endorsement of OMA-ERELED-PoC-V1]".
- [5] ETSI TR 180 000: "Telecommunications and Internet converged Services and Protocols for Advanced Networking (TISPAN); NGN Terminology".

- [6] ETSI ES 283 027: "Telecommunications and Internet converged Services and Protocols for Advanced Networking (TISPAN); Endorsement of the SIP-ISUP Interworking between the IP Multimedia (IM) Core Network (CN) subsystem and Circuit Switched (CS) networks [3GPP TS 29.163 (Release 7), modified]".

2.2 Informative references

The following referenced documents are not essential to the use of the present document but they assist the user with regard to a particular subject area. For non-specific references, the latest version of the referenced document (including any amendments) applies.

- [i.1] IETF RFC 3966: "The tel URI for Telephone Numbers".
- [i.2] IETF RFC 3986: "Uniform Resource Identifier (URI): Generic Syntax".

3 Definitions and abbreviations

3.1 Definitions

For the purposes of the present document, the terms and definitions given in TS 181 002 [3], TS 181 006 [4], TR 180 000 [5] and the following apply:

communication information: information collected and registered by the MCID service

identity information: includes all the information (RFC 3966 [i.1] // RFC 3986 [i.2]) identifying a user, including trusted (network generated) and/or untrusted (user generated) identities

trusted identity: network generated user address information

untrusted identity: user generated user address information

NOTE: This may contain additional information.

3.2 Abbreviations

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

ACM	Address Complete Message
ANM	Answer Message
AS	Application Server
CDIV	Communication DIVersion services
HOLD	communication HOLD
IAM	Initial Address Message
IDR	Identification Request message
IM	IP Multimedia
IMS	IP Multimedia Subsystem
IP	Internet Protocol
IRS	Identification Response message
ISDN	Integrated Service Digital Network
MCID	Malicious Call Identification
MGCF	Media Gateway Control Function
NGN	Next Generation Network
PSTN	Public Switched Telephone Network
REL	Release message
RLC	Release Complete message
S-CSCF	Service - Call Session Control Function
SDP	Session Description Protocol
SIP	Session Initiation Protocol

TP	Test Purposes
TSS	Test Suite Structure
UE	User Equipment
URI	Uniform Resource Identifier

4 Test Suite Structure (TSS)

MCID	terminating_S-CSCF		MCID_N01_xxx
	terminating_AS		MCID_N02_xxx
	destination_UE		MCID_U01_xxx
SIP-ISUP			
	SS	MCID	TP507xxx
ISUP-SIP			
	SS	MCID	TP614xxx

5 Test Purposes (TP)

5.1 Introduction

For each test requirement a TP is defined.

5.1.1 TP naming convention

Ts 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 1).

Table 1: TP identifier naming convention scheme

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

5.1.2 Test strategy

As the base standard TS 183 016 [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 TS 186 018-1 [2]. The criteria applied include the following:

- whether or not a test case can be built from the TP is not considered.

5.2 TPs for Malicious Communication Identification (MCID)

5.2.1 Actions at the terminating S-CSCF

TSS	TP	SUB reference	Selection expression
MCID/terminating_S-CSCF	MCID_N01_001	clause 4.5.2	PICS 1/3
Test purpose <i>Called user has permanent MCID subscription</i> Ensure that the S-CSCF forwards the INVITE request to the AS if the called subscriber has a permanent MCID subscription.			
Preconditions:			
SIP header values:			
Comments:			
UA C	SUT	UA S	
INVITE	→	→	INVITE
100 Trying	←	←	100 Trying
180 Ringing	←	←	180 Ringing
200 OK INVITE	←	←	200 OK INVITE
ACK	→	→	ACK
	Communication		
BYE	→	→	BYE
200 OK BYE	←	←	200 OK BYE

TSS	TP	SUB reference	Selection expression
MCID/terminating_S-CSCF	MCID_N01_002	clause 4.5.2	PICS 1/4
Test purpose <i>Called user has case by case MCID subscription</i> Ensure that the S-CSCF forwards the INVITE request to the AS if the called subscriber has a case by case MCID subscription.			
Preconditions:			
SIP header values: reINVITE without session modification			
Comments:			
UA C	SUT	UA S	
INVITE	→	→	INVITE
100 Trying	←	←	100 Trying
180 Ringing	←	←	180 Ringing
200 OK INVITE	←	←	200 OK INVITE
ACK	→	→	ACK
	Communication		
		←	INVITE
		→	200 OK INVITE
		←	ACK
	Store the session related information		
BYE	→	→	BYE
200 OK BYE	←	←	200 OK BYE

TSS	TP	SUB reference	Selection expression																																							
MCID/terminating_S-CSCF	MCID_N01_003	clause 4.5.2	PICS 1/4 AND PICS 1/5																																							
Test purpose <i>Called user has permanent MCID subscription</i> Ensure that the S-CSCF forwards the INVITE request to the AS if the called subscriber has a case by case MCID subscription. A XML MIME body is received indicating MCID request.																																										
Preconditions:																																										
SIP header values: reINVITE without session modification XML mcid McidRequestIndicator = '1'																																										
Comments: <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;">UA C</th> <th style="text-align: center;">SUT</th> <th style="text-align: right;">UA S</th> </tr> </thead> <tbody> <tr> <td>INVITE</td> <td style="text-align: center;">→</td> <td>INVITE</td> </tr> <tr> <td>100 Trying</td> <td style="text-align: center;">←</td> <td>100 Trying</td> </tr> <tr> <td>180 Ringing</td> <td style="text-align: center;">←</td> <td>180 Ringing</td> </tr> <tr> <td>200 OK INVITE</td> <td style="text-align: center;">←</td> <td>200 OK INVITE</td> </tr> <tr> <td>ACK</td> <td style="text-align: center;">→</td> <td>ACK</td> </tr> <tr> <td colspan="3" style="text-align: center;">Communication</td> </tr> <tr> <td></td> <td></td> <td style="text-align: right;">← INVITE</td> </tr> <tr> <td></td> <td></td> <td style="text-align: right;">→ 200 OK INVITE</td> </tr> <tr> <td></td> <td></td> <td style="text-align: right;">← ACK</td> </tr> <tr> <td colspan="3" style="text-align: center;">Store the session related information</td> </tr> <tr> <td>BYE</td> <td style="text-align: center;">→</td> <td>BYE</td> </tr> <tr> <td>200 OK BYE</td> <td style="text-align: center;">←</td> <td>200 OK BYE</td> </tr> </tbody> </table>				UA C	SUT	UA S	INVITE	→	INVITE	100 Trying	←	100 Trying	180 Ringing	←	180 Ringing	200 OK INVITE	←	200 OK INVITE	ACK	→	ACK	Communication					← INVITE			→ 200 OK INVITE			← ACK	Store the session related information			BYE	→	BYE	200 OK BYE	←	200 OK BYE
UA C	SUT	UA S																																								
INVITE	→	INVITE																																								
100 Trying	←	100 Trying																																								
180 Ringing	←	180 Ringing																																								
200 OK INVITE	←	200 OK INVITE																																								
ACK	→	ACK																																								
Communication																																										
		← INVITE																																								
		→ 200 OK INVITE																																								
		← ACK																																								
Store the session related information																																										
BYE	→	BYE																																								
200 OK BYE	←	200 OK BYE																																								

5.2.2 Actions at the AS of the terminating user

TSS	TP	SUB reference	Selection expression																																										
MCID/terminating_AS	MCID_N02_001	clause 4.5.2	PICS 1/9																																										
Test purpose <i>The AS requests identification information in an INFO request, if no identification was received in the initial INVITE.</i> Ensure that the AS sends an INFO request including a XML mcid request McidRequestIndicator set to 1 if the initial INVITE does not contain information of the originating party.																																													
Ensure that the received INFO contains the following headers: <ul style="list-style-type: none"> • Destination Party Identity Information included in the INVITE Request-URI; • Originating Party Identity Information included in the INFO body; • Local time and date of the invocation in the network serving the called user; • Call diversion information received in the History-Info header, if the History-Info header field is included in the request (escaped Reason); and • Contact header field. 																																													
Preconditions:																																													
SIP header values: INFO XML mcid request McidRequestIndicator = '1'																																													
Comments: <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;">UA C</th> <th style="text-align: center;">SUT</th> <th style="text-align: right;">UA S</th> </tr> </thead> <tbody> <tr> <td>INVITE</td> <td style="text-align: center;">→</td> <td></td> </tr> <tr> <td>100 Trying</td> <td style="text-align: center;">←</td> <td></td> </tr> <tr> <td>INFO (XML mcid request)</td> <td style="text-align: center;">←</td> <td></td> </tr> <tr> <td>200 OK INFO</td> <td style="text-align: center;">→</td> <td style="text-align: right;">→ INVITE</td> </tr> <tr> <td></td> <td></td> <td style="text-align: right;">← 100 Trying</td> </tr> <tr> <td>INFO (XML mcid response)</td> <td style="text-align: center;">→</td> <td></td> </tr> <tr> <td>200 OK INFO</td> <td style="text-align: center;">←</td> <td></td> </tr> <tr> <td>180 Ringing</td> <td style="text-align: center;">←</td> <td style="text-align: right;">← 180 Ringing</td> </tr> <tr> <td>200 OK INVITE</td> <td style="text-align: center;">←</td> <td style="text-align: right;">← 200 OK INVITE</td> </tr> <tr> <td>ACK</td> <td style="text-align: center;">→</td> <td style="text-align: right;">→ ACK</td> </tr> <tr> <td colspan="3" style="text-align: center;">Communication</td> </tr> <tr> <td>BYE</td> <td style="text-align: center;">→</td> <td style="text-align: right;">→ BYE</td> </tr> <tr> <td>200 OK BYE</td> <td style="text-align: center;">←</td> <td style="text-align: right;">← 200 OK BYE</td> </tr> </tbody> </table>				UA C	SUT	UA S	INVITE	→		100 Trying	←		INFO (XML mcid request)	←		200 OK INFO	→	→ INVITE			← 100 Trying	INFO (XML mcid response)	→		200 OK INFO	←		180 Ringing	←	← 180 Ringing	200 OK INVITE	←	← 200 OK INVITE	ACK	→	→ ACK	Communication			BYE	→	→ BYE	200 OK BYE	←	← 200 OK BYE
UA C	SUT	UA S																																											
INVITE	→																																												
100 Trying	←																																												
INFO (XML mcid request)	←																																												
200 OK INFO	→	→ INVITE																																											
		← 100 Trying																																											
INFO (XML mcid response)	→																																												
200 OK INFO	←																																												
180 Ringing	←	← 180 Ringing																																											
200 OK INVITE	←	← 200 OK INVITE																																											
ACK	→	→ ACK																																											
Communication																																													
BYE	→	→ BYE																																											
200 OK BYE	←	← 200 OK BYE																																											