



Technical Specification

**IMS Network Testing (INT);
Interworking between the IP Multimedia (IM)
Core Network (CN) subsystem and
Circuit Switched (CS) networks (Release 8);
Part 2: Test Suite Structure and
Test Purposes (TSS&TP)**

Reference

RTS/INT-00088-2

Keywords

ISUP, SIP, testing, TSS&TP

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Foreword

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

The present document is part 2 of a multi-part deliverable covering the Conformance Test Specification of the Interworking between the IP Multimedia (IM) Core Network (CN) subsystem and Circuit Switched (CS) networks (Release 8), as identified below:

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

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

1 Scope

The present document specifies the Test Suite Structure and Test Purposes for SIP-ISUP Interworking between the IP Multimedia (IM) Core Network (CN) subsystem and Circuit Switched (CS) networks based on TS 129 163 [1] (Release 8).

2 References

References are either specific (identified by date of publication and/or edition number or version number) or non-specific. For specific references, only the cited version applies. For non-specific references, the latest version of the referenced document (including any amendments) applies.

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

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

2.1 Normative references

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

- [1] ETSI TS 129 163: "Digital cellular telecommunications system (Phase 2+); Universal Mobile Telecommunications System (UMTS); LTE; Interworking between the IP Multimedia (IM) Core Network (CN) subsystem and Circuit Switched (CS) networks (3GPP TS 29.163 Release 8)".
- [2] ETSI TS 102 710-1: "IMS Network Testing (INT); Interworking between the IP Multimedia (IM) Core Network (CN) subsystem and Circuit Switched (CS) networks (Release 8); Part 1: Protocol Implementation Conformance Statement (PICS)".
- [3] ISO/IEC 9646-1: "Information technology - Open Systems Interconnection - Conformance testing methodology and framework - Part 1: General concepts".
- [4] Recommendation ITU-T T.38: "Procedures for real-time Group 3 facsimile communication over IP networks".
- [5] Recommendation ITU-T Q.850: "Usage of cause and location in the Digital Subscriber Signalling System No. 1 and the Signalling System No. 7 ISDN user part".

2.2 Informative references

The following referenced documents are not necessary for the application of the present document but they assist the user with regard to a particular subject area.

- [i.1] Recommendation ITU-T E.164: "The international public telecommunication numbering plan".

3 Definitions, symbols and abbreviations

3.1 Definitions

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

Implementation Under Test (IUT): Refer to ISO/IEC 9646-1 [3].

System Under Test (SUT): Refer to ISO/IEC 9646-1 [3].

Test Purpose (TP): Refer to ISO/IEC 9646-1 [3].

NOTE: This may contain additional information.

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:

ACM	Address Complete Message
IAM	Initial Address Message
IUT	Implementation Under Test
oBCI	optional Backward Call Indicator
oFCI	optional Forward Call Indicator
REL	RELease message
SUT	System Under Test
TP	Test Purpose

4 Test Suite Structure (TSS)

The Test Suite Structure is in close alignment with TS 129 163 [1].

SIP-ISUP			
	Basic call	Sending_of_IAM	TP_101_xxx
		Sending_of_COT	TP_102_xxx
		Sending_of_SAM	TP_103_xxx
		Sending_of_18x	TP_104_xxx
		Sending_of_200_OK	TP_105_xxx
		Sending_of_REL	TP_106_xxx
		Receipt_of_REL	TP_107_xxx
		Receipt_of_RSC-GRS-CGB	TP_108_xxx
		Receipt_of_REFERER	TP_109_xxx
		Autonomous_Release	TP_110_xxx

ISUP-SIP			
	Basic call	Sending_of_INVITE	TP_201_xxx
		Receipt_of_COT	TP_202_xxx
		Sending_of_ACM	TP_203_xxx
		Sending_of_CPG	TP_204_xxx
		Receipt_of_200_OK	TP_205_xxx
		Sending_of_ANM	TP_206_xxx
		Sending_of_CON	TP_207_xxx
		Receipt_of_4xx-5xx-6xx	TP_208_xxx
		Receipt_of_BYE	TP_209_xxx
		Receipt_of_REL	TP_210_xxx
		Receipt_of_RSC-GRS-CGB	TP_211_xxx
		Autonomous_Release	TP_212_xxx

PSTN-SS		
PSTN-SS/COL		TP_302_xxx
PSTN-SS/MCID		TP_303_xxx
PSTN-SS/SUB		TP_304_xxx
PSTN-SS/CDIV		TP_305_xxx
PSTN-SS/ECT		TP_306_xxx
PSTN-SS/CW		TP_307_xxx
PSTN-SS/HOLD		TP_308_xxx
PSTN-SS/CCBS		TP_309_xxx
PSTN-SS/CCNR		TP_310_xxx
PSTN-SS/TP		TP_311_xxx
PSTN-SS/CONF		TP_312_xxx
PSTN-SS/CUG		TP_313_xxx
PSTN-SS/MLPP		TP_314_xxx
PSTN-SS/GVNS		TP_315_xxx
PSTN-SS/REV		TP_316_xxx
PSTN-SS/UUS		TP_317_xxx
PSTN-SS/ACR		TP_318_xxx

IMS-SS		
IMS-SS/OIP-OIR		TP_401_xxx
IMS-SS/TIP-TIR		TP_402_xxx
IMS-SS/CDIV		TP_403_xxx
PSTN-SS/CONF		TP_404_xxx
IMS-SS/MCID		TP_406_xxx
IMS-SS/CUG		TP_407_xxx
IMS-SS/CC		TP_408_xxx
IMS-SS/CW		TP_409_xxx

5 Test Purposes (TP)

5.1 Introduction

For each requirement in [1] a TP is defined.

5.1.1 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 5.1.1-1).

Table 5.1.1-1: TP identifier naming convention scheme

Identifier: TP_<group>_<nnn>		
<group>	= group	3 digit field representing group reference according to TSS
<nnn>	= TP number	3 digit sequential number (001 to 999)

5.1.2 Test strategy

As the base standard TS 129 163 [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 102 710-1 [2]. The criteria applied include the following:

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

5.1.3 Test purpose structure

The test purpose structure is according to the test suite structure (TSS). The Reference column in each Test Purpose refers to the basic specification [1] except stated explicitly.

6 Test purposes (TP)

6.1 SIP-ISUP protocol interworking

6.1.1 Incoming call interworking from SIP to ISUP at I-MGCF

6.1.1.1 Sending of IAM

TP number	TP_101_001	Reference	7.2.3.1.1
TSS reference	SIP-ISUP/Basic call/Sending_of_IAM/		
Selection criteria			
Test Purpose name	Sending of IAM		
Test Purpose	Ensure that on reception of a SIP INVITE requesting a session, the I-MGCF sends an IAM message		
ISUP Parameter values			
SIP Parameter values			
Comments			
Message flows	<pre> sequenceDiagram participant Mg participant MGCF participant ISUP Mg->>MGCF: INVITE MGCF->>ISUP: IAM MGCF-->>Mg: 100 Trying </pre> <p style="text-align: center;">Apply post test routine</p>		

TP number	TP_101_002	Reference	7.2.3.1.1
TSS reference	SIP-ISUP/Basic call/Sending_of_IAM/		
Selection criteria	PICS 6.1.1/1 AND PICS 6.2.1/1 AND PICS 6.2.1/2		
Test Purpose name	Preconditions support indicated in the Supported header COT procedure supported		
Test Purpose	Ensure that the Preconditions procedure is successful if the support of Precondition is indicated in the Supported header. The IAM is immediately sent. The Nature of connection indicator is set to 'continuity check performed on a previous circuit' or 'continuity check required'. After the UPDATE was received, a COT is sent		
ISUP Parameter values	IAM: Nature of connection indicator = 'continuity check performed on a previous circuit' or 'continuity check required' COT: Continuity indicator = 'Continuity check successful'		
SIP Parameter values	INVITE: Supported: precondition, 100rel SDP a=curr:qos local none a=curr:qos remote none a=des:qos mandatory local sendrcv a=des:qos none remote sendrcv 183: Require: 100rel SDP a=curr:qos local none a=curr:qos remote none a=des:qos mandatory local sendrcv a=des:qos mandatory remote sendrcv a=conf:qos remote sendrcv UPDATE: SDP a=curr:qos local sendrcv a=curr:qos remote none a=des:qos mandatory local sendrcv a=des:qos mandatory remote sendrcv 200 OK UPDATE SDP a=curr:qos local sendrcv a=curr:qos remote sendrcv a=des:qos mandatory local sendrcv a=des:qos mandatory remote sendrcv		
Comments			
Message flows	Mg INVITE → 100 Trying ← 183 Session Progress ← PRACK → 200 OK (PRACK) ← UPDATE → 200 OK (UPDATE) ←	MGCF → → → → → →	ISUP IAM COT Apply post test routine

TP number	TP_101_003	Reference	7.2.3.1.1
TSS reference	SIP-ISUP/Basic call/Sending_of_IAM/		
Selection criteria	PICS 6.1.1/1 AND PICS 6.2.1/1 AND NOT PICS 6.2.1/2		
Test Purpose name	Preconditions support indicated in the Supported header		
Test Purpose	Ensure that the Preconditions procedure is successful if the support of Precondition is indicated in the Supported header. The IAM is sent after the UPDATE was received. The Nature of connection indicator is set to 'continuity check is not required'		
ISUP Parameter values	IAM: Nature of connection indicator = 'continuity check is not required'		
SIP Parameter values	INVITE: Supported: precondition, 100rel SDP a=curr:qos local none a=curr:qos remote none a=des:qos mandatory local sendrcv a=des:qos none remote sendrcv 183: Require: 100rel SDP a=curr:qos local none a=curr:qos remote none a=des:qos mandatory local sendrcv a=des:qos mandatory remote sendrcv a=conf:qos remote sendrcv UPDATE: SDP a=curr:qos local sendrcv a=curr:qos remote none a=des:qos mandatory local sendrcv a=des:qos mandatory remote sendrcv 200 OK UPDATE SDP a=curr:qos local sendrcv a=curr:qos remote sendrcv a=des:qos mandatory local sendrcv a=des:qos mandatory remote sendrcv		
Comments			
Message flows	Mg	MGCF	ISUP
	INVITE	→	
	100 Trying	←	
	183 Session Progress	←	
	PRACK	→	
	200 OK (PRACK)	←	
	UPDATE	→	→ IAM
	200 OK (UPDATE)	←	
	Apply post test routine		

TP number	TP_101_004	Reference	7.2.3.1.1
TSS reference	SIP-ISUP/Basic call/Sending_of_IAM/		
Selection criteria	PICS 6.1.1/1 AND PICS 6.2.1/1 AND PICS 6.2.1/2		
Test Purpose name	Preconditions support indicated in the Require header		
Test Purpose	Ensure that the Preconditions procedure is successful if the support of Precondition is indicated in the Require header. The IAM is immediately sent. The Nature of connection indicator is set to 'continuity check performed on a previous circuit' or 'continuity check required'. After the UPDATE was received, a COT is sent		
ISUP Parameter values	IAM: Nature of connection indicator = 'continuity check performed on a previous circuit' or 'continuity check required' COT: Continuity indicator = 'Continuity check successful'		
SIP Parameter values	INVITE: Require: precondition, 100rel SDP a=curr:qos local none a=curr:qos remote none a=des:qos mandatory local sendrcv a=des:qos none remote sendrcv 183: Require: 100rel SDP a=curr:qos local none a=curr:qos remote none a=des:qos mandatory local sendrcv a=des:qos mandatory remote sendrcv a=conf:qos remote sendrcv UPDATE: SDP a=curr:qos local sendrcv a=curr:qos remote none a=des:qos mandatory local sendrcv a=des:qos mandatory remote sendrcv 200 OK UPDATE SDP a=curr:qos local sendrcv a=curr:qos remote sendrcv a=des:qos mandatory local sendrcv a=des:qos mandatory remote sendrcv		
Comments			
Message flows	Mg INVITE → 100 Trying ← 183 Session Progress ← PRACK → 200 OK (PRACK) ← UPDATE → 200 OK (UPDATE) ←	MGCF → → → → → → →	ISUP IAM COT Apply post test routine

TP number	TP_101_005	Reference	7.2.3.1.1
TSS reference	SIP-ISUP/Basic call/Sending_of_IAM/		
Selection criteria	PICS 6.1.1/1 AND PICS 6.2.1/1 AND PICS 6.2.1/2		
Test Purpose name	Preconditions support indicated in the Require header		
Test Purpose	Ensure that the Preconditions procedure is successful if the support of Precondition is indicated in the Require header. The IAM is sent after the UPDATE was received. The Nature of connection indicator is set to 'continuity check is not required'		
ISUP Parameter values	IAM: Nature of connection indicator = 'continuity check is not required'		
SIP Parameter values	INVITE: Require: precondition, 100rel SDP a=curr:qos local none a=curr:qos remote none a=des:qos mandatory local sendrecv a=des:qos none remote sendrecv 183: Require: 100rel SDP a=curr:qos local none a=curr:qos remote none a=des:qos mandatory local sendrecv a=des:qos mandatory remote sendrecv a=conf:qos remote sendrecv UPDATE: SDP a=curr:qos local sendrecv a=curr:qos remote none a=des:qos mandatory local sendrecv a=des:qos mandatory remote sendrecv 200 OK UPDATE SDP a=curr:qos local sendrecv a=curr:qos remote sendrecv a=des:qos mandatory local sendrecv a=des:qos mandatory remote sendrecv		
Comments			
Message flows	Mg	MGCF	ISUP
	INVITE	→	
	100 Trying	←	
	183 Session Progress	←	
	PRACK	→	
	200 OK (PRACK)	←	
	UPDATE	→	→ IAM
	200 OK (UPDATE)	←	
	Apply post test routine		

TP number	TP_101_006	Reference	7.3.3.1.1
TSS reference	SIP-ISUP/Basic call/Sending_of_IAM/		
Selection criteria	PICS 6.1.1/2 AND PICS 6.2.1/1 AND PICS 6.2.1/2		
Test Purpose name	Preconditions support indicated in the Supported header COT procedure supported		
Test Purpose	Ensure that the Preconditions procedure is successful if the support of Precondition is indicated in the Supported header. The IAM is immediately sent. The Nature of connection indicator is set to 'COT to be expected'. After the UPDATE was received, a COT is sent		
ISUP Parameter values	IAM: Nature of connection indicator = 'COT to be expected' COT: Continuity indicator = 'Continuity check successful'		
SIP Parameter values	INVITE: Supported: precondition, 100rel SDP a=curr:qos local none a=curr:qos remote none a=des:qos mandatory local sendrcv a=des:qos none remote sendrcv 183: Require: 100rel SDP a=curr:qos local none a=curr:qos remote none a=des:qos mandatory local sendrcv a=des:qos mandatory remote sendrcv a=conf:qos remote sendrcv UPDATE: SDP a=curr:qos local sendrcv a=curr:qos remote none a=des:qos mandatory local sendrcv a=des:qos mandatory remote sendrcv 200 OK UPDATE SDP a=curr:qos local sendrcv a=curr:qos remote sendrcv a=des:qos mandatory local sendrcv a=des:qos mandatory remote sendrcv		
Comments			
Message flows	Mg INVITE → 100 Trying ← 183 Session Progress ← PRACK → 200 OK (PRACK) ← UPDATE → 200 OK (UPDATE) ←	MGCF Apply post test routine	ISUP → IAM → COT

TP number	TP_101_007	Reference	7.3.3.1.1
TSS reference	SIP-ISUP/Basic call/Sending_of_IAM/		
Selection criteria	PICS 6.1.1/2 AND PICS 6.2.1/1 AND NOT PICS 6.2.1/2		
Test Purpose name	Preconditions support indicated in the Supported header		
Test Purpose	Ensure that the Preconditions procedure is successful if the support of Precondition is indicated in the Supported header. The IAM is sent after the UPDATE was received. The Nature of connection indicator is set to 'no COT to be expected'		
ISUP Parameter values	IAM: Nature of connection indicator = 'no COT to be expected'		
SIP Parameter values	INVITE: Supported: precondition, 100rel SDP a=curr:qos local none a=curr:qos remote none a=des:qos mandatory local sendrcv a=des:qos none remote sendrcv 183: Require: 100rel SDP a=curr:qos local none a=curr:qos remote none a=des:qos mandatory local sendrcv a=des:qos mandatory remote sendrcv a=conf:qos remote sendrcv UPDATE: SDP a=curr:qos local sendrcv a=curr:qos remote none a=des:qos mandatory local sendrcv a=des:qos mandatory remote sendrcv 200 OK UPDATE SDP a=curr:qos local sendrcv a=curr:qos remote sendrcv a=des:qos mandatory local sendrcv a=des:qos mandatory remote sendrcv		
Comments			
Message flows	Mg	MGCF	ISUP
	INVITE	→	
	100 Trying	←	
	183 Session Progress	←	
	PRACK	→	
	200 OK (PRACK)	←	
	UPDATE	→	→ IAM
	200 OK (UPDATE)	←	
	Apply post test routine		

TP number	TP_101_008	Reference	7.3.3.1.1
TSS reference	SIP-ISUP/Basic call/Sending_of_IAM/		
Selection criteria	PICS 6.1.1/2 AND PICS 6.2.1/1 AND PICS 6.2.1/2		
Test Purpose name	Preconditions support indicated in the Require header		
Test Purpose	Ensure that the Preconditions procedure is successful if the support of Precondition is indicated in the Require header. The IAM is immediately sent. The Nature of connection indicator is set to 'COT to be expected'. After the UPDATE was received, a COT is sent		
ISUP Parameter values	IAM: Nature of connection indicator = 'COT to be expected' COT: Continuity indicator = 'Continuity check successful'		
SIP Parameter values	INVITE: Require: precondition, 100rel SDP a=curr:qos local none a=curr:qos remote none a=des:qos mandatory local sendrecv a=des:qos none remote sendrecv 183: Require: 100rel SDP a=curr:qos local none a=curr:qos remote none a=des:qos mandatory local sendrecv a=des:qos mandatory remote sendrecv a=conf:qos remote sendrecv UPDATE: SDP a=curr:qos local sendrecv a=curr:qos remote none a=des:qos mandatory local sendrecv a=des:qos mandatory remote sendrecv 200 OK UPDATE SDP a=curr:qos local sendrecv a=curr:qos remote sendrecv a=des:qos mandatory local sendrecv a=des:qos mandatory remote sendrecv		
Comments			
Message flows	Mg INVITE → 100 Trying ← 183 Session Progress ← PRACK → 200 OK (PRACK) ← UPDATE → 200 OK (UPDATE) ←	MGCF 	ISUP → IAM → COT
	Apply post test routine		

TP number	TP_101_009	Reference	7.3.3.1.1
TSS reference	SIP-ISUP/Basic call/Sending_of_IAM/		
Selection criteria	PICS 6.1.1/2 AND PICS 6.2.1/1 AND PICS 6.2.1/2		
Test Purpose name	Preconditions support indicated in the Require header		
Test Purpose	Ensure that the Preconditions procedure is successful if the support of Precondition is indicated in the Require header. The IAM is sent after the UPDATE was received. The Nature of connection indicator is set to 'no COT to be expected'		
ISUP Parameter values	IAM: Nature of connection indicator = 'no COT to be expected'		
SIP Parameter values	INVITE: Require: precondition, 100rel SDP a=curr:qos local none a=curr:qos remote none a=des:qos mandatory local sendrcv a=des:qos none remote sendrcv 183: Require: 100rel SDP a=curr:qos local none a=curr:qos remote none a=des:qos mandatory local sendrcv a=des:qos mandatory remote sendrcv a=conf:qos remote sendrcv UPDATE: SDP a=curr:qos local sendrcv a=curr:qos remote none a=des:qos mandatory local sendrcv a=des:qos mandatory remote sendrcv 200 OK UPDATE SDP a=curr:qos local sendrcv a=curr:qos remote sendrcv a=des:qos mandatory local sendrcv a=des:qos mandatory remote sendrcv		
Comments			
Message flows	Mg	MGCF	ISUP
	INVITE	→	
	100 Trying	←	
	183 Session Progress	←	
	PRACK	→	
	200 OK (PRACK)	←	
	UPDATE	→	→ IAM
	200 OK (UPDATE)	←	
	Apply post test routine		

TP number	TP_101_010	Reference	7.2.3.1.1
TSS reference	SIP-ISUP/Basic call/Sending_of_IAM/		
Selection criteria			
Test Purpose name	Unsupported media type is rejected 488 is sent		
Test Purpose	Ensure that an unsupported media type is rejected a 488 Not Acceptable Here final response is sent to the calling user		
ISUP Parameter values			
SIP Parameter values	INVITE: SDP: m= video 4713 RTP/AVP 31		
Comments			
Message flows	Mg	MGCF	ISUP
	INVITE	→	
	488 Not Acceptable Here	←	
	ACK	→	

TP number	TP_101_011	Reference	7.2.3.1.1
TSS reference	SIP-ISUP/Basic call/Sending_of_IAM/		
Selection criteria			
Test Purpose name	Unsupported media type is rejected session successful		
Test Purpose	Ensure that an unsupported media type is rejected. The SUT sends in the SDP answer the port number '0' for the concerned media type		
ISUP Parameter values			
SIP Parameter values	INVITE: SDP: m=audio 4711 RTP/AVP 8 m= video 4713 RTP/AVP 31 180 Ringing or 183 Session Progress SDP: m=audio <appropriate Port #> RTP/AVP 8 m=video 0 RTP/AVP 31		
Comments			
Message flows	Mg	MGCF	ISUP
	INVITE →		→ IAM
	100 Trying ←		← ACM
	CASE A		
	180 Ringing ←		
	CASE B		
	183 Session Progress ←		
	Apply post test routine		

TP number	TP_101_012	Reference	7.2.3.1.1
TSS reference	SIP-ISUP/Basic call/Sending_of_IAM/		
Selection criteria			
Test Purpose name	Unsupported codec is deselected		
Test Purpose	Ensure that the SUT removes a codec from the codec list in the SDP answer if the codec is an unsupported codec		
ISUP Parameter values			
SIP Parameter values	INVITE: SDP: m=audio 4711 RTP/AVP <unsupported codec> 8 180 Ringing or 183 Session Progress SDP: m=audio <appropriate Port #> RTP/AVP 8		
Comments			
Message flows	Mg	MGCF	ISUP
	INVITE →		→ IAM
	100 Trying ←		← ACM
	CASE A		
	180 Ringing ←		
	CASE B		
	183 Session Progress ←		
	Apply post test routine		

TP number	TP_101_013	Reference	7.2.3.1.1
TSS reference	SIP-ISUP/Basic call/Sending_of_IAM/		
Selection criteria			
Test Purpose name	INVITE request without SDP offer received		
Test Purpose	Ensure that on receipt of an INVITE request without a SDP offer, the SUT sends a SDP offer in the first reliable non-failure message.		
ISUP Parameter values			
SIP Parameter values	INVITE: Supported: 100rel 180 Ringing or 183 Session Progress SDP: m=audio 4711 RTP/AVP 8		
Comments			
Message flows	Mg	MGCF	ISUP
	INVITE	→	IAM
	100 Trying	←	
			← ACM
	CASE A		
	180 Ringing	←	
	PRACK	→	
	200 OK PRACK	←	
	CASE B		
	183 Session Progress	←	
	PRACK	→	
	200 OK PRACK	←	
	Apply post test routine		

TP number	TP_101_014	Reference	7.2.3.1.1
TSS reference	SIP-ISUP/Basic call/Sending_of_IAM/		
Selection criteria			
Test Purpose name	To header tag is sent in the first provisional response		
Test Purpose	Ensure that a To header tag is contained in the first provisional response		
ISUP Parameter values			
SIP Parameter values	INVITE: To: <URI> 180 Ringing or 183 Session Progress: To: <URI>; <tag>		
Comments			
Message flows	Mg	MGCF	ISUP
	INVITE	→	IAM
	100 Trying	←	
			← ACM
	CASE A		
	180 Ringing	←	
	CASE B		
	183 Session Progress	←	
	Apply post test routine		

TP number	TP_101_015	Reference	7.2.3.1.2												
TSS reference	SIP-ISUP/Basic call/Sending_of_IAM/														
Selection criteria															
Test Purpose name	Coding of called party number														
Test Purpose	<p>Ensure that an IAM is sent after an INVITE request was received.</p> <ul style="list-style-type: none"> In case of the 'CC' of the received INVITE request URI is equal to the country code in which the next hop terminates: remove 'CC' from the user info and send the remaining part as digits in the called party number. The nature of address indicator is set to 'National (Significant) number' In case of the 'CC' of the received INVITE request URI is not equal to the country code in which the next hop terminates: send the unchanged part of the request URI without '+' as digits in the called party number. The nature of address indicator is set to 'International number' <p>The internal Network Number Indicator = 'routing to internal network number not allowed' Numbering Plan Indicator = 'ISDN (Telephony) numbering plan' (Recommendation ITU-T E.164 [i.1])</p>														
ISUP Parameter values															
SIP Parameter values															
Comments															
Message flows	<table style="width:100%; border:none;"> <tr> <td style="text-align:center;">Mg</td> <td style="text-align:center;">MGCF</td> <td style="text-align:center;">ISUP</td> </tr> <tr> <td>INVITE</td> <td style="text-align:center;">→</td> <td>IAM</td> </tr> <tr> <td>100 Trying</td> <td style="text-align:center;">←</td> <td></td> </tr> <tr> <td colspan="3" style="text-align:center;">Apply post test routine</td> </tr> </table>			Mg	MGCF	ISUP	INVITE	→	IAM	100 Trying	←		Apply post test routine		
Mg	MGCF	ISUP													
INVITE	→	IAM													
100 Trying	←														
Apply post test routine															

TP number	TP_101_016	Reference	7.2.3.1.2.1												
TSS reference	SIP-ISUP/Basic call/Sending_of_IAM/														
Selection criteria	PICS 6.2.1/21														
Test Purpose name	SendingCompleteIndication is mapped into a hex digit 'F' in the called party number														
Test Purpose	Ensure that on receipt of a PSTN XML SendingCompleteIndication element a hex digit 'F' is sent at last digit in the called party number														
ISUP Parameter values															
SIP Parameter values															
Comments															
Message flows	<table style="width:100%; border:none;"> <tr> <td style="text-align:center;">Mg</td> <td style="text-align:center;">MGCF</td> <td style="text-align:center;">ISUP</td> </tr> <tr> <td>INVITE</td> <td style="text-align:center;">→</td> <td>IAM</td> </tr> <tr> <td>100 Trying</td> <td style="text-align:center;">←</td> <td></td> </tr> <tr> <td colspan="3" style="text-align:center;">Apply post test routine</td> </tr> </table>			Mg	MGCF	ISUP	INVITE	→	IAM	100 Trying	←		Apply post test routine		
Mg	MGCF	ISUP													
INVITE	→	IAM													
100 Trying	←														
Apply post test routine															

TP number	TP_101_017	Reference	7.2.3.1.2.2												
TSS reference	SIP-ISUP/Basic call/Sending_of_IAM/														
Selection criteria	PICS 6.1.1/1														
Test Purpose name	Nature of connection indicator														
Test Purpose	<p>Ensure that an IAM is sent after an INVITE request was received.</p> <p>The nature of connection indicator is set</p> <p>Satellite indicator = 'no satellite circuit in the connection'</p> <p>Continuity check indicator = 'continuity check not required' or 'continuity check required' or 'continuity check performed on a previous circuit'</p> <p>Echo control device indicator</p> <ul style="list-style-type: none"> TMR audio 3,1 kHz or speech = outgoing echo control device included TMR 64 kBit/s or HLC 'Facsimile Group 2/3' = 'outgoing echo control device not included' 														
ISUP Parameter values															
SIP Parameter values															
Comments															
Message flows	<table style="width:100%; border:none;"> <tr> <td style="text-align:center;">Mg</td> <td style="text-align:center;">MGCF</td> <td style="text-align:center;">ISUP</td> </tr> <tr> <td>INVITE</td> <td style="text-align:center;">→</td> <td>IAM</td> </tr> <tr> <td>100 Trying</td> <td style="text-align:center;">←</td> <td></td> </tr> <tr> <td colspan="3" style="text-align:center;">Apply post test routine</td> </tr> </table>			Mg	MGCF	ISUP	INVITE	→	IAM	100 Trying	←		Apply post test routine		
Mg	MGCF	ISUP													
INVITE	→	IAM													
100 Trying	←														
Apply post test routine															

TP number	TP_101_018	Reference	7.2.3.1.2.2
TSS reference	SIP-ISUP/Basic call/Sending_of_IAM/		
Selection criteria	PICS 6.1.1/2		
Test Purpose name	Nature of connection indicator		
Test Purpose	Ensure that an IAM is sent after an INVITE request was received. The nature of connection indicator is set Satellite indicator = 'no satellite circuit in the connection' Continuity check indicator = 'no COT to be expected or 'COT to be expected' Echo control device indicator = outgoing echo control device included		
ISUP Parameter values			
SIP Parameter values			
Comments			
Message flows	<p style="text-align: center;">Mg</p> <p>INVITE →</p> <p>100 Trying ←</p>	<p style="text-align: center;">MGCF</p> <p style="text-align: center;">→</p>	<p style="text-align: center;">ISUP</p> <p>IAM</p> <p style="text-align: center;">←</p> <p style="text-align: center;">Apply post test routine</p>

TP number	TP_101_019	Reference	7.2.3.1.2.3
TSS reference	SIP-ISUP/Basic call/Sending_of_IAM/		
Selection criteria	NOT PICS 6.2.1/5		
Test Purpose name	Forward Call indicator		
Test Purpose	Ensure that an IAM is sent after an INVITE request was received. If no PSTN XML attachment is present and the receipt of TMR audio ,the Forward call indicator is coded as follows: <ul style="list-style-type: none"> • End-to-end method indicator = ('00') no end-to-end method available (only link-by-link method available) • Interworking indicator = ('1') interworking encountered • End-to-end information indicator = ('0') no end-to-end information available • ISDN user part/BICC indicator = ('0') ISDN user part/BICC not used all the way • ISDN user part/BICC preference indicator = ('01') ISDN user part/BICC not required all the way • ISDN access indicator = ('0') originating access non-ISDN • SCCP method indicator = ('00') no indication 		
ISUP Parameter values			
SIP Parameter values			
Comments			
Message flows	<p style="text-align: center;">Mg</p> <p>INVITE →</p> <p>100 Trying ←</p>	<p style="text-align: center;">MGCF</p> <p style="text-align: center;">→</p>	<p style="text-align: center;">ISUP</p> <p>IAM</p> <p style="text-align: center;">←</p> <p style="text-align: center;">Apply post test routine</p>

TP number	TP_101_020	Reference	7.2.3.1.2.3												
TSS reference	SIP-ISUP/Basic call/Sending_of_IAM/														
Selection criteria	NOT PICS 6.2.1/5 AND NOT PICS 6.2.1/6														
Test Purpose name	Forward Call indicator														
Test Purpose	<p>Ensure that an IAM is sent after an INVITE request was received. If no PSTN XML attachment is present and the receipt of TMR 64 kBit/s has no impact of the coding of the Forward call indicator. The Forward call indicator is coded as follows:</p> <ul style="list-style-type: none"> • End-to-end method indicator = ('00') no end-to-end method available (only link-by-link method available) • Interworking indicator = ('1') interworking encountered • End-to-end information indicator = ('0') no end-to-end information available • ISDN user part/BICC indicator = ('0') ISDN user part/BICC not used all the way • ISDN user part/BICC preference indicator = ('01') ISDN user part/BICC not required all the way • ISDN access indicator = ('0') originating access non-ISDN • SCCP method indicator = ('00') no indication 														
ISUP Parameter values															
SIP Parameter values															
Comments															
Message flows	<table style="width: 100%; border: none;"> <tr> <td style="text-align: center;">Mg</td> <td style="text-align: center;">MGCF</td> <td style="text-align: center;">ISUP</td> </tr> <tr> <td>INVITE</td> <td style="text-align: center;">→</td> <td>→ IAM</td> </tr> <tr> <td>100 Trying</td> <td style="text-align: center;">←</td> <td></td> </tr> <tr> <td colspan="3" style="text-align: center;">Apply post test routine</td> </tr> </table>			Mg	MGCF	ISUP	INVITE	→	→ IAM	100 Trying	←		Apply post test routine		
Mg	MGCF	ISUP													
INVITE	→	→ IAM													
100 Trying	←														
Apply post test routine															

TP number	TP_101_021	Reference	7.2.3.1.2.3												
TSS reference	SIP-ISUP/Basic call/Sending_of_IAM/														
Selection criteria	PICS 6.2.1/6														
Test Purpose name	Forward Call indicator														
Test Purpose	<p>Ensure that an IAM is sent after an INVITE request was received. If no PSTN XML attachment is present and the receipt of TMR 64 kBit/s has impact of the coding of the Forward call indicator, the Forward call indicator is coded as follows:</p> <ul style="list-style-type: none"> • End-to-end method indicator = ('00') no end-to-end method available (only link-by-link method available) • Interworking indicator = ('0') no interworking encountered • End-to-end information indicator = ('0') no end-to-end information available • ISDN user part/BICC indicator = ('1') ISDN user part/BICC used all the way • ISDN user part/BICC preference indicator = ('01') ISDN user part/BICC not required all the way • ISDN access indicator = ('1') originating access ISDN • SCCP method indicator = ('00') no indication 														
ISUP Parameter values															
SIP Parameter values															
Comments															
Message flows	<table style="width: 100%; border: none;"> <tr> <td style="text-align: center;">Mg</td> <td style="text-align: center;">MGCF</td> <td style="text-align: center;">ISUP</td> </tr> <tr> <td>INVITE</td> <td style="text-align: center;">→</td> <td>→ IAM</td> </tr> <tr> <td>100 Trying</td> <td style="text-align: center;">←</td> <td></td> </tr> <tr> <td colspan="3" style="text-align: center;">Apply post test routine</td> </tr> </table>			Mg	MGCF	ISUP	INVITE	→	→ IAM	100 Trying	←		Apply post test routine		
Mg	MGCF	ISUP													
INVITE	→	→ IAM													
100 Trying	←														
Apply post test routine															

TP number	TP_101_022	Reference	7.2.3.1.2.3, Table 02a												
TSS reference	SIP-ISUP/Basic call/Sending_of_IAM/														
Selection criteria	PICS 6.2.1/5														
Test Purpose name	Forward Call indicator														
Test Purpose	<p>Ensure that an IAM is sent after an INVITE request was received. If the PSTN XML attachment is present the ProgressIndicator value ProgressDescription = 6, the Forward call indicator is coded as follows:</p> <ul style="list-style-type: none"> • End-to-end method indicator = ('00') no end-to-end method available (only link-by-link method available) • End-to-end information indicator = ('0') no end-to-end information available • ISDN user part/BICC indicator = ('1') ISDN user part/BICC used all the way • ISDN user part/BICC preference indicator = ('01') ISDN user part/BICC not required all the way • ISDN access indicator = ('1') originating access ISDN • SCCP method indicator = ('00') no indication 														
ISUP Parameter values	IAM: Forward call indicator														
SIP Parameter values	INVITE: PSTM XML MIME body <?xml version="1.0" encoding="utf-8"?> PSTN ProgressIndicator ProgressOctet3 CodingStandard>00< Location>yyyy< ProgressOctet4 ProgressDescription>0000110<														
Comments															
Message flows	<table style="width: 100%; border: none;"> <tr> <td style="text-align: center;">Mg</td> <td style="text-align: center;">MGCF</td> <td style="text-align: center;">ISUP</td> </tr> <tr> <td>INVITE</td> <td style="text-align: center;">→</td> <td>IAM</td> </tr> <tr> <td>100 Trying</td> <td style="text-align: center;">←</td> <td></td> </tr> <tr> <td colspan="3" style="text-align: center;">Apply post test routine</td> </tr> </table>			Mg	MGCF	ISUP	INVITE	→	IAM	100 Trying	←		Apply post test routine		
Mg	MGCF	ISUP													
INVITE	→	IAM													
100 Trying	←														
Apply post test routine															

TP number	TP_101_023	Reference	7.2.3.1.2.4												
TSS reference	SIP-ISUP/Basic call/Sending_of_IAM/														
Selection criteria															
Test Purpose name	Mapping of calling party category														
Test Purpose	<p>Ensure that a cpc parameter SIP_CPC received in the P-Asserted-Identity URI parameter and the "language" in the Accept-Language SIP_LANG header is mapped into the calling party parameter category ISUP_CPC in the sent IAM. The mapping is described in table 6.1.1.1-1</p>														
ISUP Parameter values	IAM: Calling Party Category = ISUP_CPC														
SIP Parameter values	INVITE: P-Asserted-Identity = PARAM, Accept-Language = SIP_LANG														
Comments															
Message flows	<table style="width: 100%; border: none;"> <tr> <td style="text-align: center;">Mg</td> <td style="text-align: center;">MGCF</td> <td style="text-align: center;">ISUP</td> </tr> <tr> <td>INVITE</td> <td style="text-align: center;">→</td> <td>IAM</td> </tr> <tr> <td>100 Trying</td> <td style="text-align: center;">←</td> <td></td> </tr> <tr> <td colspan="3" style="text-align: center;">Apply post test routine</td> </tr> </table>			Mg	MGCF	ISUP	INVITE	→	IAM	100 Trying	←		Apply post test routine		
Mg	MGCF	ISUP													
INVITE	→	IAM													
100 Trying	←														
Apply post test routine															

Table 6.1.1.1-1: Coding of calling party category

Values for test purposes TP101032		
SIP_CPC		ISUP_CPC
cpc received in a P-Asserted-Identity PARAM	Accept-Language SIP_LANG	Sent Calling party's category
operator	fr	operator, language French
operator	en	operator, language English
operator	de	operator, language German
operator	ru	operator, language Russian
operator	es	operator, language Spanish
ordinary		ordinary calling subscriber
test		test call
payphone		payphone
cellular		mobile terminal located in the home PLMN
cellular-roaming		mobile terminal located in a visited PLMN
IEPS		IEPS call marking for preferential call set up

TP number	TP_101_024	Reference	7.2.3.1.2.5
TSS reference	SIP-ISUP/Basic call/Sending_of_IAM/		
Selection criteria			
Test Purpose name	Coding of TMR		
Test Purpose	Ensure that an IAM is sent after an INVITE request was received. The Transmission Medium Requirement parameter in the IAM is set according to the mapping described in table 6.1.1.1-2		
ISUP Parameter values	IAM: TMR		
SIP Parameter values	INVITE: SDP m line a attributes		
Comments			
Message flows	Mg	MGCF	ISUP
	INVITE 100 Trying	→ ←	→ IAM
	Apply post test routine		

Table 6.1.1.1-2: Coding of TMR

TMR_VA	m= line			a= line	TMR parameter
	<media>	<transport>	<fmt-list>	rtptime: <dynamic-PT> <encoding name> <clock rate> [<encoding parameters>]	TMR codes
VA_01	audio	RTP/AVP	0	N/A	"3,1 kHz audio"
VA_02	audio	RTP/AVP	Dynamic PT	rtptime: <dynamic-PT> PCMU/8000	"3,1 kHz audio"
VA_03	audio	RTP/AVP	8	N/A	"3,1 kHz audio"
VA_04	audio	RTP/AVP	Dynamic PT	rtptime: <dynamic-PT> PCMA/8000	"3,1 kHz audio"
VA_05	audio	RTP/AVP	Dynamic PT	rtptime: <dynamic-PT> CLEARMODE/8000	"64 kbit/s unrestricted"
VA_06	image	Udptl	t38	Based on ITU-T T.38 [4]	"3,1 kHz audio"
VA_07	image	tcptl	t38	Based on ITU-T T.38 [4]	"3,1 kHz audio"

TP number	TP_101_025	Reference	7.2.3.1.2.5
TSS reference	SIP-ISUP/Basic call/Sending_of_IAM/		
Selection criteria			
Test Purpose name	Coding of USI		
Test Purpose	Ensure that an IAM is sent after an INVITE request was received. The User service Information parameter in the IAM is set according the mapping described in table 6.1.1.1-3 if present.		
ISUP Parameter values	IAM: USI		
SIP Parameter values	INVITE: SDP m line a attributes		
Comments			
Message flows	Mg	MGCF	ISUP
	INVITE 100 Trying	→ ←	→ IAM
		Apply post test routine	

Table 6.1.1.1-3: Coding of USI

USI_VA	<media>	m= line		a= line	USI parameter	
		<transport>	<fmt-list>		Information Transport Capability	User Information Layer 1 Protocol Indicator
VA_01	audio	RTP/AVP	Dynamic PT	rtpmap:<dynamic-PT> CLEARMODE/8000	"Unrestricted digital information" or "Unrestricted digital inf. w/tones/ann"	
VA_02	image	Udptl	t38	Based on ITU-T T.38 [4]	"3,1 kHz audio"	
VA_03	image	tcptl	t38	Based on ITU-T T.38 [4]	"3,1 kHz audio"	

TP number	TP_101_026	Reference	7.2.3.1.2.5
TSS reference	SIP-ISUP/Basic call/Sending_of_IAM/		
Selection criteria			
Test Purpose name	Coding of HLC		
Test Purpose	Ensure that an IAM is sent after an INVITE request was received. The High Layer Compatibility parameter in the IAM is set according the mapping described in table 6.1.1.1-4		
ISUP Parameter values	IAM: HLC		
SIP Parameter values	INVITE: SDP m line a attributes		
Comments			
Message flows	Mg	MGCF	ISUP
	INVITE 100 Trying	→ ←	→ IAM
		Apply post test routine	

Table 6.1.1.1-4: Coding of HLC

HLC_VA	m= line			a= line	HLC parameter (optional) High Layer Characteristics Identification
	<media>	<transport>	<fmt-list>		
				rtpmap:<dynamic-PT> <encoding name> <clock rate>[<encoding parameters>]	
VA_01	image	Udptl	t38	Based on ITU-T T.38 [4]	"Facsimile Group 2/3"
VA_02	image	tcptl	t38	Based on ITU-T T.38 [4]	"Facsimile Group 2/3"

TP number	TP_101_028	Reference	7.2.3.1.2.5									
TSS reference	SIP-ISUP/Basic call/Sending_of_IAM/											
Selection criteria	PICS 6.2.1/5											
Test Purpose name	Mapping of PSTN XML LowLayerCompatibility											
Test Purpose	Ensure that on receipt of a PSTN XML attachment in an INVITE request containing a LowLayerCompatibility element, this information is mapped into a Low Layer Compatibility IE present in an ISUP Access Transport Parameter the Information Transfer Capability value is derived from the PSTN XMLInformationTransferCapability element											
ISUP Parameter values	IAM: ATP Low Layer Compatibility InformationTransferCapability=ITC_VA											
SIP Parameter values	INVITE: <?xml version="1.0" encoding="utf-8"?> PSTN LowLayerCompatibility> LLOctet3> CodingStandard>00< InformationTransferCapability>ITC_VA< LLOctet4> TransferMode>00< InformationTransferRate>10000<											
Comments												
Message flows	<table style="width:100%; border:none;"> <tr> <td style="text-align:center;">Mg</td> <td style="text-align:center;">MGCF</td> <td style="text-align:center;">ISUP</td> </tr> <tr> <td>INVITE</td> <td style="text-align:center;">→</td> <td>→ IAM</td> </tr> <tr> <td>100 Trying</td> <td style="text-align:center;">←</td> <td></td> </tr> </table> <p style="text-align:center;">Apply post test routine</p>			Mg	MGCF	ISUP	INVITE	→	→ IAM	100 Trying	←	
Mg	MGCF	ISUP										
INVITE	→	→ IAM										
100 Trying	←											

Table 6.1.1.1-6: Mapping of PSTN XML LowLayerCompatibility to ISUP ATP Low Layer Compatibility

ITC_value	XML LLC InformationTransferCapability	LLC Information transfer capability
ITC_VA_1	'00000'	Speech
ITC_VA_2	'10000'	3,1 kHz audio
ITC_VA_3	'01001'	Unrestricted digital info
ITC_VA_4	'10001'	7 kHz audio

TP number	TP_101_029	Reference	7.2.3.1.2.5									
TSS reference	SIP-ISUP/Basic call/Sending_of_IAM/											
Selection criteria	PICS 6.2.1/5											
Test Purpose name	Mapping of PSTN XML BearerCapability into TMR and USI											
Test Purpose	Ensure that on receipt of a PSTN XML attachment in an INVITE request containing a BearerCapability element, this information is mapped into a User Service Information Parameter the Information Transfer Capability value is derived from the PSTN XMLInformationTransferCapability element											
ISUP Parameter values	IAM: USI Information Transfer Capability=ITC_value											
SIP Parameter values	INVITE: <?xml version="1.0" encoding="utf-8"?> PSTN BearerCapability BCoet3> CodingStandard>00< InformationTransferCapability>ITC_value< BCoet4> TransferMode>00< InformationTransferRate>10000< BCoet5> Layer1Identification>01< UserInfoLayer1Protocol>00011<											
Comments												
Message flows	<table style="width:100%; border:none;"> <tr> <td style="text-align:center;">Mg</td> <td style="text-align:center;">MGCF</td> <td style="text-align:center;">ISUP</td> </tr> <tr> <td>INVITE</td> <td style="text-align:center;">→</td> <td>→ IAM</td> </tr> <tr> <td>100 Trying</td> <td style="text-align:center;">←</td> <td></td> </tr> </table> <p style="text-align:center;">Apply post test routine</p>			Mg	MGCF	ISUP	INVITE	→	→ IAM	100 Trying	←	
Mg	MGCF	ISUP										
INVITE	→	→ IAM										
100 Trying	←											

Table 6.1.1.1-7: Mapping of PSTN XML BearerCapability to ISUP User Service Information

ITC_value	XML InformationTransferCapability	USI Information transfer capability
ITC_VA_1	'00000'	Speech
ITC_VA_2	'10000'	3,1 kHz audio
ITC_VA_3	'01000'	unrestricted digital information

TP number	TP_101_030	Reference	7.2.3.1.2.5																
TSS reference	SIP-ISUP/Basic call/Sending_of_IAM/																		
Selection criteria	PICS 6.2.1/5AND PICS 6.2.1/7																		
Test Purpose name	Mapping of PSTN XML HighLayerCompatibility into User Teleservice Information parameter																		
Test Purpose	Ensure that on receipt of a PSTN XML attachment in an INVITE request containing a HighLayerCompatibility element, this information is mapped into a User Teleservice Information parameter the High Layer Characteristics value is derived from the PSTN XML HighLayerCharacteristics element																		
ISUP Parameter values	IAM: UTI High Layer Characteristics> HLC_value																		
SIP Parameter values	INVITE: PSTN XML MIME body <?xml version="1.0" encoding="utf-8"?> PSTN HighLayerCompatibility HLOctet3 CodingStandard>00< Interpretation>100< PresentationMethod>01< HLOctet4 HighLayerCharacteristics> HLC_value <																		
Comments																			
Message flows	<table style="width: 100%; border: none;"> <tr> <td style="text-align: center;">Mg</td> <td style="text-align: center;">MGCF</td> <td style="text-align: center;">IAM</td> <td style="text-align: center;">ISUP</td> </tr> <tr> <td>INVITE</td> <td style="text-align: center;">→</td> <td></td> <td></td> </tr> <tr> <td>100 Trying</td> <td style="text-align: center;">←</td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td style="text-align: center;">→</td> <td></td> </tr> </table> <p style="text-align: center;">Apply post test routine</p>			Mg	MGCF	IAM	ISUP	INVITE	→			100 Trying	←					→	
Mg	MGCF	IAM	ISUP																
INVITE	→																		
100 Trying	←																		
		→																	

Table 6.1.1.1-8: Mapping of PSTN XML HighLayerCharacteristic to ISUP User Teleservice Information

HLC_value	XML HighLayerCharacteristic	DSS1 High layer characteristics identification
HLC_VA_1	'0000001'	Telephony
HLC_VA_2	'0000100'	Facsimile Group 2/3
HLC_VA_3	'0100001'	Facsimile Group 4 Class I
HLC_VA_4	'0100100'	Facsimile service Group 4, Classes II and III
HLC_VA_5	'0110010'	Syntax based Videotex
HLC_VA_6	'0110011'	International Videotex interworking via gateways or interworking units
HLC_VA_7	'0110101'	Telex service
HLC_VA_8	'1000010'	FTAM application
HLC_VA_9	'1100000'	Videotelephony

TP number	TP_101_031	Reference	7.2.3.1.2.5a
TSS reference	SIP-ISUP/Basic call/Sending_of_IAM/		
Selection criteria	PICS 6.2.1/5		
Test Purpose name	Fall Back connection type is sent		
Test Purpose	<p>Ensure that on receipt of two BearerCapability elements in a INVITE PSTN XML MIME body:</p> <ul style="list-style-type: none"> • The first stated codec in the SDP m line is the equivalent to the second BearerCapability element, the BearerCapability element is mapped into the User Service prime (USI prime) parameter in the sent IAM, the TMR is set according the second PSTN XML InformationTransferCapability value • The second stated codec in the SDP m line is the equivalent to the first BearerCapability element, the BearerCapability element is mapped into the User Service Information (USI) parameter in the sent IAM, the TMR prime is set according the first PSTN XML InformationTransferCapability value 		
ISUP Parameter values	IAM: TMR = second InformationTransferCapability TMR prime = first InformationTransferCapability USI = first BearerCapability USI prime = second BearerCapability		
SIP Parameter values	INVITE: PSTN XML MIME body <?xml version="1.0" encoding="utf-8"?> PSTN BearerCapability BCoetct3 CodingStandard>00< InformationTransferCapability>00000< or InformationTransferCapability>10000< BearerCapability BCoetct3 CodingStandard>00< InformationTransferCapability>10001<		
Comments	SDP: m line contains as the first codec CLEARMODE and as the second codec a G.711 codec		
Message flows	Mg INVITE 100 Trying	→ ←	MGCF → IAM ISUP Apply post test routine

TP number	TP_101_032	Reference	7.2.3.1.2.5a												
TSS reference	SIP-ISUP/Basic call/Sending_of_IAM/														
Selection criteria	PICS 6.2.1/5														
Test Purpose name	Fall Back connection type is not sent														
Test Purpose	<p>Ensure that on receipt of two BearerCapability elements in a INVITE PSTN XML MIME body:</p> <ul style="list-style-type: none"> The first stated codec in the SDP m line is the equivalent to the second BearerCapability element, the BearerCapability element is mapped into the User Service prime (USI prime) parameter in the sent IAM, the TMR is set according the second PSTN XML InformationTransferCapability value The second stated codec in the SDP m line is the equivalent to the first BearerCapability element, the BearerCapability element is mapped into the User Service Information (USI) parameter in the sent IAM, the TMR prime is set according the first PSTN XML InformationTransferCapability value <p>Ensure that the IAM does not contain the Fallback connection type if the succeeding network does not support the Fallback connection type:</p> <ul style="list-style-type: none"> TMR = Speech or audio 3,1 kHz USI = Speech or audio 3,1 kHz A TMR prime parameter is not present A USI prime is not present 														
ISUP Parameter values	IAM: TMR = first InformationTransferCapability TMR prime = is not present USI = speech or audio 3,1 kHz USI prime = is not present														
SIP Parameter values	INVITE: PSTN XML MIME body <?xml version="1.0" encoding="utf-8"?> PSTN BearerCapability BCoctet3 CodingStandard>00< InformationTransferCapability>00000< or InformationTransferCapability>10000< BearerCapability BCoctet3 CodingStandard>00< InformationTransferCapability>10001< SDP: m=audio <proper port number> RTP/AVP CLEARMODE 8 ...														
Comments	SDP: m line contains as the first codec CLEARMODE and as the second codec a G.711 codec Configuration: the succeeding network does not support the Fall back connection type														
Message flows	<table style="width: 100%; border: none;"> <tr> <td style="text-align: center;">Mg</td> <td style="text-align: center;">MGCF</td> <td style="text-align: center;">IAM</td> <td style="text-align: center;">ISUP</td> </tr> <tr> <td>INVITE</td> <td style="text-align: center;">→</td> <td>→</td> <td></td> </tr> <tr> <td>100 Trying</td> <td style="text-align: center;">←</td> <td></td> <td></td> </tr> </table> <p style="text-align: center;">Apply post test routine</p>			Mg	MGCF	IAM	ISUP	INVITE	→	→		100 Trying	←		
Mg	MGCF	IAM	ISUP												
INVITE	→	→													
100 Trying	←														

TP number	TP_101_033	Reference	7.2.3.1.2.9												
TSS reference	SIP-ISUP/Basic call/Sending_of_IAM/														
Selection criteria	PICS 6.2.1/8														
Test Purpose name	Max-Forwards received, HOP is sent														
Test Purpose	Ensure that on receipt of the Max-Forwards header, the value is mapped into the Hop counter. The value of the HOP is created from the Max-Forwards header value by applying a given factor														
ISUP Parameter values															
SIP Parameter values															
Comments															
Message flows	<table style="width: 100%; border: none;"> <tr> <td style="text-align: center;">Mg</td> <td style="text-align: center;">MGCF</td> <td style="text-align: center;">IAM</td> <td style="text-align: center;">ISUP</td> </tr> <tr> <td>INVITE</td> <td style="text-align: center;">→</td> <td>→</td> <td></td> </tr> <tr> <td>100 Trying</td> <td style="text-align: center;">←</td> <td></td> <td></td> </tr> </table> <p style="text-align: center;">Apply post test routine</p>			Mg	MGCF	IAM	ISUP	INVITE	→	→		100 Trying	←		
Mg	MGCF	IAM	ISUP												
INVITE	→	→													
100 Trying	←														

TP number	TP_101_034	Reference	7.2.3.1.2.10																
TSS reference	SIP-ISUP/Basic call/Sending_of_IAM/																		
Selection criteria	PICS 6.2.1/5																		
Test Purpose name	Mapping of PSTN XML ProgressIndicator																		
Test Purpose	Ensure that on receipt of a PSTN XML attachment in an INVITE request containing a ProgressIndicator element, this information is mapped into a Progress Indicator IE present in an ISUP Access Transport Parameter the Progress description value is derived from the PSTN XML ProgressDescription element																		
ISUP Parameter values	IAM: ATP Progress Indicator Progress Description= PI_value																		
SIP Parameter values	INVITE: <?xml version="1.0" encoding="utf-8"?> PSTN ProgressIndicator ProgressOctet3 CodingStandard>00< Location>0000< ProgressOctet4 ProgressDescription> PI_value <																		
Comments																			
Message flows	<table style="width: 100%; border: none;"> <tr> <td style="text-align: center;">Mg</td> <td style="text-align: center;">MGCF</td> <td style="text-align: center;">IAM</td> <td style="text-align: center;">ISUP</td> </tr> <tr> <td>INVITE</td> <td style="text-align: center;">→</td> <td></td> <td></td> </tr> <tr> <td>100 Trying</td> <td style="text-align: center;">←</td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td style="text-align: center;">→</td> <td></td> </tr> </table> <p style="text-align: center;">Apply post test routine</p>			Mg	MGCF	IAM	ISUP	INVITE	→			100 Trying	←					→	
Mg	MGCF	IAM	ISUP																
INVITE	→																		
100 Trying	←																		
		→																	

Table 6.1.1.1-9: Mapping of PSTN XML ProgressIndicator to ISUP ATP Progress Indicator

PI_value	XML ProgressIndicator ProgressDescription	ATP Progress Indicator value
PI_VA_1	'0000001'	Call is not end-to-end ISDN; further call progress information may be available in-band
PI_VA_2	'0000010'	Destination address is non-ISDN
PI_VA_3	'0000011'	Origination address is non-ISDN
PI_VA_4	'0000100'	Call has returned to the ISDN
PI_VA_5	'0000101'	Interworking has occurred and has resulted in a telecommunication service change
PI_VA_6	'0001000'	In-band information or an appropriate pattern is now available

TP number	TP_101_035	Reference	7.2.3.1.2A.1.1																
TSS reference	SIP-ISUP/Basic call/Sending_of_IAM/																		
Selection criteria	PICS 6.2.2/1																		
Test Purpose name	Number Portability Separate Directory Number Addressing Method is used. A Called Directory Number is present in the sent IAM																		
Test Purpose	<p>Ensure that on receipt of an initial INVITE request containing the rn and npdi parameters in the request line, an IAM is sent. The Called Party Number is set to:</p> <ul style="list-style-type: none"> • Nature of address indicator: "Network routing number in national (significant) number format" or "National (significant) number" or "Network routing number in network specific number format" • Internal Network Number Indicator: routing to internal network number not allowed • Numbering plan Indicator: ISDN (Telephony) numbering plan (<i>Recommendation E.164 [i.1]</i>) • Address Signal: derived from the user info of the request URI the country code is removed. <p>The Called Directory Number is set to:</p> <ul style="list-style-type: none"> • Nature of address indicator "National (significant) number" • Internal Network Number Indicator: routing to internal network number not allowed • Numbering plan Indicator: ISDN (Telephony) numbering plan (<i>Recommendation E.164 [i.1]</i>) • Address Signal: derived from the rn parameter if the Number Portability Routing Number contains an E164 number the country code is removed else the address digits applied unchanged 																		
ISUP Parameter values	IAM: Called party number, Called Directory Number																		
SIP Parameter values	INVITE: Request URI: sip: <called number>; rn=<Number Portability Routing Number>; npdi																		
Comments	The URI parameters can be received in arbitrary order																		
Message flows	<table style="width: 100%; border: none;"> <tr> <td style="text-align: center;">Mg</td> <td style="text-align: center;">MGCF</td> <td style="text-align: center;">IAM</td> <td style="text-align: center;">ISUP</td> </tr> <tr> <td>INVITE</td> <td style="text-align: center;">→</td> <td>→</td> <td></td> </tr> <tr> <td>100 Trying</td> <td style="text-align: center;">←</td> <td></td> <td></td> </tr> <tr> <td colspan="4" style="text-align: center;">Apply post test routine</td> </tr> </table>			Mg	MGCF	IAM	ISUP	INVITE	→	→		100 Trying	←			Apply post test routine			
Mg	MGCF	IAM	ISUP																
INVITE	→	→																	
100 Trying	←																		
Apply post test routine																			

TP number	TP_101_036	Reference	7.2.3.1.2A.1.2																
TSS reference	SIP-ISUP/Basic call/Sending_of_IAM/																		
Selection criteria	PICS 6.2.2/2																		
Test Purpose name	Number Portability Concatenated Addressing Method is used. The called party number is present																		
Test Purpose	<p>Ensure that on receipt of an initial INVITE request containing the rn and npdi parameters in the request line, an IAM is sent. The Called Party Number is set to:</p> <ul style="list-style-type: none"> • Nature of address indicator: "Network routing number concatenated with called directory number" or "National (significant) number" • Internal Network Number Indicator: routing to internal network number not allowed • Numbering plan Indicator: ISDN (Telephony) numbering plan (<i>Recommendation E.164 [i.1]</i>) • Address Signal: derived from the rn parameter if the Number Portability Routing Number contains an E164 number the country code is removed else the address digits applied unchanged. The called party number derived from the user info is appended except the country code 																		
ISUP Parameter values	IAM: Called party number																		
SIP Parameter values	INVITE: Request URI: sip: <called number>; rn=<Number Portability Routing Number>; npdi																		
Comments	The URI parameters can be received in arbitrary order																		
Message flows	<table style="width: 100%; border: none;"> <tr> <td style="text-align: center;">Mg</td> <td style="text-align: center;">MGCF</td> <td style="text-align: center;">IAM</td> <td style="text-align: center;">ISUP</td> </tr> <tr> <td>INVITE</td> <td style="text-align: center;">→</td> <td>→</td> <td></td> </tr> <tr> <td>100 Trying</td> <td style="text-align: center;">←</td> <td></td> <td></td> </tr> <tr> <td colspan="4" style="text-align: center;">Apply post test routine</td> </tr> </table>			Mg	MGCF	IAM	ISUP	INVITE	→	→		100 Trying	←			Apply post test routine			
Mg	MGCF	IAM	ISUP																
INVITE	→	→																	
100 Trying	←																		
Apply post test routine																			

TP number	TP_101_037	Reference	7.2.3.1.2A.1.3												
TSS reference	SIP-ISUP/Basic call/Sending_of_IAM/														
Selection criteria	PICS 6.2.2/3														
Test Purpose name	Number Portability Separate Network Routing Number Addressing Method is used. A Network Routing Number is present in the sent IAM														
Test Purpose	<p>Ensure that on receipt of an initial INVITE request containing the rn and npdi parameters in the request line, an IAM is sent. The Called Party Number is set to:</p> <ul style="list-style-type: none"> • Nature of address indicator: "National (significant) number" • Internal Network Number Indicator: routing to internal network number not allowed • Numbering plan Indicator: ISDN (Telephony) numbering plan (<i>Recommendation E.164 [i.1]</i>) • Address Signal: derived from the user info of the request URI the country code is removed. <p>The Network Routing Number is set to:</p> <ul style="list-style-type: none"> • Nature of address indicator: "Network routing number in national (significant) number format" or "Network routing number in network specific number format" • Numbering plan Indicator: ISDN (Telephony) numbering plan (<i>Recommendation E.164 [i.1]</i>) • Address Signal: derived from the rn parameter if the Number Portability Routing Number contains an E164 number the country code is removed else the address digits applied unchanged 														
ISUP Parameter values	IAM: Called party number, Network Routing Number														
SIP Parameter values	INVITE: Request URI: sip: <called number>; rn=<Number Portability Routing Number>; npdi														
Comments	The URI parameters can be received in arbitrary order														
Message flows	<table style="width: 100%; border: none;"> <tr> <td style="text-align: center;">Mg</td> <td style="text-align: center;">MGCF</td> <td style="text-align: center;">ISUP</td> </tr> <tr> <td>INVITE</td> <td style="text-align: center;">→</td> <td style="text-align: center;">→ IAM</td> </tr> <tr> <td>100 Trying</td> <td style="text-align: center;">←</td> <td></td> </tr> <tr> <td colspan="3" style="text-align: center;">Apply post test routine</td> </tr> </table>			Mg	MGCF	ISUP	INVITE	→	→ IAM	100 Trying	←		Apply post test routine		
Mg	MGCF	ISUP													
INVITE	→	→ IAM													
100 Trying	←														
Apply post test routine															

TP number	TP_101_038	Reference	7.2.3.1.2A.2												
TSS reference	SIP-ISUP/Basic call/Sending_of_IAM/														
Selection criteria	PICS 6.2.2/1 OR PICS 6.2.2/2 OR PICS 6.2.2/3 AND PICS 6.2.2/4														
Test Purpose name	Sending of Number Portability Forward Information														
Test Purpose	<p>Ensure that on receipt of an initial INVITE request containing the npdi parameters in the request line, an IAM is sent. The IAM contains the Number Portability Forward Information parameter set according the following roles:</p> <ul style="list-style-type: none"> • If the Number Portability Database Dip Indicator is present, and there is no Number Portability Routing Number, set to "number portability query done for called number, non-portable called subscriber" 														
ISUP Parameter values	IAM: Number Portability Forward Information														
SIP Parameter values	INVITE: Request URI: sip: <called number>; npdi														
Comments															
Message flows	<table style="width: 100%; border: none;"> <tr> <td style="text-align: center;">Mg</td> <td style="text-align: center;">MGCF</td> <td style="text-align: center;">ISUP</td> </tr> <tr> <td>INVITE</td> <td style="text-align: center;">→</td> <td style="text-align: center;">→ IAM</td> </tr> <tr> <td>100 Trying</td> <td style="text-align: center;">←</td> <td></td> </tr> <tr> <td colspan="3" style="text-align: center;">Apply post test routine</td> </tr> </table>			Mg	MGCF	ISUP	INVITE	→	→ IAM	100 Trying	←		Apply post test routine		
Mg	MGCF	ISUP													
INVITE	→	→ IAM													
100 Trying	←														
Apply post test routine															

TP number	TP_101_039	Reference	7.2.3.1.2A.2
TSS reference	SIP-ISUP/Basic call/Sending_of_IAM/		
Selection criteria	PICS 6.2.2/1 OR PICS 6.2.2/2 OR PICS 6.2.2/3 AND PICS 6.2.2/4		
Test Purpose name	Sending of Number Portability Forward Information		
Test Purpose	<p>Ensure that on receipt of an initial INVITE request containing the rn and npdi parameters in the request line, an IAM is sent. The IAM contains the Number Portability Forward Information parameter set according to the following roles:</p> <ul style="list-style-type: none"> • If the Number Portability Database Dip Indicator is present, and a Number Portability Routing Number is present, set to "number portability query done for called number, ported called subscriber" 		
ISUP Parameter values	IAM: Number Portability Forward Information		
SIP Parameter values	INVITE: Request URI: sip: <called number>; rn=<Number Portability Routing Number>; npdi		
Comments			
Message flows	Mg	MGCF	ISUP
	INVITE →		IAM
	100 Trying ←		
	Apply post test routine		

TP number	TP_101_040	Reference	7.2.3.1.2A.2
TSS reference	SIP-ISUP/Basic call/Sending_of_IAM/		
Selection criteria	PICS 6.2.2/1 OR PICS 6.2.2/2 OR PICS 6.2.2/3 AND PICS 6.2.2/4		
Test Purpose name	Sending of Number Portability Forward Information		
Test Purpose	<p>Ensure that on receipt of an initial INVITE request containing the rn parameters in the request line, an IAM is sent. The IAM contains the Number Portability Forward Information parameter set according to the following roles:</p> <ul style="list-style-type: none"> • If there is no Number Portability Database Dip Indicator, set to "number portability query not done for called number" 		
ISUP Parameter values	IAM: Number Portability Forward Information		
SIP Parameter values	INVITE: Request URI: sip: <called number>; rn=<Number Portability Routing Number>		
Comments			
Message flows	Mg	MGCF	ISUP
	INVITE →		IAM
	100 Trying ←		
	Apply post test routine		

TP number	TP_101_041	Reference	7.2.3.1.2B.1
TSS reference	SIP-ISUP/Basic call/Sending_of_IAM/		
Selection criteria	PICS 6.2.2/5 AND PICS 6.2.2/6 AND PICS 6.2.2/8		
Test Purpose name	Request URI cic parameter is mapped into IAM TNS parameter		
Test Purpose	<p>Ensure that on receipt of an initial INVITE request containing the cic parameter in the request line, an IAM is sent. The Transit network selection parameter is set to:</p> <ul style="list-style-type: none"> • Type of network identification: CCITT-standardized identification or national network identification • Network identification plan: according value of Type of network identification • Network identification: digits derived from the carrier identification code value of the cic parameter 		
ISUP Parameter values	IAM: Transit network selection		
SIP Parameter values	INVITE: Request URI: sip: <called number>; cic=< Carrier identification code >		
Comments			
Message flows	Mg	MGCF	ISUP
	INVITE →		IAM
	100 Trying ←		
	Apply post test routine		

TP number	TP_101_042	Reference	7.2.3.1.2B.2
TSS reference	SIP-ISUP/Basic call/Sending_of_IAM/		
Selection criteria	PICS 6.2.2/5 AND PICS 6.2.2/7 AND PICS 6.2.2/8 AND PICS 6.2.2/9		
Test Purpose name	Carrier Selection Information parameter is sent		
Test Purpose	Ensure that on receipt of an initial INVITE request containing the cic and dai parameter in the request line, an IAM is sent. The Carrier Selection Information parameter is set to the values indicated in table 6.1.1.1-10		
ISUP Parameter values	IAM: Carrier Selection Information		
SIP Parameter values	INVITE: Request URI: sip: <called number>; cic=< Carrier identification code >; dai= SIP_dai		
Comments			
Message flows	<div style="text-align: center;"> Mg MGCF ISUP INVITE → → IAM 100 Trying ← ← Apply post test routine </div>		

Table 6.1.1.1-10: Mapping of SIP Dial Around Indicator to ISUP Carrier Selection Information

SIP_dai	SIP "dai=" component	ISUP Carrier Selection Information parameter
SIP_dai_VA_01	'no ind'	'no indication' (00)
SIP_dai_VA_02	"presub"	'selected carrier identification code pre-subscribed and no input by calling party' (01)
SIP_dai_VA_03	"presub-da"	selected carrier identification code pre-subscribed and input by calling party (02)
SIP_dai_VA_04	"presub-daUnkwn"	selected carrier identification pre-subscribed and input by calling party undetermined (03)
SIP_dai_VA_05	"da"	selected carrier identification not pre-subscribed, and input by calling party (04)
SIP_dai_VA_06	"CIC-chrgPty"	'no indication' (00)
SIP_dai_VA_07	"altCIC-chrgPty"	'no indication' (00)
SIP_dai_VA_08	"verbal-clgPty"	selected carrier identification code not pre-subscribed and input by calling party (04)
SIP_dai_VA_09	"verbal-chrgPty"	'no indication' (00)
SIP_dai_VA_10	"emergency"	'no indication' (00)
SIP_dai_VA_11	"presubUnkwn-da"	carrier selected by input from calling party (10)
SIP_dai_VA_12	"operator"	carrier selected by a network operator (11)

6.1.1.2 Sending of COT

TP number	TP_102_001	Reference	7.2.3.1.3
TSS reference	SIP-ISUP/Basic call/Sending of COT/		
Selection criteria	PICS 6.1.1/1 AND PICS 6.2.1/1 AND NOT PICS 6.2.1/4		
Test Purpose name	Sending of ISUP COT		
Test Purpose	<p>If the IAM has already been sent, the Continuity message shall be sent indicating "continuity check successful", when all of the following conditions have been met:</p> <ul style="list-style-type: none"> the requested preconditions (if any) in the IMS network have been met a possible outstanding continuity check procedure is successfully performed on the outgoing circuit 		
ISUP Parameter values	<p>IAM: Nature of connection indicator = "Continuity check performed on a previous circuit" or "Continuity check required on this circuit" COT continuity indicator: Continuity check successful</p>		
SIP Parameter values	<p>INVITE: Require: precondition SDP a=curr:qos local none a=curr:qos remote none a=des:qos mandatory local sendrcv a=des:qos none remote sendrcv</p> <p>183: Require: 100rel SDP a=curr:qos local none a=curr:qos remote none a=des:qos mandatory local sendrcv a=des:qos mandatory remote sendrcv a=conf:qos remote sendrcv</p> <p>UPDATE: SDP a=curr:qos local sendrcv a=curr:qos remote none a=des:qos mandatory local sendrcv a=des:qos mandatory remote sendrcv</p> <p>200 OK UPDATE SDP a=curr:qos local sendrcv a=curr:qos remote sendrcv a=des:qos mandatory local sendrcv a=des:qos mandatory remote sendrcv</p>		
Comments			
Message flows	<p>Mg</p> <p>INVITE →</p> <p>100 Trying ←</p> <p>183 Session Progress ←</p> <p>PRACK →</p> <p>200 OK (PRACK) ←</p> <p>UPDATE →</p> <p>200 OK (UPDATE) ←</p>	<p>MGCF</p> <p>→ IAM</p> <p>→ COT</p>	<p>ISUP</p>
	Apply post test routine		

TP number	TP_102_002	Reference	7.3.3.1.3
TSS reference	SIP-ISUP/Basic call/Sending_of_COT/		
Selection criteria	PICS 6.1.1/2 AND PICS 6.2.1/1 AND NOT PICS 6.2.1/4		
Test Purpose name	Sending of BICC COT		
Test Purpose	<p>If the IAM has already been sent, the Continuity message shall be sent indicating "continuity check successful", when all of the following conditions have been met:</p> <ul style="list-style-type: none"> the requested preconditions (if any) in the IMS network have been met a possible outstanding continuity check procedure is successfully performed on the outgoing circuit 		
ISUP Parameter values	IAM: Nature of connection indicator = "COT to be expected" COT continuity indicator: Continuity check successful;		
SIP Parameter values	INVITE: Require: precondition SDP a=curr:qos local none a=curr:qos remote none a=des:qos mandatory local sendrecv a=des:qos none remote sendrecv 183: Require: 100rel SDP a=curr:qos local none a=curr:qos remote none a=des:qos mandatory local sendrecv a=des:qos mandatory remote sendrecv a=conf:qos remote sendrecv UPDATE: SDP a=curr:qos local sendrecv a=curr:qos remote none a=des:qos mandatory local sendrecv a=des:qos mandatory remote sendrecv 200 OK UPDATE SDP a=curr:qos local sendrecv a=curr:qos remote sendrecv a=des:qos mandatory local sendrecv a=des:qos mandatory remote sendrecv		
Comments			
Message flows	Mg INVITE → 100 Trying ← 183 Session Progress ← PRACK → 200 OK (PRACK) ← UPDATE → 200 OK (UPDATE) ←	MGCF → → → → → → →	ISUP → IAM → COT Apply post test routine

6.1.1.3 Sending of SAM

TP number	TP_103_001	Reference	7.2.3.1.3A.2
TSS reference	SIP-ISUP/Basic call/Sending_of_SAM/		
Selection criteria	PICS 6.2.3/1		
Test Purpose name	Receipt of INFO request, sending of SAM		
Test Purpose	Ensure that on receipt of an INVITE request containing a Supported: 100rel or Required: 100rel a 183 Session Progress is sent indicating the overlap capability in the Supported: 100rel or Required: 100rel After the ISUP IAM message has been sent the I-MGCF receives additional digits. The additional digits are received in in-dialog SIP INFO requests		
ISUP Parameter values			
SIP Parameter values	INVITE: Supported: 100rel 183 Session Progress: Supported: 100rel or Required: 100rel INFO: Content-Type: application/x-session-info SubsequentDigit: <additional digits>		
Comments			
Message flows	Mg	MGCF	ISUP
	INVITE	→	IAM
	100 Trying	←	
	183 Session Progress	←	
	INFO	→	SAM
	200 OK (INFO)	←	
	INFO	→	SAM
	200 OK (INFO)	←	
	Apply post test routine		

TP number	TP_103_002	Reference	7.2.3.1.3A.3
TSS reference	SIP-ISUP/Basic call/Sending_of_SAM/		
Selection criteria	PICS 6.2.3/2		
Test Purpose name	Receipt of multiple INVITE request, sending of SAM		
Test Purpose	After the ISUP IAM message has been sent the I-MGCF receives additional digits. The additional digits are received in multiple SIP INVITE requests		
ISUP Parameter values			
SIP Parameter values			
Comments			
Message flows	Mg	MGCF	ISUP
	INVITE(1)	→	→ IAM
	CASE A		
	INVITE(2)	→	→ SAM
	484 Address Incomplete(1)	←	
	ACK	→	
	INVITE(3)	→	→ SAM
	484 Address Incomplete(2)	←	
	ACK	→	
	180 Ringing(3)	←	← ACM
	CASE B		
	484 Address Incomplete(1)	←	
	ACK	→	
	INVITE(2)	→	→ SAM
	484 Address Incomplete(2)	←	
	ACK	→	
	INVITE(3)	→	→ SAM
	180 Ringing(3)	←	← ACM
	Apply post test routine		

TP number	TP_103_003	Reference	7.2.3.1.3A.3
TSS reference	SIP-ISUP/Basic call/Sending_of_SAM/		
Selection criteria	PICS 6.2.3/2		
Test Purpose name	Receipt of multiple INVITE request, unsuccessful		
Test Purpose	After the ISUP IAM message has been sent the I-MGCF receives additional digits. The additional digits are received in multiple SIP INVITE requests. If the number of digits contained in the Request line is equal or less than the number of digits already received for the communication, then the SUT shall immediately send a 484 Address Incomplete response for this INVITE. In this case, no SAM shall be sent to BICC/ISUP procedures		
ISUP Parameter values			
SIP Parameter values			
Comments			
Message flows	Mg	MGCF	ISUP
	INVITE(1)	→	→ IAM
	CASE A		
	INVITE(2)	→	
	484 Address Incomplete(1)	←	
	ACK	→	
	CASE B		
	484 Address Incomplete(1)	←	
	ACK	→	
	INVITE(2)	→	
	484 Address Incomplete(2)	←	
	ACK	→	
	Apply post test routine		

6.1.1.4 Sending of 18x provisional responses

TP number	TP_104_001	Reference	7.2.3.1.4
TSS reference	SIP-ISUP/Basic call/Sending_of_18x/		
Selection criteria			
Test Purpose name	Sending of 180 Ringing after ACM was received		
Test Purpose	The SUT shall send the SIP 180 Ringing when receiving the following messages: - ACM with Called party's status indicator set to subscriber free		
ISUP Parameter values	ACM: BCI Called party status indicator = subscriber free		
SIP Parameter values			
Comments			
Message flows	Mg	MGCF	ISUP
	INVITE	→	→ IAM
	100 Trying	←	
	180 Ringing	←	← ACM
	Apply post test routine		

TP number	TP_104_002	Reference	7.2.3.1.4																
TSS reference	SIP-ISUP/Basic call/Sending_of_18x/																		
Selection criteria																			
Test Purpose name	Sending of 180 Ringing after CPG was received																		
Test Purpose	The SUT shall send the SIP 180 Ringing when receiving the following messages: - CPG with Event indicator set to ALERTING.																		
ISUP Parameter values	ACM: BCI Called party status indicator = no indication CPG: Event indicator = ALERTING																		
SIP Parameter values																			
Comments																			
Message flows	<table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 30%;"></th> <th style="width: 20%; text-align: center;">Mg</th> <th style="width: 20%; text-align: center;">MGCF</th> <th style="width: 30%; text-align: center;">ISUP</th> </tr> </thead> <tbody> <tr> <td>INVITE</td> <td style="text-align: center;">→</td> <td></td> <td style="text-align: center;">→ IAM</td> </tr> <tr> <td>100 Trying</td> <td style="text-align: center;">←</td> <td></td> <td style="text-align: center;">← ACM(no indication)</td> </tr> <tr> <td>180 Ringing</td> <td style="text-align: center;">←</td> <td></td> <td style="text-align: center;">← CPG(ALERTING)</td> </tr> </tbody> </table> <p style="text-align: center;">Apply post test routine</p>				Mg	MGCF	ISUP	INVITE	→		→ IAM	100 Trying	←		← ACM(no indication)	180 Ringing	←		← CPG(ALERTING)
	Mg	MGCF	ISUP																
INVITE	→		→ IAM																
100 Trying	←		← ACM(no indication)																
180 Ringing	←		← CPG(ALERTING)																

TP number	TP_104_003	Reference	7.2.3.1.4																				
TSS reference	SIP-ISUP/Basic call/Sending_of_18x/																						
Selection criteria	PICS 6.2.1/9																						
Test Purpose name	ACM received, P-Earl-Media header present in 180																						
Test Purpose	Ensure that on receipt of an ACM free a 180 Ringing is sent. In the 180 Ringing a P-Early-Media header is present indicating authorization of early media																						
ISUP Parameter values	IAM: 3,1 kHz audio ACM: BCI Called party status indicator = free																						
SIP Parameter values	INVITE: Supported: 100rel P-Early-Media: supported 180 ringing P-Early-Media: < authorization of early media>																						
Comments																							
Message flows	<table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 30%;"></th> <th style="width: 20%; text-align: center;">Mg</th> <th style="width: 20%; text-align: center;">MGCF</th> <th style="width: 30%; text-align: center;">ISUP</th> </tr> </thead> <tbody> <tr> <td>INVITE</td> <td style="text-align: center;">→</td> <td></td> <td style="text-align: center;">→ IAM</td> </tr> <tr> <td>180 Ringing</td> <td style="text-align: center;">←</td> <td></td> <td style="text-align: center;">← ACM(free)</td> </tr> <tr> <td>PRACK</td> <td style="text-align: center;">→</td> <td></td> <td></td> </tr> <tr> <td>200 OK (PRACK)</td> <td style="text-align: center;">←</td> <td></td> <td></td> </tr> </tbody> </table> <p style="text-align: center;">Apply post test routine</p>				Mg	MGCF	ISUP	INVITE	→		→ IAM	180 Ringing	←		← ACM(free)	PRACK	→			200 OK (PRACK)	←		
	Mg	MGCF	ISUP																				
INVITE	→		→ IAM																				
180 Ringing	←		← ACM(free)																				
PRACK	→																						
200 OK (PRACK)	←																						

TP number	TP_104_004	Reference	7.2.3.1.4																
TSS reference	SIP-ISUP/Basic call/Sending_of_18x/																		
Selection criteria	PICS 6.2.1/10																		
Test Purpose name	Provide media in a Call-Info header field, or an Alert-Info header field in a 180																		
Test Purpose	Ensure that the SUT is able to provide media instead of the in-band media received from the PSTN in a Call-Info header field, or an Alert-Info header field present in a 180 Ringing																		
ISUP Parameter values	ACM: BCI Called party status indicator = subscriber free																		
SIP Parameter values	180: Call-Info: <Media resource>; or Alert-Info: <Media resource>																		
Comments																			
Message flows	<table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 30%;"></th> <th style="width: 20%; text-align: center;">Mg</th> <th style="width: 20%; text-align: center;">MGCF</th> <th style="width: 30%; text-align: center;">ISUP</th> </tr> </thead> <tbody> <tr> <td>INVITE</td> <td style="text-align: center;">→</td> <td></td> <td style="text-align: center;">→ IAM</td> </tr> <tr> <td>100 Trying</td> <td style="text-align: center;">←</td> <td></td> <td></td> </tr> <tr> <td>180 Ringing</td> <td style="text-align: center;">←</td> <td></td> <td style="text-align: center;">← ACM</td> </tr> </tbody> </table> <p style="text-align: center;">Apply post test routine</p>				Mg	MGCF	ISUP	INVITE	→		→ IAM	100 Trying	←			180 Ringing	←		← ACM
	Mg	MGCF	ISUP																
INVITE	→		→ IAM																
100 Trying	←																		
180 Ringing	←		← ACM																

TP number	TP_104_005	Reference	7.2.3.1.4A																
TSS reference	SIP-ISUP/Basic call/Sending_of_18x/																		
Selection criteria	PICS 6.2.1/10																		
Test Purpose name	Provide media in a Call-Info header field, or an Alert-Info header field in a 183																		
Test Purpose	Ensure that the SUT is able to provide media instead of the in-band media received from the PSTN in a Call-Info header field, or an Alert-Info header field present in a 183 Session Progress																		
ISUP Parameter values	ACM: BCI Called party status indicator = no indication																		
SIP Parameter values	183: Call-Info: <Media resource>; or Alert-Info: <Media resource>																		
Comments																			
Message flows	<table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left; width: 30%;"></th> <th style="text-align: center; width: 20%;">Mg</th> <th style="text-align: center; width: 20%;">MGCF</th> <th style="text-align: center; width: 20%;">ISUP</th> </tr> </thead> <tbody> <tr> <td>INVITE</td> <td style="text-align: center;">→</td> <td></td> <td style="text-align: center;">→ IAM</td> </tr> <tr> <td>100 Trying</td> <td style="text-align: center;">←</td> <td></td> <td></td> </tr> <tr> <td>183 Session Progress</td> <td style="text-align: center;">←</td> <td></td> <td style="text-align: center;">← ACM(no indication)</td> </tr> </tbody> </table> <p style="text-align: center;">Apply post test routine</p>				Mg	MGCF	ISUP	INVITE	→		→ IAM	100 Trying	←			183 Session Progress	←		← ACM(no indication)
	Mg	MGCF	ISUP																
INVITE	→		→ IAM																
100 Trying	←																		
183 Session Progress	←		← ACM(no indication)																

TP number	TP_104_006	Reference	7.2.3.1.4 table 7a.0f																												
TSS reference	SIP-ISUP/Basic call/Sending_of_18x/																														
Selection criteria	PICS 6.2.1/5																														
Test Purpose name	Mapping of Progress Indicator received in a ACM/CPG																														
Test Purpose	<p>Ensure that on receipt of an ACM called party status subscriber free or a CPG event indicator ALERTING, a 180 Ringing is sent. The Progress Indicator IE contained in the ACM or CPG ATP parameter is mapped into the PSTN XML element in the 180 as indicated in table 6.1.1.4-2.</p> <ul style="list-style-type: none"> Progress Indicator received in an ACM called party status subscriber free 180 Ringing is sent in the PSTN XML element contains the ProgressIndicator value PI_value Progress Indicator received in an CPG Event indicator ALERTING 180 Ringing is sent in the PSTN XML element contains the ProgressIndicator value PI_value 																														
ISUP Parameter values	ACM: CASE A BCI Called party status = subscriber free ATP contains a Progress Indicator IE CASE B BCI Called party status = no indication oBCi 'inband info available' CPG: ATP contains a Progress Indicator IE																														
SIP Parameter values	180: <?xml version="1.0" encoding="utf-8"?> PSTN ProgressIndicator ProgressOctet3 CodingStandard>00< Location<yyyy> ProgressOctet4 ProgressDescription>PI_value<																														
Comments																															
Message flows	<table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left; width: 30%;"></th> <th style="text-align: center; width: 20%;">Mg</th> <th style="text-align: center; width: 20%;">MGCF</th> <th style="text-align: center; width: 20%;">ISUP</th> </tr> </thead> <tbody> <tr> <td>INVITE</td> <td style="text-align: center;">→</td> <td></td> <td style="text-align: center;">→ IAM</td> </tr> <tr> <td>CASE A</td> <td></td> <td></td> <td></td> </tr> <tr> <td>180 Ringing</td> <td style="text-align: center;">←</td> <td></td> <td style="text-align: center;">← ACM</td> </tr> <tr> <td>CASE B</td> <td></td> <td></td> <td></td> </tr> <tr> <td>183 Session Progress</td> <td style="text-align: center;">←</td> <td></td> <td style="text-align: center;">← ACM</td> </tr> <tr> <td>180 Ringing</td> <td style="text-align: center;">←</td> <td></td> <td style="text-align: center;">← CPG</td> </tr> </tbody> </table> <p style="text-align: center;">Apply post test routine</p>				Mg	MGCF	ISUP	INVITE	→		→ IAM	CASE A				180 Ringing	←		← ACM	CASE B				183 Session Progress	←		← ACM	180 Ringing	←		← CPG
	Mg	MGCF	ISUP																												
INVITE	→		→ IAM																												
CASE A																															
180 Ringing	←		← ACM																												
CASE B																															
183 Session Progress	←		← ACM																												
180 Ringing	←		← CPG																												

TP number	TP_104_007	Reference	7.2.3.1.4 table 7a.0f																																
TSS reference	SIP-ISUP/Basic call/Sending_of_18x/																																		
Selection criteria	PICS 6.2.1/5																																		
Test Purpose name	Mapping of High layer compatibility received in a ACM/CPG																																		
Test Purpose	<p>Ensure that on receipt of an ACM called party status subscriber free or a CPG event indicator ALERTING, a 180 Ringing is sent. The High layer compatibility IE contained in the ACM or CPG ATP parameter is mapped into the HighLayerCompatibility PSTN XML element in the 180 as indicated in table 6.1.1.4-3.</p> <ul style="list-style-type: none"> High layer compatibility received in an ACM called party status subscriber free 180 Ringing is sent in the PSTN XML element contains the HighLayerCompatibility value HLC_value High layer compatibility received in an CPG Event indicator ALERTING 180 Ringing is sent in the PSTN XML element contains the HighLayerCompatibility value HLC_value 																																		
ISUP Parameter values	<p>ACM: CASE A BCI Called party status = subscriber free ATP contains a High layer compatibility IE CASE B BCI Called party status = no indication oBCi 'inband info available'</p> <p>CPG: ATP contains a High layer compatibility IE</p>																																		
SIP Parameter values	<pre>180: <?xml version="1.0" encoding="utf-8"?> PSTN HighLayerCompatibility HLOctet3 CodingStandard>00< Interpretation>100< PresentationMethod>01< HLOctet4 HighLayerCharacteristics>HLC_value<</pre>																																		
Comments																																			
Message flows	<table style="width:100%; border:none;"> <thead> <tr> <th style="width:40%;"></th> <th style="width:20%; text-align:center;">Mg</th> <th style="width:20%; text-align:center;">MGCF</th> <th style="width:20%; text-align:center;">ISUP</th> </tr> </thead> <tbody> <tr> <td>INVITE</td> <td style="text-align:center;">→</td> <td></td> <td style="text-align:center;">IAM</td> </tr> <tr> <td>CASE A</td> <td></td> <td></td> <td></td> </tr> <tr> <td>180 Ringing</td> <td style="text-align:center;">←</td> <td></td> <td style="text-align:center;">ACM</td> </tr> <tr> <td>CASE B</td> <td></td> <td></td> <td></td> </tr> <tr> <td>183 Session Progress</td> <td style="text-align:center;">←</td> <td></td> <td style="text-align:center;">ACM</td> </tr> <tr> <td>180 Ringing</td> <td style="text-align:center;">←</td> <td></td> <td style="text-align:center;">CPG</td> </tr> <tr> <td colspan="4" style="text-align:center;">Apply post test routine</td> </tr> </tbody> </table>				Mg	MGCF	ISUP	INVITE	→		IAM	CASE A				180 Ringing	←		ACM	CASE B				183 Session Progress	←		ACM	180 Ringing	←		CPG	Apply post test routine			
	Mg	MGCF	ISUP																																
INVITE	→		IAM																																
CASE A																																			
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CASE B																																			
183 Session Progress	←		ACM																																
180 Ringing	←		CPG																																
Apply post test routine																																			

TP number	TP_104_008	Reference	7.2.3.1.4 table 7a.0f																																																	
TSS reference	SIP-ISUP/Basic call/Sending_of_18x/																																																			
Selection criteria	PICS 6.2.1/5																																																			
Test Purpose name	Mapping of Low layer compatibility received in a ACM/CPG																																																			
Test Purpose	<p>Ensure that on receipt of an ACM called party status subscriber free or a CPG event indicator ALERTING, a 180 Ringing is sent. The Low layer compatibility IE contained in the ACM or CPG ATP parameter is mapped into the LowLayerCompatibility PSTN XML element in the 180 as indicated in table 6.1.1.4-4.</p> <ul style="list-style-type: none"> Low layer compatibility received in an ACM called party status subscriber free 180 Ringing is sent in the PSTN XML element contains the LowLayerCompatibility value ITC_value Low layer compatibility received in an CPG Event indicator ALERTING 180 Ringing is sent in the PSTN XML element contains the LowLayerCompatibility value ITC_value 																																																			
ISUP Parameter values	<p>ACM: CASE A BCi Called party status = subscriber free ATP contains a Low layer compatibility IE CASE B BCi Called party status = no indication oBCi 'inband info available'</p> <p>CPG: ATP contains a Low layer compatibility IE</p>																																																			
SIP Parameter values	<pre>180: <?xml version="1.0" encoding="utf-8"?> PSTN LowLayerCompatibility> LLOctet3> CodingStandard>00< InformationTransferCapability>ITC_value< LLOctet4> TransferMode>00< InformationTransferRate>10000<</pre>																																																			
Comments																																																				
Message flows	<table style="width:100%; border:none;"> <thead> <tr> <th style="text-align:left;"></th> <th style="text-align:center;">Mg</th> <th style="text-align:center;">→</th> <th style="text-align:center;">MGCF</th> <th style="text-align:center;">→</th> <th style="text-align:center;">IAM</th> <th style="text-align:center;">ISUP</th> </tr> </thead> <tbody> <tr> <td>INVITE</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>CASE A</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>180 Ringing</td> <td></td> <td>←</td> <td></td> <td>←</td> <td></td> <td>ACM</td> </tr> <tr> <td>CASE B</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>183 Session Progress</td> <td></td> <td>←</td> <td></td> <td>←</td> <td></td> <td>ACM</td> </tr> <tr> <td>180 Ringing</td> <td></td> <td>←</td> <td></td> <td>←</td> <td></td> <td>CPG</td> </tr> </tbody> </table> <p style="text-align:center;">Apply post test routine</p>				Mg	→	MGCF	→	IAM	ISUP	INVITE							CASE A							180 Ringing		←		←		ACM	CASE B							183 Session Progress		←		←		ACM	180 Ringing		←		←		CPG
	Mg	→	MGCF	→	IAM	ISUP																																														
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180 Ringing		←		←		ACM																																														
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183 Session Progress		←		←		ACM																																														
180 Ringing		←		←		CPG																																														

TP number	TP_104_009	Reference	7.2.3.1.4 table 7a.0f																																
TSS reference	SIP-ISUP/Basic call/Sending_of_18x/																																		
Selection criteria	PICS 6.2.1/5																																		
Test Purpose name	Mapping of Bearer Capability received in a ACM/CPG																																		
Test Purpose	<p>Ensure that on receipt of an ACM called party status subscriber free or a CPG event indicator ALERTING, a 180 Ringing is sent. The Bearer Capability IE contained in the ACM or CPG ATP parameter is mapped into the BearerCapability PSTN XML element in the 180 as indicated in table 6.1.1.4-5.</p> <ul style="list-style-type: none"> • Bearer Capability received in an ACM called party status subscriber free 180 Ringing is sent in the PSTN XML element contains the BearerCapability value ITC_value • Bearer Capability received in an CPG Event indicator ALERTING 180 Ringing is sent in the PSTN XML element contains the BearerCapability value ITC_value 																																		
ISUP Parameter values	<p>ACM: CASE A BCi Called party status = subscriber free ATP contains a Bearer Capability IE CASE B BCi Called party status = no indication oBCi 'inband info available'</p> <p>CPG: ATP contains a Bearer Capability IE</p>																																		
SIP Parameter values	<p>180: <?xml version="1.0" encoding="utf-8"?> PSTN BearerCapability BCoet3 CodingStandard>00< InformationTransferCapability>ITC_value< BCoet4 TransferMode>00< InformationTransferRate>10000< BCoet5> Layer1Identification>01< UserInfoLayer1Protocol>00011<</p>																																		
Comments																																			
Message flows	<table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 30%;"></th> <th style="width: 20%; text-align: center;">Mg</th> <th style="width: 20%; text-align: center;">MGCF</th> <th style="width: 20%; text-align: center;">ISUP</th> </tr> </thead> <tbody> <tr> <td>INVITE</td> <td style="text-align: center;">→</td> <td></td> <td style="text-align: center;">IAM</td> </tr> <tr> <td>CASE A</td> <td></td> <td></td> <td></td> </tr> <tr> <td>180 Ringing</td> <td style="text-align: center;">←</td> <td></td> <td style="text-align: center;">ACM</td> </tr> <tr> <td>CASE C</td> <td></td> <td></td> <td></td> </tr> <tr> <td>183 Session Progress</td> <td style="text-align: center;">←</td> <td></td> <td style="text-align: center;">ACM</td> </tr> <tr> <td>180 Ringing</td> <td style="text-align: center;">←</td> <td></td> <td style="text-align: center;">CPG</td> </tr> <tr> <td colspan="4" style="text-align: center;">Apply post test routine</td> </tr> </tbody> </table>				Mg	MGCF	ISUP	INVITE	→		IAM	CASE A				180 Ringing	←		ACM	CASE C				183 Session Progress	←		ACM	180 Ringing	←		CPG	Apply post test routine			
	Mg	MGCF	ISUP																																
INVITE	→		IAM																																
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180 Ringing	←		ACM																																
CASE C																																			
183 Session Progress	←		ACM																																
180 Ringing	←		CPG																																
Apply post test routine																																			

TP number	TP_104_010	Reference	7.2.3.1.4 table 7a.0g															
TSS reference	SIP-ISUP/Basic call/Sending_of_18x/																	
Selection criteria	PICS 6.2.1/5																	
Test Purpose name	Mapping of Backward call indicator into PSTN XML ProgressIndicator element value 1 sent in 180																	
Test Purpose	Ensure that on receipt of an ACM and the Backward call indicator ISDN User Part indicator is set to ISDN User Part not used all the way, a 180 Ringing is sent. A PSTN XML ProgressIndicator element is present the value is set to No 1 (Call is not end-to-end ISDN: "further progress information may be available in-band")																	
ISUP Parameter values	ACM: BCI ISDN User Part indicator = ISDN User Part not used all the way																	
SIP Parameter values	180 Ringing <?xml version="1.0" encoding="utf-8"?> PSTN ProgressIndicator ... ProgressOctet4 ProgressDescription>0000001<																	
Comments																		
Message flows	<table style="width:100%; border:none;"> <tr> <td style="text-align:center;">Mg</td> <td style="text-align:center;">MGCF</td> <td style="text-align:center;">ISUP</td> </tr> <tr> <td>INVITE</td> <td style="text-align:center;">→</td> <td>IAM</td> </tr> <tr> <td>100 Trying</td> <td style="text-align:center;">←</td> <td></td> </tr> <tr> <td>180 Ringing</td> <td style="text-align:center;">←</td> <td>ACM</td> </tr> <tr> <td colspan="3" style="text-align:center;">Apply post test routine</td> </tr> </table>			Mg	MGCF	ISUP	INVITE	→	IAM	100 Trying	←		180 Ringing	←	ACM	Apply post test routine		
Mg	MGCF	ISUP																
INVITE	→	IAM																
100 Trying	←																	
180 Ringing	←	ACM																
Apply post test routine																		

TP number	TP_104_011	Reference	7.2.3.1.4 table 7a.0g															
TSS reference	SIP-ISUP/Basic call/Sending_of_18x/																	
Selection criteria	PICS 6.2.1/5																	
Test Purpose name	Mapping of Backward call indicator into PSTN XML ProgressIndicator element value 2 sent in 180																	
Test Purpose	Ensure that on receipt of an ACM and the Backward call indicator ISDN User Part indicator is set to ISDN User Part used all the way and ISDN access indicator = Terminating access non-ISDN, a 180 Ringing is sent. A PSTN XML ProgressIndicator element is present the value is set to No 2 (Destination address is non-ISDN)																	
ISUP Parameter values	ACM: BCI ISDN User Part indicator = ISDN User Part used all the way ISDN access indicator = Terminating access non-ISDN																	
SIP Parameter values	180 Ringing <?xml version="1.0" encoding="utf-8"?> PSTN ProgressIndicator ... ProgressOctet4 ProgressDescription>0000010<																	
Comments																		
Message flows	<table style="width:100%; border:none;"> <tr> <td style="text-align:center;">Mg</td> <td style="text-align:center;">MGCF</td> <td style="text-align:center;">ISUP</td> </tr> <tr> <td>INVITE</td> <td style="text-align:center;">→</td> <td>IAM</td> </tr> <tr> <td>100 Trying</td> <td style="text-align:center;">←</td> <td></td> </tr> <tr> <td>180 Ringing</td> <td style="text-align:center;">←</td> <td>ACM</td> </tr> <tr> <td colspan="3" style="text-align:center;">Apply post test routine</td> </tr> </table>			Mg	MGCF	ISUP	INVITE	→	IAM	100 Trying	←		180 Ringing	←	ACM	Apply post test routine		
Mg	MGCF	ISUP																
INVITE	→	IAM																
100 Trying	←																	
180 Ringing	←	ACM																
Apply post test routine																		

TP number	TP_104_012	Reference	7.2.3.1.4 table 7a.0g
TSS reference	SIP-ISUP/Basic call/Sending_of_18x/		
Selection criteria	PICS 6.2.1/5		
Test Purpose name	Mapping of Backward call indicator into PSTN XML ProgressIndicator element value 7 sent in 180		
Test Purpose	Ensure that on receipt of an ACM and the Backward call indicator ISDN User Part indicator is set to ISDN User Part used all the way and ISDN access indicator = Terminating access ISDN, a 180 Ringing is sent. A PSTN XML ProgressIndicator element is present the value is set to No 7		
ISUP Parameter values	ACM: BCI ISDN User Part indicator = ISDN User Part used all the way ISDN access indicator = Terminating access ISDN		
SIP Parameter values	180 Ringing <?xml version="1.0" encoding="utf-8"?> PSTN ProgressIndicator ... ProgressOctet4 ProgressDescription>0000111<		
Comments			
Message flows	Mg	MGCF	ISUP
	INVITE	→	→ IAM
	100 Trying	←	
	180 Ringing	←	← ACM
	Apply post test routine		

TP number	TP_104_013	Reference	7.2.3.1.4 table 7a.0g
TSS reference	SIP-ISUP/Basic call/Sending_of_18x/		
Selection criteria	PICS 6.2.1/5		
Test Purpose name	Mapping of optional Backward call indicator into PSTN XML ProgressIndicator element value 8 sent in 180		
Test Purpose	Ensure that on receipt of an ACM and the optional Backward call indicator In-band information indicator in-band information or an appropriate pattern is now available, a 180 Ringing is sent. A PSTN XML ProgressIndicator element is present the value is set to No 8		
ISUP Parameter values	ACM: oBCI In-band information indicator in-band information or an appropriate pattern is now available		
SIP Parameter values	180 Ringing <?xml version="1.0" encoding="utf-8"?> PSTN ProgressIndicator ... ProgressOctet4 ProgressDescription>0001000<		
Comments			
Message flows	Mg	MGCF	ISUP
	INVITE	→	→ IAM
	100 Trying	←	
	180 Ringing	←	← ACM
	Apply post test routine		

TP number	TP_104_014	Reference	7.2.3.1.4
TSS reference	SIP-ISUP/Basic call/Sending_of_18x/		
Selection criteria	PICS 6.2.1/5		
Test Purpose name	The SUT performs Fall back		
Test Purpose	Ensure that on receipt of an INVITE request and the subsequent ISUP/BICC network is not able to perform Fall back, Fall back is performed in the SUT: The TMR in the sent IAM is set to 'speech' or '3,1 kHz audio' USI is copied from the first BearerCapability element received in the PSTN XML. Upon an ACM is received a 180 Ringing is sent		
ISUP Parameter values			
SIP Parameter values	<p>INVITE: PSTN XML MIME body <?xml version="1.0" encoding="utf-8"?> PSTN</p> <p>BearerCapability BCoet3 CodingStandard>00< InformationTransferCapability>00000< or InformationTransferCapability>10000< </p> <p>BearerCapability BCoet3 CodingStandard>00< InformationTransferCapability>10001< </p> <p>180 Ringing <?xml version="1.0" encoding="utf-8"?> PSTN</p> <p>ProgressIndicator ... ProgressOctet4 ProgressDescription>0000101<</p> <p>BearerCapability BCoet3 CodingStandard>00< InformationTransferCapability>00000< or InformationTransferCapability>10000< </p>		
Comments	Fallback is performed in the SUT		
Message flows	<p>Mg</p> <p>INVITE →</p> <p>100 Trying ←</p> <p>180 Ringing ←</p>	<p>MGCF</p> <p>→</p> <p>←</p>	<p>ISUP</p> <p>IAM</p> <p>ACM</p> <p>Apply post test routine</p>

TP number	TP_104_015	Reference	7.2.3.1.4
TSS reference	SIP-ISUP/Basic call/Sending_of_18x/		
Selection criteria	PICS 6.2.1/5		
Test Purpose name	Receipt of TMU speech, no BC present in ATP		
Test Purpose	Ensure that on receipt of a Transmission medium used parameter set to speech in the ACM, a 180 Ringing is sent and a PSTN XML BearerCapability element is present the InformationTransferCapability is set to Speech		
ISUP Parameter values	ACM: Transmission medium used = speech		
SIP Parameter values	180 Ringing <?xml version="1.0" encoding="utf-8"?> PSTN BearerCapability BCoctet3 CodingStandard>00< InformationTransferCapability>00000< ...		
Comments			
Message flows	Mg	MGCF	ISUP
	INVITE	→	→ IAM
	100 Trying	←	
	180 Ringing	←	← ACM
	Apply post test routine		

TP number	TP_104_016	Reference	7.2.3.1.4
TSS reference	SIP-ISUP/Basic call/Sending_of_18x/		
Selection criteria	PICS 6.2.1/5		
Test Purpose name	Receipt of TMU 3,1 kHz audio, no BC present in ATP		
Test Purpose	Ensure that on receipt of a Transmission medium used parameter set to 3,1 kHz audio in the ACM, a 180 Ringing is sent and a PSTN XML BearerCapability element is present the InformationTransferCapability is set to 3,1 kHz audio		
ISUP Parameter values	ACM: Transmission medium used = 3,1 kHz audio		
SIP Parameter values	180 Ringing <?xml version="1.0" encoding="utf-8"?> PSTN BearerCapability BCoctet3 CodingStandard>00< InformationTransferCapability>10000< ...		
Comments			
Message flows	Mg	MGCF	ISUP
	INVITE	→	→ IAM
	100 Trying	←	
	180 Ringing	←	← ACM
	Apply post test routine		

TP number	TP_104_017	Reference	7.2.3.1.4.1												
TSS reference	SIP-ISUP/Basic call/Sending_of_18x/														
Selection criteria	PICS 6.2.1/5														
Test Purpose name	Receipt of TMU, BC present in ATP PSTN XML BearerCapability sent in 180														
Test Purpose	Ensure that on receipt of a Transmission medium used parameter and in the ATP a Bearer Capability IE in the ACM, a 180 Ringing is sent and a PSTN XML BearerCapability element is present the InformationTransferCapability is set as indicated in table 6.1.1.4-1														
ISUP Parameter values	ACM: Transmission medium used, ATP Bearer Capability IE														
SIP Parameter values	180 Ringing <?xml version="1.0" encoding="utf-8"?> PSTN BearerCapability BCoctet3 CodingStandard>00< InformationTransferCapability>ITC_value< ...														
Comments															
Message flows	<table style="width:100%; border:none;"> <tr> <td style="text-align:center;">Mg</td> <td style="text-align:center;">MGCF</td> <td style="text-align:center;">ISUP</td> </tr> <tr> <td>INVITE</td> <td style="text-align:center;">→</td> <td>IAM</td> </tr> <tr> <td>100 Trying</td> <td style="text-align:center;">←</td> <td></td> </tr> <tr> <td>180 Ringing</td> <td style="text-align:center;">←</td> <td>ACM</td> </tr> </table> <p style="text-align:center;">Apply post test routine</p>			Mg	MGCF	ISUP	INVITE	→	IAM	100 Trying	←		180 Ringing	←	ACM
Mg	MGCF	ISUP													
INVITE	→	IAM													
100 Trying	←														
180 Ringing	←	ACM													

TP number	TP_104_018	Reference	7.2.3.1.4.1												
TSS reference	SIP-ISUP/Basic call/Sending_of_18x/														
Selection criteria	PICS 6.2.1/5														
Test Purpose name	Receipt of TMU, BC present in ATP PSTN XML BearerCapability sent in 183														
Test Purpose	Ensure that on receipt of a Transmission medium used parameter and in the ATP a Bearer Capability IE in the ACM, a 183 Session Progress is sent and a PSTN XML BearerCapability element is present the InformationTransferCapability is set as indicated in table 6.1.1.4-1														
ISUP Parameter values	ACM: Transmission medium used, ATP Bearer Capability IE BCi Called party status = no indication														
SIP Parameter values	183 Session Progress <?xml version="1.0" encoding="utf-8"?> PSTN BearerCapability BCoctet3 CodingStandard>00< InformationTransferCapability>ITC_value< ...														
Comments															
Message flows	<table style="width:100%; border:none;"> <tr> <td style="text-align:center;">Mg</td> <td style="text-align:center;">MGCF</td> <td style="text-align:center;">ISUP</td> </tr> <tr> <td>INVITE</td> <td style="text-align:center;">→</td> <td>IAM</td> </tr> <tr> <td>100 Trying</td> <td style="text-align:center;">←</td> <td></td> </tr> <tr> <td>183 Session Progress</td> <td style="text-align:center;">←</td> <td>ACM</td> </tr> </table> <p style="text-align:center;">Apply post test routine</p>			Mg	MGCF	ISUP	INVITE	→	IAM	100 Trying	←		183 Session Progress	←	ACM
Mg	MGCF	ISUP													
INVITE	→	IAM													
100 Trying	←														
183 Session Progress	←	ACM													

Table 6.1.1.4-1: Mapping of TMU and Bearer capability IE to PSTN XML BearerCapability

ITC_value	← 180 Ringing or 183 Session Progress	← ACM/CPG	
ITC_value_VA_01	PSTN XML BearerCapability = "Speech"	TMU	"Speech"
		ATP	BC "speech"
ITC_value_VA_02	PSTN XML BearerCapability = "Speech"	TMU	"3,1 kHz audio"
		ATP	BC "speech"
ITC_value_VA_03	PSTN XML BearerCapability = "3,1 kHz audio"	TMU	"Speech "
		ATP	BC "3,1 kHz audio"
ITC_value_VA_04	PSTN XML BearerCapability = "3,1 kHz audio"	TMU	"3,1 kHz audio"
		ATP	BC "3,1 kHz audio"

TP number	TP_104_019	Reference	7.2.3.1.4A
TSS reference	SIP-ISUP/Basic call/Sending_of_18x/		
Selection criteria	NOT PICS 6.2.1/5 AND NOT PICS 6.2.1/9		
Test Purpose name	ACM no indication received, no SIP response is sent		
Test Purpose	Ensure that on receipt of an early ACM no SIP response is sent if the INVITE does not contain a P-Early-Media header		
ISUP Parameter values	IAM: 3,1 kHz audio ACM: BCI Called party status indicator = no indication		
SIP Parameter values			
Comments			
Message flows	<p style="text-align: center;">Mg</p> <p>INVITE →</p>	<p style="text-align: center;">MGCF</p> <p>→</p>	<p style="text-align: center;">ISUP</p> <p>IAM ←</p> <p>ACM(no indication) ←</p> <p style="text-align: center;">Apply post test routine</p>

TP number	TP_104_020	Reference	7.2.3.1.4A
TSS reference	SIP-ISUP/Basic call/Sending_of_18x/		
Selection criteria	PICS 6.2.1/9		
Test Purpose name	ACM received, P-Earl-Media header present in 183		
Test Purpose	Ensure that on receipt of an early ACM 183 Session Progress is sent. In the 183 session Progress a P-Early-Media header is present indicating authorization of early media		
ISUP Parameter values	IAM: 3,1 kHz audio ACM: BCI Called party status indicator = no indication		
SIP Parameter values	INVITE: P-Early-Media: supported 183 Session Progress P-Early-Media: < authorization of early media>		
Comments			
Message flows	<p style="text-align: center;">Mg</p> <p>INVITE →</p> <p>183 Session Progress ←</p>	<p style="text-align: center;">MGCF</p> <p>→</p> <p>←</p>	<p style="text-align: center;">ISUP</p> <p>IAM ←</p> <p>ACM(no indication) ←</p> <p style="text-align: center;">Apply post test routine</p>

TP number	TP_104_021	Reference	7.2.3.1.4A table 7.2.3.1.4A.1
TSS reference	SIP-ISUP/Basic call/Sending_of_18x/		
Selection criteria	PICS 6.2.1/9		
Test Purpose name	CPG received, P-Earl-Media header present in 183		
Test Purpose	Ensure that on receipt of CPG and the Event indicator is set to 'In-band info or an appropriate pattern is now available' a 183 Session Progress is sent. In the 183 session Progress a P-Early-Media header is present indicating authorization of early media		
ISUP Parameter values	IAM: 3,1 kHz audio CPG: Event indicator In-band info or an appropriate pattern is now available		
SIP Parameter values	INVITE: P-Early-Media: supported 183 Session Progress P-Early-Media: < authorization of early media>		
Comments			
Message flows	<p style="text-align: center;">Mg</p> <p>INVITE →</p> <p>183 Session Progress ←</p>	<p style="text-align: center;">MGCF</p> <p>→</p> <p>←</p>	<p style="text-align: center;">ISUP</p> <p>IAM ←</p> <p>CPG ←</p> <p style="text-align: center;">Apply post test routine</p>

TP number	TP_104_022	Reference	7.2.3.1.4A table 7.2.3.1.4A.1												
TSS reference	SIP-ISUP/Basic call/Sending_of_18x/														
Selection criteria	PICS 6.2.1/5														
Test Purpose name	ACM Mapping of optional Backward call indicator into PSTN XML ProgressIndicator element value 8 sent in a 183														
Test Purpose	Ensure that on receipt of an ACM and the optional Backward call indicator In-band information indicator in-band information or an appropriate pattern is now available, a 183 Session Progress is sent. A PSTN XML ProgressIndicator element is present the value is set to No 8														
ISUP Parameter values	ACM: BCi ISDN access indicator = Terminating access ISDN BCi Called party status indicator = no indication oBCi In-band information indicator in-band information or an appropriate pattern is now available														
SIP Parameter values	183 Session Progress <?xml version="1.0" encoding="utf-8"?> PSTN ProgressIndicator ... ProgressOctet4 ProgressDescription>0001000<														
Comments															
Message flows	<table style="width:100%; border:none;"> <tr> <td style="text-align:center;">Mg</td> <td style="text-align:center;">MGCF</td> <td style="text-align:center;">ISUP</td> </tr> <tr> <td>INVITE</td> <td style="text-align:center;">→</td> <td>→ IAM</td> </tr> <tr> <td>183 Session Progress</td> <td style="text-align:center;">←</td> <td>← ACM</td> </tr> <tr> <td colspan="3" style="text-align:center;">Apply post test routine</td> </tr> </table>			Mg	MGCF	ISUP	INVITE	→	→ IAM	183 Session Progress	←	← ACM	Apply post test routine		
Mg	MGCF	ISUP													
INVITE	→	→ IAM													
183 Session Progress	←	← ACM													
Apply post test routine															

TP number	TP_104_023	Reference	7.2.3.1.4A table 7.2.3.1.4A.1												
TSS reference	SIP-ISUP/Basic call/Sending_of_18x/														
Selection criteria	PICS 6.2.1/5														
Test Purpose name	ACM Mapping of Backward call indicator into PSTN XML ProgressIndicator element value 1 sent in a 183														
Test Purpose	Ensure that on receipt of an ACM and the Backward call indicator ISDN User Part indicator is set to ISDN User Part not used all the way, a 183 Session Progress is sent. A PSTN XML ProgressIndicator element is present the value is set to No 1 (Call is not end-to-end ISDN: "further progress information may be available in-band")														
ISUP Parameter values	ACM: BCi ISDN User Part indicator = ISDN User Part not used all the way BCi Called party status indicator = no indication														
SIP Parameter values	183 Session Progress <?xml version="1.0" encoding="utf-8"?> PSTN ProgressIndicator ... ProgressOctet4 ProgressDescription>0000001<														
Comments															
Message flows	<table style="width:100%; border:none;"> <tr> <td style="text-align:center;">Mg</td> <td style="text-align:center;">MGCF</td> <td style="text-align:center;">ISUP</td> </tr> <tr> <td>INVITE</td> <td style="text-align:center;">→</td> <td>→ IAM</td> </tr> <tr> <td>183 Session Progress</td> <td style="text-align:center;">←</td> <td>← ACM</td> </tr> <tr> <td colspan="3" style="text-align:center;">Apply post test routine</td> </tr> </table>			Mg	MGCF	ISUP	INVITE	→	→ IAM	183 Session Progress	←	← ACM	Apply post test routine		
Mg	MGCF	ISUP													
INVITE	→	→ IAM													
183 Session Progress	←	← ACM													
Apply post test routine															

TP number	TP_104_024	Reference	7.2.3.1.4A table 7.2.3.1.4A.1																				
TSS reference	SIP-ISUP/Basic call/Sending_of_18x/																						
Selection criteria	PICS 6.2.1/5																						
Test Purpose name	ACM Mapping of Backward call indicator into PSTN XML ProgressIndicator element value 2 sent in a 183																						
Test Purpose	Ensure that on receipt of an ACM and the Backward call indicator ISDN User Part indicator is set to ISDN User Part used all the way and ISDN access indicator = Terminating access non-ISDN, a 183 Session Progress is sent. A PSTN XML ProgressIndicator element is present the value is set to No 2 (Destination address is non-ISDN)																						
ISUP Parameter values	ACM: BCI ISDN User Part indicator = ISDN User Part used all the way BCi ISDN access indicator = Terminating access non-ISDN BCi Called party status indicator = no indication																						
SIP Parameter values	183 Session Progress <?xml version="1.0" encoding="utf-8"?> PSTN ProgressIndicator ... ProgressOctet4 ProgressDescription>0000010<																						
Comments																							
Message flows	<table style="width:100%; border:none;"> <tr> <td style="text-align:center;">Mg</td> <td></td> <td style="text-align:center;">MGCF</td> <td></td> <td style="text-align:center;">ISUP</td> </tr> <tr> <td>INVITE</td> <td style="text-align:center;">→</td> <td></td> <td style="text-align:center;">→</td> <td>IAM</td> </tr> <tr> <td>100 Trying</td> <td style="text-align:center;">←</td> <td></td> <td></td> <td></td> </tr> <tr> <td>183 Session Progress</td> <td style="text-align:center;">←</td> <td></td> <td style="text-align:center;">←</td> <td>ACM</td> </tr> </table> <p style="text-align:center;">Apply post test routine</p>			Mg		MGCF		ISUP	INVITE	→		→	IAM	100 Trying	←				183 Session Progress	←		←	ACM
Mg		MGCF		ISUP																			
INVITE	→		→	IAM																			
100 Trying	←																						
183 Session Progress	←		←	ACM																			

TP number	TP_104_025	Reference	7.2.3.1.4A table 7.2.3.1.4A.1																				
TSS reference	SIP-ISUP/Basic call/Sending_of_18x/																						
Selection criteria	PICS 6.2.1/5																						
Test Purpose name	ACM Mapping of Backward call indicator into PSTN XML ProgressIndicator element value 7 sent in a 183																						
Test Purpose	Ensure that on receipt of an ACM and the Backward call indicator ISDN User Part indicator is set to ISDN User Part used all the way and ISDN access indicator = Terminating access ISDN, a 183 Session Progress is sent. A PSTN XML ProgressIndicator element is present the value is set to No 7																						
ISUP Parameter values	ACM: BCI ISDN User Part indicator = ISDN User Part used all the way BCi ISDN access indicator = Terminating access ISDN BCi Called party status indicator = no indication																						
SIP Parameter values	183 Session Progress <?xml version="1.0" encoding="utf-8"?> PSTN ProgressIndicator ... ProgressOctet4 ProgressDescription>0000111<																						
Comments																							
Message flows	<table style="width:100%; border:none;"> <tr> <td style="text-align:center;">Mg</td> <td></td> <td style="text-align:center;">MGCF</td> <td></td> <td style="text-align:center;">ISUP</td> </tr> <tr> <td>INVITE</td> <td style="text-align:center;">→</td> <td></td> <td style="text-align:center;">→</td> <td>IAM</td> </tr> <tr> <td>100 Trying</td> <td style="text-align:center;">←</td> <td></td> <td></td> <td></td> </tr> <tr> <td>183 Session Progress</td> <td style="text-align:center;">←</td> <td></td> <td style="text-align:center;">←</td> <td>ACM</td> </tr> </table> <p style="text-align:center;">Apply post test routine</p>			Mg		MGCF		ISUP	INVITE	→		→	IAM	100 Trying	←				183 Session Progress	←		←	ACM
Mg		MGCF		ISUP																			
INVITE	→		→	IAM																			
100 Trying	←																						
183 Session Progress	←		←	ACM																			

TP number	TP_104_026	Reference	7.2.3.1.4A table 7.2.3.1.4A.2															
TSS reference	SIP-ISUP/Basic call/Sending_of_18x/																	
Selection criteria	PICS 6.2.1/5																	
Test Purpose name	CPG Mapping of optional Backward call indicator into PSTN XML ProgressIndicator element value 8 sent in a 183																	
Test Purpose	Ensure that on receipt of a CPG and the optional Backward call indicator In-band information indicator in-band information or an appropriate pattern is now available, a 183 Session Progress is sent. A PSTN XML ProgressIndicator element is present the value is set to No 8																	
ISUP Parameter values	CPG: Event indicator = Progress oBCI In-band information indicator in-band information or an appropriate pattern is now available																	
SIP Parameter values	183 Session Progress <?xml version="1.0" encoding="utf-8"?> PSTN ProgressIndicator ... ProgressOctet4 ProgressDescription>0001000<																	
Comments																		
Message flows	<table style="width:100%; border:none;"> <tr> <td style="text-align:center;">Mg</td> <td style="text-align:center;">MGCF</td> <td style="text-align:center;">ISUP</td> </tr> <tr> <td>INVITE</td> <td style="text-align:center;">→</td> <td style="text-align:center;">→ IAM</td> </tr> <tr> <td></td> <td></td> <td style="text-align:center;">← ACM</td> </tr> <tr> <td>183 Session Progress</td> <td style="text-align:center;">←</td> <td style="text-align:center;">← CPG</td> </tr> <tr> <td colspan="3" style="text-align:center;">Apply post test routine</td> </tr> </table>			Mg	MGCF	ISUP	INVITE	→	→ IAM			← ACM	183 Session Progress	←	← CPG	Apply post test routine		
Mg	MGCF	ISUP																
INVITE	→	→ IAM																
		← ACM																
183 Session Progress	←	← CPG																
Apply post test routine																		

TP number	TP_104_027	Reference	7.2.3.1.4A table 7.2.3.1.4A.2															
TSS reference	SIP-ISUP/Basic call/Sending_of_18x/																	
Selection criteria	PICS 6.2.1/5																	
Test Purpose name	CPG Mapping of Backward call indicator into PSTN XML ProgressIndicator element value 1 sent in a 183																	
Test Purpose	Ensure that on receipt of a CPG and the Backward call indicator ISDN User Part indicator is set to ISDN User Part not used all the way, a 183 Session Progress is sent. A PSTN XML ProgressIndicator element is present the value is set to No 1 (Call is not end-to-end ISDN: "further progress information may be available in-band")																	
ISUP Parameter values	CPG: Event indicator = Progress BCI ISDN User Part indicator = ISDN User Part not used all the way																	
SIP Parameter values	183 Session Progress <?xml version="1.0" encoding="utf-8"?> PSTN ProgressIndicator ... ProgressOctet4 ProgressDescription>0000001<																	
Comments																		
Message flows	<table style="width:100%; border:none;"> <tr> <td style="text-align:center;">Mg</td> <td style="text-align:center;">MGCF</td> <td style="text-align:center;">ISUP</td> </tr> <tr> <td>INVITE</td> <td style="text-align:center;">→</td> <td style="text-align:center;">→ IAM</td> </tr> <tr> <td></td> <td></td> <td style="text-align:center;">← ACM</td> </tr> <tr> <td>183 Session Progress</td> <td style="text-align:center;">←</td> <td style="text-align:center;">← CPG</td> </tr> <tr> <td colspan="3" style="text-align:center;">Apply post test routine</td> </tr> </table>			Mg	MGCF	ISUP	INVITE	→	→ IAM			← ACM	183 Session Progress	←	← CPG	Apply post test routine		
Mg	MGCF	ISUP																
INVITE	→	→ IAM																
		← ACM																
183 Session Progress	←	← CPG																
Apply post test routine																		

TP number	TP_104_028	Reference	7.2.3.1.4A table 7.2.3.1.4A.2															
TSS reference	SIP-ISUP/Basic call/Sending_of_18x/																	
Selection criteria	PICS 6.2.1/5																	
Test Purpose name	CPG Mapping of Backward call indicator into PSTN XML ProgressIndicator element value 2 sent in a 183																	
Test Purpose	Ensure that on receipt of an CPG (Progress) and the Backward call indicator ISDN User Part indicator is set to ISDN User Part used all the way and ISDN access indicator = Terminating access non-ISDN, a 183 Session Progress is sent. A PSTN XML ProgressIndicator element is present the value is set to No 2 (Destination address is non-ISDN)																	
ISUP Parameter values	CPG: Event indicator = Progress BCI ISDN User Part indicator = ISDN User Part used all the way BCi ISDN access indicator = Terminating access non-ISDN																	
SIP Parameter values	183 Session Progress <?xml version="1.0" encoding="utf-8"?> PSTN ProgressIndicator ... ProgressOctet4 ProgressDescription>0000010<																	
Comments																		
Message flows	<table style="width:100%; border:none;"> <tr> <td style="text-align:center;">Mg</td> <td style="text-align:center;">MGCF</td> <td style="text-align:center;">ISUP</td> </tr> <tr> <td>INVITE</td> <td style="text-align:center;">→</td> <td style="text-align:center;">→ IAM</td> </tr> <tr> <td></td> <td></td> <td style="text-align:center;">← ACM</td> </tr> <tr> <td>183 Session Progress</td> <td style="text-align:center;">←</td> <td style="text-align:center;">← CPG</td> </tr> <tr> <td colspan="3" style="text-align:center;">Apply post test routine</td> </tr> </table>			Mg	MGCF	ISUP	INVITE	→	→ IAM			← ACM	183 Session Progress	←	← CPG	Apply post test routine		
Mg	MGCF	ISUP																
INVITE	→	→ IAM																
		← ACM																
183 Session Progress	←	← CPG																
Apply post test routine																		

TP number	TP_104_029	Reference	7.2.3.1.4A table 7.2.3.1.4A.2															
TSS reference	SIP-ISUP/Basic call/Sending_of_18x/																	
Selection criteria	PICS 6.2.1/5																	
Test Purpose name	CPG Mapping of Backward call indicator into PSTN XML ProgressIndicator element value 7 sent in a 183																	
Test Purpose	Ensure that on receipt of an CPG (Progress) and the Backward call indicator ISDN User Part indicator is set to ISDN User Part used all the way and ISDN access indicator = Terminating access ISDN, a 183 Session Progress is sent. A PSTN XML ProgressIndicator element is present the value is set to No 7																	
ISUP Parameter values	CPG: Event indicator = Progress BCI ISDN User Part indicator = ISDN User Part used all the way BCi ISDN access indicator = Terminating access ISDN																	
SIP Parameter values	183 Session Progress <?xml version="1.0" encoding="utf-8"?> PSTN ProgressIndicator ... ProgressOctet4 ProgressDescription>0000111<																	
Comments																		
Message flows	<table style="width:100%; border:none;"> <tr> <td style="text-align:center;">Mg</td> <td style="text-align:center;">MGCF</td> <td style="text-align:center;">ISUP</td> </tr> <tr> <td>INVITE</td> <td style="text-align:center;">→</td> <td style="text-align:center;">→ IAM</td> </tr> <tr> <td></td> <td></td> <td style="text-align:center;">← ACM</td> </tr> <tr> <td>183 Session Progress</td> <td style="text-align:center;">←</td> <td style="text-align:center;">← CPG</td> </tr> <tr> <td colspan="3" style="text-align:center;">Apply post test routine</td> </tr> </table>			Mg	MGCF	ISUP	INVITE	→	→ IAM			← ACM	183 Session Progress	←	← CPG	Apply post test routine		
Mg	MGCF	ISUP																
INVITE	→	→ IAM																
		← ACM																
183 Session Progress	←	← CPG																
Apply post test routine																		

TP number	TP_104_030	Reference	7.2.3.1.4A															
TSS reference	SIP-ISUP/Basic call/Sending_of_18x/																	
Selection criteria	PICS 6.2.1/5																	
Test Purpose name	CPG Mapping of CPG Event information 'in-band info or appropriate pattern is now available' sent in a 183																	
Test Purpose	Ensure that on receipt of a CPG and the Event information is set to "in-band information or an appropriate pattern is now available", a 183 Session Progress is sent. A P-Early-Media header is present indicating authorization of early media.																	
ISUP Parameter values	CPG: Event indicator = in-band information or an appropriate pattern is now available																	
SIP Parameter values	183 Session Progress P-Early-Media: < authorization of early media>																	
Comments																		
Message flows	<table style="width: 100%; border: none;"> <tr> <td style="text-align: center;">Mg</td> <td style="text-align: center;">MGCF</td> <td style="text-align: center;">ISUP</td> </tr> <tr> <td>INVITE</td> <td style="text-align: center;">→</td> <td style="text-align: center;">→ IAM</td> </tr> <tr> <td></td> <td></td> <td style="text-align: center;">← ACM</td> </tr> <tr> <td>183 Session Progress</td> <td style="text-align: center;">←</td> <td style="text-align: center;">← CPG</td> </tr> <tr> <td colspan="3" style="text-align: center;">Apply post test routine</td> </tr> </table>			Mg	MGCF	ISUP	INVITE	→	→ IAM			← ACM	183 Session Progress	←	← CPG	Apply post test routine		
Mg	MGCF	ISUP																
INVITE	→	→ IAM																
		← ACM																
183 Session Progress	←	← CPG																
Apply post test routine																		

TP number	TP_104_031	Reference	7.2.3.1.4A table 7.2.3.1.4A.2															
TSS reference	SIP-ISUP/Basic call/Sending_of_18x/																	
Selection criteria	PICS 6.2.1/5																	
Test Purpose name	Mapping of Backward call indicator into PSTN XML ProgressIndicator element value 2 sent in a 183																	
Test Purpose	Ensure that on receipt of an CPG (in-band information or an appropriate pattern is now available) and the Backward call indicator ISDN User Part indicator is set to ISDN User Part used all the way and ISDN access indicator = Terminating access non-ISDN, a 183 Session Progress is sent. A PSTN XML ProgressIndicator element is present the value is set to No 2 (Destination address is non-ISDN)																	
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SIP Parameter values	183 Session Progress <?xml version="1.0" encoding="utf-8"?> PSTN ProgressIndicator ... ProgressOctet4 ProgressDescription>0000010<																	
Comments																		
Message flows	<table style="width: 100%; border: none;"> <tr> <td style="text-align: center;">Mg</td> <td style="text-align: center;">MGCF</td> <td style="text-align: center;">ISUP</td> </tr> <tr> <td>INVITE</td> <td style="text-align: center;">→</td> <td style="text-align: center;">→ IAM</td> </tr> <tr> <td></td> <td></td> <td style="text-align: center;">← ACM</td> </tr> <tr> <td>183 Session Progress</td> <td style="text-align: center;">←</td> <td style="text-align: center;">← CPG</td> </tr> <tr> <td colspan="3" style="text-align: center;">Apply post test routine</td> </tr> </table>			Mg	MGCF	ISUP	INVITE	→	→ IAM			← ACM	183 Session Progress	←	← CPG	Apply post test routine		
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INVITE	→	→ IAM																
		← ACM																
183 Session Progress	←	← CPG																
Apply post test routine																		

TP number	TP_104_032	Reference	7.2.3.1.4A table 7.2.3.1.4A.2												
TSS reference	SIP-ISUP/Basic call/Sending_of_18x/														
Selection criteria	PICS 6.2.1/5														
Test Purpose name	Mapping of Backward call indicator into PSTN XML ProgressIndicator element value 7 sent in a 183														
Test Purpose	Ensure that on receipt of an CPG (in-band information or an appropriate pattern is now available) and the Backward call indicator ISDN User Part indicator is set to ISDN User Part used all the way and ISDN access indicator = Terminating access ISDN, a 183 Session Progress is sent. A PSTN XML ProgressIndicator element is present the value is set to No 7														
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SIP Parameter values	183 Session Progress <?xml version="1.0" encoding="utf-8"?> PSTN ProgressIndicator ... ProgressOctet4 ProgressDescription>0000111<														
Comments															
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Mg	MGCF	ISUP													
INVITE	→	→ IAM													
		← ACM													
183 Session Progress	←	← CPG													

TP number	TP_104_033	Reference	7.2.3.1.4 table 7a.0f																																								
TSS reference	SIP-ISUP/Basic call/Sending_of_18x/																																										
Selection criteria	PICS 6.2.1/5																																										
Test Purpose name	Mapping of Progress Indicator received in a ACM/CPG into 183																																										
Test Purpose	<p>Ensure that on receipt of an ACM called party status no indication or CPG, a 183 Session Progress is sent. The Progress Indicator IE contained in the ACM ATP parameter is mapped into the PSTN XML element in the 183 Session Progress as indicated in table 6.1.1.4-2.</p> <ul style="list-style-type: none"> Progress Indicator received in an ACM called party status no indication, a 183 Session Progress is sent in the PSTN XML element contains the ProgressIndicator value PI_value Progress Indicator received in an CPG a 183 Session Progress is sent the PSTN XML element contains the ProgressIndicator value PI_value 																																										
ISUP Parameter values	<p>ACM: CASE A BCI Called party status = no indication ATP contains a Progress Indicator IE CASE B BCI Called party status = no indication oBCI 'inband info available'</p> <p>CPG: ATP contains a Progress Indicator IE</p>																																										
SIP Parameter values	<p>183 Session Progress: <?xml version="1.0" encoding="utf-8"?> PSTN ProgressIndicator ProgressOctet3 CodingStandard>00< Location>yyyy< ProgressOctet4 ProgressDescription>PI_value<</p>																																										
Comments																																											
Message flows	<table style="width:100%; border:none;"> <tr> <td style="text-align:center;">Mg</td> <td style="text-align:center;">→</td> <td style="text-align:center;">MGCF</td> <td style="text-align:center;">→</td> <td style="text-align:center;">ISUP</td> </tr> <tr> <td>INVITE</td> <td></td> <td></td> <td></td> <td>IAM</td> </tr> <tr> <td>CASE A</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>183 Session Progress</td> <td style="text-align:center;">←</td> <td></td> <td style="text-align:center;">←</td> <td>ACM</td> </tr> <tr> <td>CASE B</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>183 Session Progress</td> <td style="text-align:center;">←</td> <td></td> <td style="text-align:center;">←</td> <td>ACM</td> </tr> <tr> <td></td> <td></td> <td></td> <td style="text-align:center;">←</td> <td>CPG</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td style="text-align:center;">Apply post test routine</td> </tr> </table>			Mg	→	MGCF	→	ISUP	INVITE				IAM	CASE A					183 Session Progress	←		←	ACM	CASE B					183 Session Progress	←		←	ACM				←	CPG					Apply post test routine
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183 Session Progress	←		←	ACM																																							
			←	CPG																																							
				Apply post test routine																																							

Table 6.1.1.4-2: Mapping of Progress Indicator information element to PSTN XML ProgressIndicator

PI_value	ATP Progress Indicator value	XML ProgressIndicator ProgressDescription
PI_VA_1	Call is not end-to-end ISDN; further call progress information may be available in-band	'0000001'
PI_VA_2	Destination address is non-ISDN	'0000010'
PI_VA_3	Origination address is non-ISDN	'0000011'
PI_VA_4	Call has returned to the ISDN	'0000100'
PI_VA_5	Interworking has occurred and has resulted in a telecommunication service change	'0000101'
PI_VA_6	In-band information or an appropriate pattern is now available	'0001000'

TP number	TP_104_034	Reference	7.2.3.1.4 table 7a.0f																																				
TSS reference	SIP-ISUP/Basic call/Sending_of_18x/																																						
Selection criteria	PICS 6.2.1/5																																						
Test Purpose name	Mapping of High layer compatibility received in a ACM/CPG into 183																																						
Test Purpose	<p>Ensure that on receipt of an ACM called party status no indication or CPG, a 183 Session Progress is sent. The High layer compatibility IE contained in the ACM ATP parameter is mapped into the HighLayerCompatibility PSTN XML element in the 183 Session Progress as indicated in table 6.1.1.4-3.</p> <ul style="list-style-type: none"> High layer compatibility received in an ACM called party status no indication, a 183 Session Progress is sent in the PSTN XML element contains the HighLayerCompatibility value HLC_value High layer compatibility received in an CPG a 183 Session Progress is sent the PSTN XML element contains the HighLayerCompatibility value HLC_value 																																						
ISUP Parameter values	<p>ACM: CASE A BCi Called party status = no indication CASE B BCi Called party status = no indication oBCi 'inband info available'</p> <p>CPG: ATP contains a High layer compatibility IE</p>																																						
SIP Parameter values	<p>183 Session Progress: <?xml version="1.0" encoding="utf-8"?> PSTN HighLayerCompatibility HLOctet3 CodingStandard>00< Interpretation>100< PresentationMethod>01< HLOctet4 HighLayerCharacteristics>HLC_value<</p>																																						
Comments																																							
Message flows	<table style="width:100%; border:none;"> <tr> <td style="width:30%;"></td> <td style="text-align:center;">Mg</td> <td style="width:30%;"></td> <td style="text-align:center;">MGCF</td> <td style="width:30%;"></td> <td style="text-align:center;">ISUP</td> </tr> <tr> <td>INVITE</td> <td style="text-align:center;">→</td> <td></td> <td style="text-align:center;">→</td> <td></td> <td>IAM</td> </tr> <tr> <td>CASE A</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>183 Session Progress</td> <td style="text-align:center;">←</td> <td></td> <td style="text-align:center;">←</td> <td></td> <td>ACM</td> </tr> <tr> <td>CASE B</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>183 Session Progress</td> <td style="text-align:center;">←</td> <td></td> <td style="text-align:center;">←</td> <td></td> <td>ACM CPG</td> </tr> </table> <p style="text-align:center;">Apply post test routine</p>				Mg		MGCF		ISUP	INVITE	→		→		IAM	CASE A						183 Session Progress	←		←		ACM	CASE B						183 Session Progress	←		←		ACM CPG
	Mg		MGCF		ISUP																																		
INVITE	→		→		IAM																																		
CASE A																																							
183 Session Progress	←		←		ACM																																		
CASE B																																							
183 Session Progress	←		←		ACM CPG																																		

Table 6.1.1.4-3: Mapping of High layer compatibility information element to PSTN XML HighLayerCharacteristic

HLC_value	DSS1 High layer characteristics identification	XML HighLayerCharacteristic
HLC_VA_1	Telephony	'0000001'
HLC_VA_2	Facsimile Group 2/3	'0000100'
HLC_VA_3	Facsimile Group 4 Class I	'0100001'
HLC_VA_4	Facsimile service Group 4, Classes II and III	'0100100'
HLC_VA_5	Syntax based Videotex	'0110010'
HLC_VA_6	International Videotex interworking via gateways or interworking units	'0110011'
HLC_VA_7	Telex service	'0110101'
HLC_VA_8	FTAM application	'1000010'
HLC_VA_9	Videotelephony	'1100000'

TP number	TP_104_035	Reference	7.2.3.1.4 table 7a.0f																																																
TSS reference	SIP-ISUP/Basic call/Sending_of_18x/																																																		
Selection criteria	PICS 6.2.1/5																																																		
Test Purpose name	Mapping of Low layer compatibility received in a ACM/CPG into 183																																																		
Test Purpose	<p>Ensure that on receipt of an ACM called party status no indication or CPG, a 183 Session Progress is sent. The Low layer compatibility IE contained in the ACM ATP parameter is mapped into the LowLayerCompatibility PSTN XML element in the 183 Session Progress as indicated in table 6.1.1.4-4.</p> <ul style="list-style-type: none"> Low layer compatibility received in an ACM called party status no indication, a 183 Session Progress is sent in the PSTN XML element contains the LowLayerCompatibility value ITC_value Low layer compatibility received in an CPG a 183 Session Progress is sent the PSTN XML element contains the LowLayerCompatibility value ITC_value 																																																		
ISUP Parameter values	<p>ACM: CASE A BCi Called party status = no indication CASE B BCi Called party status = no indication oBCi 'inband info available'</p> <p>CPG: ATP contains a Low layer compatibility IE</p>																																																		
SIP Parameter values	<p>183 Session Progress: <?xml version="1.0" encoding="utf-8"?> PSTN LowLayerCompatibility> LLOctet3> CodingStandard>00< InformationTransferCapability>ITC_value< LLOctet4> TransferMode>00< InformationTransferRate>10000<</p>																																																		
Comments																																																			
Message flows	<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 30%;"></td> <td style="text-align: center;">Mg</td> <td style="width: 30%;"></td> <td style="text-align: center;">MGCF</td> <td style="width: 30%;"></td> <td style="text-align: center;">ISUP</td> </tr> <tr> <td>INVITE</td> <td style="text-align: center;">→</td> <td></td> <td style="text-align: center;">→</td> <td></td> <td>IAM</td> </tr> <tr> <td>CASE A</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>183 Session Progress</td> <td style="text-align: center;">←</td> <td></td> <td style="text-align: center;">←</td> <td></td> <td>ACM</td> </tr> <tr> <td>CASE B</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>183 Session Progress</td> <td style="text-align: center;">←</td> <td></td> <td style="text-align: center;">←</td> <td></td> <td>ACM</td> </tr> <tr> <td></td> <td></td> <td></td> <td style="text-align: center;">←</td> <td></td> <td>CPG</td> </tr> <tr> <td></td> <td></td> <td></td> <td colspan="3" style="text-align: center;">Apply post test routine</td> </tr> </table>				Mg		MGCF		ISUP	INVITE	→		→		IAM	CASE A						183 Session Progress	←		←		ACM	CASE B						183 Session Progress	←		←		ACM				←		CPG				Apply post test routine		
	Mg		MGCF		ISUP																																														
INVITE	→		→		IAM																																														
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CASE B																																																			
183 Session Progress	←		←		ACM																																														
			←		CPG																																														
			Apply post test routine																																																

Table 6.1.1.4-4: Mapping of Low Layer Compatibility to PSTN XML LowLayerCompatibility

ITC_value	LLC Information transfer capability	XML LLC InformationTransferCapability
ITC_VA_1	Speech	'00000'
ITC_VA_2	3,1 kHz audio	'10000'
ITC_VA_3	Unrestricted digital info	'01001'
ITC_VA_3	7 kHz audio	'10001'

TP number	TP_104_036	Reference	7.2.3.1.4 table 7a.0f																																																	
TSS reference	SIP-ISUP/Basic call/Sending_of_18x/																																																			
Selection criteria	PICS 6.2.1/5																																																			
Test Purpose name	Mapping of Bearer Capability received in a ACM/CPG into 183																																																			
Test Purpose	<p>Ensure that on receipt of an ACM called party status no indication or CPG, a 183 Session Progress is sent. The Bearer Capability IE contained in the ACM ATP parameter is mapped into the BearerCapability PSTN XML element in the 183 Session Progress as indicated in table 6.1.1.4-5.</p> <ul style="list-style-type: none"> Bearer Capability received in an ACM called party status subscriber free 183 Session Progress is sent in the PSTN XML element contains the BearerCapability value ITC_value Bearer Capability received in an CPG a 183 Session Progress is sent in the PSTN XML element contains the BearerCapability value ITC_value 																																																			
ISUP Parameter values	<p>ACM: CASE A BCi Called party status = no indication CASE B BCi Called party status = no indication oBCi 'inband info available'</p> <p>CPG: ATP contains a Bearer Capability IE</p>																																																			
SIP Parameter values	<p>183 Session Progress: <?xml version="1.0" encoding="utf-8"?> PSTN BearerCapability BCoet3 CodingStandard>00< InformationTransferCapability>ITC_value< BCoet4 TransferMode>00< InformationTransferRate>10000< BCoet5> Layer1Identification>01< UserInfoLayer1Protocol>00011<</p>																																																			
Comments																																																				
Message flows	<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 30%;"></td> <td style="text-align: center;">Mg</td> <td style="text-align: center;">→</td> <td style="text-align: center;">MGCF</td> <td style="text-align: center;">→</td> <td style="text-align: center;">IAM</td> <td style="text-align: center;">ISUP</td> </tr> <tr> <td>INVITE</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td colspan="7">CASE A</td> </tr> <tr> <td>183 Session Progress</td> <td></td> <td style="text-align: center;">←</td> <td></td> <td></td> <td style="text-align: center;">←</td> <td>ACM</td> </tr> <tr> <td colspan="7">CASE B</td> </tr> <tr> <td>183 Session Progress</td> <td></td> <td style="text-align: center;">←</td> <td></td> <td></td> <td style="text-align: center;">←</td> <td>ACM</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td style="text-align: center;">←</td> <td>CPG</td> </tr> </table> <p style="text-align: center;">Apply post test routine</p>				Mg	→	MGCF	→	IAM	ISUP	INVITE							CASE A							183 Session Progress		←			←	ACM	CASE B							183 Session Progress		←			←	ACM						←	CPG
	Mg	→	MGCF	→	IAM	ISUP																																														
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183 Session Progress		←			←	ACM																																														
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183 Session Progress		←			←	ACM																																														
					←	CPG																																														

Table 6.1.1.4-5: Mapping of Bearer capability to PSTN XML BearerCapability

ITC_value	BC Information transfer capability	XML InformationTransferCapability
ITC_VA_1	Speech	'00000'
ITC_VA_2	3,1 kHz audio	'10000'
ITC_VA_3	Unrestricted digital inf. W/tone/ann	'10001'
ITC_VA_4	Unrestricted digital information	'01000'

TP number	TP_104_037	Reference	7.2.3.1.4B
TSS reference	SIP-ISUP/Basic call/Sending_of_18x/		
Selection criteria			
Test Purpose name	ACM containing CDIV information, a 181 is sent		
Test Purpose	Ensure that on receipt of an ACM containing a Redirection number, Call diversion information and Generic notification set to 'Call is diverted', a 181 Call Is Being Forwarded is sent		
ISUP Parameter values	ACM: BCi Called party status = no indication Redirection number Call diversion information Generic notification = 'Call is diverted'		
SIP Parameter values	181 Call Is Being Forwarded		
Comments			
Message flows	Mg	MGCF	ISUP
	INVITE	→	→ IAM
	100 Trying	←	
	181 Call Is Being Forwarded	←	← ACM
	Apply post test routine		

TP number	TP_104_038	Reference	7.2.3.1.4B
TSS reference	SIP-ISUP/Basic call/Sending_of_18x/		
Selection criteria	PICS 6.2.1/9		
Test Purpose name	ACM containing CDIV information and oBCi inband inf available, a 181 is sent a P-Early-Media present		
Test Purpose	Ensure that on receipt of a ACM containing a Redirection number, Call diversion information and Generic notification set to 'Call is diverted' and an optional backward call indicator set to In-band info or an appropriate pattern is now available, a 181 Call Is Being Forwarded is sent, a P-Early-Media is present indicating authorization of early media		
ISUP Parameter values	ACM: BCi Called party status = no indication Redirection number Call diversion information Generic notification = 'Call is diverted'		
SIP Parameter values	181 Call Is Being Forwarded P-Early-Media: <indicating authorization of early media>		
Comments			
Message flows	Mg	MGCF	ISUP
	INVITE	→	→ IAM
	100 Trying	←	
	181 Call Is Being Forwarded	←	← ACM
	Apply post test routine		

TP number	TP_104_040	Reference	7.2.3.1.4B
TSS reference	SIP-ISUP/Basic call/Sending_of_18x/		
Selection criteria			
Test Purpose name	CPG containing CDIV information, a 181 is sent		
Test Purpose	Ensure that on receipt of a CPG Event Indicator set to Progress containing a Redirection number, Call diversion information and Generic notification set to 'Call is diverted', a 181 Call Is Being Forwarded is sent		
ISUP Parameter values	CPG: Event Indicator set to Progress Redirection number Call diversion information Generic notification = 'Call is diverted' oBCI In-band information indicator in-band information or an appropriate pattern is now available		
SIP Parameter values	181 Call Is Being Forwarded		
Comments			
Message flows	Mg	MGCF	ISUP
	INVITE	→	→ IAM
	180/183	←	← ACM
	181 Call Is Being Forwarded	←	← CPG
	Apply post test routine		

TP number	TP_104_041	Reference	7.2.3.1.4B
TSS reference	SIP-ISUP/Basic call/Sending_of_18x/		
Selection criteria	PICS 6.2.1/9		
Test Purpose name	ACM containing CDIV information and oBCi inband inf available, a 181 is sent a P-Early-Media present		
Test Purpose	Ensure that on receipt of a CPG Event Indicator set to Progress containing a Redirection number, Call diversion information and Generic notification set to 'Call is diverted' and an optional backward call indicator set to In-band info or an appropriate pattern is now available, a 181 Call Is Being Forwarded is sent, a P-Early-Media is present indicating authorization of early media		
ISUP Parameter values	CPG: Event Indicator set to Progress Redirection number Call diversion information Generic notification = 'Call is diverted'		
SIP Parameter values	INVITE: Supported: 100rel P-Early-Media: < authorization of early media> 181 Call Is Being Forwarded P-Early-Media: <indicating authorization of early media>		
Comments			
Message flows	Mg	MGCF	ISUP
	INVITE	→	→ IAM
	180/183	←	← ACM
	181 Call Is Being Forwarded	←	← CPG
	Apply post test routine		

6.1.1.5 Sending of the 200 OK (INVITE)

TP number	TP_105_001	Reference	7.2.3.1.5
TSS reference	SIP-ISUP/Basic call/Sending_of_200_OK/		
Selection criteria			
Test Purpose name	An ANM is received a 200 OK is sent		
Test Purpose	Ensure that on receipt of an ANM the SUT sends a 200 OK INVITE		
ISUP Parameter values			
SIP Parameter values			
Comments			
Message flows	Mg	MGCF	ISUP
	INVITE	→	→ IAM
	100 Trying	←	
	180 Ringing	←	← ACM
	200 OK (INVITE)	←	← ANM
	ACK	→	
	Apply post test routine		

TP number	TP_105_002	Reference	7.2.3.1.5
TSS reference	SIP-ISUP/Basic call/Sending_of_200_OK/		
Selection criteria			
Test Purpose name	A CON is received a 200 OK is sent		
Test Purpose	Ensure that on receipt of a CON the SUT sends a 200 OK INVITE		
ISUP Parameter values			
SIP Parameter values			
Comments			
Message flows	Mg	MGCF	ISUP
	INVITE	→	→ IAM
	100 Trying	←	
	200 OK (INVITE)	←	← CON
	ACK	→	
	Apply post test routine		

TP number	TP_105_003	Reference	7.2.3.1.5 table 7.2.3.1.5.1																																													
TSS reference	SIP-ISUP/Basic call/Sending_of_200_OK/																																															
Selection criteria	PICS 6.2.1/5																																															
Test Purpose name	Progress indicator received in ANM/CON is mapped into PSTN XML ProgressIndicator																																															
Test Purpose	Ensure that on receipt of an ANM/CON and an ATP containing a Progress indicator IE set to value PI_value a, 200 OK INVITE is sent. the PSTN XML ProgressIndicator value is set as indicated in table 6.1.1.5-1																																															
ISUP Parameter values	ANM/CON: ATP contains a Progress Indicator IE value PI_value																																															
SIP Parameter values	200 OK INVITE: <?xml version="1.0" encoding="utf-8"?> PSTN ProgressIndicator ProgressOctet3 CodingStandard>00< Location<yyyy> ProgressOctet4 ProgressDescription> PI_value <																																															
Comments																																																
Message flows	<table style="width:100%; border:none;"> <tr> <td style="text-align:center;">Mg</td> <td style="text-align:center;">→</td> <td style="text-align:center;">MGCF</td> <td style="text-align:center;">→</td> <td style="text-align:center;">ISUP</td> </tr> <tr> <td>INVITE</td> <td></td> <td></td> <td></td> <td>IAM</td> </tr> <tr> <td>CASE A</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>180 Ringing</td> <td style="text-align:center;">←</td> <td></td> <td style="text-align:center;">←</td> <td>ACM</td> </tr> <tr> <td>200 OK (INVITE)</td> <td style="text-align:center;">←</td> <td></td> <td style="text-align:center;">←</td> <td>ANM</td> </tr> <tr> <td>ACK</td> <td style="text-align:center;">→</td> <td></td> <td></td> <td></td> </tr> <tr> <td>CASE B</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>200 OK (INVITE)</td> <td style="text-align:center;">←</td> <td></td> <td style="text-align:center;">←</td> <td>CON</td> </tr> <tr> <td>ACK</td> <td style="text-align:center;">→</td> <td></td> <td></td> <td></td> </tr> </table> <p style="text-align:center;">Apply post test routine</p>			Mg	→	MGCF	→	ISUP	INVITE				IAM	CASE A					180 Ringing	←		←	ACM	200 OK (INVITE)	←		←	ANM	ACK	→				CASE B					200 OK (INVITE)	←		←	CON	ACK	→			
Mg	→	MGCF	→	ISUP																																												
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ACK	→																																															
CASE B																																																
200 OK (INVITE)	←		←	CON																																												
ACK	→																																															

Table 6.1.1.5-1: Mapping of Progress Indicator information element to PSTN XML ProgressIndicator

PI_value	ATP Progress Indicator value	XML ProgressIndicator ProgressDescription
PI_VA_1	Call is not end-to-end ISDN; further call progress information may be available in-band	'0000001'
PI_VA_2	Destination address is non-ISDN	'0000010'
PI_VA_3	Origination address is non-ISDN	'0000011'
PI_VA_4	Call has returned to the ISDN	'0000100'
PI_VA_5	Interworking has occurred and has resulted in a telecommunication service change	'0000101'
PI_VA_6	In-band information or an appropriate pattern is now available	'0001000'

TP number	TP_105_004	Reference	7.2.3.1.5 table 7.2.3.1.5.1																																																						
TSS reference	SIP-ISUP/Basic call/Sending_of_200_OK/																																																								
Selection criteria	PICS 6.2.1/5																																																								
Test Purpose name	High layer compatibility received in ANM/CON is mapped into PSTN XML HighLayerCompatibility																																																								
Test Purpose	Ensure that on receipt of an ANM/CON and an ATP containing a High layer compatibility IE set to value HLC_value, a 200 OK INVITE is sent. the PSTN XML HighLayerCompatibility value is set as indicated in table 6.1.1.5-2																																																								
ISUP Parameter values	ANM/CON: ATP contains a High layer compatibility IE value HLC_value																																																								
SIP Parameter values	200 OK INVITE: <?xml version="1.0" encoding="utf-8"?> PSTN HighLayerCompatibility HLOctet3 CodingStandard>00< Interpretation>100< PresentationMethod>01< HLOctet4 HighLayerCharacteristics> HLC_value <																																																								
Comments																																																									
Message flows	<table style="width:100%; border:none;"> <tr> <td style="width:30%;"></td> <td style="text-align:center;">Mg</td> <td style="width:30%;"></td> <td style="text-align:center;">MGCF</td> <td style="width:30%;"></td> <td style="text-align:center;">ISUP</td> </tr> <tr> <td>INVITE</td> <td style="text-align:center;">→</td> <td></td> <td style="text-align:center;">→</td> <td></td> <td>IAM</td> </tr> <tr> <td>CASE A</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>180 Ringing</td> <td style="text-align:center;">←</td> <td></td> <td style="text-align:center;">←</td> <td></td> <td>ACM</td> </tr> <tr> <td>200 OK (INVITE)</td> <td style="text-align:center;">←</td> <td></td> <td style="text-align:center;">←</td> <td></td> <td>ANM</td> </tr> <tr> <td>ACK</td> <td style="text-align:center;">→</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>CASE B</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>200 OK (INVITE)</td> <td style="text-align:center;">←</td> <td></td> <td style="text-align:center;">←</td> <td></td> <td>CON</td> </tr> <tr> <td>ACK</td> <td style="text-align:center;">→</td> <td></td> <td></td> <td></td> <td></td> </tr> </table> <p style="text-align:right;">Apply post test routine</p>				Mg		MGCF		ISUP	INVITE	→		→		IAM	CASE A						180 Ringing	←		←		ACM	200 OK (INVITE)	←		←		ANM	ACK	→					CASE B						200 OK (INVITE)	←		←		CON	ACK	→				
	Mg		MGCF		ISUP																																																				
INVITE	→		→		IAM																																																				
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ACK	→																																																								
CASE B																																																									
200 OK (INVITE)	←		←		CON																																																				
ACK	→																																																								

Table 6.1.1.5-2: Mapping of High layer compatibility information element to PSTN XML HighLayerCharacteristic

HLC_value	DSS1 High layer characteristics identification	XML HighLayerCharacteristic
HLC_VA_1	Telephony	'0000001'
HLC_VA_2	Facsimile Group 2/3	'0000100'
HLC_VA_3	Facsimile Group 4 Class I	'0100001'
HLC_VA_4	Facsimile service Group 4, Classes II and III	'0100100'
HLC_VA_5	Syntax based Videotex	'0110010'
HLC_VA_6	International Videotex interworking via gateways or interworking units	'0110011'
HLC_VA_7	Telex service	'0110101'
HLC_VA_8	FTAM application	'1000010'
HLC_VA_9	Videotelephony	'1100000'

TP number	TP_105_005	Reference	7.2.3.1.5 table 7.2.3.1.5.1																																													
TSS reference	SIP-ISUP/Basic call/Sending_of_200_OK/																																															
Selection criteria	PICS 6.2.1/5																																															
Test Purpose name	Low layer compatibility received in ANM/CON is mapped into PSTN XML LowLayerCompatibility																																															
Test Purpose	Ensure that on receipt of an ANM/CON and an ATP containing a Low layer compatibility IE set to value ITC_value, a 200 OK INVITE is sent. the PSTN XML LowLayerCompatibility value is set as indicated in table 6.1.1.5-3																																															
ISUP Parameter values	ANM/CON: ATP contains a Low layer compatibility IE value ITC_value																																															
SIP Parameter values	200 OK INVITE: <?xml version="1.0" encoding="utf-8"?> PSTN LowLayerCompatibility> LLOctet3> CodingStandard>00< InformationTransferCapability> ITC_value < LLOctet4> TransferMode>00< InformationTransferRate>10000< LLOctet5> Layer1Identification>01</ UserInfoLayer1Protocol> ITC_value </																																															
Comments	When the 'XML UserInfoLayer1Protocol' element is absent, the entire 'LLOctet5' element is absent																																															
Message flows	<table style="width:100%; border:none;"> <tr> <td style="text-align:center;">Mg</td> <td style="text-align:center;">→</td> <td style="text-align:center;">MGCF</td> <td style="text-align:center;">→</td> <td style="text-align:center;">ISUP</td> </tr> <tr> <td>INVITE</td> <td></td> <td></td> <td></td> <td>IAM</td> </tr> <tr> <td>CASE A</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>180 Ringing</td> <td style="text-align:center;">←</td> <td></td> <td style="text-align:center;">←</td> <td>ACM</td> </tr> <tr> <td>200 OK (INVITE)</td> <td style="text-align:center;">←</td> <td></td> <td style="text-align:center;">←</td> <td>ANM</td> </tr> <tr> <td>ACK</td> <td style="text-align:center;">→</td> <td></td> <td></td> <td></td> </tr> <tr> <td>CASE B</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>200 OK (INVITE)</td> <td style="text-align:center;">←</td> <td></td> <td style="text-align:center;">←</td> <td>CON</td> </tr> <tr> <td>ACK</td> <td style="text-align:center;">→</td> <td></td> <td></td> <td></td> </tr> </table> <p style="text-align:center;">Apply post test routine</p>			Mg	→	MGCF	→	ISUP	INVITE				IAM	CASE A					180 Ringing	←		←	ACM	200 OK (INVITE)	←		←	ANM	ACK	→				CASE B					200 OK (INVITE)	←		←	CON	ACK	→			
Mg	→	MGCF	→	ISUP																																												
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ACK	→																																															
CASE B																																																
200 OK (INVITE)	←		←	CON																																												
ACK	→																																															

Table 6.1.1.5-3: Mapping of Low Layer Compatibility to PSTN XML LowLayerCompatibility

ITC_value	LLC Information transfer capability	XML LLC InformationTransferCapability	XML UserInfoLayer1Protocol
ITC_VA_1	Speech	'0000'	'00011'
ITC_VA_2	3,1 kHz audio	'10000'	'00011'
ITC_VA_3	Unrestricted digital info	'01000'	absent
ITC_VA_4	7 kHz audio	'10001'	'00110'

TP number	TP_105_006	Reference	7.2.3.1.5 table 7.2.3.1.5.1																											
TSS reference	SIP-ISUP/Basic call/Sending_of_200_OK/																													
Selection criteria	PICS 6.2.1/5																													
Test Purpose name	Bearer Capability received in ANM/CON is mapped into PSTN XML BearerCapability																													
Test Purpose	Ensure that on receipt of an ANM/CON and an ATP containing a Bearer Capability IE set to value ITC_value, a 200 OK INVITE is sent. the PSTN XML BearerCapability value is set as indicated in table 6.1.1.5-4																													
ISUP Parameter values	ANM/CON: ATP contains a Bearer Capability IE value ITC_value																													
SIP Parameter values	200 OK INVITE: <?xml version="1.0" encoding="utf-8"?> PSTN BearerCapability BCoctet3 CodingStandard>00< InformationTransferCapability> ITC_value < BCoctet4 TransferMode>00< InformationTransferRate>10000< BCoctet5> Layer1Identification>01< UserInfoLayer1Protocol> ITC_value <																													
Comments																														
Message flows	<table style="width:100%; border:none;"> <tr> <td style="text-align:center;">Mg</td> <td style="text-align:center;">MGCF</td> <td style="text-align:center;">ISUP</td> </tr> <tr> <td>INVITE</td> <td style="text-align:center;">→</td> <td>→ IAM</td> </tr> <tr> <td>CASE A</td> <td></td> <td></td> </tr> <tr> <td>180 Ringing</td> <td style="text-align:center;">←</td> <td>← ACM</td> </tr> <tr> <td>200 OK (INVITE)</td> <td style="text-align:center;">←</td> <td>← ANM</td> </tr> <tr> <td>ACK</td> <td style="text-align:center;">→</td> <td></td> </tr> <tr> <td>CASE B</td> <td></td> <td></td> </tr> <tr> <td>200 OK (INVITE)</td> <td style="text-align:center;">←</td> <td>← CON</td> </tr> <tr> <td>ACK</td> <td style="text-align:center;">→</td> <td></td> </tr> </table> <p style="text-align:right;">Apply post test routine</p>			Mg	MGCF	ISUP	INVITE	→	→ IAM	CASE A			180 Ringing	←	← ACM	200 OK (INVITE)	←	← ANM	ACK	→		CASE B			200 OK (INVITE)	←	← CON	ACK	→	
Mg	MGCF	ISUP																												
INVITE	→	→ IAM																												
CASE A																														
180 Ringing	←	← ACM																												
200 OK (INVITE)	←	← ANM																												
ACK	→																													
CASE B																														
200 OK (INVITE)	←	← CON																												
ACK	→																													

Table 6.1.1.5-4: Mapping of Bearer capability to PSTN XML BearerCapability

ITC_value	BC Information transfer capability	XML InformationTransferCapability	XML UserInfoLayer1Protocol
ITC_VA_1	Speech	'00000'	'00011'
ITC_VA_2	3,1 kHz audio	'10000'	'00011'
ITC_VA_3	Unrestricted digital inf. W/tone/ann	'10001'	'00110'

TP number	TP_105_007	Reference	7.2.3.1.5 table 7.2.3.1.5.2																																																																						
TSS reference	SIP-ISUP/Basic call/Sending_of_200_OK/																																																																								
Selection criteria	PICS 6.2.1/5																																																																								
Test Purpose name	Backward call indicator mapped into PSTN XML ProgressIndicator value 1																																																																								
Test Purpose	Ensure that on receipt of a ANM/CON and the backward call indicator is set to ISDN User Part not used all the way , a 200 OK INVITE is sent and the PSTN XML ProgressIndicator value is set to 1 (Call is not end-to-end ISDN: further progress information may be available in-band)																																																																								
ISUP Parameter values	ANM/CON: BCI ISDN User Part indicator = ISDN User Part not used all the way																																																																								
SIP Parameter values	200 OK INVITE <?xml version="1.0" encoding="utf-8"?> PSTN ProgressIndicator ... ProgressOctet4 ProgressDescription> 0000001 <																																																																								
Comments																																																																									
Message flows	<table style="width:100%; border:none;"> <thead> <tr> <th style="text-align:left;"></th> <th style="text-align:center;">Mg</th> <th style="text-align:center;">→</th> <th style="text-align:center;">MGCF</th> <th style="text-align:center;">→</th> <th style="text-align:center;">IAM</th> <th style="text-align:center;">ISUP</th> </tr> </thead> <tbody> <tr> <td>INVITE</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>CASE A</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>180 Ringing</td> <td></td> <td style="text-align:center;">←</td> <td></td> <td></td> <td style="text-align:center;">←</td> <td>ACM</td> </tr> <tr> <td>200 OK (INVITE)</td> <td></td> <td style="text-align:center;">←</td> <td></td> <td></td> <td style="text-align:center;">←</td> <td>ANM</td> </tr> <tr> <td>ACK</td> <td></td> <td style="text-align:center;">→</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>CASE B</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>200 OK (INVITE)</td> <td></td> <td style="text-align:center;">←</td> <td></td> <td></td> <td style="text-align:center;">←</td> <td>CON</td> </tr> <tr> <td>ACK</td> <td></td> <td style="text-align:center;">→</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td style="text-align:right;">Apply post test routine</td> </tr> </tbody> </table>				Mg	→	MGCF	→	IAM	ISUP	INVITE							CASE A							180 Ringing		←			←	ACM	200 OK (INVITE)		←			←	ANM	ACK		→					CASE B							200 OK (INVITE)		←			←	CON	ACK		→											Apply post test routine
	Mg	→	MGCF	→	IAM	ISUP																																																																			
INVITE																																																																									
CASE A																																																																									
180 Ringing		←			←	ACM																																																																			
200 OK (INVITE)		←			←	ANM																																																																			
ACK		→																																																																							
CASE B																																																																									
200 OK (INVITE)		←			←	CON																																																																			
ACK		→																																																																							
						Apply post test routine																																																																			

TP number	TP_105_008	Reference	7.2.3.1.5 table 7.2.3.1.5.2																																																																						
TSS reference	SIP-ISUP/Basic call/Sending_of_200_OK/																																																																								
Selection criteria	PICS 6.2.1/5																																																																								
Test Purpose name	Backward call indicator mapped into PSTN XML ProgressIndicator value 2																																																																								
Test Purpose	Ensure that on receipt of a ANM/CON and the backward call indicator is set to ISDN User Part used all the way and Terminating access non-ISDN , a 200 OK INVITE is sent and the PSTN XML ProgressIndicator value is set to 2 (Destination address is non-ISDN)																																																																								
ISUP Parameter values	ANM/CON: BCI ISDN User Part indicator = ISDN User Part used all the way ISDN access indicator = Terminating access non-ISDN																																																																								
SIP Parameter values	200 OK INVITE <?xml version="1.0" encoding="utf-8"?> PSTN ProgressIndicator ... ProgressOctet4 ProgressDescription> 0000010 <																																																																								
Comments																																																																									
Message flows	<table style="width:100%; border:none;"> <thead> <tr> <th style="text-align:left;"></th> <th style="text-align:center;">Mg</th> <th style="text-align:center;">→</th> <th style="text-align:center;">MGCF</th> <th style="text-align:center;">→</th> <th style="text-align:center;">IAM</th> <th style="text-align:center;">ISUP</th> </tr> </thead> <tbody> <tr> <td>INVITE</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>CASE A</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>180 Ringing</td> <td></td> <td style="text-align:center;">←</td> <td></td> <td></td> <td style="text-align:center;">←</td> <td>ACM</td> </tr> <tr> <td>200 OK (INVITE)</td> <td></td> <td style="text-align:center;">←</td> <td></td> <td></td> <td style="text-align:center;">←</td> <td>ANM</td> </tr> <tr> <td>ACK</td> <td></td> <td style="text-align:center;">→</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>CASE B</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>200 OK (INVITE)</td> <td></td> <td style="text-align:center;">←</td> <td></td> <td></td> <td style="text-align:center;">←</td> <td>CON</td> </tr> <tr> <td>ACK</td> <td></td> <td style="text-align:center;">→</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td style="text-align:right;">Apply post test routine</td> </tr> </tbody> </table>				Mg	→	MGCF	→	IAM	ISUP	INVITE							CASE A							180 Ringing		←			←	ACM	200 OK (INVITE)		←			←	ANM	ACK		→					CASE B							200 OK (INVITE)		←			←	CON	ACK		→											Apply post test routine
	Mg	→	MGCF	→	IAM	ISUP																																																																			
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180 Ringing		←			←	ACM																																																																			
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ACK		→																																																																							
						Apply post test routine																																																																			

TP number	TP_105_009	Reference	7.2.3.1.5 table 7.2.3.1.5.2																																																												
TSS reference	SIP-ISUP/Basic call/Sending_of_200_OK/																																																														
Selection criteria	PICS 6.2.1/5																																																														
Test Purpose name	Backward call indicator mapped into PSTN XML ProgressIndicator value 7																																																														
Test Purpose	Ensure that on receipt of a ANM/CON and the backward call indicator is set to ISDN User Part used all the way and Terminating access ISDN , a 200 OK INVITE is sent and the PSTN XML ProgressIndicator value is set to 7																																																														
ISUP Parameter values	ANM/CON: BCI ISDN User Part indicator = ISDN User Part used all the way ISDN access indicator = Terminating access ISDN																																																														
SIP Parameter values	200 OK INVITE <?xml version="1.0" encoding="utf-8"?> PSTN ProgressIndicator ... ProgressOctet4 ProgressDescription>0000111<																																																														
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Mg	→	MGCF	→	IAM	ISUP																																																										
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200 OK (INVITE)	←		←	CON																																																											
ACK	→																																																														
Apply post test routine																																																															

TP number	TP_105_010	Reference	7.2.3.1.5 table 7.2.3.1.5.2																																																												
TSS reference	SIP-ISUP/Basic call/Sending_of_200_OK/																																																														
Selection criteria	PICS 6.2.1/5																																																														
Test Purpose name	Optional backward call indicator mapped into PSTN XML ProgressIndicator value 8																																																														
Test Purpose	Ensure that on receipt of a ANM/CON and the optional backward call indicator is to in-band information or an appropriate pattern is now available , a 200 OK INVITE is sent and the PSTN XML ProgressIndicator value is set to 8 (In-band information or appropriate pattern is now available)																																																														
ISUP Parameter values	ANM/CON: Optional backward call indicator In-band information indicator = in-band information or an appropriate pattern is now available																																																														
SIP Parameter values	200 OK INVITE <?xml version="1.0" encoding="utf-8"?> PSTN ProgressIndicator ... ProgressOctet4 ProgressDescription>0001000<																																																														
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200 OK (INVITE)	←		←	CON																																																											
ACK	→																																																														
Apply post test routine																																																															

TP number	TP_105_011	Reference	7.2.3.1.5 table 7.2.3.1.5.1																																																						
TSS reference	SIP-ISUP/Basic call/Sending_of_200_OK/																																																								
Selection criteria	PICS 6.2.1/5																																																								
Test Purpose name	Receipt of TMU speech in ANM/CON, no BC present in ATP																																																								
Test Purpose	Ensure that on receipt of a Transmission medium used parameter set to speech in the ANM/CON, a 200 OK INVITE is sent and a PSTN XML BearerCapability element is present the InformationTransferCapability is set to Speech																																																								
ISUP Parameter values	IAM: TMR = second InformationTransferCapability TMR prime = first InformationTransferCapability USI = first BearerCapability USI prime = second BearerCapability ANM/CON: Transmission medium used = speech																																																								
SIP Parameter values	INVITE: PSTN XML MIME body <?xml version="1.0" encoding="utf-8"?> PSTN BearerCapability BCoctet3 CodingStandard>00< InformationTransferCapability>00000< BearerCapability BCoctet3 CodingStandard>00< InformationTransferCapability>10001< 200 OK INVITE <?xml version="1.0" encoding="utf-8"?> PSTN BearerCapability BCoctet3 CodingStandard>00< InformationTransferCapability>00000< ...																																																								
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Message flows	<table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;"></th> <th style="width: 10%; text-align: center;">Mg</th> <th style="width: 10%;"></th> <th style="width: 10%; text-align: center;">MGCF</th> <th style="width: 10%;"></th> <th style="width: 10%; text-align: center;">ISUP</th> </tr> </thead> <tbody> <tr> <td>INVITE</td> <td></td> <td style="text-align: center;">→</td> <td></td> <td style="text-align: center;">→</td> <td>IAM</td> </tr> <tr> <td>CASE A</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>180 Ringing</td> <td></td> <td style="text-align: center;">←</td> <td></td> <td style="text-align: center;">←</td> <td>ACM</td> </tr> <tr> <td>200 OK (INVITE)</td> <td></td> <td style="text-align: center;">←</td> <td></td> <td style="text-align: center;">←</td> <td>ANM</td> </tr> <tr> <td>ACK</td> <td></td> <td style="text-align: center;">→</td> <td></td> <td></td> <td></td> </tr> <tr> <td>CASE B</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>200 OK (INVITE)</td> <td></td> <td style="text-align: center;">←</td> <td></td> <td style="text-align: center;">←</td> <td>CON</td> </tr> <tr> <td>ACK</td> <td></td> <td style="text-align: center;">→</td> <td></td> <td></td> <td></td> </tr> </tbody> </table> <p style="text-align: right; margin-right: 50px;">Apply post test routine</p>				Mg		MGCF		ISUP	INVITE		→		→	IAM	CASE A						180 Ringing		←		←	ACM	200 OK (INVITE)		←		←	ANM	ACK		→				CASE B						200 OK (INVITE)		←		←	CON	ACK		→			
	Mg		MGCF		ISUP																																																				
INVITE		→		→	IAM																																																				
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180 Ringing		←		←	ACM																																																				
200 OK (INVITE)		←		←	ANM																																																				
ACK		→																																																							
CASE B																																																									
200 OK (INVITE)		←		←	CON																																																				
ACK		→																																																							

TP number	TP_105_012	Reference	7.2.3.1.5 table 7.2.3.1.5.1																																																						
TSS reference	SIP-ISUP/Basic call/Sending_of_200_OK/																																																								
Selection criteria	PICS 6.2.1/5																																																								
Test Purpose name	Receipt of TMU 3,1 kHz audio in ANM/CON, no BC present in ATP																																																								
Test Purpose	Ensure that on receipt of a Transmission medium used parameter set to 3,1 kHz audio in the ANM/CON, a 200 OK INVITE is sent and a PSTN XML BearerCapability element is present the InformationTransferCapability is set to 3,1 kHz audio																																																								
ISUP Parameter values	IAM: TMR = second InformationTransferCapability TMR prime = first InformationTransferCapability USI = first BearerCapability USI prime = second BearerCapability ANM/CON: Transmission medium used = 3,1 kHz audio																																																								
SIP Parameter values	INVITE: PSTN XML MIME body <?xml version="1.0" encoding="utf-8"?> PSTN BearerCapability BCoctet3 CodingStandard>00< InformationTransferCapability>10000< BearerCapability BCoctet3 CodingStandard>00< InformationTransferCapability>10001< 200 OK INVITE <?xml version="1.0" encoding="utf-8"?> PSTN BearerCapability BCoctet3 CodingStandard>00< InformationTransferCapability>10000< ...																																																								
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	Mg		MGCF		ISUP																																																				
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ACK	→																																																								
CASE B																																																									
200 OK (INVITE)	←		←		CON																																																				
ACK	→																																																								

TP number	TP_105_013	Reference	7.2.3.1.5																											
TSS reference	SIP-ISUP/Basic call/Sending_of_200_OK/																													
Selection criteria	PICS 6.2.1/5																													
Test Purpose name	Receipt of TMU, BC present in ATP PSTN XML BearerCapability sent in 200 OK																													
Test Purpose	Ensure that on receipt of a Transmission medium used parameter and in the ATP a Bearer Capability IE in the ANM/CON, a 200 OK INVITE is sent and a PSTN XML BearerCapability element is present the InformationTransferCapability is set as indicated in table 6.1.1.5-5																													
ISUP Parameter values	IAM: TMR = second InformationTransferCapability TMR prime = first InformationTransferCapability USI = first BearerCapability USI prime = second BearerCapability ANM/CON: Transmission medium used, ATP Bearer Capability IE																													
SIP Parameter values	200 OK INVITE <?xml version="1.0" encoding="utf-8"?> PSTN BearerCapability BCoctet3 CodingStandard>00< InformationTransferCapability>ITC_value< ...																													
Comments																														
Message flows	<table style="width:100%; border:none;"> <tr> <td style="text-align:center;">Mg</td> <td style="text-align:center;">MGCF</td> <td style="text-align:center;">ISUP</td> </tr> <tr> <td>INVITE</td> <td style="text-align:center;">→</td> <td>→ IAM</td> </tr> <tr> <td>CASE A</td> <td></td> <td></td> </tr> <tr> <td>180 Ringing</td> <td style="text-align:center;">←</td> <td>← ACM</td> </tr> <tr> <td>200 OK (INVITE)</td> <td style="text-align:center;">←</td> <td>← ANM</td> </tr> <tr> <td>ACK</td> <td style="text-align:center;">→</td> <td></td> </tr> <tr> <td>CASE B</td> <td></td> <td></td> </tr> <tr> <td>200 OK (INVITE)</td> <td style="text-align:center;">←</td> <td>← CON</td> </tr> <tr> <td>ACK</td> <td style="text-align:center;">→</td> <td></td> </tr> </table> <p style="text-align:center;">Apply post test routine</p>			Mg	MGCF	ISUP	INVITE	→	→ IAM	CASE A			180 Ringing	←	← ACM	200 OK (INVITE)	←	← ANM	ACK	→		CASE B			200 OK (INVITE)	←	← CON	ACK	→	
Mg	MGCF	ISUP																												
INVITE	→	→ IAM																												
CASE A																														
180 Ringing	←	← ACM																												
200 OK (INVITE)	←	← ANM																												
ACK	→																													
CASE B																														
200 OK (INVITE)	←	← CON																												
ACK	→																													

Table 6.1.1.5-5: Mapping of TMU and Bearer capability IE to PSTN XML BearerCapability

ITC_value	← 180 Ringing or 183 Session Progress	← ACM/CPG	
ITC_value_VA_01	PSTN XML BearerCapability = "Speech"	TMU	"Speech"
		ATP	BC "speech"
ITC_value_VA_02	PSTN XML BearerCapability = " Speech "	TMU	"3,1 kHz audio"
		ATP	BC "speech"
ITC_value_VA_03	PSTN XML BearerCapability = "3,1 kHz audio"	TMU	"Speech"
		ATP	BC "3,1 kHz audio"
ITC_value_VA_04	PSTN XML BearerCapability = "3,1 kHz audio"	TMU	"3,1 kHz audio"
		ATP	BC "3,1 kHz audio"

6.1.1.6 Sending of the Release message (REL)

TP number	TP_106_001	Reference	7.2.3.1.7
TSS reference	SIP-ISUP/Basic call/Sending_of_REL/		
Selection criteria			
Test Purpose name	BYE received in confirmed dialogue no Reason header included, a REL is sent		
Test Purpose	Ensure that on receipt of a BYE request in confirmed dialogue and no Reason header is present, a REL message is sent. The cause indicator is set to No. 16 (normal clearing), the location is set to 'network beyond interworking point'		
ISUP Parameter values	REL: Cause indicator Cause Value = 16 (normal clearing) Location = network beyond interworking point		
SIP Parameter values			
Comments			
Message flows	Mg	MGCF	ISUP
	INVITE	→	IAM
	100 Trying	←	
	180 Ringing	←	ACM
	200 OK (INVITE)	←	ANM
	ACK	→	
	BYE	→	REL
	200 OK (BYE)	←	RLC

TP number	TP_106_002	Reference	7.2.3.1.7
TSS reference	SIP-ISUP/Basic call/Sending_of_REL/		
Selection criteria			
Test Purpose name	BYE received in confirmed dialogue Reason header included, a REL is sent		
Test Purpose	Ensure that on receipt of a BYE request in confirmed dialogue and a Reason header is present, a REL message is sent. The cause indicator is set to the Reason header cause value, the location is set to 'network beyond interworking point'		
ISUP Parameter values	REL: Cause indicator Cause Value = Cause_value Location = network beyond interworking point		
SIP Parameter values	BYE: Reason: Q.850; cause = Cause_value		
Comments	The Cause_value is a PIXIT parameter		
Message flows	Mg	MGCF	ISUP
	INVITE	→	IAM
	100 Trying	←	
	180 Ringing	←	ACM
	200 OK (INVITE)	←	ANM
	ACK	→	
	BYE	→	REL
	200 OK (BYE)	←	RLC

TP number	TP_106_003	Reference	7.2.3.1.7
TSS reference	SIP-ISUP/Basic call/Sending_of_REL/		
Selection criteria			
Test Purpose name	BYE received in early dialogue no Reason header included, a REL is sent		
Test Purpose	Ensure that on receipt of a BYE request in early dialogue and no Reason header is present, a REL message is sent. The cause indicator is set to No. 16 (normal clearing), the location is set to 'network beyond interworking point'		
ISUP Parameter values	REL: Cause indicator Cause Value = 16 (normal clearing) Location = network beyond interworking point		
SIP Parameter values			
Comments			
Message flows	Mg	MGCF	ISUP
	INVITE	→	→ IAM
	18x	←	← ACM
	BYE	→	→ REL
	200 OK (BYE)	←	← RLC
	487 Request Terminated	←	
	ACK	→	

TP number	TP_106_004	Reference	7.2.3.1.7
TSS reference	SIP-ISUP/Basic call/Sending_of_REL/		
Selection criteria			
Test Purpose name	BYE received in early dialogue Reason header included, a REL is sent		
Test Purpose	Ensure that on receipt of a BYE request in early dialogue and a Reason header is present, a REL message is sent. The cause indicator is set to the Reason header cause value, the location is set to 'network beyond interworking point'		
ISUP Parameter values	REL: Cause indicator Cause Value = Cause_value Location = network beyond interworking point		
SIP Parameter values	BYE: Reason: Q.850; cause = Cause_value		
Comments	The Cause_value is a PIXIT parameter		
Message flows	Mg	MGCF	ISUP
	INVITE	→	→ IAM
	18x	←	← ACM
	BYE	→	→ REL
	200 OK (BYE)	←	← RLC
	487 Request Terminated	←	
	ACK	→	

TP number	TP_106_005	Reference	7.2.3.1.7
TSS reference	SIP-ISUP/Basic call/Sending_of_REL/		
Selection criteria			
Test Purpose name	CANCEL received in early dialogue no Reason header included, a REL is sent		
Test Purpose	Ensure that on receipt of a CANCEL request in early dialogue and no Reason header is present, a REL message is sent. The cause indicator is set to No. 16 (normal clearing), the location is set to 'network beyond interworking point'		
ISUP Parameter values	REL: Cause indicator Cause Value = 31 (normal unspecified) Location = network beyond interworking point		
SIP Parameter values			
Comments			
Message flows	Mg	MGCF	ISUP
	INVITE	→	→ IAM
	18x	←	← ACM
	CANCEL	→	→ REL
	200 OK (CANCEL)	←	← RLC
	487 Request Terminated	←	
	ACK	→	

TP number	TP_106_006	Reference	7.2.3.1.7
TSS reference	SIP-ISUP/Basic call/Sending_of_REL/		
Selection criteria			
Test Purpose name	CANCEL received in early dialogue Reason header included, a REL is sent		
Test Purpose	Ensure that on receipt of a CANCEL request in early dialogue and a Reason header is present, a REL message is sent. The cause indicator is set to the Reason header cause value, the location is set to 'network beyond interworking point'		
ISUP Parameter values	REL: Cause indicator Cause Value = Cause_value Location = network beyond interworking point		
SIP Parameter values	CANCEL: Reason: Q.850 cause = Cause_value		
Comments	The Cause_value is a PIXIT parameter		
Message flows	Mg	MGCF	ISUP
	INVITE	→	→ IAM
	18x	←	← ACM
	CANCEL	→	→ REL
	200 OK (CANCEL)	←	← RLC
	487 Request Terminated	←	
	ACK	→	

TP number	TP_106_007	Reference	7.2.3.1.7
TSS reference	SIP-ISUP/Basic call/Sending_of_REL/		
Selection criteria	PICS 6.2.1/5		
Test Purpose name	BYE received in confirmed dialogue PSTN XML HighLayerCompatibility present, a REL is sent containing a High layer compatibility IE		
Test Purpose	Ensure that on receipt of a BYE request in confirmed dialogue and a PSTN XML HighLayerCompatibility is present, a REL is sent and an ATP is present containing a High layer compatibility IE. The value is mapped as indicated in table 6.1.1.6-1		
ISUP Parameter values	REL: ATP High layer compatibility High Layer Characteristic = HLC_value		
SIP Parameter values	BYE: <?xml version="1.0" encoding="utf-8"?> PSTN HighLayerCompatibility HLOctet3 CodingStandard>00< Interpretation>100< PresentationMethod>01< HLOctet4 HighLayerCharacteristics> HLC_value <		
Comments			
Message flows	Mg	MGCF	ISUP
	INVITE	→	→ IAM
	100 Trying	←	
	180 Ringing	←	← ACM
	200 OK (INVITE)	←	← ANM
	ACK	→	
	BYE	→	→ REL
	200 OK (BYE)	←	← RLC

TP number	TP_106_008	Reference	7.2.3.1.7
TSS reference	SIP-ISUP/Basic call/Sending_of_REL/		
Selection criteria	PICS 6.2.1/5		
Test Purpose name	BYE received in early dialogue PSTN XML HighLayerCompatibility present, a REL is sent containing a High layer compatibility IE		
Test Purpose	Ensure that on receipt of a BYE request in early dialogue and a PSTN XML HighLayerCompatibility is present, a REL is sent and an ATP is present containing a High layer compatibility IE. The value is mapped as indicated in table 6.1.1.6-1		
ISUP Parameter values	REL: ATP High layer compatibility High Layer Characteristic = HLC_value		
SIP Parameter values	BYE: <?xml version="1.0" encoding="utf-8"?> PSTN HighLayerCompatibility HLOctet3 CodingStandard>00< Interpretation>100< PresentationMethod>01< HLOctet4 HighLayerCharacteristics>HLC_value<		
Comments			
Message flows	Mg	MGCF	ISUP
	INVITE	→	→ IAM
	BYE	→	→ REL
	200 OK (BYE)	←	← RLC
	487 Request Terminated	←	
	ACK	→	

TP number	TP_106_009	Reference	7.2.3.1.7
TSS reference	SIP-ISUP/Basic call/Sending_of_REL/		
Selection criteria	PICS 6.2.1/5		
Test Purpose name	CANCEL received in early dialogue PSTN XML HighLayerCompatibility present, a REL is sent containing a High layer compatibility IE		
Test Purpose	Ensure that on receipt of a CANCEL request in early dialogue and a PSTN XML HighLayerCompatibility is present, a REL is sent and an ATP is present containing a High layer compatibility IE. The value is mapped as indicated in table 6.1.1.6-1		
ISUP Parameter values	REL: ATP High layer compatibility High Layer Characteristic = HLC_value		
SIP Parameter values	CANCEL <?xml version="1.0" encoding="utf-8"?> PSTN HighLayerCompatibility HLOctet3 CodingStandard>00< Interpretation>100< PresentationMethod>01< HLOctet4 HighLayerCharacteristics>HLC_value<		
Comments			
Message flows	Mg	MGCF	ISUP
	INVITE	→	→ IAM
	CANCEL	→	→ REL
	200 OK (CANCEL)	←	← RLC
	487 Request Terminated	←	
	ACK	→	

Table 6.1.1.6-1: Mapping of High layer compatibility information element to PSTN XML HighLayerCharacteristic

HLC_value	DSS1 High layer characteristics identification	XML HighLayerCharacteristic
HLC_VA_1	Telephony	'0000001'
HLC_VA_2	Facsimile Group 2/3	'0000100'
HLC_VA_3	Facsimile Group 4 Class I	'0100001'
HLC_VA_4	Facsimile service Group 4, Classes II and III	'0100100'
HLC_VA_5	Syntax based Videotex	'0110010'
HLC_VA_6	International Videotex interworking via gateways or interworking units	'0110011'
HLC_VA_7	Telex service	'0110101'
HLC_VA_8	FTAM application	'1000010'
HLC_VA_9	Videotelephony	'1100000'

TP number	TP_106_010	Reference	7.2.3.1.7
TSS reference	SIP-ISUP/Basic call/Sending_of_REL/		
Selection criteria	PICS 6.2.1/5		
Test Purpose name	BYE received in confirmed dialogue PSTN XML LowLayerCompatibility present, a REL is sent containing a Low layer compatibility IE		
Test Purpose	Ensure that on receipt of a BYE request in confirmed dialogue and a PSTN XML LowLayerCompatibility is present, a REL is sent and an ATP is present containing a Low layer compatibility IE. The value is mapped as indicated in table 6.1.1.6-2		
ISUP Parameter values	REL: ATP Low layer compatibility Information Transfer Capability = ITC_value		
SIP Parameter values	CANCEL <?xml version="1.0" encoding="utf-8"?> PSTN LowLayerCompatibility> LLOctet3> CodingStandard>00< InformationTransferCapability>ITC_value< ...		
Comments			
Message flows	Mg INVITE → 100 Trying ← 180 Ringing ← 200 OK (INVITE) ← ACK → BYE → 200 OK (BYE) ←	MGCF → ← ← → → ←	ISUP IAM ACM ANM REL RLC

TP number	TP_106_011	Reference	7.2.3.1.7
TSS reference	SIP-ISUP/Basic call/Sending_of_REL/		
Selection criteria	PICS 6.2.1/5		
Test Purpose name	BYE received in early dialogue PSTN XML LowLayerCompatibility present, a REL is sent containing a Low layer compatibility IE		
Test Purpose	Ensure that on receipt of a BYE request in early dialogue and a PSTN XML LowLayerCompatibility is present, a REL is sent and an ATP is present containing a Low layer compatibility IE. The value is mapped as indicated in table 6.1.1.6-2		
ISUP Parameter values	REL: ATP Low layer compatibility Information Transfer Capability = ITC_value		
SIP Parameter values	CANCEL <?xml version="1.0" encoding="utf-8"?> PSTN LowLayerCompatibility> LLOctet3> CodingStandard>00< InformationTransferCapability> ITC_value < ...		
Comments			
Message flows	Mg	MGCF	ISUP
	INVITE	→	→ IAM
	BYE	→	→ REL
	200 OK (BYE)	←	← RLC
	487 Request Terminated	←	
	ACK	→	

TP number	TP_106_012	Reference	7.2.3.1.7
TSS reference	SIP-ISUP/Basic call/Sending_of_REL/		
Selection criteria	PICS 6.2.1/5		
Test Purpose name	CANCEL received in early dialogue PSTN XML LowLayerCompatibility present, a REL is sent containing a Low layer compatibility IE		
Test Purpose	Ensure that on receipt of a CANCEL request in early dialogue and a PSTN XML LowLayerCompatibility is present, a REL is sent and an ATP is present containing a Low layer compatibility IE. The value is mapped as indicated in table 6.1.1.6-2		
ISUP Parameter values	REL: ATP Low layer compatibility Information Transfer Capability = ITC_value		
SIP Parameter values	CANCEL <?xml version="1.0" encoding="utf-8"?> PSTN LowLayerCompatibility> LLOctet3> CodingStandard>00< InformationTransferCapability> ITC_value < ...		
Comments			
Message flows	Mg	MGCF	ISUP
	INVITE	→	→ IAM
	CANCEL	→	→ REL
	200 OK (CANCEL)	←	← RLC
	487 Request Terminated	←	
	ACK	→	

Table 6.1.1.6-2: Mapping of Low Layer Compatibility to PSTN XML LowLayerCompatibility

ITC_value	LLC Information transfer capability	XML LLC InformationTransferCapability
ITC_VA_1	Speech	'00000'
ITC_VA_2	3,1 kHz audio	'10000'
ITC_VA_3	Unrestricted digital info	'01001'
ITC_VA_4	7 kHz audio	'10001'

6.1.1.7 Receipt of the Release Message

TP number	TP_107_001	Reference	7.2.3.1.8
TSS reference	SIP-ISUP/Basic call/Receipt_of_REL/		
Selection criteria			
Test Purpose name	A REL is received, a BYE request is sent		
Test Purpose	Ensure that on receipt of a REL message in the confirmed dialogue, a BYE is sent. The Reason header is present and the cause value is set to the received cause value in the REL Cause indicator		
ISUP Parameter values	REL: Cause indicator Cause Value = Cause_value		
SIP Parameter values	BYE: Reason: Q.850; cause = Cause_value		
Comments	Cause_value is a PIXIT parameter		
Message flows	Mg	MGCF	ISUP
	INVITE	→	→ IAM
	100 Trying	←	
	180 Ringing	←	← ACM
	200 OK (INVITE)	←	← ANM
	ACK	→	
	BYE	←	← REL
	200 OK (BYE)	→	→ RLC

TP number	TP_107_002	Reference	7.2.3.1.8
TSS reference	SIP-ISUP/Basic call/Receipt_of_REL/		
Selection criteria			
Test Purpose name	A REL is received before an early dialogue is established, a final response is sent		
Test Purpose	Ensure that on receipt of a REL message before an early dialogue is established a SIP final response is sent. The response code is derived from the Cause value received in the REL according the rules described in table 6.1.1.7-1. The cause value of the received REL is present in the Reason header of the sent final response		
ISUP Parameter values	REL: Cause indicator Cause Value = Cause_value		
SIP Parameter values	4xx/5xx/6xx: Reason: Q.850; cause = Cause_value		
Comments			
Message flows	Mg	MGCF	ISUP
	INVITE	→	→ IAM
	100 Trying	←	
	SIP_final_Response	←	← REL
	ACK	→	→ RLC

TP number	TP_107_003	Reference	7.2.3.1.8
TSS reference	SIP-ISUP/Basic call/Receipt_of_REL/		
Selection criteria			
Test Purpose name	A REL is received after an early dialogue is established (180), a final response is sent		
Test Purpose	Ensure that on receipt of a REL message after an early dialogue due to sending a 180 Ringing is established a SIP final response is sent. The response code is derived from the Cause value received in the REL according the rules described in table 6.1.1.7-1. The cause value of the received REL is present in the Reason header of the sent final response		
ISUP Parameter values	ACM: BCi Called party status = subscriber free REL: Cause indicator Cause Value = Cause_value		
SIP Parameter values	4xx/5xx/6xx: Reason: Q.850; cause = Cause_value		
Comments			
Message flows	Mg	MGCF	ISUP
	INVITE	→	→ IAM
	180 Ringing	←	← ACM
	SIP_final_Response	←	← REL
	ACK	→	→ RLC

TP number	TP_107_004	Reference	7.2.3.1.8
TSS reference	SIP-ISUP/Basic call/Receipt_of_REL/		
Selection criteria			
Test Purpose name	A REL is received after an early dialogue is established (181), a final response is sent		
Test Purpose	Ensure that on receipt of a REL message after an early dialogue due to sending a 181 Call Is Being Forwarded is established a SIP final response is sent. The response code is derived from the Cause value received in the REL according the rules described in table 6.1.1.7-1. The cause value of the received REL is present in the Reason header of the sent final response		
ISUP Parameter values	ACM: BCi Called party status = no indication Redirection number Call diversion information Generic notification = 'Call is diverted' REL: Cause indicator Cause Value = Cause_value		
SIP Parameter values	4xx/5xx/6xx: Reason: Q.850; cause = Cause_value		
Comments			
Message flows	Mg	MGCF	ISUP
	INVITE	→	→ IAM
	181 Call Is Being Forwarded	←	← ACM
	SIP_final_Response	←	← REL
	ACK	→	→ RLC

TP number	TP_107_005	Reference	7.2.3.1.8
TSS reference	SIP-ISUP/Basic call/Receipt_of_REL/		
Selection criteria			
Test Purpose name	A REL is received after an early dialogue is established (181), a final response is sent		
Test Purpose	Ensure that on receipt of a REL message after an early dialogue due to sending a 183 Session Progress is established a SIP final response is sent. The response code is derived from the Cause value received in the REL according the rules described in table 6.1.1.7-1. The cause value of the received REL is present in the Reason header of the sent final response		
ISUP Parameter values	ACM: BCi Called party status = no indication oBCi in-band info available REL: Cause indicator Cause Value = Cause_value		
SIP Parameter values	4xx/5xx/6xx: Reason: Q.850; cause = Cause_value		
Comments			
Message flows	Mg	MGCF	ISUP
	INVITE	→	→ IAM
	183 Session Progress	←	← ACM
	SIP_final_Response	←	← REL
	ACK	→	→ RLC

TP number	TP_107_006	Reference	7.2.3.1.8
TSS reference	SIP-ISUP/Basic call/Receipt_of_REL/		
Selection criteria	PICS 6.2.1/5		
Test Purpose name	An ATP Progress indicator IE present in a REL is mapped into the PSTN XML ProgressIndicator in the sent final response		
Test Purpose	Ensure that on receipt of a REL message and Progress Indicator IE is present in an ATP, a SIP final response as indicated in table 6.1.1.7-1 is sent, a PSTN XML ProgressIndicator is contained and the Progress Description is derived from the received REL Progress indicator as indicated in table 6.1.1.7-2		
ISUP Parameter values	REL: ATP Progress Indicator = PI_value		
SIP Parameter values	4xx/5xx/6xx: <?xml version="1.0" encoding="utf-8"?> PSTN ProgressIndicator ProgressOctet3 CodingStandard>00< Location<yyyy> ProgressOctet4 ProgressDescription> PI_value <		
Comments			
Message flows	Mg	MGCF	ISUP
	INVITE	→	→ IAM
	180 Ringing	←	← ACM
	SIP_final_Response	←	← REL
	ACK	→	→ RLC

TP number	TP_107_007	Reference	7.2.3.1.8
TSS reference	SIP-ISUP/Basic call/Receipt_of_REL/		
Selection criteria	PICS 6.2.1/5		
Test Purpose name	An ATP High Layer Compatibility IE present in a REL is mapped into the PSTN XML HighLayerCompatibility in the sent final response		
Test Purpose	Ensure that on receipt of a REL message and High Layer Compatibility IE is present in an ATP, a SIP final response as indicated in table 6.1.1.7-1 is sent, a PSTN XML HighLayerCompatibility is contained and the HighLayerCharacteristics is derived from the received REL High Layer Compatibility as indicated in table 6.1.1.7-3		
ISUP Parameter values	REL: ATP High Layer Compatibility = HLC_value		
SIP Parameter values	4xx/5xx/6xx: <?xml version="1.0" encoding="utf-8"?> PSTN HighLayerCompatibility HLOctet3 CodingStandard>00< Interpretation>100< PresentationMethod>01< HLOctet4 HighLayerCharacteristics> HLC_value <		
Comments			
Message flows	Mg	MGCF	ISUP
	INVITE	→	→ IAM
	180 Ringing	←	← ACM
	SIP_final_Response	←	← REL
	ACK	→	→ RLC

TP number	TP_107_008	Reference	7.2.3.1.8
TSS reference	SIP-ISUP/Basic call/Receipt_of_REL/		
Selection criteria	PICS 6.2.1/5		
Test Purpose name	An ATP Low Layer Compatibility IE present in a REL is mapped into the PSTN XML LowLayerCompatibility in the sent final response		
Test Purpose	Ensure that on receipt of a REL message and Low Layer Compatibility IE is present in an ATP, a SIP final response as indicated in table 6.1.1.7-1 is sent, a PSTN XML LowLayerCompatibility is contained and the InformationTransferCapability is derived from the received REL Low Layer Compatibility as indicated in table 6.1.1.7-4		
ISUP Parameter values	REL: ATP Low Layer Compatibility = ITC_value		
SIP Parameter values	<pre> 4xx/5xx/6xx: <?xml version="1.0" encoding="utf-8"?> PSTN LowLayerCompatibility> LLOctet3> CodingStandard>00< InformationTransferCapability>ITC_value< LLOctet4> TransferMode>00< InformationTransferRate>10000< </pre>		
Comments			
Message flows	Mg	MGCF	ISUP
INVITE	→	→	IAM
180 Ringing	←	←	ACM
SIP_final_Response	←	←	REL
ACK	→	→	RLC

Table 6.1.1.7-1: Receipt of the Release message (REL)

SIP_final_Response	←SIP Message	← REL
	Status code	Cause parameter
VA_01	404 Not Found	Cause value No. 1 (unallocated (unassigned) number)
VA_02	604 Does not exist anywhere	Cause value No 2 (no route to network)
VA_03	604 Does not exist anywhere	Cause value No 3 (no route to destination)
VA_04	500 Server Internal error	Cause value No. 4 (Send special information tone)
VA_05	404 Not Found	Cause value No. 5 (Misdialed trunk prefix)
VA_06	486 Busy Here	Cause value No. 17 (user busy)
VA_07	480 Temporarily unavailable	Cause value No 18 (no user responding)
VA_08	480 Temporarily unavailable	Cause value No 19 (no answer from the user)
VA_09	480 Temporarily unavailable	Cause value No. 20 (subscriber absent)
VA_10	603 Decline	Cause value No 21 (call rejected), Location = 000 / user (U)
VA_11	403 Forbidden	Cause value No 21 (call rejected) , Location not equal 000 / user (U)
VA_12	410 Gone	Cause value No 22 (number changed)
VA_13	410 Gone	Cause value No 23 (Re-route to new destination)
VA_14	433 Anonymity Disallowed	Cause value No. 24 (call rejected due to ACR supplementary service)
VA_15	483 Too many hops	Cause value No 25 (Exchange routing error)
VA_16	480 Temporarily unavailable	Cause value No 26 (Non-selected user clearing)
VA_17	502 Bad Gateway	Cause value No 27 (destination out of order)
VA_18	484 Address Incomplete	Cause value No. 28 invalid number format (address incomplete)

SIP_final_Response	←SIP Message	← REL
	Status code	Cause parameter
VA_19	501 Not Implemented	Cause value No 29 (facility rejected)
VA_20	480 Temporarily unavailable	Cause value No 31 (normal unspecified) (class default)
VA_21	486 Busy here	Cause value No 34 (No circuit/channel available) CCBS indicator = CCBS possible
VA_22	480 Temporarily unavailable	Cause value No 34 (No circuit/channel available) CCBS indicator = CCBS not possible or absent
VA_23	500 Server Internal error	Cause value No 38 (Network out of order)
VA_24	503 Service Unavailable	Cause value No 41 (Temporary failure)
VA_25	503 Service Unavailable	Cause value No 42 (Switching equipment congestion)
VA_26	500 Server Internal error	Cause value No 43 (Access information discarded)
VA_27	503 Service Unavailable	Cause value No 44 (Requested channel not available)
VA_28	500 Server Internal error	Cause value No 46 (Precedence call blocked)
VA_29	503 Service Unavailable	Cause value No 47 (Resource unavailable (class default))
VA_30	488 Not acceptable here	Cause value No 50 (requested facility no subscribed)
VA_31	603 Decline	Cause value No 55 (Incoming class barred within Closed User Group (CUG))
VA_32	603 Decline	Cause value No 57 (bearer capability not authorized)
VA_33	503 Service Unavailable	Cause value No 58 (bearer capability not presently available)
VA_34	501 Not Implemented	Cause value No 63 (service option not available, unspecified) (class default)
VA_35	500 Server Internal error	Cause value No 65 Bearer capability not implemented
VA_36	501 Not Implemented	Cause value No 69 (Requested facility not implemented)
VA_37	501 Not Implemented	Cause value No 70 (Only restricted digital information capability available)
VA_38	501 Not Implemented	Cause value No 79 (Service or option not implemented(class default))
VA_39	403 Forbidden	Cause value No 87 (User not member of Closed User Group(CUG))
VA_40	606 Not acceptable	Cause value No 88 (incompatible destination)
VA_41	403 Forbidden	Cause value No 90 (Non existing Closed User Group (CUG))
VA_42	500 Server Internal error	Cause value No 91 (invalid transit network selection)
VA_43	500 Server Internal error	Cause value No 95 (invalid message) (class default)
VA_44	501 Not Implemented	Cause value No 97 (Message type non-existent or not implemented)
VA_45	501 Not Implemented	Cause value No 99 (information element/parameter non-existent or not implemented))
VA_46	501 Not Implemented	Cause value No 98 (Message not compatible with call state or message type non-existent or not implemented)
VA_47	480 Temporarily unavailable	Cause value No. 102 (recovery on timer expiry)
VA_48	501 Not Implemented	Cause value No 103 (Non-existent parameter passed on)

SIP_final_Response	←SIP Message	← REL
	Status code	Cause parameter
VA_49	501 Not Implemented	Cause value No 110 (Message with unrecognized Parameter, discarded)
VA_50	400 Bad Request	Cause value No. 111 (protocol error, unspecified) (class default)
VA_51	500 Server Internal error	Cause value No. 127 (interworking unspecified) (class default)

Table 6.1.1.7-2: Mapping of Progress Indicator information element to PSTN XML ProgressIndicator

PI_value	ATP Progress Indicator value	XML ProgressIndicator ProgressDescription
PI_VA_1	Call is not end-to-end ISDN; further call progress information may be available in-band	'0000001'
PI_VA_2	Destination address is non-ISDN	'0000010'
PI_VA_3	Origination address is non-ISDN	'0000011'
PI_VA_4	Call has returned to the ISDN	'0000100'
PI_VA_5	Interworking has occurred and has resulted in a telecommunication service change	'0000101'
PI_VA_6	In-band information or an appropriate pattern is now available	'0001000'

Table 6.1.1.7-3: Mapping of High layer compatibility information element to PSTN XML HighLayerCharacteristic

HLC_value	DSS1 High layer characteristics identification	XML HighLayerCharacteristic
HLC_VA_1	Telephony	'0000001'
HLC_VA_2	Facsimile Group 2/3	'0000100'
HLC_VA_3	Facsimile Group 4 Class I	'0100001'
HLC_VA_4	Facsimile service Group 4, Classes II and III	'0100100'
HLC_VA_5	Syntax based Videotex	'0110010'
HLC_VA_6	International Videotex interworking via gateways or interworking units	'0110011'
HLC_VA_7	Telex service	'0110101'
HLC_VA_8	FTAM application	'1000010'
HLC_VA_9	Videotelephony	'1100000'

Table 6.1.1.7-4: Mapping of Low Layer Compatibility to PSTN XML LowLayerCompatibility

ITC_value	LLC Information transfer capability	XML LLC InformationTransferCapability
ITC_VA_1	Speech	'00000'
ITC_VA_2	3,1 kHz audio	'10000'
ITC_VA_3	Unrestricted digital info	'01001'
ITC_VA_4	7 kHz audio	'10001'

6.1.1.8 Receipt of RSC, GRS or CGB (H/W oriented)

TP number	TP_108_001	Reference	7.2.3.1.9 2)
TSS reference	SIP-ISUP/Basic call/Receipt_of_RSC-GRS-CGB/		
Selection criteria			
Test Purpose name	RSC received before an early dialogue was established		
Test Purpose	Ensure that the SUT does not send any SIP message if a RSC is received and no early dialogue is established. A 480 Temporarily Unavailable is sent or an automatic repeat attempt is performed.		
ISUP Parameter values			
SIP Parameter values			
Comments			
Message flows	Mg	MGCF	ISUP
	INVITE	→	→ IAM
	100 Trying	←	
	CASE A		
	480 Temporarily Unavailable	←	← RSC
	ACK	→	→ RLC
	CASE B		
			→ IAM

TP number	TP_108_002	Reference	7.2.3.1.9 2)
TSS reference	SIP-ISUP/Basic call/Receipt_of_RSC-GRS-CGB/		
Selection criteria			
Test Purpose name	GRS received before an early dialogue was established		
Test Purpose	Ensure that the SUT does not send any SIP message if a GRS is received and no early dialogue is established. A 480 Temporarily Unavailable for each transaction is sent.		
ISUP Parameter values			
SIP Parameter values			
Comments			
Message flows	Mg	MGCF	ISUP
	INVITE (1)	→	→ IAM
	100 Trying	←	
	INVITE (2)	→	→ IAM
	100 Trying	←	
	4xx,5xx,6xx (1)	←	← GRS
	ACK	→	
	4xx,5xx,6xx (2)	←	
	ACK	→	→ GRA

TP number	TP_108_003	Reference	7.2.3.1.9 2)
TSS reference	SIP-ISUP/Basic call/Receipt_of_RSC-GRS-CGB/		
Selection criteria			
Test Purpose name	CGB received before an early dialogue was established		
Test Purpose	Ensure that the SUT does not send any SIP message if a CGB hardware oriented is received and no early dialogue is established. A 480 Temporarily Unavailable for each transaction is sent.		
ISUP Parameter values			
SIP Parameter values			
Comments			
Message flows	Mg	MGCF	ISUP
	INVITE (1)	→	→ IAM
	100 Trying	←	
	INVITE (2)	→	→ IAM
	100 Trying	←	
	4xx,5xx,6xx (1)	←	← GGB
	ACK	→	
	4xx,5xx,6xx (2)	←	
	ACK	→	→ GGBA

TP number	TP_108_004	Reference	7.2.3.1.9 2)
TSS reference	SIP-ISUP/Basic call/Receipt_of_RSC-GRS-CGB/		
Selection criteria			
Test Purpose name	RSC received after an early dialogue was established		
Test Purpose	Ensure that the SUT is able to send a 480 Temporarily Unavailable if a RSC is received and an early dialogue is established		
ISUP Parameter values			
SIP Parameter values			
Comments			
Message flows	Mg	MGCF	ISUP
	INVITE	→	→ IAM
	180 Ringing	←	← ACM
	480 Temporarily Unavailable	←	← RSC
	ACK	→	→ RLC

TP number	TP_108_005	Reference	7.2.3.1.9 2)
TSS reference	SIP-ISUP/Basic call/Receipt_of_RSC-GRS-CGB/		
Selection criteria			
Test Purpose name	GRS received after an early dialogue was established		
Test Purpose	Ensure that the SUT is able to send a 480 Temporarily Unavailable for any dialogue affected in the range, if a GRS is received and an early dialogue is established		
ISUP Parameter values			
SIP Parameter values			
Comments			
Message flows	Mg	MGCF	ISUP
	INVITE (1)	→	→ IAM
	180 Ringing	←	← ACM
	INVITE (2)	→	→ IAM
	180 Ringing	←	← ACM
	480 Temporarily Unavailable (1)	←	← GRS
	ACK	→	→ GRA
	480 Temporarily Unavailable (2)	←	
	ACK	→	

TP number	TP_108_006	Reference	7.2.3.1.9 2)
TSS reference	SIP-ISUP/Basic call/Receipt_of_RSC-GRS-CGB/		
Selection criteria			
Test Purpose name	CGB received after an early dialogue was established		
Test Purpose	Ensure that the SUT is able to send a 480 Temporarily Unavailable for any dialogue affected in the range, if a CGB hardware oriented is received and an early dialogue is established		
ISUP Parameter values			
SIP Parameter values			
Comments			
Message flows	Mg	MGCF	ISUP
	INVITE (1) →	→	IAM
	180 Ringing ←	←	ACM
	INVITE (2) →	→	IAM
	180 Ringing ←	←	ACM
	480 Temporarily Unavailable (1) ←	←	GGB
	ACK →	→	GGBA
	480 Temporarily Unavailable (2) ←		
	ACK →		

TP number	TP_108_007	Reference	7.2.3.1.9 1)
TSS reference	SIP-ISUP/Basic call/Receipt_of_RSC-GRS-CGB/		
Selection criteria			
Test Purpose name	RSC received after a confirmed dialogue was established		
Test Purpose	Ensure that the SUT is able to send a BYE request if a RSC is received and a confirmed dialogue is established		
ISUP Parameter values			
SIP Parameter values			
Comments			
Message flows	Mg	MGCF	ISUP
	INVITE →	→	IAM
	180 Ringing ←	←	ACM
	200 OK INVITE ←	←	ANM
	ACK →		
	BYE ←	←	RSC
	200 OK BYE →	→	RLC

TP number	TP_108_008	Reference	7.2.3.1.9 1)
TSS reference	SIP-ISUP/Basic call/Receipt_of_RSC-GRS-CGB/		
Selection criteria			
Test Purpose name	GRS received after a confirmed dialogue was established		
Test Purpose	Ensure that the SUT is able to send a BYE request for any dialogue affected in the range, if a GRS is received and a confirmed dialogue is established		
ISUP Parameter values			
SIP Parameter values			
Comments			
Message flows	Mg	MGCF	ISUP
	INVITE (1)	→	→ IAM
	180 Ringing	←	← ACM
	200 OK INVITE	←	← ANM
	ACK	→	
	INVITE (2)	→	→ IAM
	180 Ringing	←	← ACM
	200 OK INVITE	←	← ANM
	ACK	→	
	BYE (1)	←	← GRS
	200 OK BYE	→	→ GRA
	BYE (2)	←	
	200 OK BYE	→	

TP number	TP_108_009	Reference	7.2.3.1.9 1)
TSS reference	SIP-ISUP/Basic call/Receipt_of_RSC-GRS-CGB/		
Selection criteria			
Test Purpose name	CGB received after a confirmed dialogue was established		
Test Purpose	Ensure that the SUT is able to send a BYE request for any dialogue affected in the range, if a CGB hardware oriented is received and a confirmed dialogue is established		
ISUP Parameter values			
SIP Parameter values			
Comments			
Message flows	Mg	MGCF	ISUP
	INVITE (1)	→	→ IAM
	180 Ringing	←	← ACM
	200 OK INVITE	←	← ANM
	ACK	→	
	INVITE (2)	→	→ IAM
	180 Ringing	←	← ACM
	200 OK INVITE	←	← ANM
	ACK	→	
	BYE (1)	←	← GGB
	200 OK BYE	→	→ GGBA
	BYE (2)	←	
	200 OK BYE	→	

6.1.1.9 Receipt of REFER

TP number	TP_109_001	Reference	7.2.3.1.9a
TSS reference	SIP-ISUP/Basic call/Receipt_of_REFER/		
Selection criteria			
Test Purpose name	REFER received in the confirmed dialogue		
Test Purpose	Ensure that on receipt of a REFER request in the confirmed dialogue, a 403 Forbidden response to this REFER request is sent		
ISUP Parameter values			
SIP Parameter values			
Comments			
Message flows	Mg	MGCF	ISUP
	INVITE	→	→ IAM
	100 Trying	←	
	180 Ringing	←	← ACM
	200 OK (INVITE)	←	← ANM
	ACK	→	
	REFER	→	
	403 Forbidden	←	
	Apply post test routine		

TP number	TP_109_002	Reference	7.2.3.1.9a
TSS reference	SIP-ISUP/Basic call/Receipt_of_REFER/		
Selection criteria			
Test Purpose name	REFER received in the early dialogue		
Test Purpose	Ensure that on receipt of a REFER request in the early dialogue, a 403 Forbidden response to this REFER request is sent		
ISUP Parameter values			
SIP Parameter values			
Comments			
Message flows	Mg	MGCF	ISUP
	INVITE	→	→ IAM
	100 Trying	←	
	180 Ringing	←	← ACM
	REFER	→	
	403 Forbidden	←	
	Apply post test routine		

6.1.1.10 Autonomous Release at I-MGCF

TP number	TP_110_001	Reference	7.2.3.1.10
TSS reference	SIP-ISUP/Basic call/Autonomous_Release/		
Selection criteria	NOT PICS 6.2.3/1 AND NOT PICS 6.2.3/2		
Test Purpose name	Determination that insufficient digits received		
Test Purpose	Ensure that on receipt of an INVITE request and the SUT determines that insufficient digits received, the SUT sends a 484 Address Incomplete final response		
ISUP Parameter values			
SIP Parameter values			
Comments			
Message flows	Mg	MGCF	ISUP
	INVITE	→	
	100 Trying	←	
	484 Address Incomplete	←	
	ACK	→	

TP number	TP_110_002	Reference	7.2.3.1.10
TSS reference	SIP-ISUP/Basic call/Autonomous_Release/		
Selection criteria			
Test Purpose name	Connection request is not routable		
Test Purpose	Ensure that on receipt of an INVITE request and the SUT is unable to route the call due to congestion, the SUT sends a 480 Temporarily Unavailable final response		
ISUP Parameter values			
SIP Parameter values			
Comments	Prepare the SUT that a call is not routeable e.g. no circuit available		
Message flows	Mg	MGCF	ISUP
		Apply pre test routine	
	INVITE	→	
	100 Trying	←	
	480 Temporarily Unavailable	←	
	ACK	→	

TP number	TP_110_003	Reference	7.2.3.1.10
TSS reference	SIP-ISUP/Basic call/Autonomous_Release/		
Selection criteria			
Test Purpose name	Call release due to the ISUP/BICC compatibility procedure		
Test Purpose	Ensure that on receipt of an unknown parameter in an ISUP/BICC message and the parameter compatibility is set to 'Release call', a REL is sent the cause value is set to #99 or #110 and in addition a 500 Server Internal Error is sent, the Reason header cause value is set to the same value as sent in the REL		
ISUP Parameter values	CPG: unknown parameter, parameter compatibility = release call REL: cause value = 99 or 110		
SIP Parameter values	500 Server Internal Error: Reason: cause=99 or 110		
Comments			
Message flows	Mg	MGCF	ISUP
		Apply pre test routine	
	INVITE	→	→ IAM
	180 Ringing	←	← ACM
			← CPG
	500 Server Internal Error	←	→ REL
	ACK	→	← RLC

TP number	TP_110_004	Reference	7.2.3.1.10
TSS reference	SIP-ISUP/Basic call/Autonomous_Release/		
Selection criteria			
Test Purpose name	Call release due to the ISUP/BICC compatibility procedure		
Test Purpose	Ensure that on receipt of an unknown ISUP/BICC message and the message compatibility is set to 'Release call', a REL is sent the cause value is set to #97 and in addition a 500 Server Internal Error is sent, the Reason header cause value is set to the same value as sent in the REL		
ISUP Parameter values	Unknown message: message compatibility = release call REL: cause value = 97		
SIP Parameter values	500 Server Internal Error: Reason: cause=97		
Comments			
Message flows	Mg	MGCF	ISUP
		Apply pre test routine	
	INVITE	→	→ IAM
	180 Ringing	←	← ACM
			← <any unknown message>
	500 Server Internal Error	←	→ REL
	ACK	→	← RLC

TP number	TP_110_005	Reference	7.2.3.1.10															
TSS reference	SIP-ISUP/Basic call/Autonomous_Release/																	
Selection criteria																		
Test Purpose name	Call release due to T7 expiry																	
Test Purpose	Ensure that on T7 expiry, the call is released. A REL is sent. In addition a 484 Address Incomplete is sent and the cause value of the Reason header is equal to the Cause indicator value in the sent REL																	
ISUP Parameter values																		
SIP Parameter values																		
Comments																		
Message flows	<table style="width: 100%; border: none;"> <tr> <td style="text-align: center;">Mg</td> <td style="text-align: center;">MGCF</td> <td style="text-align: center;">ISUP</td> </tr> <tr> <td>INVITE</td> <td style="text-align: center;">→</td> <td>IAM</td> </tr> <tr> <td></td> <td style="text-align: center;">T7 expiry</td> <td></td> </tr> <tr> <td>484 Address Incomplete</td> <td style="text-align: center;">←</td> <td>REL</td> </tr> <tr> <td>ACK</td> <td style="text-align: center;">→</td> <td>RLC</td> </tr> </table>			Mg	MGCF	ISUP	INVITE	→	IAM		T7 expiry		484 Address Incomplete	←	REL	ACK	→	RLC
Mg	MGCF	ISUP																
INVITE	→	IAM																
	T7 expiry																	
484 Address Incomplete	←	REL																
ACK	→	RLC																

TP number	TP_110_006	Reference	7.2.3.1.10																		
TSS reference	SIP-ISUP/Basic call/Autonomous_Release/																				
Selection criteria																					
Test Purpose name	Call release due to T9 expiry																				
Test Purpose	Ensure that on expiry of the timer T9 the call is released. A REL is sent and the Cause indicator value is set to #19. In addition a 480 Temporarily Unavailable is sent and the cause value of the Reason header is set to #19																				
ISUP Parameter values	REL: cause value = 19																				
SIP Parameter values	480 Temporarily Unavailable: Reason: cause=19																				
Comments																					
Message flows	<table style="width: 100%; border: none;"> <tr> <td style="text-align: center;">Mg</td> <td style="text-align: center;">MGCF</td> <td style="text-align: center;">ISUP</td> </tr> <tr> <td>INVITE</td> <td style="text-align: center;">→</td> <td>IAM</td> </tr> <tr> <td>180 Ringing</td> <td style="text-align: center;">←</td> <td>ACM</td> </tr> <tr> <td></td> <td style="text-align: center;">T9 expiry</td> <td></td> </tr> <tr> <td>480 Temporarily Unavailable</td> <td style="text-align: center;">←</td> <td>REL</td> </tr> <tr> <td>ACK</td> <td style="text-align: center;">→</td> <td>RLC</td> </tr> </table>			Mg	MGCF	ISUP	INVITE	→	IAM	180 Ringing	←	ACM		T9 expiry		480 Temporarily Unavailable	←	REL	ACK	→	RLC
Mg	MGCF	ISUP																			
INVITE	→	IAM																			
180 Ringing	←	ACM																			
	T9 expiry																				
480 Temporarily Unavailable	←	REL																			
ACK	→	RLC																			

6.1.2 Outgoing Call Interworking from ISUP to SIP at O-MGCF

6.1.2.1 Sending of INVITE

TP number	TP_201_001	Reference	7.2.3.2.1												
TSS reference	ISUP-SIP/Basic call/Sending_of_INVITE/														
Selection criteria															
Test Purpose name	IAM received, a INVITE is sent														
Test Purpose	Ensure that on receipt of an IAM message, an INVITE request is sent														
ISUP Parameter values															
SIP Parameter values															
Comments															
Message flows	<table style="width: 100%; border: none;"> <tr> <td style="text-align: center;">ISUP</td> <td style="text-align: center;">MGCF</td> <td style="text-align: center;">Mg</td> </tr> <tr> <td>IAM</td> <td style="text-align: center;">→</td> <td>INVITE</td> </tr> <tr> <td></td> <td></td> <td>← 100 Trying</td> </tr> <tr> <td colspan="3" style="text-align: center;">Apply post test routine</td> </tr> </table>			ISUP	MGCF	Mg	IAM	→	INVITE			← 100 Trying	Apply post test routine		
ISUP	MGCF	Mg													
IAM	→	INVITE													
		← 100 Trying													
Apply post test routine															

TP number	TP_201_002	Reference	7.2.3.2.1.1
TSS reference	ISUP-SIP/Basic call/Sending_of_INVITE/		
Selection criteria	PICS 6.2.1/4		
Test Purpose name	IAM received and COT requested or performed, the INVITE is deferred until COT is received		
Test Purpose	<p>Ensure that on receipt of an IAM and the continuity check indicator is set to:</p> <ul style="list-style-type: none"> • <i>'continuity check required on this circuit'</i> • <i>'continuity check performed on previous circuit'</i> <p>the sending of the initial INVITE request is deferred until the COT message is received and the Continuity indicator is set to 'continuity check successful'</p>		
ISUP Parameter values	<p>IAM: Nature of connection indicator= continuity check required on this circuit or continuity check performed on previous circuit</p> <p>COT: Continuity indicator=continuity check successful</p>		
SIP Parameter values			
Comments			
Message flows	ISUP	MGCF	Mg
	IAM	→	
	COT	→	→ INVITE
			← 100 Trying
	Apply post test routine		

TP number	TP_201_003	Reference	7.2.3.2.1.2
TSS reference	ISUP-SIP/Basic call/Sending_of_INVITE/		
Selection criteria	PICS 6.2.1/3		
Test Purpose name	Preconditions indicated in the supported header		
Test Purpose	Ensure that on receipt of an IAM and the continuity indicator is set to 'Continuity check performed on a previous circuit' or 'Continuity check required on this circuit' an INVITE request is sent and the Supported header contains the value precondition and 100rel . If the COT message is received, an UPDATE request is sent to fulfil the preconditions		
ISUP Parameter values	IAM: Nature of connection indicator= continuity check required on this circuit or continuity check performed on previous circuit COT: Continuity indicator=continuity check successful		
SIP Parameter values	INVITE: Supported: precondition, 100rel SDP a=curr:qos local none a=curr:qos remote none a=des:qos mandatory local sendrcv a=des:qos none remote sendrcv 183: Require: 100rel SDP a=curr:qos local none a=curr:qos remote none a=des:qos mandatory local sendrcv a=des:qos mandatory remote sendrcv a=conf:qos remote sendrcv UPDATE: SDP a=curr:qos local sendrcv a=curr:qos remote none a=des:qos mandatory local sendrcv a=des:qos mandatory remote sendrcv 200 OK UPDATE SDP a=curr:qos local sendrcv a=curr:qos remote sendrcv a=des:qos mandatory local sendrcv a=des:qos mandatory remote sendrcv		
Comments			
Message flows	ISUP IAM → COT →	MGCF	Mg → INVITE ← 100 Trying ← 183 Session Progress → PRACK ← 200 OK (PRACK) → UPDATE ← 200 OK (UPDATE)
	Apply post test routine		

TP number	TP_201_004	Reference	7.2.3.2.1.3
TSS reference	ISUP-SIP/Basic call/Sending_of_INVITE/		
Selection criteria	PICS 6.2.1/11		
Test Purpose name	Information request procedure successful, Calling party number in INF received		
Test Purpose	Ensure that on receipt of an IAM and no Calling party number is present, an Information Request (INR) message is sent. On receipt of an Information (INF) message containing a calling party number the initial INVITE request is sent		
ISUP Parameter values	IAM: No calling party number present INR: Calling party address request indicator=calling party address requested INF: Calling party address response=calling party address included Calling party number		
SIP Parameter values			
Comments			
Message flows	ISUP IAM → INR ← INF →	MGCF	Mg → INVITE ← 100 Trying
	Apply post test routine		

TP number	TP_201_005	Reference	7.2.3.2.1.3
TSS reference	ISUP-SIP/Basic call/Sending_of_INVITE/		
Selection criteria	PICS 6.2.1/11 AND PICS 6.2.1/12		
Test Purpose name	Information request procedure not successful, no Calling party number in INF received, the call is rejected		
Test Purpose	Ensure that on receipt of an IAM and no Calling party number is present, an Information Request (INR) message is sent. On receipt of an Information (INF) message and no Calling party number is present, the call is rejected		
ISUP Parameter values	IAM: No calling party number present INR: Calling party address request indicator=calling party address requested INF: Calling party address response=calling party address not included		
SIP Parameter values			
Comments			
Message flows	ISUP	MGCF	Mg
	IAM	→	
	INR	←	
	INF	→	
	REL	←	
	RLC	→	
	Apply post test routine		

TP number	TP_201_006	Reference	7.2.3.2.1.3
TSS reference	ISUP-SIP/Basic call/Sending_of_INVITE/		
Selection criteria	PICS 6.2.1/11 AND NOT PICS 6.2.1/12		
Test Purpose name	Information request procedure not successful, no Calling party number in INF received, the call is continued		
Test Purpose	Ensure that on receipt of an IAM and no Calling party number is present, an Information Request (INR) message is sent. On receipt of an Information (INF) message and no Calling party number is present, the call is continued		
ISUP Parameter values	IAM: No calling party number present INR: Calling party address request indicator=calling party address requested INF: Calling party address response=calling party address not included		
SIP Parameter values			
Comments			
Message flows	ISUP	MGCF	Mg
	IAM	→	
	INR	←	
	INF	→	→ INVITE
			← 100 Trying
	Apply post test routine		

TP number	TP_201_007	Reference	7.2.3.2.1.3
TSS reference	ISUP-SIP/Basic call/Sending_of_INVITE/		
Selection criteria	PICS 6.2.1/11		
Test Purpose name	Information request procedure not successful, T 33 is expired		
Test Purpose	Ensure that on receipt of an IAM and no Calling party number is present, an Information Request (INR) message is sent. If timer T33 is expired, the call is rejected		
ISUP Parameter values	IAM: No calling party number present INR: Calling party address request indicator=calling party address requested		
SIP Parameter values			
Comments			
Message flows	ISUP	MGCF	Mg
	IAM	→	
	INR	←	Start T ₃₃
	REL	←	T ₃₃ Expiry
	RLC	→	
	Apply post test routine		

TP number	TP_201_008	Reference	7.2.3.2.1.4 a)												
TSS reference	ISUP-SIP/Basic call/Sending_of_INVITE/														
Selection criteria															
Test Purpose name	End of address signalling determined by receipt of end-of-pulsing signal														
Test Purpose	Ensure that on receipt of an IAM and the called party number contains the end-of-pulsing (ST) signal , the initial INVITE is sent														
ISUP Parameter values															
SIP Parameter values															
Comments															
Message flows	<table style="width:100%; border:none;"> <tr> <td style="text-align:center">ISUP</td> <td style="text-align:center">MGCF</td> <td style="text-align:center">Mg</td> </tr> <tr> <td>IAM</td> <td style="text-align:center">→</td> <td style="text-align:center">→ INVITE</td> </tr> <tr> <td></td> <td></td> <td style="text-align:center">← 100 Trying</td> </tr> <tr> <td colspan="3" style="text-align:center">Apply post test routine</td> </tr> </table>			ISUP	MGCF	Mg	IAM	→	→ INVITE			← 100 Trying	Apply post test routine		
ISUP	MGCF	Mg													
IAM	→	→ INVITE													
		← 100 Trying													
Apply post test routine															

TP number	TP_201_009	Reference	7.2.3.2.1.4 b)												
TSS reference	ISUP-SIP/Basic call/Sending_of_INVITE/														
Selection criteria															
Test Purpose name	End of address signalling determined by receipt of the maximum number of digits used in the national numbering plan														
Test Purpose	Ensure that on receipt of an IAM and the called party number contains maximum number of digits used in the national numbering plan , the initial INVITE is sent														
ISUP Parameter values															
SIP Parameter values															
Comments															
Message flows	<table style="width:100%; border:none;"> <tr> <td style="text-align:center">ISUP</td> <td style="text-align:center">MGCF</td> <td style="text-align:center">Mg</td> </tr> <tr> <td>IAM</td> <td style="text-align:center">→</td> <td style="text-align:center">→ INVITE</td> </tr> <tr> <td></td> <td></td> <td style="text-align:center">← 100 Trying</td> </tr> <tr> <td colspan="3" style="text-align:center">Apply post test routine</td> </tr> </table>			ISUP	MGCF	Mg	IAM	→	→ INVITE			← 100 Trying	Apply post test routine		
ISUP	MGCF	Mg													
IAM	→	→ INVITE													
		← 100 Trying													
Apply post test routine															

TP number	TP_201_010	Reference	7.2.3.2.1.4 c)												
TSS reference	ISUP-SIP/Basic call/Sending_of_INVITE/														
Selection criteria															
Test Purpose name	End of address signalling determined by receipt of sufficient number of digits to route the call to the called party														
Test Purpose	Ensure that on receipt of an IAM and the called party number contains a sufficient number of digits to route the call to the called party , the initial INVITE is sent														
ISUP Parameter values															
SIP Parameter values															
Comments															
Message flows	<table style="width:100%; border:none;"> <tr> <td style="text-align:center">ISUP</td> <td style="text-align:center">MGCF</td> <td style="text-align:center">Mg</td> </tr> <tr> <td>IAM</td> <td style="text-align:center">→</td> <td style="text-align:center">→ INVITE</td> </tr> <tr> <td></td> <td></td> <td style="text-align:center">← 100 Trying</td> </tr> <tr> <td colspan="3" style="text-align:center">Apply post test routine</td> </tr> </table>			ISUP	MGCF	Mg	IAM	→	→ INVITE			← 100 Trying	Apply post test routine		
ISUP	MGCF	Mg													
IAM	→	→ INVITE													
		← 100 Trying													
Apply post test routine															

TP number	TP_201_011	Reference	7.2.3.2.1.4 d)																					
TSS reference	ISUP-SIP/Basic call/Sending_of_INVITE/																							
Selection criteria																								
Test Purpose name	End of address signalling determined by observing that timer Ti/w1 has expired																							
Test Purpose	Ensure that on receipt of an IAM followed by several SAMs and the minimum number of digits required for routing the call have been received timer Ti/w1 is started. When timer Ti/w1 is expired the initial INVITE is sent																							
ISUP Parameter values																								
SIP Parameter values																								
Comments																								
Message flows	<table style="width:100%; border:none;"> <tr> <td style="text-align:center">ISUP</td> <td style="text-align:center">MGCF</td> <td style="text-align:center">Mg</td> </tr> <tr> <td>IAM</td> <td style="text-align:center">→</td> <td></td> </tr> <tr> <td>SAM</td> <td style="text-align:center">→</td> <td></td> </tr> <tr> <td>SAM</td> <td style="text-align:center">→</td> <td style="text-align:center">Start Ti/w1</td> </tr> <tr> <td></td> <td style="text-align:center">Timeout Ti/w1</td> <td style="text-align:center">→ INVITE</td> </tr> <tr> <td></td> <td></td> <td style="text-align:center">← 100 Trying</td> </tr> <tr> <td colspan="3" style="text-align:center">Apply post test routine</td> </tr> </table>			ISUP	MGCF	Mg	IAM	→		SAM	→		SAM	→	Start Ti/w1		Timeout Ti/w1	→ INVITE			← 100 Trying	Apply post test routine		
ISUP	MGCF	Mg																						
IAM	→																							
SAM	→																							
SAM	→	Start Ti/w1																						
	Timeout Ti/w1	→ INVITE																						
		← 100 Trying																						
Apply post test routine																								

TP number	TP_201_012	Reference	7.2.3.2.1.4
TSS reference	ISUP-SIP/Basic call/Sending_of_INVITE/		
Selection criteria			
Test Purpose name	Early ACM is sent after expiry of Ti/w2 receipt of end-of-pulsing signal		
Test Purpose	Ensure that an initial INVITE is sent after receipt of end-of-pulsing signal, the timer Ti/w2 is started. After expiry of Ti/w2 an ACM is sent and the called party status indicator is set to 'no indication'		
ISUP Parameter values	ACM: Called party status=no indication		
SIP Parameter values			
Comments			
Message flows	ISUP	MGCF	Mg
	IAM	→	
	SAM	→	
	SAM	→	Start Ti/w2
			→ INVITE
			← 100 Trying
	ACM	←	Timeout Ti/w2
	Apply post test routine		

TP number	TP_201_013	Reference	7.2.3.2.1.4
TSS reference	ISUP-SIP/Basic call/Sending_of_INVITE/		
Selection criteria			
Test Purpose name	Early ACM is sent after expiry of Ti/w2 receipt of the maximum number of digits used in the national numbering plan		
Test Purpose	Ensure that an initial INVITE is sent after receipt of the maximum number of digits used in the national numbering plan, the timer Ti/w2 is started. After expiry of Ti/w2 an ACM is sent and the called party status indicator is set to 'no indication'		
ISUP Parameter values	ACM: Called party status=no indication		
SIP Parameter values			
Comments			
Message flows	ISUP	MGCF	Mg
	IAM	→	
	SAM	→	
	SAM	→	Start Ti/w2
			→ INVITE
			← 100 Trying
	ACM	←	Timeout Ti/w2
	Apply post test routine		

TP number	TP_201_014	Reference	7.2.3.2.1.4
TSS reference	ISUP-SIP/Basic call/Sending_of_INVITE/		
Selection criteria			
Test Purpose name	Early ACM is sent after expiry of Ti/w2 receipt of a sufficient number of digits to route the call to the called party		
Test Purpose	Ensure that an initial INVITE is sent after receipt of a sufficient number of digits to route the call to the called party, the timer Ti/w2 is started. After expiry of Ti/w2 an ACM is sent and the called party status indicator is set to 'no indication'		
ISUP Parameter values	ACM: Called party status=no indication		
SIP Parameter values			
Comments			
Message flows	ISUP	MGCF	Mg
	IAM	→	
	SAM	→	
	SAM	→	Start Ti/w2
			→ INVITE
			← 100 Trying
	ACM	←	Timeout Ti/w2
	Apply post test routine		

TP number	TP_201_015	Reference	7.2.3.2.1.4
TSS reference	ISUP-SIP/Basic call/Sending_of_INVITE/		
Selection criteria	PICS 6.2.3/3		
Test Purpose name	A PSTN XML SendingCompleteIndication is sent if the end of the address signalling is determined		
Test Purpose	Ensure that the end of the address signalling is determined a PSTN XML SendingCompleteIndication is sent		
ISUP Parameter values			
SIP Parameter values			
Comments			
Message flows	ISUP	MGCF	Mg
	IAM	→	
	SAM	→	
	SAM	→	
			→ INVITE
			← 100 Trying
	Apply post test routine		

TP number	TP_201_016	Reference	7.2.3.2.1a.2
TSS reference	ISUP-SIP/Basic call/Sending_of_INVITE/		
Selection criteria	PICS 6.2.3/1		
Test Purpose name	Overlap dialling using the in-dialogue method		
Test Purpose	Ensure that on receipt of a 183 Session Progress as a response to an INVITE containing an insufficient number of digits, the SUT sends all the digits received in additional SAMs in an additional INVITE and INFO requests depends on whether a final response or provisional response was received for the initial INVITE request. The INFO request contains an x-session-info attachment SubsequentDigit includes the digits received in the SAMs		
ISUP Parameter values			
SIP Parameter values	INFO: SubsequentDigit: <digits received in SAMs>		
Comments			
Message flows	ISUP	MGCF	Mg
	IAM	→	→ INVITE
	CASE A		← 484 Address Incomplete
			→ ACK
	SAM	→	→ INVITE
			← 183 Session Progress
	SAM	→	→ INFO
			← 200 OK (INFO)
	CASE B		← 183 Session Progress
	SAM	→	→ INFO
			← 200 OK (INFO)
	SAM	→	→ INFO
			← 200 OK (INFO)
	Apply post test routine		

TP number	TP_201_017	Reference	7.2.3.2.1a.3
TSS reference	ISUP-SIP/Basic call/Sending_of_INVITE/		
Selection criteria	PICS 6.2.3/2		
Test Purpose name	Overlap dialling using the multiple INVITE method		
Test Purpose	Ensure that on receipt of a 484 Address Incomplete as a response to an INVITE request containing an insufficient number of digits, the SUT sends all the digits received in additional SAMs in an additional INVITE requests. The Call-ID and the From tag values are identical to the values sent in the initial INVITE		
ISUP Parameter values			
SIP Parameter values	INVITE: Request URI <all the received digits in IAM and SAMs> From: tag=<equal to initial INVITE> Call-ID: <equal to initial INVITE>		
Comments			
Message flows	ISUP	MGCF	Mg
	IAM	→	→ INVITE ← 484 Address Incomplete → ACK
	SAM	→	→ INVITE ← 484 Address Incomplete → ACK
	SAM	→	→ INVITE
	Apply post test routine		

TP number	TP_201_018	Reference	7.2.3.2.1.1a.3
TSS reference	ISUP-SIP/Basic call/Sending_of_INVITE/		
Selection criteria			
Test Purpose name	After expiry of Ti/w2 additional received SAMs are ignored		
Test Purpose	Ensure that after expiry of Ti/w2 an ACM is sent and the called party status indicator is set to 'no indication' and additional received SAMs are ignored		
ISUP Parameter values	ACM: Called party status=no indication		
SIP Parameter values			
Comments			
Message flows	ISUP	MGCF	Mg
	IAM	→	
	SAM	→	
	SAM	→ Start Ti/w2	→ INVITE ← 100 Trying
	ACM	← Timeout Ti/w2	
	SAM	→	
	Apply post test routine		

TP number	TP_201_019	Reference	7.2.3.2.1a.3
TSS reference	ISUP-SIP/Basic call/Sending_of_INVITE/		
Selection criteria	PICS 6.2.3/1		
Test Purpose name	Overlap dialling using the in-dialogue method		
Test Purpose	Ensure that on receipt of a 180 Ringing while the in-dialogue procedure is used an additional received SAM is ignored		
ISUP Parameter values			
SIP Parameter values	INFO: SubsequentDigit: <digits received in SAMs>		
Comments			
Message flows	ISUP	MGCF	Mg
	IAM	→	→ INVITE ← 484 Address Incomplete → ACK
	SAM	→	→ INVITE ← 183 Session Progress
	SAM	→	→ INFO ← 200 OK (INFO)
	ACM	←	← 180 Ringing
	SAM	→	
	Apply post test routine		

TP number	TP_201_020	Reference	7.2.3.2.1a.3
TSS reference	ISUP-SIP/Basic call/Sending_of_INVITE/		
Selection criteria	PICS 6.2.3/2		
Test Purpose name	Overlap dialling using the multiple INVITE method		
Test Purpose	Ensure that on receipt of a 180 Ringing while the multiple INVITE procedure is used an additional received SAM is ignored		
ISUP Parameter values			
SIP Parameter values	INVITE: Request URI <all the received digits in IAM and SAMs> From: tag=<equal to initial INVITE> Call-ID: <equal to initial INVITE>		
Comments			
Message flows	ISUP	MGCF	Mg
	IAM	→	→ INVITE ← 484 Address Incomplete → ACK
	SAM	→	→ INVITE ← 484 Address Incomplete → ACK
	SAM	→	→ INVITE
	ACM	←	← 180 Ringing
	SAM	→	
	Apply post test routine		

TP number	TP_201_021	Reference	7.2.3.2.1a.3
TSS reference	ISUP-SIP/Basic call/Sending_of_INVITE/		
Selection criteria	PICS 6.2.3/1 AND PICS 6.2.1/3		
Test Purpose name	Overlap dialling using the multiple INVITE method and preconditions used		
Test Purpose	Ensure that on receipt of an IAM and the continuity indicator is set to 'Continuity check performed on a previous circuit' or 'Continuity check required on this circuit' the INVITE requests are sent for all digits to be transferred and the Supported header contains the value precondition and 100rel . If the COT message is received, an UPDATE request is sent to fulfil the preconditions		
ISUP Parameter values	IAM: Nature of connection indicator= continuity check required on this circuit or continuity check performed on previous circuit COT: Continuity indicator=continuity check successful		
SIP Parameter values	INVITE: Request URI <all the received digits in IAM and SAMs> From: tag=<equal to initial INVITE> Call-ID: <equal to initial INVITE> Supported: precondition, 100rel SDP a=curr:qos local none a=curr:qos remote none a=des:qos mandatory local sendrcv a=des:qos none remote sendrcv 183: Require: 100rel SDP a=curr:qos local none a=curr:qos remote none a=des:qos mandatory local sendrcv a=des:qos mandatory remote sendrcv a=conf:qos remote sendrcv UPDATE: SDP a=curr:qos local sendrcv a=curr:qos remote none a=des:qos mandatory local sendrcv a=des:qos mandatory remote sendrcv 200 OK UPDATE SDP a=curr:qos local sendrcv a=curr:qos remote sendrcv a=des:qos mandatory local sendrcv a=des:qos mandatory remote sendrcv		
Comments	The SAMs should sent within the duration of timer T8		
Message flows	ISUP IAM → SAM → SAM → COT →	MGCF → INVITE ← 484 Address Incomplete → ACK → INVITE ← 484 Address Incomplete → ACK → INVITE ← 183 Session Progress → PRACK ← 200 OK (PRACK) → UPDATE ← 200 OK (UPDATE)	Mg
	Apply post test routine		

TP number	TP_201_022	Reference	7.2.3.2.1a.3
TSS reference	ISUP-SIP/Basic call/Sending_of_INVITE/		
Selection criteria	PICS 6.2.3/1		
Test Purpose name	Timer Ti/w3 expires, REL cause 28 is sent		
Test Purpose	Ensure that on expiry of timer Ti/w3 a REL is sent and the cause value is set to #28		
ISUP Parameter values	REL: Cause=invalid number format (address incomplete)		
SIP Parameter values	INVITE: Request URI <all the received digits in IAM and SAMs> From: tag=<equal to initial INVITE> Call-ID: <equal to initial INVITE>		
Comments			
Message flows	ISUP	MGCF	Mg
	IAM →	Start Ti/w3	→ INVITE ← 484 Address Incomplete → ACK
	SAM →	Start Ti/w3	→ INVITE ← 484 Address Incomplete → ACK
	REL ←	Timeout Ti/w3	
	RLC →		
	Apply post test routine		

TP number	TP_201_023	Reference	7.2.3.2.1.5
TSS reference	ISUP-SIP/Basic call/Sending_of_INVITE/		
Selection criteria	PICS 6.2.1/5		
Test Purpose name	Mapping of USI and USI prime into PSTN XML BearerCapability element		
Test Purpose	Ensure that on receipt of an IAM that includes a USI and USI Prime parameter then the SUT: <ul style="list-style-type: none"> • Map the USI Prime into the second Bearer Capability stated in the XML BearerCapability element and • The first offered codec is the CLEARMODE codec • Map the USI into the first Bearer Capability stated in the XML BearerCapability element and • The second offered codec is a Audio codec 		
ISUP Parameter values	IAM: USI=speech or 3,1 kHz audio USI prime=unrestricted digital info with T/A TMR Prime: 64 kBit/s preferred ATP(HLC Video Telephony)		
SIP Parameter values	INVITE: <?xml version="1.0" encoding="utf-8"?> PSTN BearerCapability BCoctet3 CodingStandard>00< InformationTransferCapability>mapped from USI< BearerCapability BCoctet3 CodingStandard>00< InformationTransferCapability>mapped from USI prime< SDP: m=audio <proper port number> RTP/AVP CLEARMODE 8 ...		
Comments			
Message flows	ISUP	MGCF	Mg
	IAM →		→ INVITE ← 100 Trying
	Apply post test routine		

TP number	TP_201_024	Reference	7.2.3.2.2.1																								
TSS reference	ISUP-SIP/Basic call/Sending_of_INVITE/																										
Selection criteria																											
Test Purpose name	Called party number is mapped into Request URI in the sent INVITE request																										
Test Purpose	<p>Ensure that on receipt of an IAM the called party number is mapped into the Request URI of the sent INVITE request:</p> <ul style="list-style-type: none"> • If the nature of address indicator is set to 'National (significant) number' then the country code of the network in which the SUT is located and a leading '+' is inserted before the number digits received in the Called party number • If the nature of address set to 'International number' a '+' is inserted before the number digits received in the Called party number 																										
ISUP Parameter values	IAM: Called party number= National (significant) number or International number																										
SIP Parameter values	INVITE: Request URI sip: '+CC' <called party number digits>@hostportion; user=phone or tel: '+CC' <called party number digits> if the called party number is a national number sip: '+' <called party number digits>@hostportion; user=phone or tel: '+' <called party number digits> if the called party number is an international number																										
Comments																											
Message flows	<table style="width: 100%; border: none;"> <tr> <td style="text-align: left;">IAM</td> <td style="text-align: center;">ISUP</td> <td style="text-align: center;">→</td> <td style="text-align: center;">MGCF</td> <td style="text-align: center;">→</td> <td style="text-align: right;">Mg</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td style="text-align: center;">→</td> <td style="text-align: right;">INVITE</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td style="text-align: center;">←</td> <td style="text-align: right;">100 Trying</td> </tr> <tr> <td></td> <td></td> <td></td> <td colspan="3" style="text-align: center;">Apply post test routine</td> </tr> </table>			IAM	ISUP	→	MGCF	→	Mg					→	INVITE					←	100 Trying				Apply post test routine		
IAM	ISUP	→	MGCF	→	Mg																						
				→	INVITE																						
				←	100 Trying																						
			Apply post test routine																								

TP number	TP_201_025	Reference	7.2.3.2.2.1																								
TSS reference	ISUP-SIP/Basic call/Sending_of_INVITE/																										
Selection criteria																											
Test Purpose name	Called party number is mapped into To header in the sent INVITE request																										
Test Purpose	<p>Ensure that on receipt of an IAM the called party number is mapped into the Request URI of the sent INVITE request:</p> <ul style="list-style-type: none"> • If the nature of address indicator is set to 'National (significant) number' then the country code of the network in which the SUT is located and a leading '+' is inserted before the number digits received in the Called party number • If the nature of address set to 'International number' a '+' is inserted before the number digits received in the Called party number 																										
ISUP Parameter values	IAM: Called party number= National (significant) number or International number																										
SIP Parameter values	INVITE: To sip: '+CC' <called party number digits>@hostportion; user=phone or tel: '+CC' <called party number digits> if the called party number is a national number sip: '+' <called party number digits>@hostportion; user=phone or tel: '+' <called party number digits> if the called party number is an international number																										
Comments																											
Message flows	<table style="width: 100%; border: none;"> <tr> <td style="text-align: left;">IAM</td> <td style="text-align: center;">ISUP</td> <td style="text-align: center;">→</td> <td style="text-align: center;">MGCF</td> <td style="text-align: center;">→</td> <td style="text-align: right;">Mg</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td style="text-align: center;">→</td> <td style="text-align: right;">INVITE</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td style="text-align: center;">←</td> <td style="text-align: right;">100 Trying</td> </tr> <tr> <td></td> <td></td> <td></td> <td colspan="3" style="text-align: center;">Apply post test routine</td> </tr> </table>			IAM	ISUP	→	MGCF	→	Mg					→	INVITE					←	100 Trying				Apply post test routine		
IAM	ISUP	→	MGCF	→	Mg																						
				→	INVITE																						
				←	100 Trying																						
			Apply post test routine																								

TP number	TP_201_026	Reference	7.2.3.2.2.2.												
TSS reference	ISUP-SIP/Basic call/Sending_of_INVITE/														
Selection criteria															
Test Purpose name	Mapping of TMR into SDP														
Test Purpose	Ensure that on receipt of an IAM the TMR_value is mapped into the SDP according table 6.1.2.1-1														
ISUP Parameter values	IAM: TMR=TMR_value														
SIP Parameter values	INVITE: SDP m=<media> <transport> <fmt-list> a= rtpmap:<dynamic-PT> <encoding name>/<clock rate>/[encoding parameters>														
Comments															
Message flows	<table style="width:100%; border:none;"> <tr> <td style="text-align:center;">ISUP</td> <td style="text-align:center;">MGCF</td> <td style="text-align:right;">Mg</td> </tr> <tr> <td>IAM</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 colspan="3" style="text-align:center;">Apply post test routine</td> </tr> </table>			ISUP	MGCF	Mg	IAM	→	→ INVITE			← 100 Trying	Apply post test routine		
ISUP	MGCF	Mg													
IAM	→	→ INVITE													
		← 100 Trying													
Apply post test routine															

Table 6.1.2.1-1: Mapping of TMR value into m line

TMR_value	TMR parameter	m= line			a= line
		<media>	<transport>	<fmt-list>	rtpmap:<dynamic-PT> <encoding name>/<clock rate>/[encoding parameters>
VA_01	"speech"	audio	RTP/AVP	0 (and possibly 8)	rtpmap:0 PCMU/8000 (and possibly rtpmap:8 PCMA/8000)
VA_02	"3,1 kHz audio"	audio	RTP/AVP	0 (and possibly 8)	rtpmap:0 PCMU/8000 (and possibly rtpmap:8 PCMA/8000)
VA_03	"64 kbit/s unrestricted"	audio	RTP/AVP	Dynamic PT	rtpmap:<dynamic-PT> CLEARMODE/8000

TP number	TP_201_027	Reference	7.2.3.2.2.2												
TSS reference	ISUP-SIP/Basic call/Sending_of_INVITE/														
Selection criteria															
Test Purpose name	AMR codec included														
Test Purpose	Ensure that on receipt of an IAM an INVITE is sent. If the received IAM contains a TMR set to speech or 3,1 kHz audio, the SDP in the sent INVITE contains an AMR codec														
ISUP Parameter values	IAM: TMR=speech or 3,1 kHz audio														
SIP Parameter values	INVITE: SDP: m=audio <proper port number> RTP/AVP ... Dynamic PT a = <rtpmap Dynamic PT> AMR														
Comments															
Message flows	<table style="width:100%; border:none;"> <tr> <td style="text-align:center;">ISUP</td> <td style="text-align:center;">MGCF</td> <td style="text-align:right;">Mg</td> </tr> <tr> <td>IAM</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 colspan="3" style="text-align:center;">Apply post test routine</td> </tr> </table>			ISUP	MGCF	Mg	IAM	→	→ INVITE			← 100 Trying	Apply post test routine		
ISUP	MGCF	Mg													
IAM	→	→ INVITE													
		← 100 Trying													
Apply post test routine															

TP number	TP_201_028	Reference	7.2.3.2.2.2
TSS reference	ISUP-SIP/Basic call/Sending_of_INVITE/		
Selection criteria			
Test Purpose name	Mapping of USI parameter		
Test Purpose	Ensure that on receipt of an IAM the USI_value is mapped into the SDP according table 6.1.2.1-2		
ISUP Parameter values	IAM: User service information		
SIP Parameter values	INVITE: SDP m=<media> <transport> <fmt-list> a= rtpmap:<dynamic-PT> <encoding name>/<clock rate>/<encoding parameters>		
Comments			
Message flows	IAM	ISUP →	MGCF → INVITE ← 100 Trying Mg
		Apply post test routine	

Table 6.1.2.1-2: Mapping of USI parameter into m line

USI_value	USI parameter		HLC	m= line			a= line
	Information Transport Capability	User Information Layer 1 Protocol Indicator		<media>	<transport>	<fmt-list>	rtpmap:<dynamic-PT> <encoding name>/<clock rate>/<encoding parameters>
VA_01	"speech"	"G.711 μ -law"		audio	RTP/AVP	0	rtpmap:0 PCMU/8000
VA_02	"speech"	"G.711 A-law"		audio	RTP/AVP	8	rtpmap:8 PCMA/8000
VA_03	"3,1 kHz audio"		"Facsimile Group 2/3"		Udptl or tcp	t38	Based on ITU-T T.38 [4]

TP number	TP_201_029	Reference	7.2.3.2.2.3A
TSS reference	ISUP-SIP/Basic call/Sending_of_INVITE/		
Selection criteria			
Test Purpose name	Mapping of Calling party's category into cpc parameter		
Test Purpose	Ensure that on receipt of an IAM the calling party's category CPC_value is mapped into the 'cpc' parameter in the P-Asserted-Identity and the Accept-Language header in the sent INVITE as described in table 6.1.2.1-3		
ISUP Parameter values	IAM: Calling party's category		
SIP Parameter values	INVITE: P-Asserted-Identity		
Comments			
Message flows	IAM	ISUP →	MGCF → INVITE ← 100 Trying Mg
		Apply post test routine	

Table 6.1.2.1-3: Mapping of Calling's party category into 'cpc' parameter and Accept-Language header

CPC_value	ISUP IAM parameter	SIP Parameters	
	Calling party's category	"cpc" URI parameter in P-Asserted-Identity	Accept-Language
VA_01	operator, language French	operator	fr
VA_02	operator, language English	operator	en
VA_03	operator, language German	operator	de
VA_04	operator, language Russian	operator	ru
VA_05	operator, language Spanish	operator	es
VA_06	ordinary calling subscriber	ordinary	
VA_07	Test call	test	
VA_08	Payphone	payphone	
VA_09	calling party's category unknown at this time	unknown	
VA_10	mobile terminal located in the home PLMN	mobile-hplmn	
VA_11	mobile terminal located in a visited PLMN	mobile-vplmn	

TP number	TP_201_030	Reference	7.2.3.2.2.4												
TSS reference	ISUP-SIP/Basic call/Sending_of_INVITE/														
Selection criteria	PICS 6.2.1/8														
Test Purpose name	HOP counter procedure supported														
Test Purpose	Ensure that on receipt of the HOP counter parameter, the value is mapped into the Max-Forwards header. The value of the Max-Forwards header is created from the HOP counter value by applying a given factor														
ISUP Parameter values	IAM: HOP														
SIP Parameter values	INVITE: Max-Forwards														
Comments	The factor used to map from Hop Counter to Max-Forwards for a given call will depend on call origin, and will be provisioned at the O-MGCF based on network topology, trust domain rules, and bilateral agreement.														
Message flows	<table style="width: 100%; border: none;"> <tr> <td style="text-align: center;">ISUP</td> <td style="text-align: center;">MGCF</td> <td style="text-align: center;">Mg</td> </tr> <tr> <td>IAM</td> <td style="text-align: center;">→</td> <td style="text-align: center;">→ INVITE</td> </tr> <tr> <td></td> <td></td> <td style="text-align: center;">← 100 Trying</td> </tr> <tr> <td colspan="3" style="text-align: center;">Apply post test routine</td> </tr> </table>			ISUP	MGCF	Mg	IAM	→	→ INVITE			← 100 Trying	Apply post test routine		
ISUP	MGCF	Mg													
IAM	→	→ INVITE													
		← 100 Trying													
Apply post test routine															

TP number	TP_201_031	Reference	7.2.3.2.2.5												
TSS reference	ISUP-SIP/Basic call/Sending_of_INVITE/														
Selection criteria															
Test Purpose name	The O-MGCF inserts an IMS Communication Service Identifier														
Test Purpose	For speech and video calls, the SUT shall insert an IMS Communication Service Identifier, indicating the IMS Multimedia Telephony Communication Service														
ISUP Parameter values															
SIP Parameter values	INVITE: Contact: icsi-ref Accept-Contact: P-Asserted-Service: urn:urn-7:3gpp-service.ims.icsi.mmtel														
Comments															
Message flows	<table style="width: 100%; border: none;"> <tr> <td style="text-align: center;">ISUP</td> <td style="text-align: center;">MGCF</td> <td style="text-align: center;">Mg</td> </tr> <tr> <td>IAM</td> <td style="text-align: center;">→</td> <td style="text-align: center;">→ INVITE</td> </tr> <tr> <td></td> <td></td> <td style="text-align: center;">← 100 Trying</td> </tr> <tr> <td colspan="3" style="text-align: center;">Apply post test routine</td> </tr> </table>			ISUP	MGCF	Mg	IAM	→	→ INVITE			← 100 Trying	Apply post test routine		
ISUP	MGCF	Mg													
IAM	→	→ INVITE													
		← 100 Trying													
Apply post test routine															

TP number	TP_201_032	Reference	7.2.3.2.2.6												
TSS reference	ISUP-SIP/Basic call/Sending_of_INVITE/														
Selection criteria	PICS 6.2.1/9														
Test Purpose name	Support of P-Early-Media header														
Test Purpose	Ensure that on receipt of an IAM a P-Early-Media header is present in the sent INVITE request														
ISUP Parameter values															
SIP Parameter values	INVITE: P-Early-Media: supported														
Comments															
Message flows	<table style="width: 100%; border: none;"> <tr> <td style="text-align: center;">ISUP</td> <td style="text-align: center;">MGCF</td> <td style="text-align: center;">Mg</td> </tr> <tr> <td>IAM</td> <td style="text-align: center;">→</td> <td style="text-align: center;">→ INVITE</td> </tr> <tr> <td></td> <td></td> <td style="text-align: center;">← 100 Trying</td> </tr> <tr> <td colspan="3" style="text-align: center;">Apply post test routine</td> </tr> </table>			ISUP	MGCF	Mg	IAM	→	→ INVITE			← 100 Trying	Apply post test routine		
ISUP	MGCF	Mg													
IAM	→	→ INVITE													
		← 100 Trying													
Apply post test routine															

TP number	TP_201_033	Reference	7.2.3.2.2.7																
TSS reference	ISUP-SIP/Basic call/Sending_of_INVITE/																		
Selection criteria	PICS 6.2.1/5																		
Test Purpose name	Mapping of High Layer Compatibility IE into PSTN XML HighLayerCompatibility																		
Test Purpose	Ensure stat on receipt of an IAM and an ATP parameter is present containing a High Layer Compatibility IE a PSTN XML HighLayerCompatibility element is present derived according the HLC_VA as indicated in table 6.1.2.1-4																		
ISUP Parameter values	IAM: ATP High Layer Compatibility High Layer Characteristics= HLC_VA																		
SIP Parameter values	INVITE: PSTN XML MIME body <?xml version="1.0" encoding="utf-8"?> PSTN HighLayerCompatibility HLOctet3 CodingStandard>00< Interpretation>100< PresentationMethod>01< HLOctet4 HighLayerCharacteristics> HLC_VA <																		
Comments																			
Message flows	<table style="width: 100%; border: none;"> <tr> <td style="width: 25%;"></td> <td style="width: 25%; text-align: center;">ISUP</td> <td style="width: 25%; text-align: center;">MGCF</td> <td style="width: 25%; text-align: right;">Mg</td> </tr> <tr> <td></td> <td style="text-align: center;">IAM</td> <td style="text-align: center;">→</td> <td style="text-align: right;">→ INVITE</td> </tr> <tr> <td></td> <td></td> <td></td> <td style="text-align: right;">← 100 Trying</td> </tr> <tr> <td></td> <td colspan="3" style="text-align: center;">Apply post test routine</td> </tr> </table>				ISUP	MGCF	Mg		IAM	→	→ INVITE				← 100 Trying		Apply post test routine		
	ISUP	MGCF	Mg																
	IAM	→	→ INVITE																
			← 100 Trying																
	Apply post test routine																		

Table 6.1.2.1-4: Mapping of ISUP ATP High layer compatibility into PSTN XML HighLayerCharacteristic

HLC_VA	DSS1 High layer characteristics identification	XML HighLayerCharacteristic
HLC_VA_1	Telephony	'0000001'
HLC_VA_2	Facsimile Group 2/3	'0000100'
HLC_VA_3	Facsimile Group 4 Class I	'0100001'
HLC_VA_4	Facsimile service Group 4, Classes II and III	'0100100'
HLC_VA_5	Syntax based Videotex	'0110010'
HLC_VA_6	International Videotex interworking via gateways or interworking units	'0110011'
HLC_VA_7	Telex service	'0110101'
HLC_VA_8	FTAM application	'1000010'

TP number	TP_201_034	Reference	7.2.3.2.2.7																
TSS reference	ISUP-SIP/Basic call/Sending_of_INVITE/																		
Selection criteria	PICS 6.2.1/5																		
Test Purpose name	Mapping of Low Layer Compatibility IE into PSTN XML LowLayerCompatibility																		
Test Purpose	Ensure stat on receipt of an IAM and an ATP parameter is present containing a Low Layer Compatibility IE a PSTN XML LowLayerCompatibility element is present derived according the ITC_VA as indicated in table 6.1.2.1-5																		
ISUP Parameter values	IAM: ATP Low Layer Compatibility InformationTransferCapability=ITC_VA																		
SIP Parameter values	INVITE: <?xml version="1.0" encoding="utf-8"?> PSTN LowLayerCompatibility> LLOctet3> CodingStandard>00< InformationTransferCapability>ITC_VA< LLOctet4> TransferMode>00< InformationTransferRate>10000<																		
Comments																			
Message flows	<table style="width:100%; border:none;"> <tr> <td style="width:25%;"></td> <td style="width:25%; text-align:center;">ISUP</td> <td style="width:25%; text-align:center;">MGCF</td> <td style="width:25%; text-align:right;">Mg</td> </tr> <tr> <td>IAM</td> <td style="text-align:center;">→</td> <td></td> <td style="text-align:right;">→ INVITE</td> </tr> <tr> <td></td> <td></td> <td></td> <td style="text-align:right;">← 100 Trying</td> </tr> <tr> <td></td> <td colspan="3" style="text-align:center;">Apply post test routine</td> </tr> </table>				ISUP	MGCF	Mg	IAM	→		→ INVITE				← 100 Trying		Apply post test routine		
	ISUP	MGCF	Mg																
IAM	→		→ INVITE																
			← 100 Trying																
	Apply post test routine																		

Table 6.1.2.1-5: Mapping of ISUP ATP Low Layer Compatibility into PSTN XML LowLayerCompatibility

ITC_VA	LLC Information transfer capability	XML LLC InformationTransferCapability
ITC_VA_1	Speech	'00000'
ITC_VA_2	3,1 kHz audio	'10000'
ITC_VA_3	Unrestricted digital info	'01001'
ITC_VA_4	7 kHz audio	'10001'

TP number	TP_201_035	Reference	7.2.3.2.2.7																
TSS reference	ISUP-SIP/Basic call/Sending_of_INVITE/																		
Selection criteria	PICS 6.2.1/5																		
Test Purpose name	Mapping of Bearer Capability IE into PSTN XML BearerCapability																		
Test Purpose	Ensure stat on receipt of an IAM and an USI parameter is present ,a PSTN XML BearerCapability element is present derived according the ITC_value as indicated in table 6.1.2.1-6																		
ISUP Parameter values	IAM: USI Information Transfer Capability=ITC_value																		
SIP Parameter values	INVITE: <?xml version="1.0" encoding="utf-8"?> PSTN BearerCapability BCoet3> CodingStandard>00< InformationTransferCapability>ITC_value< BCoet4> TransferMode>00< InformationTransferRate>10000<																		
Comments																			
Message flows	<table style="width:100%; border:none;"> <tr> <td style="width:25%;"></td> <td style="width:25%; text-align:center;">ISUP</td> <td style="width:25%; text-align:center;">MGCF</td> <td style="width:25%; text-align:right;">Mg</td> </tr> <tr> <td>IAM</td> <td style="text-align:center;">→</td> <td></td> <td style="text-align:right;">→ INVITE</td> </tr> <tr> <td></td> <td></td> <td></td> <td style="text-align:right;">← 100 Trying</td> </tr> <tr> <td></td> <td colspan="3" style="text-align:center;">Apply post test routine</td> </tr> </table>				ISUP	MGCF	Mg	IAM	→		→ INVITE				← 100 Trying		Apply post test routine		
	ISUP	MGCF	Mg																
IAM	→		→ INVITE																
			← 100 Trying																
	Apply post test routine																		

Table 6.1.2.1-6: Mapping of ISUP User Service Information into PSTN XML BearerCapability

ITC_value	USI Information transfer capability	XML InformationTransferCapability
VA_01	Speech	'00000'
VA_02	3,1 kHz audio	'10000'
VA_03	unrestricted digital information	'01000'

TP number	TP_201_036	Reference	7.2.3.2.2.7															
TSS reference	ISUP-SIP/Basic call/Sending_of_INVITE/																	
Selection criteria	PICS 6.2.1/5 AND PICS 6.2.1/22																	
Test Purpose name	Mapping of ISUP UTI parameter into PSTN XML BearerCapability																	
Test Purpose	Ensure stat on receipt of an IAM and an User Teleservice Information parameter is present, a PSTN XML HighLayerCompatibility element is present derived according the HLC_value as indicated in table 6.1.2.1-7																	
ISUP Parameter values	IAM: UTI High Layer Characteristics> HLC_value																	
SIP Parameter values	INVITE: PSTN XML MIME body <?xml version="1.0" encoding="utf-8"?> PSTN HighLayerCompatibility HLOctet3 CodingStandard>00< Interpretation>100< PresentationMethod>01< HLOctet4 HighLayerCharacteristics> HLC_value <																	
Comments																		
Message flows	<table style="width: 100%; border: none;"> <tr> <td style="text-align: left;">IAM</td> <td style="text-align: center;">→</td> <td style="text-align: center;">MGCF</td> <td style="text-align: center;">→</td> <td style="text-align: right;">Mg</td> </tr> <tr> <td></td> <td></td> <td></td> <td style="text-align: center;">↔</td> <td style="text-align: right;">INVITE 100 Trying</td> </tr> <tr> <td></td> <td></td> <td colspan="3" style="text-align: center;">Apply post test routine</td> </tr> </table>			IAM	→	MGCF	→	Mg				↔	INVITE 100 Trying			Apply post test routine		
IAM	→	MGCF	→	Mg														
			↔	INVITE 100 Trying														
		Apply post test routine																

Table 6.1.2.1-7: Mapping of User Teleservice Information into PSTN XML HighLayerCharacteristic

HLC_value	DSS1 High layer characteristics identification	XML HighLayerCharacteristic
VA_01	Telephony	'0000001'
VA_02	Facsimile Group 2/3	'0000100'
VA_03	Facsimile Group 4 Class I	'0100001'
VA_04	Facsimile service Group 4, Classes II and III	'0100100'
VA_05	Syntax based Videotex	'0110010'
VA_06	International Videotex interworking via gateways or interworking units	'0110011'
VA_07	Telex service	'0110101'
VA_08	FTAM application	'1000010'
VA_09	Videotelephony	'1100000'

TP number	TP_201_037	Reference	7.2.3.2.2.8												
TSS reference	ISUP-SIP/Basic call/Sending_of_INVITE/														
Selection criteria	PICS 6.2.1/5														
Test Purpose name	Mapping of Forward call indicator into PSTN XML ProgressIndicator														
Test Purpose	Ensure that on receipt of an IAM the ISDN User Part indicator and the ISDN access indicator of the Forward call indicator are mapped into a PSTNXML ProgressIndicator element according the roles PI_value in table 6.1.2.1-8														
ISUP Parameter values	IAM: Forward call indicator ISDN User Part indicator ISDN access indicator														
SIP Parameter values	INVITE: PSTN XML MIME body <?xml version="1.0" encoding="utf-8"?> PSTN ProgressIndicator ProgressOctet3 CodingStandard>00< Location>yyyy< ProgressOctet4 ProgressDescription> PI_value <														
Comments	The Progress indicator value 6 is not specified in Q.931														
Message flows	<table style="width: 100%; border: none;"> <tr> <td style="text-align: center;">ISUP</td> <td style="text-align: center;">MGCF</td> <td style="text-align: center;">Mg</td> </tr> <tr> <td style="text-align: center;">IAM</td> <td style="text-align: center;">→</td> <td style="text-align: center;">→ INVITE</td> </tr> <tr> <td></td> <td></td> <td style="text-align: center;">← 100 Trying</td> </tr> <tr> <td colspan="3" style="text-align: center;">Apply post test routine</td> </tr> </table>			ISUP	MGCF	Mg	IAM	→	→ INVITE			← 100 Trying	Apply post test routine		
ISUP	MGCF	Mg													
IAM	→	→ INVITE													
		← 100 Trying													
Apply post test routine															

Table 6.1.2.1-8: Mapping of Forward call indicator into PSTN XML ProgressIndicator

PI_value	Forward call indicators parameter		PSTN XML body with Progress indicator No	
	ISDN User Part indicator	ISDN access indicator		
VA_01	0 (ISDN User Part not used all the way)		'0000001'	Call is not end-to-end ISDN; further call progress information may be available in-band
VA_02	1 ("ISDN User Part used all the way")	0 ("originating access non - ISDN")	'0000011'	Origination address is non-ISDN
VA_03	1 ("ISDN User Part used all the way")	1 ("originating access ISDN")	'0000110'	

TP number	TP_201_038	Reference	7.2.3.2.2.7																								
TSS reference	ISUP-SIP/Basic call/Sending_of_INVITE/																										
Selection criteria	PICS 6.2.1/5																										
Test Purpose name	Mapping of Progress Indicator IE into PSTN XML ProgressIndicator																										
Test Purpose	Ensure stat on receipt of an IAM and an ATP parameter is present containing a Progress Indicator IE a PSTN XML ProgressIndicator element is present derived according the PI_VA as indicated in table 6.1.2.1-9																										
ISUP Parameter values	IAM: ATP Progress Indicator Progress Description= PI_VA																										
SIP Parameter values	INVITE: <?xml version="1.0" encoding="utf-8"?> PSTN ProgressIndicator ProgressOctet3 CodingStandard>00< Location>0000< ProgressOctet4 ProgressDescription> PI_VA <																										
Comments																											
Message flows	<table style="width: 100%; border: none;"> <tr> <td style="width: 30%;"></td> <td style="text-align: center;">ISUP</td> <td style="width: 30%;"></td> <td style="text-align: center;">MGCF</td> <td style="width: 30%;"></td> <td style="text-align: center;">Mg</td> </tr> <tr> <td>IAM</td> <td style="text-align: center;">→</td> <td></td> <td></td> <td style="text-align: center;">→</td> <td>INVITE</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td style="text-align: center;">←</td> <td>100 Trying</td> </tr> <tr> <td></td> <td colspan="5" style="text-align: center;">Apply post test routine</td> </tr> </table>				ISUP		MGCF		Mg	IAM	→			→	INVITE					←	100 Trying		Apply post test routine				
	ISUP		MGCF		Mg																						
IAM	→			→	INVITE																						
				←	100 Trying																						
	Apply post test routine																										

Table 6.1.2.1-9: Mapping of ISUP ATP Progress Indicator into PSTN XML ProgressIndicator

PI_VA	ATP Progress Indicator value	XML ProgressIndicator ProgressDescription
PI_VA_1	Call is not end-to-end ISDN; further call progress information may be available in-band	'0000001'
PI_VA_2	Destination address is non-ISDN	'0000010'
PI_VA_3	Origination address is non-ISDN	'0000011'
PI_VA_4	Call has returned to the ISDN	'0000100'
PI_VA_5	Interworking has occurred and has resulted in a telecommunication service change	'0000101'
PI_VA_6	In-band information or an appropriate pattern is now available	'0001000'

TP number	TP_201_039	Reference	7.2.3.2.2A1.1															
TSS reference	ISUP-SIP/Basic call/Sending_of_INVITE/																	
Selection criteria	PICS 6.2.2/1																	
Test Purpose name	Number Portability Separate Directory Number Addressing Method is used																	
Test Purpose	<p>Ensure that on receipt of an IAM and the Called Directory Number is present Nature of address indicator: "Network routing number in national (significant) number format" or "National (significant) number" or "Network routing number in network specific number format", an INVITE us sent</p> <p>The userpart of the request URI is derived from the Called Directory Number. '+CC' is inserted before the digitstring:</p> <ul style="list-style-type: none"> • The rn parameter of the request URI is derived from the Called Party Number. '+CC' is inserted before the digitstring • The npdi URI parameter is added to the request URI <p>The userpart of the To header field is derived from the Called Directory Number. '+CC' is inserted before the digitstring:</p> <ul style="list-style-type: none"> • The rn parameter of the request URI is derived from the Called Party Number. '+CC' is inserted before the digitstring • The npdi URI parameter is added to the request URI 																	
ISUP Parameter values	IAM: Called party number "National (significant) number" Called Directory Number Nature of address indicator: "Network routing number in national (significant) number format" or "National (significant) number" or "Network routing number in network specific number format"																	
SIP Parameter values	INVITE: Request line <+CC Called Directory Number>; rn= +CC Called party number;npdi To: <+CC Called Directory Number>; rn= +CC Called party number;npdi																	
Comments																		
Message flows	<table style="width: 100%; border: none;"> <tr> <td style="text-align: center;">ISUP</td> <td style="text-align: center;">→</td> <td style="text-align: center;">MGCF</td> <td style="text-align: center;">→</td> <td style="text-align: center;">Mg</td> </tr> <tr> <td style="text-align: center;">IAM</td> <td></td> <td></td> <td style="text-align: center;">←</td> <td style="text-align: center;">INVITE 100 Trying</td> </tr> <tr> <td colspan="5" style="text-align: center;">Apply post test routine</td> </tr> </table>			ISUP	→	MGCF	→	Mg	IAM			←	INVITE 100 Trying	Apply post test routine				
ISUP	→	MGCF	→	Mg														
IAM			←	INVITE 100 Trying														
Apply post test routine																		

TP number	TP_201_040	Reference	7.2.3.2.2A1.2																				
TSS reference	ISUP-SIP/Basic call/Sending_of_INVITE/																						
Selection criteria	PICS 6.2.2/2																						
Test Purpose name	Number Portability Concatenated Addressing Method is used.																						
Test Purpose	<p>Ensure that on receipt of an IAM and the Called Directory Number is not present, the Nature of address indicator of the Called party number is set to: "Network routing number concatenated with called directory number" or "National (significant) number", an INVITE us sent</p> <p>The userpart of the request URI is derived from the Called Party Number - the prefix representing the Portability routing number is removed. '+CC' is inserted before the digitstring:</p> <ul style="list-style-type: none"> • The rn parameter of the request URI is derived from the Called Party Number. The digits follow the prefix representing the Portability Routing Number are removed from the digitstring. '+CC' is inserted before the digitstring • The npdi URI parameter is added to the request URI <p>The userpart of the To header field is derived from the Called Party Number- the prefix representing the Portability routing number is removed. '+CC' is inserted before the digitstring:</p> <ul style="list-style-type: none"> • The rn parameter of the request URI is derived from the Called Party Number. The digits follow the prefix representing the Portability Routing Number are removed from the digitstring. '+CC' is inserted before the digitstring • The npdi URI parameter is added to the request URI 																						
ISUP Parameter values	IAM: Called party number Nature of address indicator: "Network routing number concatenated with called directory number" or "National (significant) number"																						
SIP Parameter values	INVITE: Request line <+CC Called Party Number>; rn= <+CC Portability Routing Number>;npdi To: <+CC Called Party Number>; rn= <+CC Portability Routing Number>;npdi																						
Comments																							
Message flows	<table style="width: 100%; border: none;"> <tr> <td style="text-align: left;">ISUP</td> <td style="text-align: center;">→</td> <td style="text-align: center;">MGCF</td> <td style="text-align: center;">→</td> <td style="text-align: right;">Mg</td> </tr> <tr> <td style="text-align: left;">IAM</td> <td></td> <td></td> <td style="text-align: center;">→</td> <td style="text-align: right;">INVITE</td> </tr> <tr> <td></td> <td></td> <td></td> <td style="text-align: center;">←</td> <td style="text-align: right;">100 Trying</td> </tr> <tr> <td colspan="5" style="text-align: center;">Apply post test routine</td> </tr> </table>			ISUP	→	MGCF	→	Mg	IAM			→	INVITE				←	100 Trying	Apply post test routine				
ISUP	→	MGCF	→	Mg																			
IAM			→	INVITE																			
			←	100 Trying																			
Apply post test routine																							

TP number	TP_201_041	Reference	7.2.3.2.2A1.3
TSS reference	ISUP-SIP/Basic call/Sending_of_INVITE/		
Selection criteria	PICS 6.2.2/3		
Test Purpose name	Number Portability Separate Network Routing Number Addressing Method is used.		
Test Purpose	<p>Ensure that on receipt of an IAM and the Network Routing Number is present Nature of address indicator: "Network routing number in national (significant) number format" or "Network routing number in network specific number format", an INVITE is sent</p> <p>The userpart of the request URI is derived from the Called Party Number. '+CC' is inserted before the digitstring:</p> <ul style="list-style-type: none"> The rn parameter of the request URI is derived from the Network Routing Number. '+CC' is inserted before the digitstring The npdi URI parameter is added to the request URI <p>The userpart of the To header field is derived from the Called Party Number. '+CC' is inserted before the digitstring:</p> <ul style="list-style-type: none"> The rn parameter of the request URI is derived from the Network Routing Number. '+CC' is inserted before the digitstring The npdi URI parameter is added to the request URI 		
ISUP Parameter values	IAM : Called party number "National (significant) number" Network Routing Number Nature of address indicator : "Network routing number in national (significant) number format" or "National (significant) number" or "Network routing number in network specific number format"		
SIP Parameter values	INVITE : Request line <+CC Called Party Number>; rn= <+CC Network Routing Number>;npdi To: <+CC Called Party Number>; rn= <+CC Network Routing Number>;npdi		
Comments			
Message flows	ISUP IAM →	MGCF → INVITE ← 100 Trying	Mg
Apply post test routine			

TP number	TP_201_042	Reference	7.2.3.2.2B.1
TSS reference	ISUP-SIP/Basic call/Sending_of_INVITE/		
Selection criteria	PICS 6.2.2/5 AND PICS 6.2.2/8		
Test Purpose name	Mapping of ISUP carrier selection information into 'dai' URI parameter		
Test Purpose	Ensure that on receipt of an IAM and a Transit Network Selection parameter is present, the value of the Transit Network Selection parameter is sent in the cic URI parameter of the Request URI of the sent INVITE request		
ISUP Parameter values	IAM : Transit Network Selection		
SIP Parameter values	INVITE : Request URI sip: <called party number;cic=TNS value		
Comments			
Message flows	ISUP IAM →	MGCF → INVITE ← 100 Trying	Mg
Apply post test routine			

TP number	TP_201_042	Reference	7.2.3.2.2.8
TSS reference	ISUP-SIP/Basic call/Sending_of_INVITE/		
Selection criteria	PICS 6.2.2/5 AND PICS 6.2.2/9		
Test Purpose name	Mapping of ISUP carrier selection information into 'dai' URI parameter		
Test Purpose	Ensure that on receipt of an IAM and a carrier selection information parameter is present, the value of the carrier selection information parameter is sent in the dai URI parameter of the Request URI of the sent INVITE request as indicated in table 6.1.2.1-10		
ISUP Parameter values	IAM : Transit Network Selection		
SIP Parameter values	INVITE : Request URI sip: <called party number;dai= SIP_dai		
Comments			
Message flows	ISUP IAM →	MGCF → INVITE ← 100 Trying	Mg
Apply post test routine			

Table 6.1.2.1-10: Mapping of ISUP Carrier Selection Information to SIP Dial Around Indicator

SIP_dai	ISUP Carrier Selection Information parameter	SIP "dai=" component
SIP_dai_VA_01	'no indication' (0000000)	'no ind'
SIP_dai_VA_02	'selected carrier identification code pre-subscribed and no input by calling party' (00000001)	"presub"
SIP_dai_VA_03	selected carrier identification code presubscribed and input by calling party (00000010)	"presub-da"
SIP_dai_VA_04	selected carrier identification pre-subscribed and input by calling party undetermined (00000011)	"presub-daUnkwn"
SIP_dai_VA_05	selected carrier identification not pre-subscribed, and input by calling party (00000100)	"da"
SIP_dai_VA_06	carrier selected by input from calling party (00001010)	"presubUnkwn-da"
SIP_dai_VA_07	carrier selected by a network operator (00001011)	"operator"

6.1.2.2 Receipt of CONTINUITY

TP number	TP_202_001	Reference	7.2.3.2.3															
TSS reference	ISUP-SIP/Basic call/Receipt_of_COT/																	
Selection criteria	PICS 6.2.1/3																	
Test Purpose name	COT received after INVITE was sent																	
Test Purpose	When the requested preconditions in the IMS have been met and if outstanding continuity procedures have successfully been completed (COT with the Continuity Indicators parameter set to 'continuity check successful' is received), a SDP offer in a SIP UPDATE request shall be sent for each early SIP dialogue confirming that all the required preconditions have been met																	
ISUP Parameter values																		
SIP Parameter values																		
Comments																		
Message flows	<table style="width: 100%; border: none;"> <thead> <tr> <th style="text-align: left;">ISUP</th> <th style="text-align: center;">→</th> <th style="text-align: left;">MGCF</th> <th style="text-align: center;">→</th> <th style="text-align: left;">Mg</th> </tr> </thead> <tbody> <tr> <td>IAM</td> <td></td> <td></td> <td></td> <td> INVITE ← 100 Trying ← 183 Session Progress → PRACK ← 200 OK (PRACK) </td> </tr> <tr> <td>COT</td> <td></td> <td></td> <td></td> <td> → UPDATE ← 200 OK(UPDATE) </td> </tr> </tbody> </table> <p style="text-align: right; margin-right: 50px;">Apply post test routine</p>			ISUP	→	MGCF	→	Mg	IAM				INVITE ← 100 Trying ← 183 Session Progress → PRACK ← 200 OK (PRACK)	COT				→ UPDATE ← 200 OK(UPDATE)
ISUP	→	MGCF	→	Mg														
IAM				INVITE ← 100 Trying ← 183 Session Progress → PRACK ← 200 OK (PRACK)														
COT				→ UPDATE ← 200 OK(UPDATE)														

6.1.2.3 Sending of ACM and awaiting answer indication

TP number	TP_203_001	Reference	7.2.3.2.4
TSS reference	ISUP-SIP/Basic call/Sending_of_ACM/		
Selection criteria			
Test Purpose name	Detection of end of address signalling by the expiry of Timer Ti/w1		
Test Purpose	Ensure that after expiry of Timer Ti/w1 after the last address signalling information was received, an ACM is sent and the Called party's status indicator is set to 'no indication'		
ISUP Parameter values	ACM: Called party's status indicator=no indication		
SIP Parameter values			
Comments			
Message flows	ISUP	MGCF	Mg
	IAM	→	
			Ti/w1 running
	SAM	→	
			Ti/w1 running
	SAM	→	
			Ti/w1 running
	ACM	←	Ti/w1 expired
			→ INVITE
			← 100 Trying
	Apply post test routine		

TP number	TP_203_002	Reference	7.2.3.2.4
TSS reference	ISUP-SIP/Basic call/Sending_of_ACM/		
Selection criteria			
Test Purpose name	An ACM is sent after a 180 Ringing was received		
Test Purpose	Ensure that on receipt of a 180 Ringing provisional response without P-Early-Media header, the SUT sends an ACM. The Called party's status indicator is set to 'subscriber free'. The ringing tone is sent by the SUT		
ISUP Parameter values	ACM: Called party's status indicator =subscriber free		
SIP Parameter values			
Comments			
Message flows	ISUP	MGCF	Mg
	IAM	→	→ INVITE
			← 100 Trying
	ACM	←	← 180 Ringing
		←	← Ringing tone
	Apply post test routine		

TP number	TP_203_003	Reference	7.2.3.2.4
TSS reference	ISUP-SIP/Basic call/Sending_of_ACM/		
Selection criteria	PICS 6.2.1/9		
Test Purpose name	180 received, a P-Early-Media header is present		
Test Purpose	Ensure that on receipt of a 180 Ringing provisional response with P-Early-Media header does not authorize the backward early media, the SUT sends an ACM. The Called party's status indicator is set to 'subscriber free'. The ringing tone is sent by the SUT		
ISUP Parameter values	ACM: Called party's status indicator =subscriber free		
SIP Parameter values			
Comments			
Message flows	ISUP	MGCF	Mg
	IAM	→	→ INVITE
			← 100 Trying
	ACM	←	← 180 Ringing
		←	← Ringing tone
	Apply post test routine		

TP number	TP_203_004	Reference	7.2.3.2.4
TSS reference	ISUP-SIP/Basic call/Sending_of_ACM/		
Selection criteria	PICS 6.2.1/9 AND PICS 6.2.1/14		
Test Purpose name	180 received, a P-Early-Media header not authorize early media is present		
Test Purpose	Ensure that on receipt of a 180 Ringing provisional response with P-Early-Media header does not authorize the backward early media, the SUT sends an ACM. The Called party's status indicator is set to 'subscriber free'. Based on local knowledge that the call is transited to a PSTN network the SUT does not generate the awaiting answer indication.		
ISUP Parameter values	ACM: Called party's status indicator =subscriber free		
SIP Parameter values	180 P-Early-Media: inactive		
Comments			
Message flows	ISUP	MGCF	Mg
	IAM	→	→ INVITE
			← 100 Trying
	ACM	←	← 180 Ringing
		←	← <i>Early media</i>
	Apply post test routine		

TP number	TP_203_005	Reference	7.2.3.2.4
TSS reference	ISUP-SIP/Basic call/Sending_of_ACM/		
Selection criteria	PICS 6.2.1/9		
Test Purpose name	181 received, a P-Early-Media header authorize early media is present		
Test Purpose	Ensure that on receipt of a 181 Call is Being Forwarded and a P-Early-Media is present authorizing backward early media, an ACM is sent. The Called party's status indicator is set to 'no indication' and an optional backward call indicator is present, the In-band information indicator is set to 'in-band information or appropriate pattern is now available'. The SUT does not generate the awaiting answer indication		
ISUP Parameter values	ACM: Called party's status indicator =no indication oBCi = in-band information or appropriate pattern is now available		
SIP Parameter values	181 P-Early-Media: sendonly		
Comments			
Message flows	ISUP	MGCF	Mg
	IAM	→	→ INVITE
			← 100 Trying
	ACM	←	← 181 Call is Being Forwarded
		←	← <i>Early media</i>
	Apply post test routine		

TP number	TP_203_006	Reference	7.2.3.2.4
TSS reference	ISUP-SIP/Basic call/Sending_of_ACM/		
Selection criteria	PICS 6.2.1/9		
Test Purpose name	183 received, a P-Early-Media header authorize early media is present		
Test Purpose	Ensure that on receipt of a 183 Session Progress and a P-Early-Media header is present authorizing backward early media, an ACM is sent. The Called party's status indicator is set to 'no indication' and an optional backward call indicator is present, the In-band information indicator is set to 'in-band information or appropriate pattern is now available'. The SUT does not generate the awaiting answer indication		
ISUP Parameter values	ACM: Called party's status indicator =no indication oBCi = in-band information or appropriate pattern is now available		
SIP Parameter values	183 P-Early-Media: sendonly		
Comments			
Message flows	ISUP	MGCF	Mg
	IAM	→	→ INVITE
			← 100 Trying
	ACM	←	← 183 Session Progress
		←	← <i>Early media</i>
	Apply post test routine		

TP number	TP_203_007	Reference	7.2.3.2.4
TSS reference	ISUP-SIP/Basic call/Sending_of_ACM/		
Selection criteria			
Test Purpose name	ACM is sent after T i/w2 was expired		
Test Purpose	Ensure that after expiry of timer T i/w2 an ACM is sent. The Called party's status indicator is set to 'no indication'		
ISUP Parameter values	ACM: Called party's status indicator =no indication		
SIP Parameter values			
Comments			
Message flows	<p style="text-align: center;">ISUP</p> <p>IAM → T i/w2 started</p> <p>ACM ← T i/w2 expired</p>	<p style="text-align: center;">MGCF</p> <p>→ INVITE</p> <p>← 100 Trying</p>	<p style="text-align: center;">Mg</p>
	Apply post test routine		

TP number	TP_203_008	Reference	7.2.3.2.4
TSS reference	ISUP-SIP/Basic call/Sending_of_ACM/		
Selection criteria	PICS 6.2.1/15		
Test Purpose name	MGW plays out early media associated with the Alert-Info header		
Test Purpose	Ensure that the MGW plays a early media associated with the URL in an Alert-Info header contained in a received 180 Ringing response		
ISUP Parameter values			
SIP Parameter values	180: Alert-Info: < Media resource URL>		
Comments			
Message flows	<p style="text-align: center;">ISUP</p> <p>IAM →</p> <p>ACM ←</p>	<p style="text-align: center;">MGCF</p> <p>→ INVITE</p> <p>← 100 Trying</p> <p>← 180 Ringing</p>	<p style="text-align: center;">Mg</p>
	Apply post test routine		

TP number	TP_203_009	Reference	7.2.3.2.4
TSS reference	ISUP-SIP/Basic call/Sending_of_ACM/		
Selection criteria	PICS 6.2.1/9 AND PICS 6.2.1/17		
Test Purpose name	The SUT terminates the sending of awaiting answer indication.		
Test Purpose	Ensure that the SUT terminates the sending of awaiting answer indication as indicated in a P-Early-Media received in a 183 Session Progress and the P-Early-Media header does not authorizes backward early media. The sending awaiting answer indication is disabled.		
ISUP Parameter values			
SIP Parameter values	183: P-Early-Media: inactive		
Comments			
Message flows	<p style="text-align: center;">ISUP</p> <p>IAM → T i/w2 started</p> <p>ACM ← T i/w2 expired</p> <p style="text-align: center;"><i>Ringing tone</i></p>	<p style="text-align: center;">MGCF</p> <p>→ INVITE</p> <p>← 100 Trying</p> <p>← 183 Session Progress</p>	<p style="text-align: center;">Mg</p>
	Apply post test routine		

TP number	TP_203_010	Reference	7.2.3.2.4
TSS reference	ISUP-SIP/Basic call/Sending_of_ACM/		
Selection criteria	PICS 6.2.1/9 AND PICS 6.2.1/16		
Test Purpose name	The SUT initiates the sending of awaiting answer indication		
Test Purpose	Ensure that the SUT initiates the sending of awaiting answer indication as indicated in a P-Early-Media received in a 183 Session Progress and the P-Early-Media header authorizes backward early media		
ISUP Parameter values			
SIP Parameter values	183: P-Early-Media: sendonly		
Comments			
Message flows	ISUP	MGCF	Mg
	IAM	→	→ INVITE
			← 100 Trying
	ACM	←	← 183 Session Progress
		←	← <i>Early media</i>
	Apply post test routine		

TP number	TP_203_011	Reference	7.2.3.2.5.1
TSS reference	ISUP-SIP/Basic call/Sending_of_ACM/		
Selection criteria			
Test Purpose name	180 received, coding of Backward call indicator in ACM TMR speech or 3,1 kHz audio		
Test Purpose	IAM with Transmission Medium Requirement indicator=speech or 3,1 kHz received. Ensure that on receipt of a 180 Ringing response, an ACM is sent and the Backward call indicator is set to the following values: <ul style="list-style-type: none"> • Charge indicator = charge (10) • Called party's status indicator = subscriber free (01) • Called party's category indicator = no indication (00) • End-to-end method indicator = no end-to-end method available (00) • Interworking indicator = interworking encountered (1) • End-to-end information indicator = no end-to-end information available (0) • ISDN user part/BICC indicator = ISDN user part not used all the way (0) • ISDN access indicator = terminating access non-ISDN (0) • Echo control device indicator = incoming echo control device included (1) 		
ISUP Parameter values	IAM: Transmission Medium Requirement indicator=speech or 3,1 kHz		
SIP Parameter values			
Comments			
Message flows	ISUP	MGCF	Mg
	IAM	→	→ INVITE
			← 100 Trying
	ACM	←	← 180 Ringing
	Apply post test routine		

TP number	TP_203_012	Reference	7.2.3.2.5.1												
TSS reference	ISUP-SIP/Basic call/Sending_of_ACM/														
Selection criteria															
Test Purpose name	181 received, coding of Backward call indicator in ACM TMR speech or 3,1 kHz audio														
Test Purpose	IAM with Transmission Medium Requirement indicator=speech or 3,1 kHz received. Ensure that on receipt of a 181 Call is Being forwarded response, an ACM is sent and the Backward call indicator is set to the following values: <ul style="list-style-type: none"> • Charge indicator = charge (10) • Called party's status indicator = no indication (00) • Called party's category indicator = no indication (00) • End-to-end method indicator = no end-to-end method available (00) • Interworking indicator = interworking encountered (1) • End-to-end information indicator = no end-to-end information available (0) • ISDN user part/BICC indicator = ISDN user part not used all the way (0) • ISDN access indicator = terminating access non-ISDN (0) • Echo control device indicator = incoming echo control device included (1) 														
ISUP Parameter values	IAM: Transmission Medium Requirement indicator=speech or 3,1 kHz														
SIP Parameter values															
Comments															
Message flows	<table style="width: 100%; border: none;"> <tr> <td style="text-align: center;">ISUP</td> <td style="text-align: center;">MGCF</td> <td style="text-align: center;">Mg</td> </tr> <tr> <td>IAM</td> <td style="text-align: center;">→</td> <td>INVITE</td> </tr> <tr> <td>ACM</td> <td style="text-align: center;">←</td> <td>100 Trying</td> </tr> <tr> <td></td> <td></td> <td>181 Call is Being forwarded</td> </tr> </table> <p style="text-align: center;">Apply post test routine</p>	ISUP	MGCF	Mg	IAM	→	INVITE	ACM	←	100 Trying			181 Call is Being forwarded		
ISUP	MGCF	Mg													
IAM	→	INVITE													
ACM	←	100 Trying													
		181 Call is Being forwarded													

TP number	TP_203_013	Reference	7.2.3.2.5.1												
TSS reference	ISUP-SIP/Basic call/Sending_of_ACM/														
Selection criteria	PICS 6.2.1/9 AND NOT PICS 6.2.1/18														
Test Purpose name	183 received, coding of Backward call indicator in ACM TMR speech or 3,1 kHz audio														
Test Purpose	IAM with Transmission Medium Requirement indicator=speech or 3,1 kHz received. Ensure that on receipt of a 183 Session Progress response containing a P-Early-Media header, an ACM is sent and the Backward call indicator is set to the following values: <ul style="list-style-type: none"> • Charge indicator = charge (10) • Called party's status indicator = no indication (00) • Called party's category indicator = no indication (00) • End-to-end method indicator = no end-to-end method available (00) • Interworking indicator = interworking encountered (1) • End-to-end information indicator = no end-to-end information available (0) • ISDN user part/BICC indicator = ISDN user part not used all the way (0) • ISDN access indicator = terminating access non-ISDN (0) • Echo control device indicator = incoming echo control device included (1) 														
ISUP Parameter values	IAM: Transmission Medium Requirement indicator=speech or 3,1 kHz														
SIP Parameter values	183: P-Early-Media: <backward early media authorized>														
Comments															
Message flows	<table style="width: 100%; border: none;"> <tr> <td style="text-align: center;">ISUP</td> <td style="text-align: center;">MGCF</td> <td style="text-align: center;">Mg</td> </tr> <tr> <td>IAM</td> <td style="text-align: center;">→</td> <td>INVITE</td> </tr> <tr> <td>ACM</td> <td style="text-align: center;">←</td> <td>100 Trying</td> </tr> <tr> <td></td> <td></td> <td>183 Session Progress</td> </tr> </table> <p style="text-align: center;">Apply post test routine</p>	ISUP	MGCF	Mg	IAM	→	INVITE	ACM	←	100 Trying			183 Session Progress		
ISUP	MGCF	Mg													
IAM	→	INVITE													
ACM	←	100 Trying													
		183 Session Progress													

TP number	TP_203_014	Reference	7.2.3.2.5.1
TSS reference	ISUP-SIP/Basic call/Sending_of_ACM/		
Selection criteria	PICS 6.2.4/2 AND NOT PICS 6.2.1/18		
Test Purpose name	180 received, coding of Backward call indicator in ACM TMR 64 kBit/s unrestricted		
Test Purpose	<p>IAM with Transmission Medium Requirement indicator=64 kBit/s unrestricted received. Ensure that on receipt of a 180 Ringing response, an ACM is sent and the Backward call indicator is set to the following values:</p> <ul style="list-style-type: none"> • Charge indicator = charge (10) • Called party's status indicator = subscriber free (01) • Called party's category indicator = no indication (00) • End-to-end method indicator = no end-to-end method available (00) • Interworking indicator = interworking encountered (1) • End-to-end information indicator = no end-to-end information available (0) • ISDN user part/BICC indicator = ISDN user part not used all the way (0) • ISDN access indicator = terminating access non-ISDN (0) • Echo control device indicator = incoming echo control device not included (0) 		
ISUP Parameter values	IAM: Transmission Medium Requirement indicator=64 kBit/s unrestricted		
SIP Parameter values			
Comments			
Message flows	ISUP	MGCF	Mg
	IAM	→	→ INVITE
			← 100 Trying
	ACM	←	← 180 Ringing
	Apply post test routine		

TP number	TP_203_015	Reference	7.2.3.2.5.1
TSS reference	ISUP-SIP/Basic call/Sending_of_ACM/		
Selection criteria	PICS 6.2.4/2 AND NOT PICS 6.2.1/18		
Test Purpose name	181 received, coding of Backward call indicator in ACM TMR 64 kBit/s unrestricted		
Test Purpose	<p>IAM with Transmission Medium Requirement indicator=64 kBit/s unrestricted received. Ensure that on receipt of a 181 Call is Being forwarded response, an ACM is sent and the Backward call indicator is set to the following values:</p> <ul style="list-style-type: none"> • Charge indicator = charge (10) • Called party's status indicator = no indication (00) • Called party's category indicator = no indication (00) • End-to-end method indicator = no end-to-end method available (00) • Interworking indicator = interworking encountered (1) • End-to-end information indicator = no end-to-end information available (0) • ISDN user part/BICC indicator = ISDN user part not used all the way (0) • ISDN access indicator = terminating access non-ISDN (0) • Echo control device indicator = incoming echo control device not included (0) 		
ISUP Parameter values	IAM: Transmission Medium Requirement indicator=64 kBit/s unrestricted		
SIP Parameter values			
Comments			
Message flows	ISUP	MGCF	Mg
	IAM	→	→ INVITE
			← 100 Trying
	ACM	←	← 181 Call is Being forwarded
	Apply post test routine		

TP number	TP_203_016	Reference	7.2.3.2.5.1
TSS reference	ISUP-SIP/Basic call/Sending_of_ACM/		
Selection criteria	PICS 6.2.4/2 AND NOT PICS 6.2.1/18 AND PICS 6.2.1/9		
Test Purpose name	183 received, coding of Backward call indicator in ACM TMR 64 kBit/s unrestricted		
Test Purpose	<p>IAM with Transmission Medium Requirement indicator=64 kBit/s unrestricted received. Ensure that on receipt of a 183 Session Progress response containing a P-Early-Media header, an ACM is sent and the Backward call indicator is set to the following values:</p> <ul style="list-style-type: none"> • Charge indicator = charge (10) • Called party's status indicator = no indication (00) • Called party's category indicator = no indication (00) • End-to-end method indicator = no end-to-end method available (00) • Interworking indicator = interworking encountered (1) • End-to-end information indicator = no end-to-end information available (0) • ISDN user part/BICC indicator = ISDN user part not used all the way (0) • ISDN access indicator = terminating access non-ISDN (0) • Echo control device indicator = incoming echo control device not included (0) 		
ISUP Parameter values	IAM: Transmission Medium Requirement indicator=64 kBit/s unrestricted		
SIP Parameter values	183: P-Early-Media: <backward early media authorized>		
Comments			
Message flows	ISUP	MGCF	Mg
	IAM	→	→ INVITE
			← 100 Trying
	ACM	←	← 183 Session Progress
	Apply post test routine		

TP number	TP_203_017	Reference	7.2.3.2.5.1
TSS reference	ISUP-SIP/Basic call/Sending_of_ACM/		
Selection criteria	PICS 6.2.4/2 AND PICS 6.2.1/18		
Test Purpose name	180 received, coding of Backward call indicator in ACM TMR 64 kBit/s unrestricted		
Test Purpose	<p>IAM with Transmission Medium Requirement indicator=64 kBit/s unrestricted received. Ensure that on receipt of a 180 Ringing response, an ACM is sent and the Backward call indicator is set to the following values:</p> <ul style="list-style-type: none"> • Charge indicator = charge (10) • Called party's status indicator = subscriber free (01) • Called party's category indicator = no indication (00) • End-to-end method indicator = no end-to-end method available (00) • Interworking indicator = no interworking encountered (0) • End-to-end information indicator = no end-to-end information available (0) • ISDN user part/BICC indicator = ISDN user part used all the way (1) • ISDN access indicator = terminating access ISDN (1) • Echo control device indicator = incoming echo control device not included (0) 		
ISUP Parameter values	IAM: Transmission Medium Requirement indicator=64 kBit/s unrestricted		
SIP Parameter values			
Comments			
Message flows	ISUP	MGCF	Mg
	IAM	→	→ INVITE
			← 100 Trying
	ACM	←	← 180 Ringing
	Apply post test routine		

TP number	TP_203_018	Reference	7.2.3.2.5.1
TSS reference	ISUP-SIP/Basic call/Sending_of_ACM/		
Selection criteria	PICS 6.2.4/2 AND PICS 6.2.1/18		
Test Purpose name	181 received, coding of Backward call indicator in ACM TMR 64 kBit/s unrestricted		
Test Purpose	<p>IAM with Transmission Medium Requirement indicator=64 kBit/s unrestricted received. Ensure that on receipt of a 181 Call is Being forwarded response, an ACM is sent and the Backward call indicator is set to the following values:</p> <ul style="list-style-type: none"> • Charge indicator = charge (10) • Called party's status indicator = no indication (00) • Called party's category indicator = no indication (00) • End-to-end method indicator = no end-to-end method available (00) • Interworking indicator = no interworking encountered (0) • End-to-end information indicator = no end-to-end information available (0) • ISDN user part/BICC indicator = ISDN user part used all the way (1) • ISDN access indicator = terminating access ISDN (1) • Echo control device indicator = incoming echo control device not included (0) 		
ISUP Parameter values	IAM: Transmission Medium Requirement indicator=64 kBit/s unrestricted		
SIP Parameter values			
Comments			
Message flows	<p style="text-align: center;">ISUP</p> <p>IAM →</p> <p>ACM ←</p>	<p>MGCF</p>	<p style="text-align: center;">Mg</p> <p>→ INVITE</p> <p>← 100 Trying</p> <p>← 181 Call is Being forwarded</p> <p style="text-align: center;">Apply post test routine</p>

TP number	TP_203_019	Reference	7.2.3.2.5.1
TSS reference	ISUP-SIP/Basic call/Sending_of_ACM/		
Selection criteria	PICS 6.2.4/2 AND PICS 6.2.1/18 AND PICS 6.2.1/9		
Test Purpose name	183 received, coding of Backward call indicator in ACM TMR 64 kBit/s unrestricted		
Test Purpose	<p>IAM with Transmission Medium Requirement indicator=64 kBit/s unrestricted received. Ensure that on receipt of a 183 Session Progress response containing a P-Early-Media header, an ACM is sent and the Backward call indicator is set to the following values:</p> <ul style="list-style-type: none"> • Charge indicator = charge (10) • Called party's status indicator = no indication (00) • Called party's category indicator = no indication (00) • End-to-end method indicator = no end-to-end method available (00) • Interworking indicator = no interworking encountered (0) • End-to-end information indicator = no end-to-end information available (0) • ISDN user part/BICC indicator = ISDN user part used all the way (1) • ISDN access indicator = terminating access ISDN (1) • Echo control device indicator = incoming echo control device not included (0) 		
ISUP Parameter values	IAM: Transmission Medium Requirement indicator=64 kBit/s unrestricted		
SIP Parameter values	183: P-Early-Media: <backward early media authorized>		
Comments			
Message flows	<p style="text-align: center;">ISUP</p> <p>IAM →</p> <p>ACM ←</p>	<p>MGCF</p>	<p style="text-align: center;">Mg</p> <p>→ INVITE</p> <p>← 100 Trying</p> <p>← 183 Session Progress</p> <p style="text-align: center;">Apply post test routine</p>

TP number	TP_203_020	Reference	7.2.3.2.5.1
TSS reference	ISUP-SIP/Basic call/Sending_of_ACM/		
Selection criteria			
Test Purpose name	180 received, coding of Backward call indicator in ACM HLC "Facsimile Group 2/3".		
Test Purpose	IAM with Transmission Medium Requirement indicator=3,1 kHz and High Layer Compatibility= Facsimile Group 2/3 received. Ensure that on receipt of a 180 Ringing response, an ACM is sent and the Backward call indicator is set to the following values: <ul style="list-style-type: none"> • Charge indicator = charge (10) • Called party's status indicator = subscriber free (01) • Called party's category indicator = no indication (00) • End-to-end method indicator = no end-to-end method available (00) • Interworking indicator = interworking encountered (1) • End-to-end information indicator = no end-to-end information available (0) • ISDN user part/BICC indicator = ISDN user part not used all the way (0) • ISDN access indicator = terminating access non-ISDN (0) • Echo control device indicator = incoming echo control device not included (0) 		
ISUP Parameter values	IAM: Transmission Medium Requirement indicator=3,1 kHz High Layer Compatibility= Facsimile Group 2/3		
SIP Parameter values			
Comments			
Message flows	ISUP	MGCF	Mg
	IAM	→	→ INVITE
			← 100 Trying
	ACM	←	← 180 Ringing
	Apply post test routine		

TP number	TP_203_021	Reference	7.2.3.2.5.1
TSS reference	ISUP-SIP/Basic call/Sending_of_ACM/		
Selection criteria			
Test Purpose name	181 received, coding of Backward call indicator in ACM HLC "Facsimile Group 2/3".		
Test Purpose	IAM with Transmission Medium Requirement indicator=3,1 kHz and High Layer Compatibility= Facsimile Group 2/3 received. Ensure that on receipt of a 181 Call is Being forwarded response, an ACM is sent and the Backward call indicator is set to the following values: <ul style="list-style-type: none"> • Charge indicator = charge (10) • Called party's status indicator = no indication (00) • Called party's category indicator = no indication (00) • End-to-end method indicator = no end-to-end method available (00) • Interworking indicator = interworking encountered (1) • End-to-end information indicator = no end-to-end information available (0) • ISDN user part/BICC indicator = ISDN user part not used all the way (0) • ISDN access indicator = terminating access non-ISDN (0) • Echo control device indicator = incoming echo control device not included (0) 		
ISUP Parameter values	IAM: Transmission Medium Requirement indicator=3,1 kHz High Layer Compatibility= Facsimile Group 2/3		
SIP Parameter values			
Comments			
Message flows	ISUP	MGCF	Mg
	IAM	→	→ INVITE
			← 100 Trying
	ACM	←	← 181 Call is Being forwarded
	Apply post test routine		

TP number	TP_203_022	Reference	7.2.3.2.5.1
TSS reference	ISUP-SIP/Basic call/Sending_of_ACM/		
Selection criteria	PICS 6.2.1/9		
Test Purpose name	183 received, coding of Backward call indicator in ACM HLC "Facsimile Group 2/3".		
Test Purpose	<p>IAM with Transmission Medium Requirement indicator=3,1 kHz and High Layer Compatibility= Facsimile Group 2/3 received. Ensure that on receipt of a 183 Session Progress response containing a P-Early-Media header, an ACM is sent and the Backward call indicator is set to the following values:</p> <ul style="list-style-type: none"> • Charge indicator = charge (10) • Called party's status indicator = no indication (00) • Called party's category indicator = no indication (00) • End-to-end method indicator = no end-to-end method available (00) • Interworking indicator = interworking encountered (1) • End-to-end information indicator = no end-to-end information available (0) • ISDN user part/BICC indicator = ISDN user part not used all the way (0) • ISDN access indicator = terminating access non-ISDN (0) • Echo control device indicator = incoming echo control device not included (0) 		
ISUP Parameter values	IAM: Transmission Medium Requirement indicator=3,1 kHz High Layer Compatibility= Facsimile Group 2/3		
SIP Parameter values	183: P-Early-Media: <backward early media authorized>		
Comments			
Message flows	<p>ISUP</p> <p>IAM →</p> <p>ACM ←</p>	<p>MGCF</p> <p>→ INVITE</p> <p>← 100 Trying</p> <p>← 183 Session Progress</p>	<p>Mg</p>
	Apply post test routine		

TP number	TP_203_023	Reference	7.2.3.2.5.1
TSS reference	ISUP-SIP/Basic call/Sending_of_ACM/		
Selection criteria	PICS 6.2.1/5		
Test Purpose name	Mapping of PSTN XML ProgressIndicator 1 into Backward call indicator in ACM		
Test Purpose	<p>Ensure that on receipt of a 180 Ringing and the PSTN XML ProgressIndicator is present, the value 1 is mapped into the Backward call indicator present in the ACM:</p> <p>ISDN User Part indicator</p> <ul style="list-style-type: none"> • ISDN User Part not used all the way (0) 		
ISUP Parameter values	ACM: ISDN User Part indicator ISDN User Part not used all the way		
SIP Parameter values	180: <?xml version="1.0" encoding="utf-8"?> PSTN ProgressIndicator ProgressOctet4 ProgressDescription>0000001<		
Comments	Progress Information: 'Call is not end-to-end ISDN: further call progress information may be available in-band'		
Message flows	<p>ISUP</p> <p>IAM →</p> <p>ACM ←</p>	<p>MGCF</p> <p>→ INVITE</p> <p>← 100 Trying</p> <p>← 180 Ringing</p>	<p>Mg</p>
	Apply post test routine		

TP number	TP_203_024	Reference	7.2.3.2.5.1
TSS reference	ISUP-SIP/Basic call/Sending_of_ACM/		
Selection criteria	PICS 6.2.1/5		
Test Purpose name	Mapping of PSTN XML ProgressIndicator 2 in 180 into Backward call indicator in ACM		
Test Purpose	Ensure that on receipt of a 180 Ringing and the PSTN XML ProgressIndicator is present, the value 2 is mapped into the Backward call indicator present in the ACM: ISDN User Part indicator <ul style="list-style-type: none"> • ISDN User Part used all the way (1) ISDN access indicator <ul style="list-style-type: none"> • Terminating access non-ISDN (0) 		
ISUP Parameter values	ACM: ISDN User Part indicator ISDN User Part used all the way ISDN access indicator Terminating access non-ISDN		
SIP Parameter values	180: <?xml version="1.0" encoding="utf-8"?> PSTN ProgressIndicator ProgressOctet4 ProgressDescription>0000010<		
Comments	Progress Information: 'Destination address is non-ISDN'		
Message flows	ISUP	MGCF	Mg
	IAM →		→ INVITE
			← 100 Trying
	ACM ←		← 180 Ringing
	Apply post test routine		

TP number	TP_203_025	Reference	7.2.3.2.5.1
TSS reference	ISUP-SIP/Basic call/Sending_of_ACM/		
Selection criteria	PICS 6.2.1/5		
Test Purpose name	Mapping of PSTN XML ProgressIndicator 7 in 180 into Backward call indicator in ACM		
Test Purpose	Ensure that on receipt of a 180 Ringing and the PSTN XML ProgressIndicator is present, the value 7 is mapped into the Backward call indicator present in the ACM: ISDN User Part indicator <ul style="list-style-type: none"> • ISDN User Part used all the way (1) ISDN access indicator <ul style="list-style-type: none"> • Terminating access ISDN (1) Interworking indicator <ul style="list-style-type: none"> • no interworking encountered (0) 		
ISUP Parameter values	ACM: ISDN User Part indicator ISDN User Part used all the way ISDN access indicator Terminating access ISDN Interworking indicator no interworking encountered		
SIP Parameter values	180: <?xml version="1.0" encoding="utf-8"?> PSTN ProgressIndicator ProgressOctet4 ProgressDescription>0000111<		
Comments	Progress Information: value not specified. Meaning 'terminating user is ISDN'		
Message flows	ISUP	MGCF	Mg
	IAM →		→ INVITE
			← 100 Trying
	ACM ←		← 180 Ringing
	Apply post test routine		

TP number	TP_203_026	Reference	7.2.3.2.5.1																														
TSS reference	ISUP-SIP/Basic call/Sending_of_ACM/																																
Selection criteria	PICS 6.2.1/5																																
Test Purpose name	Mapping of PSTN XML ProgressIndicator 8 in 180 into optional Backward call indicator in ACM																																
Test Purpose	Ensure that on receipt of a 180 Ringing and the PSTN XML ProgressIndicator is present, the value 8 is mapped into the Optional backward call indicator present in the ACM: Optional backward call indicators In-band information indicator <ul style="list-style-type: none"> in-band information or an appropriate pattern is now available 																																
ISUP Parameter values	ACM: Optional backward call indicators In-band information indicator in-band information or an appropriate pattern is now available"																																
SIP Parameter values	180: <?xml version="1.0" encoding="utf-8"?> PSTN ProgressIndicator ProgressOctet4 ProgressDescription> 0001000 <																																
Comments	Progress Information 'In-band information or an appropriate pattern is now available'																																
Message flows	<table style="width:100%; border:none;"> <tr> <td style="width:30%;"></td> <td style="text-align:center;">ISUP</td> <td style="width:10%;"></td> <td style="text-align:center;">MGCF</td> <td style="width:10%;"></td> <td style="text-align:center;">Mg</td> </tr> <tr> <td>IAM</td> <td></td> <td style="text-align:center;">→</td> <td></td> <td style="text-align:center;">→</td> <td>INVITE</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td style="text-align:center;">←</td> <td>100 Trying</td> </tr> <tr> <td>ACM</td> <td></td> <td style="text-align:center;">←</td> <td></td> <td style="text-align:center;">←</td> <td>180 Ringing</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td style="text-align:center;">Apply post test routine</td> </tr> </table>				ISUP		MGCF		Mg	IAM		→		→	INVITE					←	100 Trying	ACM		←		←	180 Ringing						Apply post test routine
	ISUP		MGCF		Mg																												
IAM		→		→	INVITE																												
				←	100 Trying																												
ACM		←		←	180 Ringing																												
					Apply post test routine																												

TP number	TP_203_027	Reference	7.2.3.2.5.1																														
TSS reference	ISUP-SIP/Basic call/Sending_of_ACM/																																
Selection criteria	PICS 6.2.1/5 AND PICS 6.2.1/9																																
Test Purpose name	Mapping of PSTN XML ProgressIndicator 1 in 183 into Backward call indicator in ACM																																
Test Purpose	Ensure that on receipt of a 183 Session Progress and the PSTN XML ProgressIndicator is present, the value 1 is mapped into the Backward call indicator present in the ACM: ISDN User Part indicator <ul style="list-style-type: none"> ISDN User Part not used all the way (0) 																																
ISUP Parameter values	ACM: ISDN User Part indicator ISDN User Part not used all the way																																
SIP Parameter values	183: P-Early-Media: sendonly <?xml version="1.0" encoding="utf-8"?> PSTN ProgressIndicator ProgressOctet4 ProgressDescription> 0000001 <																																
Comments	Progress Information: 'Call is not end-to-end ISDN: further call progress information may be available in-band'																																
Message flows	<table style="width:100%; border:none;"> <tr> <td style="width:30%;"></td> <td style="text-align:center;">ISUP</td> <td style="width:10%;"></td> <td style="text-align:center;">MGCF</td> <td style="width:10%;"></td> <td style="text-align:center;">Mg</td> </tr> <tr> <td>IAM</td> <td></td> <td style="text-align:center;">→</td> <td></td> <td style="text-align:center;">→</td> <td>INVITE</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td style="text-align:center;">←</td> <td>100 Trying</td> </tr> <tr> <td>ACM</td> <td></td> <td style="text-align:center;">←</td> <td></td> <td style="text-align:center;">←</td> <td>183 Session Progress</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td style="text-align:center;">Apply post test routine</td> </tr> </table>				ISUP		MGCF		Mg	IAM		→		→	INVITE					←	100 Trying	ACM		←		←	183 Session Progress						Apply post test routine
	ISUP		MGCF		Mg																												
IAM		→		→	INVITE																												
				←	100 Trying																												
ACM		←		←	183 Session Progress																												
					Apply post test routine																												

TP number	TP_203_028	Reference	7.2.3.2.5.1
TSS reference	ISUP-SIP/Basic call/Sending_of_ACM/		
Selection criteria	PICS 6.2.1/5 AND PICS 6.2.1/9		
Test Purpose name	Mapping of PSTN XML ProgressIndicator 2 in 183 into Backward call indicator in ACM		
Test Purpose	Ensure that on receipt of a 183 Session Progress and the PSTN XML ProgressIndicator is present, the value 2 is mapped into the Backward call indicator present in the ACM: ISDN User Part indicator <ul style="list-style-type: none"> • ISDN User Part used all the way (1) ISDN access indicator <ul style="list-style-type: none"> • Terminating access non-ISDN (0) 		
ISUP Parameter values	ACM: ISDN User Part indicator ISDN User Part used all the way ISDN access indicator Terminating access non-ISDN		
SIP Parameter values	183: P-Early-Media: sendonly <?xml version="1.0" encoding="utf-8"?> PSTN ProgressIndicator ProgressOctet4 ProgressDescription>0000010<		
Comments	Progress Information: 'Destination address is non-ISDN'		
Message flows	ISUP	MGCF	Mg
	IAM →		→ INVITE
			← 100 Trying
	ACM ←		← 183 Session Progress
			Apply post test routine

TP number	TP_203_029	Reference	7.2.3.2.5.1
TSS reference	ISUP-SIP/Basic call/Sending_of_ACM/		
Selection criteria	PICS 6.2.1/5 AND PICS 6.2.1/9		
Test Purpose name	Mapping of PSTN XML ProgressIndicator 7 in 183 into Backward call indicator in ACM		
Test Purpose	Ensure that on receipt of a 183 Session Progress and the PSTN XML ProgressIndicator is present, the value 7 is mapped into the Backward call indicator present in the ACM: ISDN User Part indicator <ul style="list-style-type: none"> • ISDN User Part used all the way (1) ISDN access indicator <ul style="list-style-type: none"> • Terminating access ISDN (1) Interworking indicator <ul style="list-style-type: none"> • no interworking encountered (0) 		
ISUP Parameter values	ACM: ISDN User Part indicator ISDN User Part used all the way ISDN access indicator Terminating access non-ISDN Interworking indicator no interworking encountered		
SIP Parameter values	183: P-Early-Media: sendonly <?xml version="1.0" encoding="utf-8"?> PSTN ProgressIndicator ProgressOctet4 ProgressDescription>0000111<		
Comments	Progress Information: value not specified. Meaning 'terminating user is ISDN'		
Message flows	ISUP	MGCF	Mg
	IAM →		→ INVITE
			← 100 Trying
	ACM ←		← 183 Session Progress
			Apply post test routine

TP number	TP_203_030	Reference	7.2.3.2.5.1																														
TSS reference	ISUP-SIP/Basic call/Sending_of_ACM/																																
Selection criteria	PICS 6.2.1/5 AND PICS 6.2.1/9																																
Test Purpose name	Mapping of PSTN XML ProgressIndicator 8 in 183 into Backward call indicator in ACM																																
Test Purpose	Ensure that on receipt of a 183 Session Progress and the PSTN XML ProgressIndicator is present, the value 8 is mapped into the Optional backward call indicator present in the ACM: Optional backward call indicators In-band information indicator • in-band information or an appropriate pattern is now available																																
ISUP Parameter values	ACM: Optional backward call indicators In-band information indicator in-band information or an appropriate pattern is now available"																																
SIP Parameter values	183: P-Early-Media: sendonly <?xml version="1.0" encoding="utf-8"?> PSTN ProgressIndicator ProgressOctet4 ProgressDescription>0001000<																																
Comments	Progress Information 'In-band information or an appropriate pattern is now available'																																
Message flows	<table style="width: 100%; border: none;"> <tr> <td style="width: 25%;"></td> <td style="text-align: center;">ISUP</td> <td style="width: 25%;"></td> <td style="text-align: center;">MGCF</td> <td style="width: 25%;"></td> <td style="text-align: center;">Mg</td> </tr> <tr> <td>IAM</td> <td style="text-align: center;">→</td> <td></td> <td></td> <td style="text-align: center;">→</td> <td>INVITE</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td style="text-align: center;">←</td> <td>100 Trying</td> </tr> <tr> <td>ACM</td> <td style="text-align: center;">←</td> <td></td> <td></td> <td style="text-align: center;">←</td> <td>183 Session Progress</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td style="text-align: center;">Apply post test routine</td> </tr> </table>				ISUP		MGCF		Mg	IAM	→			→	INVITE					←	100 Trying	ACM	←			←	183 Session Progress						Apply post test routine
	ISUP		MGCF		Mg																												
IAM	→			→	INVITE																												
				←	100 Trying																												
ACM	←			←	183 Session Progress																												
					Apply post test routine																												

TP number	TP_203_031	Reference	7.2.3.2.5.2																														
TSS reference	ISUP-SIP/Basic call/Sending_of_ACM/																																
Selection criteria	PICS 6.2.1/9																																
Test Purpose name	Mapping of P-Early-Media header in 183 into Optional backward call indicator in ACM																																
Test Purpose	Ensure that on receipt of a 183 Session Progress and the P-Early-Media header authorizing backward early media is mapped into the Backward call indicator present in the ACM: Optional backward call indicators In-band information indicator • in-band information or an appropriate pattern is now available																																
ISUP Parameter values	ACM: Optional backward call indicators In-band information indicator in-band information or an appropriate pattern is now available"																																
SIP Parameter values	183: P-Early-Media: sendonly																																
Comments	Progress Information 'In-band information or an appropriate pattern is now available'																																
Message flows	<table style="width: 100%; border: none;"> <tr> <td style="width: 25%;"></td> <td style="text-align: center;">ISUP</td> <td style="width: 25%;"></td> <td style="text-align: center;">MGCF</td> <td style="width: 25%;"></td> <td style="text-align: center;">Mg</td> </tr> <tr> <td>IAM</td> <td style="text-align: center;">→</td> <td></td> <td></td> <td style="text-align: center;">→</td> <td>INVITE</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td style="text-align: center;">←</td> <td>100 Trying</td> </tr> <tr> <td>ACM</td> <td style="text-align: center;">←</td> <td></td> <td></td> <td style="text-align: center;">←</td> <td>183 Session Progress</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td style="text-align: center;">Apply post test routine</td> </tr> </table>				ISUP		MGCF		Mg	IAM	→			→	INVITE					←	100 Trying	ACM	←			←	183 Session Progress						Apply post test routine
	ISUP		MGCF		Mg																												
IAM	→			→	INVITE																												
				←	100 Trying																												
ACM	←			←	183 Session Progress																												
					Apply post test routine																												

TP number	TP_203_032	Reference	7.2.3.2.5.2
TSS reference	ISUP-SIP/Basic call/Sending_of_ACM/		
Selection criteria	PICS 6.2.1/9		
Test Purpose name	Mapping of P-Early-Media header in 181 into Optional backward call indicator in ACM		
Test Purpose	Ensure that on receipt of a 181 Call is Being Forwarded and the P-Early-Media authorizing backward early media is mapped into the Backward call indicator present in the ACM: Optional backward call indicators In-band information indicator <ul style="list-style-type: none"> in-band information or an appropriate pattern is now available 		
ISUP Parameter values	ACM: Optional backward call indicators In-band information indicator in-band information or an appropriate pattern is now available"		
SIP Parameter values	181: P-Early-Media: sendonly		
Comments	Progress Information 'In-band information or an appropriate pattern is now available'		
Message flows	ISUP	MGCF	Mg
	IAM	→	→ INVITE
			← 100 Trying
	ACM	←	← 181 Call is Being Forwarded
	Apply post test routine		

TP number	TP_203_033	Reference	7.2.3.2.5.4
TSS reference	ISUP-SIP/Basic call/Sending_of_ACM/		
Selection criteria	PICS 6.2.1/5		
Test Purpose name	Mapping of PSTN XML ProgressIndicator 1 in 180 into the Access Transport Parameter		
Test Purpose	Ensure that on receipt of a 180 Ringing and the PSTN XML ProgressIndicator is present, the value 1 is mapped into the Access Transport Parameter containing the Progress Indicator value 1 in the ACM: Access Transport Parameter Progress Indicator <ul style="list-style-type: none"> Progress Description='0000001' 		
ISUP Parameter values	ACM: Access Transport Progress Indicator Progress Description='0000001'		
SIP Parameter values	180: <?xml version="1.0" encoding="utf-8"?> PSTN ProgressIndicator ProgressOctet4 ProgressDescription>0000001<		
Comments	Progress Information: 'Call is not end-to-end ISDN: further call progress information may be available in-band'		
Message flows	ISUP	MGCF	Mg
	IAM	→	→ INVITE
			← 100 Trying
	ACM	←	← 180 Ringing
	Apply post test routine		

TP number	TP_203_034	Reference	7.2.3.2.5.4																								
TSS reference	ISUP-SIP/Basic call/Sending_of_ACM/																										
Selection criteria	PICS 6.2.1/5																										
Test Purpose name	Mapping of PSTN XML ProgressIndicator 2 in 180 into the Access Transport Parameter																										
Test Purpose	Ensure that on receipt of a 180 Ringing and the PSTN XML ProgressIndicator is present, the value 2 is mapped into the Access Transport Parameter containing the Progress Indicator value 2 in the ACM: Access Transport Parameter Progress Indicator <ul style="list-style-type: none"> Progress Description='0000010' 																										
ISUP Parameter values	ACM: Access Transport Progress Indicator Progress Description='0000010'																										
SIP Parameter values	180: <?xml version="1.0" encoding="utf-8"?> PSTN ProgressIndicator ProgressOctet4 ProgressDescription> 0000010 <																										
Comments	Progress Information: 'Destination address is non-ISDN'																										
Message flows	<table style="width: 100%; border: none;"> <tr> <td style="width: 25%;"></td> <td style="text-align: center;">ISUP</td> <td style="width: 25%;"></td> <td style="text-align: center;">MGCF</td> <td style="width: 25%;"></td> <td style="text-align: center;">Mg</td> </tr> <tr> <td>IAM</td> <td style="text-align: center;">→</td> <td></td> <td></td> <td style="text-align: center;">→</td> <td>INVITE</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td style="text-align: center;">←</td> <td>100 Trying</td> </tr> <tr> <td>ACM</td> <td style="text-align: center;">←</td> <td></td> <td></td> <td style="text-align: center;">←</td> <td>180 Ringing</td> </tr> </table> <p style="text-align: center;">Apply post test routine</p>				ISUP		MGCF		Mg	IAM	→			→	INVITE					←	100 Trying	ACM	←			←	180 Ringing
	ISUP		MGCF		Mg																						
IAM	→			→	INVITE																						
				←	100 Trying																						
ACM	←			←	180 Ringing																						

TP number	TP_203_035	Reference	7.2.3.2.5.4																								
TSS reference	ISUP-SIP/Basic call/Sending_of_ACM/																										
Selection criteria	PICS 6.2.1/5																										
Test Purpose name	PSTN XML ProgressIndicator 7 in 180 is not mapped into the Access Transport Parameter																										
Test Purpose	Ensure that on receipt of a 180 Ringing and the PSTN XML ProgressIndicator is present, the value 7 is not mapped into the Access Transport Parameter in the ACM																										
ISUP Parameter values	ACM: No Access Transport Parameter present																										
SIP Parameter values	180: <?xml version="1.0" encoding="utf-8"?> PSTN ProgressIndicator ProgressOctet4 ProgressDescription> 0000111 <																										
Comments																											
Message flows	<table style="width: 100%; border: none;"> <tr> <td style="width: 25%;"></td> <td style="text-align: center;">ISUP</td> <td style="width: 25%;"></td> <td style="text-align: center;">MGCF</td> <td style="width: 25%;"></td> <td style="text-align: center;">Mg</td> </tr> <tr> <td>IAM</td> <td style="text-align: center;">→</td> <td></td> <td></td> <td style="text-align: center;">→</td> <td>INVITE</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td style="text-align: center;">←</td> <td>100 Trying</td> </tr> <tr> <td>ACM</td> <td style="text-align: center;">←</td> <td></td> <td></td> <td style="text-align: center;">←</td> <td>180 Ringing</td> </tr> </table> <p style="text-align: center;">Apply post test routine</p>				ISUP		MGCF		Mg	IAM	→			→	INVITE					←	100 Trying	ACM	←			←	180 Ringing
	ISUP		MGCF		Mg																						
IAM	→			→	INVITE																						
				←	100 Trying																						
ACM	←			←	180 Ringing																						

TP number	TP_203_036	Reference	7.2.3.2.5.4																														
TSS reference	ISUP-SIP/Basic call/Sending_of_ACM/																																
Selection criteria	PICS 6.2.1/5																																
Test Purpose name	Mapping of PSTN XML ProgressIndicator 8 in 180 into the Access Transport Parameter																																
Test Purpose	Ensure that on receipt of a 180 Ringing and the PSTN XML ProgressIndicator is present, the value 8 is mapped into the Access Transport Parameter containing the Progress Indicator value 8 in the ACM: Access Transport Parameter Progress Indicator <ul style="list-style-type: none"> Progress Description='0001000' 																																
ISUP Parameter values	ACM: Access Transport Progress Indicator Progress Description='0001000'																																
SIP Parameter values	180: <?xml version="1.0" encoding="utf-8"?> PSTN ProgressIndicator ProgressOctet4 ProgressDescription> 0001000 <																																
Comments	Progress Information 'In-band information or an appropriate pattern is now available'																																
Message flows	<table style="width:100%; border:none;"> <tr> <td style="width:25%;"></td> <td style="text-align:center;">ISUP</td> <td style="width:25%;"></td> <td style="text-align:center;">MGCF</td> <td style="width:25%;"></td> <td style="text-align:center;">Mg</td> </tr> <tr> <td>IAM</td> <td style="text-align:center;">→</td> <td></td> <td></td> <td style="text-align:center;">→</td> <td>INVITE</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td style="text-align:center;">←</td> <td>100 Trying</td> </tr> <tr> <td>ACM</td> <td style="text-align:center;">←</td> <td></td> <td></td> <td style="text-align:center;">←</td> <td>180 Ringing</td> </tr> <tr> <td colspan="6" style="text-align:center;">Apply post test routine</td> </tr> </table>				ISUP		MGCF		Mg	IAM	→			→	INVITE					←	100 Trying	ACM	←			←	180 Ringing	Apply post test routine					
	ISUP		MGCF		Mg																												
IAM	→			→	INVITE																												
				←	100 Trying																												
ACM	←			←	180 Ringing																												
Apply post test routine																																	

TP number	TP_203_037	Reference	7.2.3.2.5.4																														
TSS reference	ISUP-SIP/Basic call/Sending_of_ACM/																																
Selection criteria	PICS 6.2.1/5 AND PICS 6.2.1/9																																
Test Purpose name	Mapping of PSTN XML ProgressIndicator 1 in 183 into the Access Transport Parameter																																
Test Purpose	Ensure that on receipt of a 183 Session Progress and the P-Early-Media header and PSTN XML ProgressIndicator is present, the value 1 is mapped into the Access Transport Parameter containing the Progress Indicator value 1 in the ACM: Access Transport Parameter Progress Indicator <ul style="list-style-type: none"> Progress Description='0000001' 																																
ISUP Parameter values	ACM: Access Transport Progress Indicator Progress Description='0000001'																																
SIP Parameter values	183: P-Early-Media: sendonly <?xml version="1.0" encoding="utf-8"?> PSTN ProgressIndicator ProgressOctet4 ProgressDescription> 0000001 <																																
Comments	Progress Information: 'Call is not end-to-end ISDN: further call progress information may be available in-band'																																
Message flows	<table style="width:100%; border:none;"> <tr> <td style="width:25%;"></td> <td style="text-align:center;">ISUP</td> <td style="width:25%;"></td> <td style="text-align:center;">MGCF</td> <td style="width:25%;"></td> <td style="text-align:center;">Mg</td> </tr> <tr> <td>IAM</td> <td style="text-align:center;">→</td> <td></td> <td></td> <td style="text-align:center;">→</td> <td>INVITE</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td style="text-align:center;">←</td> <td>100 Trying</td> </tr> <tr> <td>ACM</td> <td style="text-align:center;">←</td> <td></td> <td></td> <td style="text-align:center;">←</td> <td>183 Session Progress</td> </tr> <tr> <td colspan="6" style="text-align:center;">Apply post test routine</td> </tr> </table>				ISUP		MGCF		Mg	IAM	→			→	INVITE					←	100 Trying	ACM	←			←	183 Session Progress	Apply post test routine					
	ISUP		MGCF		Mg																												
IAM	→			→	INVITE																												
				←	100 Trying																												
ACM	←			←	183 Session Progress																												
Apply post test routine																																	

TP number	TP_203_038	Reference	7.2.3.2.5.4																
TSS reference	ISUP-SIP/Basic call/Sending_of_ACM/																		
Selection criteria	PICS 6.2.1/5 AND PICS 6.2.1/9																		
Test Purpose name	Mapping of PSTN XML ProgressIndicator 2 in 183 into the Access Transport Parameter																		
Test Purpose	Ensure that on receipt of a 183 Session Progress and the P-Early-Media header and PSTN XML ProgressIndicator is present, the value 2 is mapped into the Access Transport Parameter containing the Progress Indicator value 2 in the ACM: Access Transport Parameter Progress Indicator <ul style="list-style-type: none"> Progress Description='0000010' 																		
ISUP Parameter values	ACM: Access Transport Progress Indicator Progress Description='0000010'																		
SIP Parameter values	183: P-Early-Media: sendonly <?xml version="1.0" encoding="utf-8"?> PSTN ProgressIndicator ProgressOctet4 ProgressDescription> 0000010 <																		
Comments	Progress Information: 'Destination address is non-ISDN'																		
Message flows	<table style="width: 100%; border: none;"> <tr> <td style="width: 25%;"></td> <td style="width: 25%; text-align: center;">ISUP</td> <td style="width: 25%; text-align: center;">MGCF</td> <td style="width: 25%; text-align: right;">Mg</td> </tr> <tr> <td>IAM</td> <td style="text-align: center;">→</td> <td></td> <td style="text-align: right;">→ INVITE</td> </tr> <tr> <td></td> <td></td> <td></td> <td style="text-align: right;">← 100 Trying</td> </tr> <tr> <td>ACM</td> <td style="text-align: center;">←</td> <td></td> <td style="text-align: right;">← 183 Session Progress</td> </tr> </table> <p style="text-align: center;">Apply post test routine</p>				ISUP	MGCF	Mg	IAM	→		→ INVITE				← 100 Trying	ACM	←		← 183 Session Progress
	ISUP	MGCF	Mg																
IAM	→		→ INVITE																
			← 100 Trying																
ACM	←		← 183 Session Progress																

TP number	TP_203_039	Reference	7.2.3.2.5.4																
TSS reference	ISUP-SIP/Basic call/Sending_of_ACM/																		
Selection criteria	PICS 6.2.1/5 AND PICS 6.2.1/9																		
Test Purpose name	PSTN XML ProgressIndicator 7 in 183 is not mapped into the Access Transport Parameter																		
Test Purpose	Ensure that on receipt of a 183 Session Progress and the PSTN XML ProgressIndicator is present, the value 7 is not mapped into the Access Transport Parameter in the ACM																		
ISUP Parameter values	ACM: No Access Transport Parameter present																		
SIP Parameter values	183: P-Early-Media: sendonly <?xml version="1.0" encoding="utf-8"?> PSTN ProgressIndicator ProgressOctet4 ProgressDescription> 0000111 <																		
Comments	Progress Information: value not specified. Meaning 'terminating user is ISDN'																		
Message flows	<table style="width: 100%; border: none;"> <tr> <td style="width: 25%;"></td> <td style="width: 25%; text-align: center;">ISUP</td> <td style="width: 25%; text-align: center;">MGCF</td> <td style="width: 25%; text-align: right;">Mg</td> </tr> <tr> <td>IAM</td> <td style="text-align: center;">→</td> <td></td> <td style="text-align: right;">→ INVITE</td> </tr> <tr> <td></td> <td></td> <td></td> <td style="text-align: right;">← 100 Trying</td> </tr> <tr> <td>ACM</td> <td style="text-align: center;">←</td> <td></td> <td style="text-align: right;">← 183 Session Progress</td> </tr> </table> <p style="text-align: center;">Apply post test routine</p>				ISUP	MGCF	Mg	IAM	→		→ INVITE				← 100 Trying	ACM	←		← 183 Session Progress
	ISUP	MGCF	Mg																
IAM	→		→ INVITE																
			← 100 Trying																
ACM	←		← 183 Session Progress																

TP number	TP_203_040	Reference	7.2.3.2.5.4																								
TSS reference	ISUP-SIP/Basic call/Sending_of_ACM/																										
Selection criteria	PICS 6.2.1/5 AND PICS 6.2.1/9																										
Test Purpose name	Mapping of PSTN XML ProgressIndicator 8 in 183 into the Access Transport Parameter																										
Test Purpose	Ensure that on receipt of a 183 Session Progress and the P-Early-Media header and PSTN XML ProgressIndicator is present, the value 8 is mapped into the Access Transport Parameter containing the Progress Indicator value 8 in the ACM: Access Transport Parameter Progress Indicator <ul style="list-style-type: none"> Progress Description='0001000' 																										
ISUP Parameter values	ACM: Access Transport Progress Indicator Progress Description='0001000'																										
SIP Parameter values	183: P-Early-Media: sendonly <?xml version="1.0" encoding="utf-8"?> PSTN ProgressIndicator ProgressOctet4 ProgressDescription> 0001000 <																										
Comments	Progress Information 'In-band information or an appropriate pattern is now available'																										
Message flows	<table style="width:100%; border:none;"> <tr> <td style="width:30%;"></td> <td style="text-align:center;">ISUP</td> <td style="width:10%;"></td> <td style="text-align:center;">MGCF</td> <td style="width:10%;"></td> <td style="text-align:center;">Mg</td> </tr> <tr> <td>IAM</td> <td></td> <td style="text-align:center;">→</td> <td></td> <td style="text-align:center;">→</td> <td>INVITE</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td style="text-align:center;">←</td> <td>100 Trying</td> </tr> <tr> <td>ACM</td> <td></td> <td style="text-align:center;">←</td> <td></td> <td style="text-align:center;">←</td> <td>183 Session Progress</td> </tr> </table> <p style="text-align:center;">Apply post test routine</p>				ISUP		MGCF		Mg	IAM		→		→	INVITE					←	100 Trying	ACM		←		←	183 Session Progress
	ISUP		MGCF		Mg																						
IAM		→		→	INVITE																						
				←	100 Trying																						
ACM		←		←	183 Session Progress																						

6.1.2.4 Sending of the Call Progress message (CPG)

TP number	TP_204_001	Reference	7.2.3.2.6																														
TSS reference	ISUP-SIP/Basic call/Sending_of_CPG/																																
Selection criteria																																	
Test Purpose name	A CPG is sent when a 180 is received and a ACM was sent before																																
Test Purpose	Ensure that on receipt of a 180 Ringing a CPG message is sent when an ACM was sent before																																
ISUP Parameter values	ACM: BCi Called party status=no indication CPG: Event indication=ALERTING																																
SIP Parameter values																																	
Comments																																	
Message flows	<table style="width:100%; border:none;"> <tr> <td style="width:30%;"></td> <td style="text-align:center;">ISUP</td> <td style="width:10%;"></td> <td style="text-align:center;">MGCF</td> <td style="width:10%;"></td> <td style="text-align:center;">Mg</td> </tr> <tr> <td>IAM</td> <td></td> <td style="text-align:center;">→</td> <td>Ti/w1 started</td> <td></td> <td></td> </tr> <tr> <td>ACM</td> <td></td> <td style="text-align:center;">←</td> <td>Ti/w1 expired</td> <td style="text-align:center;">→</td> <td>INVITE</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td style="text-align:center;">←</td> <td>100 Trying</td> </tr> <tr> <td>CPG</td> <td></td> <td style="text-align:center;">←</td> <td></td> <td style="text-align:center;">←</td> <td>180 Ringing</td> </tr> </table> <p style="text-align:center;">Apply post test routine</p>				ISUP		MGCF		Mg	IAM		→	Ti/w1 started			ACM		←	Ti/w1 expired	→	INVITE					←	100 Trying	CPG		←		←	180 Ringing
	ISUP		MGCF		Mg																												
IAM		→	Ti/w1 started																														
ACM		←	Ti/w1 expired	→	INVITE																												
				←	100 Trying																												
CPG		←		←	180 Ringing																												

TP number	TP_204_002	Reference	7.2.3.2.6																								
TSS reference	ISUP-SIP/Basic call/Sending_of_CPG/																										
Selection criteria	PICS 6.2.1/9																										
Test Purpose name	181 received, CPG is sent																										
Test Purpose	Ensure that on receipt of a 181 Call is Being Forwarded a CPG is sent. The Event information parameter in the CPG is set to 'progress'																										
ISUP Parameter values	CPG: Event indication=progress																										
SIP Parameter values	181: P-Early-Media: sendonly																										
Comments																											
Message flows	<table style="width:100%; border:none;"> <tr> <td style="width:30%;"></td> <td style="text-align:center;">ISUP</td> <td style="width:10%;"></td> <td style="text-align:center;">MGCF</td> <td style="width:10%;"></td> <td style="text-align:center;">Mg</td> </tr> <tr> <td>IAM</td> <td></td> <td style="text-align:center;">→</td> <td></td> <td style="text-align:center;">→</td> <td>INVITE</td> </tr> <tr> <td>ACM</td> <td></td> <td style="text-align:center;">←</td> <td></td> <td style="text-align:center;">←</td> <td>180 Ringing</td> </tr> <tr> <td>CPG</td> <td></td> <td style="text-align:center;">←</td> <td></td> <td style="text-align:center;">←</td> <td>181 Call is Being Forwarded <i>early media</i></td> </tr> </table> <p style="text-align:center;">Apply post test routine</p>				ISUP		MGCF		Mg	IAM		→		→	INVITE	ACM		←		←	180 Ringing	CPG		←		←	181 Call is Being Forwarded <i>early media</i>
	ISUP		MGCF		Mg																						
IAM		→		→	INVITE																						
ACM		←		←	180 Ringing																						
CPG		←		←	181 Call is Being Forwarded <i>early media</i>																						

TP number	TP_204_003	Reference	7.2.3.2.6																																				
TSS reference	ISUP-SIP/Basic call/Sending_of_CPG/																																						
Selection criteria	PICS 6.2.1/9																																						
Test Purpose name	Early media is not authorized if no P-Early-Media header is present in the 180																																						
Test Purpose	Ensure that on receipt of a 180 Ringing a CPG is sent. If the 180 Ringing does not contain a P-Early-Media header authorizing early media, the SUT initiates sending of awaiting answer indication																																						
ISUP Parameter values																																							
SIP Parameter values	180: no P-Early-Media header present																																						
Comments																																							
Message flows	<table style="width: 100%; border: none;"> <tr> <td style="width: 25%;"></td> <td style="text-align: center;">ISUP</td> <td style="width: 25%;"></td> <td style="text-align: center;">MGCF</td> <td style="width: 25%;"></td> <td style="text-align: center;">Mg</td> </tr> <tr> <td>IAM</td> <td></td> <td style="text-align: center;">→</td> <td>Ti/w1 started</td> <td></td> <td></td> </tr> <tr> <td>ACM</td> <td></td> <td style="text-align: center;">←</td> <td>Ti/w1 expired</td> <td style="text-align: center;">→</td> <td>INVITE</td> </tr> <tr> <td>CPG</td> <td></td> <td style="text-align: center;">←</td> <td></td> <td style="text-align: center;">←</td> <td>180 Ringing</td> </tr> <tr> <td></td> <td></td> <td></td> <td style="text-align: center;"><i>ringing tone</i></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> <td colspan="3" style="text-align: center;">Apply post test routine</td> </tr> </table>				ISUP		MGCF		Mg	IAM		→	Ti/w1 started			ACM		←	Ti/w1 expired	→	INVITE	CPG		←		←	180 Ringing				<i>ringing tone</i>						Apply post test routine		
	ISUP		MGCF		Mg																																		
IAM		→	Ti/w1 started																																				
ACM		←	Ti/w1 expired	→	INVITE																																		
CPG		←		←	180 Ringing																																		
			<i>ringing tone</i>																																				
			Apply post test routine																																				

TP number	TP_204_004	Reference	7.2.3.2.6																																				
TSS reference	ISUP-SIP/Basic call/Sending_of_CPG/																																						
Selection criteria	PICS 6.2.1/9																																						
Test Purpose name	Early media is not authorized if P-Early-Media header does not authorize early media in the 180																																						
Test Purpose	Ensure that on receipt of a 180 Ringing a CPG is sent. If the 180 Ringing contains a P-Early-Media header not authorizing early media, the SUT initiates sending of awaiting answer indication																																						
ISUP Parameter values																																							
SIP Parameter values	180: P-Early-Media: inactive																																						
Comments																																							
Message flows	<table style="width: 100%; border: none;"> <tr> <td style="width: 25%;"></td> <td style="text-align: center;">ISUP</td> <td style="width: 25%;"></td> <td style="text-align: center;">MGCF</td> <td style="width: 25%;"></td> <td style="text-align: center;">Mg</td> </tr> <tr> <td>IAM</td> <td></td> <td style="text-align: center;">→</td> <td>Ti/w1 started</td> <td></td> <td></td> </tr> <tr> <td>ACM</td> <td></td> <td style="text-align: center;">←</td> <td>Ti/w1 expired</td> <td style="text-align: center;">→</td> <td>INVITE</td> </tr> <tr> <td>CPG</td> <td></td> <td style="text-align: center;">←</td> <td></td> <td style="text-align: center;">←</td> <td>180 Ringing</td> </tr> <tr> <td></td> <td></td> <td></td> <td style="text-align: center;"><i>ringing tone</i></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> <td colspan="3" style="text-align: center;">Apply post test routine</td> </tr> </table>				ISUP		MGCF		Mg	IAM		→	Ti/w1 started			ACM		←	Ti/w1 expired	→	INVITE	CPG		←		←	180 Ringing				<i>ringing tone</i>						Apply post test routine		
	ISUP		MGCF		Mg																																		
IAM		→	Ti/w1 started																																				
ACM		←	Ti/w1 expired	→	INVITE																																		
CPG		←		←	180 Ringing																																		
			<i>ringing tone</i>																																				
			Apply post test routine																																				

TP number	TP_204_005	Reference	7.2.3.2.6																																				
TSS reference	ISUP-SIP/Basic call/Sending_of_CPG/																																						
Selection criteria	PICS 6.2.1/9																																						
Test Purpose name	Early media is authorized if P-Early-Media header authorize early media in the 180																																						
Test Purpose	Ensure that on receipt of a 180 Ringing a CPG is sent. If the 180 Ringing contains a P-Early-Media header authorizing early media, the SUT terminates sending of awaiting answer indication and connects through the early media in backward direction																																						
ISUP Parameter values																																							
SIP Parameter values	180: P-Early-Media: sendonly																																						
Comments																																							
Message flows	<table style="width: 100%; border: none;"> <tr> <td style="width: 25%;"></td> <td style="text-align: center;">ISUP</td> <td style="width: 25%;"></td> <td style="text-align: center;">MGCF</td> <td style="width: 25%;"></td> <td style="text-align: center;">Mg</td> </tr> <tr> <td>IAM</td> <td></td> <td style="text-align: center;">→</td> <td>Ti/w1 started</td> <td></td> <td></td> </tr> <tr> <td>ACM</td> <td></td> <td style="text-align: center;">←</td> <td>Ti/w1 expired</td> <td style="text-align: center;">→</td> <td>INVITE</td> </tr> <tr> <td>CPG</td> <td></td> <td style="text-align: center;">←</td> <td></td> <td style="text-align: center;">←</td> <td>180 Ringing</td> </tr> <tr> <td></td> <td></td> <td></td> <td style="text-align: center;"><i>early media</i></td> <td></td> <td style="text-align: center;"><i>early media</i></td> </tr> <tr> <td></td> <td></td> <td></td> <td colspan="3" style="text-align: center;">Apply post test routine</td> </tr> </table>				ISUP		MGCF		Mg	IAM		→	Ti/w1 started			ACM		←	Ti/w1 expired	→	INVITE	CPG		←		←	180 Ringing				<i>early media</i>		<i>early media</i>				Apply post test routine		
	ISUP		MGCF		Mg																																		
IAM		→	Ti/w1 started																																				
ACM		←	Ti/w1 expired	→	INVITE																																		
CPG		←		←	180 Ringing																																		
			<i>early media</i>		<i>early media</i>																																		
			Apply post test routine																																				

TP number	TP_204_006	Reference	7.2.3.2.6
TSS reference	ISUP-SIP/Basic call/Sending_of_CPG/		
Selection criteria	PICS 6.2.1/14		
Test Purpose name	The SUT has the knowledge that the call is transited to a PSTN network, the awaiting answer indication is not generated		
Test Purpose	Ensure that the SUT does not generate the awaiting answer indication if it has the local knowledge that the call is transited to a PSTN network and the early media is not authorized		
ISUP Parameter values			
SIP Parameter values			
Comments			
Message flows	<p>ISUP → MGCF Mg</p> <p>IAM → Ti/w1 started</p> <p>ACM ← Ti/w1 expired → INVITE</p> <p>CPG ← 100 Trying</p> <p>← 180 Ringing</p> <p><i>early media</i> <i>early media</i></p> <p style="text-align: right;">Apply post test routine</p>		

TP number	TP_204_007	Reference	7.2.3.2.6
TSS reference	ISUP-SIP/Basic call/Sending_of_CPG/		
Selection criteria	PICS 6.2.1/9		
Test Purpose name	Early media is authorized if P-Early-Media header authorize early media in the 183		
Test Purpose	Ensure that on receipt of a 183 Session Progress a CPG is sent. If the 183 Session Progress contains a P-Early-Media header authorizing early media, the SUT terminates sending of awaiting answer indication and connects through the early media in backward direction		
ISUP Parameter values			
SIP Parameter values	183: P-Early-Media: sendonly		
Comments			
Message flows	<p>ISUP → MGCF Mg</p> <p>IAM → INVITE</p> <p>ACM ← 180 Ringing</p> <p>CPG ← 183 Session Progress</p> <p><i>early media</i> <i>early media</i></p> <p style="text-align: right;">Apply post test routine</p>		

TP number	TP_204_008	Reference	7.2.3.2.6
TSS reference	ISUP-SIP/Basic call/Sending_of_CPG/		
Selection criteria	PICS 6.2.1/9		
Test Purpose name	Early media is authorized if P-Early-Media header authorize early media in the 181		
Test Purpose	Ensure that on receipt of a 181 Call is Being Forwarded a CPG is sent. If the 181 Call is Being Forwarded contains a P-Early-Media header authorizing early media, the SUT terminates sending of awaiting answer indication and connects through the early media in backward direction		
ISUP Parameter values			
SIP Parameter values	181: P-Early-Media: sendonly		
Comments			
Message flows	<p>ISUP → MGCF Mg</p> <p>IAM → INVITE</p> <p>ACM ← 180 Ringing</p> <p>CPG ← 181 Call is Being Forwarded</p> <p><i>early media</i> <i>early media</i></p> <p style="text-align: right;">Apply post test routine</p>		

TP number	TP_204_009	Reference	7.2.3.2.6
TSS reference	ISUP-SIP/Basic call/Sending_of_CPG/		
Selection criteria	PICS 6.2.1/9		
Test Purpose name	The SUT change the authorization of early media as indicated in the P-Early-Media received in 180		
Test Purpose	Ensure that the SUT terminates the sending of awaiting answer indication and connect through early media if the P-Early-Media header indicates authorization in the received 180 Ringing response and early media was not authorized before		
ISUP Parameter values			
SIP Parameter values	183: P-Early-Media: inactive 180: P-Early-Media: sendonly		
Comments			
Message flows	<p style="text-align: center;">ISUP</p> <p>IAM →</p> <p>ACM ←</p> <p style="text-align: center;"><i>ringing tone</i></p> <p>CPG ←</p> <p style="text-align: center;"><i>early media</i></p>	<p style="text-align: center;">MGCF</p> <p>→</p> <p>←</p> <p>←</p>	<p style="text-align: center;">Mg</p> <p>→ INVITE</p> <p>← 183 Session Progress</p> <p>← 180 Ringing</p> <p style="text-align: center;"><i>early media</i></p> <p style="text-align: center;">Apply post test routine</p>

TP number	TP_204_010	Reference	7.2.3.2.6
TSS reference	ISUP-SIP/Basic call/Sending_of_CPG/		
Selection criteria	PICS 6.2.1/9		
Test Purpose name	The SUT change the authorization of early media as indicated in the P-Early-Media received in 180		
Test Purpose	Ensure that the SUT initiates the sending of awaiting answer indication and removes authorization of early media if the P-Early-Media header indicates no authorization of early media received in the 180 Ringing and early media was authorized before		
ISUP Parameter values			
SIP Parameter values	183: P-Early-Media: sendonly 180: P-Early-Media: inactive		
Comments			
Message flows	<p style="text-align: center;">ISUP</p> <p>IAM →</p> <p>ACM ←</p> <p style="text-align: center;"><i>early media</i></p> <p>CPG ←</p> <p style="text-align: center;"><i>ringing tone</i></p>	<p style="text-align: center;">MGCF</p> <p>→</p> <p>←</p> <p>←</p>	<p style="text-align: center;">Mg</p> <p>→ INVITE</p> <p>← 183 Session Progress</p> <p style="text-align: center;"><i>early media</i></p> <p>← 180 Ringing</p> <p style="text-align: center;">Apply post test routine</p>

TP number	TP_204_011	Reference	7.2.3.2.6.1
TSS reference	ISUP-SIP/Basic call/Sending_of_CPG/		
Selection criteria	PICS 6.2.1/5		
Test Purpose name	Mapping of PSTN XML ProgressIndicator 1 in 183 into ATP in the CPG		
Test Purpose	Ensure that on receipt of a PSTN XML ProgressIndicator value 1 in a 183 Session Progress, a CPG is sent and an Access Transport Parameter is present containing a Progress Indicator #1		
ISUP Parameter values	CPG: Access Transport Progress Indicator Progress Description='0000001'		
SIP Parameter values	183: <?xml version="1.0" encoding="utf-8"?> PSTN ProgressIndicator ProgressOctet4 ProgressDescription>0000001<		
Comments			
Message flows	<p style="text-align: center;">ISUP</p> <p>IAM →</p> <p>ACM ←</p> <p>CPG ←</p>	<p style="text-align: center;">MGCF</p> <p>→</p> <p>←</p> <p>←</p>	<p style="text-align: center;">Mg</p> <p>→ INVITE</p> <p>← 180 Ringing</p> <p>← 183 Session Progress</p> <p style="text-align: center;">Apply post test routine</p>

TP number	TP_204_012	Reference	7.2.3.2.6.1
TSS reference	ISUP-SIP/Basic call/Sending_of_CPG/		
Selection criteria	PICS 6.2.1/5		
Test Purpose name	Mapping of PSTN XML ProgressIndicator 2 in 183 into ATP in the CPG		
Test Purpose	Ensure that on receipt of a PSTN XML ProgressIndicator value 2 in a 183 Session Progress, a CPG is sent and an Access Transport Parameter is present containing a Progress Indicator #2		
ISUP Parameter values	CPG: Access Transport Progress Indicator Progress Description='0000010'		
SIP Parameter values	183: <?xml version="1.0" encoding="utf-8"?> PSTN ProgressIndicator ProgressOctet4 ProgressDescription>0000010<		
Comments			
Message flows	ISUP	MGCF	Mg
	IAM →		INVITE
	ACM ←		180 Ringing
	CPG ←		183 Session Progress
	Apply post test routine		

TP number	TP_204_013	Reference	7.2.3.2.6
TSS reference	ISUP-SIP/Basic call/Sending_of_CPG/		
Selection criteria	PICS 6.2.1/5		
Test Purpose name	Mapping of PSTN XML ProgressIndicator 4 in 183 into ATP in the CPG		
Test Purpose	Ensure that on receipt of a PSTN XML ProgressIndicator value 4 in a 183 Session Progress, a CPG is sent and an Access Transport Parameter is present containing a Progress Indicator #4		
ISUP Parameter values	CPG: Access Transport Progress Indicator Progress Description='0000100'		
SIP Parameter values	180: <?xml version="1.0" encoding="utf-8"?> PSTN ProgressIndicator ProgressOctet4 ProgressDescription>0000001< or ProgressDescription>0000010< 183: P-Early-Media: sendonly <?xml version="1.0" encoding="utf-8"?> PSTN ProgressIndicator ProgressOctet4 ProgressDescription>0000100<		
Comments			
Message flows	ISUP	MGCF	Mg
	IAM →		INVITE
	ACM ←		180 Ringing
	CPG ←		183 Session Progress
	Apply post test routine		

TP number	TP_204_014	Reference	7.2.3.2.6
TSS reference	ISUP-SIP/Basic call/Sending_of_CPG/		
Selection criteria	PICS 6.2.1/5 AND PICS 6.2.1/9		
Test Purpose name	No mapping of PSTN XML ProgressIndicator 7 in 183 into ATP in the CPG		
Test Purpose	Ensure that on receipt of a PSTN XML ProgressIndicator value 7 in a 183 Session Progress, a CPG is sent and an Access Transport Parameter is present containing a Progress Indicator #4		
ISUP Parameter values	CPG: Access Transport Progress Indicator Progress Description='0000100'		
SIP Parameter values	180: <?xml version="1.0" encoding="utf-8"?> PSTN ProgressIndicator ProgressOctet4 ProgressDescription>0000001< or ProgressDescription>0000010< 183: P-Early-Media: sendonly <?xml version="1.0" encoding="utf-8"?> PSTN ProgressIndicator ProgressOctet4 ProgressDescription>0000111<		
Comments			
Message flows	ISUP	MGCF	Mg
	IAM →		→ INVITE
	ACM ←		← 180 Ringing
	CPG ←		← 183 Session Progress
	Apply post test routine		

TP number	TP_204_015	Reference	7.2.3.2.6
TSS reference	ISUP-SIP/Basic call/Sending_of_CPG/		
Selection criteria	PICS 6.2.1/5		
Test Purpose name	Mapping of PSTN XML ProgressIndicator 8 in 183 into Event information in the CPG		
Test Purpose	Ensure that on receipt of a PSTN XML ProgressIndicator value 8 in a 183 Session Progress, a CPG is sent and Event information parameter is set to 'In-band information or appropriate pattern is now available'		
ISUP Parameter values	CPG: Event information= In-band information or appropriate pattern is now available		
SIP Parameter values	183: <?xml version="1.0" encoding="utf-8"?> PSTN ProgressIndicator ProgressOctet4 ProgressDescription>0001000<		
Comments			
Message flows	ISUP	MGCF	Mg
	IAM →		→ INVITE
	ACM ←		← 180 Ringing
	CPG ←		← 183 Session Progress
	Apply post test routine		

TP number	TP_204_017	Reference	7.2.3.2.6.1
TSS reference	ISUP-SIP/Basic call/Sending_of_CPG/		
Selection criteria	PICS 6.2.1/5 AND PICS 6.2.1/9		
Test Purpose name	Mapping of PSTN XML ProgressIndicator 1 in 180 into ATP in the CPG		
Test Purpose	Ensure that on receipt of a PSTN XML ProgressIndicator value 1 in a 180 Ringing, a CPG is sent and an Access Transport Parameter is present containing a Progress Indicator #1		
ISUP Parameter values	CPG: Access Transport Progress Indicator Progress Description='0000001'		
SIP Parameter values	180: <?xml version="1.0" encoding="utf-8"?> PSTN ProgressIndicator ProgressOctet4 ProgressDescription>0000001<		
Comments			
Message flows	ISUP	MGCF	Mg
	IAM	→ Ti/w1 started	
	ACM	← Ti/w1 expired	→ INVITE
	CPG	←	← 180 Ringing
	Apply post test routine		

TP number	TP_204_018	Reference	7.2.3.2.6.1
TSS reference	ISUP-SIP/Basic call/Sending_of_CPG/		
Selection criteria	PICS 6.2.1/5		
Test Purpose name	Mapping of PSTN XML ProgressIndicator 2 in 180 into ATP in the CPG		
Test Purpose	Ensure that on receipt of a PSTN XML ProgressIndicator value 2 in a 180 Ringing, a CPG is sent and an Access Transport Parameter is present containing a Progress Indicator #2		
ISUP Parameter values	CPG: Access Transport Progress Indicator Progress Description='0000010'		
SIP Parameter values	180: <?xml version="1.0" encoding="utf-8"?> PSTN ProgressIndicator ProgressOctet4 ProgressDescription>0000010<		
Comments			
Message flows	ISUP	MGCF	Mg
	IAM	→ Ti/w1 started	
	ACM	← Ti/w1 expired	→ INVITE
	CPG	←	← 180 Ringing
	Apply post test routine		

TP number	TP_204_019	Reference	7.2.3.2.6
TSS reference	ISUP-SIP/Basic call/Sending_of_CPG/		
Selection criteria	PICS 6.2.1/5		
Test Purpose name	Mapping of PSTN XML ProgressIndicator 4 in 180 into ATP in the CPG		
Test Purpose	Ensure that on receipt of a PSTN XML ProgressIndicator value 4 in a 180 Ringing a CPG is sent and an Access Transport Parameter is present containing a Progress Indicator #4		
ISUP Parameter values	CPG: Access Transport Progress Indicator Progress Description='0000100'		
SIP Parameter values	183: <?xml version="1.0" encoding="utf-8"?> PSTN ProgressIndicator ProgressOctet4 ProgressDescription>0000001< or ProgressDescription>0000010< 180: <?xml version="1.0" encoding="utf-8"?> PSTN ProgressIndicator ProgressOctet4 ProgressDescription>0000100<		
Comments			
Message flows	ISUP	MGCF	Mg
	IAM	→	→ INVITE
	ACM	←	← 183 Session Progress
	CPG	←	← 180 Ringing
	Apply post test routine		

TP number	TP_204_020	Reference	7.2.3.2.6
TSS reference	ISUP-SIP/Basic call/Sending_of_CPG/		
Selection criteria	PICS 6.2.1/5		
Test Purpose name	No mapping of PSTN XML ProgressIndicator 7 in 180 into ATP in the CPG		
Test Purpose	Ensure that on receipt of a PSTN XML ProgressIndicator value 7 in a 180 Ringing, a CPG is sent and an Access Transport Parameter is present containing a Progress Indicator #4		
ISUP Parameter values	CPG: Access Transport Progress Indicator Progress Description='0000100'		
SIP Parameter values	183: <?xml version="1.0" encoding="utf-8"?> PSTN ProgressIndicator ProgressOctet4 ProgressDescription>0000001< or ProgressDescription>0000010< 180: <?xml version="1.0" encoding="utf-8"?> PSTN ProgressIndicator ProgressOctet4 ProgressDescription>0000111<		
Comments			
Message flows	ISUP	MGCF	Mg
	IAM	→	→ INVITE
	ACM	←	← 183 Session Progress
	CPG	←	← 180 Ringing
	Apply post test routine		

TP number	TP_204_021	Reference	7.2.3.2.6																														
TSS reference	ISUP-SIP/Basic call/Sending_of_CPG/																																
Selection criteria	PICS 6.2.1/5																																
Test Purpose name	Mapping of PSTN XML ProgressIndicator 8 in 180 into Event information in the CPG																																
Test Purpose	Ensure that on receipt of a PSTN XML ProgressIndicator value 8 in a 180 Ringing, a CPG is sent and Event information parameter is set to 'In-band information or appropriate pattern is now available'																																
ISUP Parameter values	CPG: Event information= In-band information or appropriate pattern is now available																																
SIP Parameter values	180: <?xml version="1.0" encoding="utf-8"?> PSTN ProgressIndicator ProgressOctet4 ProgressDescription>0001000<																																
Comments																																	
Message flows	<table style="width:100%; border:none;"> <tr> <td style="width:30%;"></td> <td style="text-align:center;">Mg</td> <td style="width:30%;"></td> <td style="text-align:center;">MGCF</td> <td style="width:30%;"></td> <td style="text-align:center;">ISUP</td> </tr> <tr> <td>IAM</td> <td></td> <td style="text-align:center;">→</td> <td>Ti/w1 started</td> <td></td> <td></td> </tr> <tr> <td>ACM</td> <td></td> <td style="text-align:center;">←</td> <td>Ti/w1 expired</td> <td style="text-align:center;">→</td> <td>INVITE</td> </tr> <tr> <td>CPG</td> <td></td> <td style="text-align:center;">←</td> <td></td> <td style="text-align:center;">←</td> <td>180 Ringing</td> </tr> <tr> <td colspan="6" style="text-align:center;">Apply post test routine</td> </tr> </table>				Mg		MGCF		ISUP	IAM		→	Ti/w1 started			ACM		←	Ti/w1 expired	→	INVITE	CPG		←		←	180 Ringing	Apply post test routine					
	Mg		MGCF		ISUP																												
IAM		→	Ti/w1 started																														
ACM		←	Ti/w1 expired	→	INVITE																												
CPG		←		←	180 Ringing																												
Apply post test routine																																	

TP number	TP_204_023	Reference	7.2.3.2.7																														
TSS reference	ISUP-SIP/Basic call/Sending_of_CPG/																																
Selection criteria	PICS 6.2.1/9																																
Test Purpose name	Mapping of P-Early-Media header into Event information parameter in CPG																																
Test Purpose	Ensure that on receipt of a 183 Session Progress and a P-Early-Media header is present authorizing early media, a CPG is sent. The Event information parameter is set to 'In-band information or appropriate pattern is now available'																																
ISUP Parameter values	CPG: Event information= In-band information or appropriate pattern is now available																																
SIP Parameter values	183: P-Early-Media: sendonly																																
Comments																																	
Message flows	<table style="width:100%; border:none;"> <tr> <td style="width:30%;"></td> <td style="text-align:center;">ISUP</td> <td style="width:30%;"></td> <td style="text-align:center;">MGCF</td> <td style="width:30%;"></td> <td style="text-align:center;">Mg</td> </tr> <tr> <td>IAM</td> <td></td> <td style="text-align:center;">→</td> <td>Ti/w1 started</td> <td></td> <td></td> </tr> <tr> <td>ACM</td> <td></td> <td style="text-align:center;">←</td> <td>Ti/w1 expired</td> <td style="text-align:center;">→</td> <td>INVITE</td> </tr> <tr> <td>CPG</td> <td></td> <td style="text-align:center;">←</td> <td></td> <td style="text-align:center;">←</td> <td>183 Session Progress</td> </tr> <tr> <td colspan="6" style="text-align:center;">Apply post test routine</td> </tr> </table>				ISUP		MGCF		Mg	IAM		→	Ti/w1 started			ACM		←	Ti/w1 expired	→	INVITE	CPG		←		←	183 Session Progress	Apply post test routine					
	ISUP		MGCF		Mg																												
IAM		→	Ti/w1 started																														
ACM		←	Ti/w1 expired	→	INVITE																												
CPG		←		←	183 Session Progress																												
Apply post test routine																																	

TP number	TP_204_024	Reference	7.2.3.2.7.4
TSS reference	ISUP-SIP/Basic call/Sending_of_CPG/		
Selection criteria	NOT PICS 6.2.1/18		
Test Purpose name	180 received, coding of Backward call indicator in CPG TMR speech or 3,1 kHz audio		
Test Purpose	IAM with Transmission Medium Requirement indicator= speech or 3,1 kHz received. Ensure that on receipt of a 180 Ringing response, a CPG is sent and the Backward call indicator is set to the following values: <ul style="list-style-type: none"> • Charge indicator = charge (10) • Called party's status indicator = subscriber free (01) • Called party's category indicator = no indication (00) • End-to-end method indicator = no end-to-end method available (00) • Interworking indicator = interworking encountered (1) • End-to-end information indicator = no end-to-end information available (0) • ISDN user part/BICC indicator = ISDN user part not used all the way (0) • ISDN access indicator = terminating access non-ISDN (0) • Echo control device indicator = incoming echo control device included (1) 		
ISUP Parameter values	IAM: Transmission Medium Requirement indicator=speech or 3,1 kHz ACM: Backward call indicator Called party's status indicator = no indication		
SIP Parameter values			
Comments			
Message flows	ISUP	MGCF	Mg
	IAM	→ Ti/w1 started	
	ACM	← Ti/w1 expired	→ INVITE
	CPG	←	← 180 Ringing
	Apply post test routine		

TP number	TP_204_025	Reference	7.2.3.2.7.4
TSS reference	ISUP-SIP/Basic call/Sending_of_CPG/		
Selection criteria	PICS 6.2.4/2 AND NOT PICS 6.2.1/18		
Test Purpose name	180 received, coding of Backward call indicator in CPG TMR 64 kBit/s unrestricted		
Test Purpose	IAM with Transmission Medium Requirement indicator=64 kBit/s unrestricted received. Ensure that on receipt of a 180 Ringing response, an CPG is sent and the Backward call indicator is set to the following values: <ul style="list-style-type: none"> • Charge indicator = charge (10) • Called party's status indicator = subscriber free (01) • Called party's category indicator = no indication (00) • End-to-end method indicator = no end-to-end method available (00) • Interworking indicator = interworking encountered (1) • End-to-end information indicator = no end-to-end information available (0) • ISDN user part/BICC indicator = ISDN user part not used all the way (0) • ISDN access indicator = terminating access non-ISDN (0) • Echo control device indicator = incoming echo control device not included (0) 		
ISUP Parameter values	IAM: Transmission Medium Requirement indicator=64 kBit/s unrestricted ACM: Backward call indicator Called party's status indicator = no indication		
SIP Parameter values			
Comments			
Message flows	ISUP	MGCF	Mg
	IAM	→ Ti/w1 started	
	ACM	← Ti/w1 expired	→ INVITE
	CPG	←	← 180 Ringing
	Apply post test routine		

TP number	TP_204_026	Reference	7.2.3.2.7.4
TSS reference	ISUP-SIP/Basic call/Sending_of_CPG/		
Selection criteria	PICS 6.2.4/2 AND PICS 6.2.1/18		
Test Purpose name	180 received, coding of Backward call indicator in CPG TMR 64 kBit/s unrestricted		
Test Purpose	<p>IAM with Transmission Medium Requirement indicator=64 kBit/s unrestricted received. Ensure that on receipt of a 180 Ringing response, an CPG is sent and the Backward call indicator is set to the following values:</p> <ul style="list-style-type: none"> • Charge indicator = charge (10) • Called party's status indicator = subscriber free (01) • Called party's category indicator = no indication (00) • End-to-end method indicator = no end-to-end method available (00) • Interworking indicator = no interworking encountered (0) • End-to-end information indicator = no end-to-end information available (0) • ISDN user part/BICC indicator = ISDN user part used all the way (1) • ISDN access indicator = terminating access ISDN (1) • Echo control device indicator = incoming echo control device not included (0) 		
ISUP Parameter values	IAM: Transmission Medium Requirement indicator=64 kBit/s unrestricted ACM: Backward call indicator Called party's status indicator = no indication		
SIP Parameter values			
Comments			
Message flows	ISUP	MGCF	Mg
	IAM	→ Ti/w1 started	
	ACM	← Ti/w1 expired	→ INVITE
	CPG	←	← 180 Ringing
	Apply post test routine		

TP number	TP_204_027	Reference	7.2.3.2.7.4
TSS reference	ISUP-SIP/Basic call/Sending_of_CPG/		
Selection criteria			
Test Purpose name	180 received, coding of Backward call indicator in CPG HLC "Facsimile Group 2/3"		
Test Purpose	<p>IAM with Transmission Medium Requirement indicator=3,1 kHz and High Layer Compatibility= Facsimile Group 2/3 received. Ensure that on receipt of a 180 Ringing response, a CPG is sent and the Backward call indicator is set to the following values:</p> <ul style="list-style-type: none"> • Charge indicator = charge (10) • Called party's status indicator = subscriber free (01) • Called party's category indicator = no indication (00) • End-to-end method indicator = no end-to-end method available (00) • Interworking indicator = interworking encountered (1) • End-to-end information indicator = no end-to-end information available (0) • ISDN user part/BICC indicator = ISDN user part not used all the way (0) • ISDN access indicator = terminating access non-ISDN (0) • Echo control device indicator = incoming echo control device not included (0) 		
ISUP Parameter values	IAM: Transmission Medium Requirement indicator=3,1 kHz High Layer Compatibility= Facsimile Group 2/3 ACM: Backward call indicator Called party's status indicator = no indication		
SIP Parameter values			
Comments			
Message flows	ISUP	MGCF	Mg
	IAM	→ Ti/w1 started	
	ACM	← Ti/w1 expired	→ INVITE
	CPG	←	← 180 Ringing
	Apply post test routine		

6.1.2.5 Sending of the Answer Message (ANM)

TP number	TP_205_001	Reference	7.2.3.2.8
TSS reference	ISUP-SIP/Basic call/Sending_of_ANM/		
Selection criteria			
Test Purpose name	Sending of ANM when 200 OK INVITE was received		
Test Purpose	Ensure that upon receipt of the first 200 OK (INVITE), if the Address Complete Message (ACM) has already been sent, the SUT sends the Answer Message (ANM)		
ISUP Parameter values			
SIP Parameter values			
Comments			
Message flows	ISUP	MGCF	Mg
	IAM	→	→ INVITE
	ACM	←	← 100 Trying
	ANM	←	← 180 Ringing
			← 200 OK (INVITE)
			→ ACK
	Apply post test routine		

TP number	TP_205_002	Reference	7.2.3.2.8
TSS reference	ISUP-SIP/Basic call/Sending_of_ANM/		
Selection criteria	NOT PICS 6.2.1/18		
Test Purpose name	200 OK received, coding of Backward call indicator in ANM TMR speech or 3,1 kHz audio		
Test Purpose	IAM with Transmission Medium Requirement indicator=speech or 3,1 kHz received. Ensure that on receipt of a 200 OK INVITE final response, an ANM is sent and the Backward call indicator is set to the following values: <ul style="list-style-type: none"> • Charge indicator = charge (10) • Called party's status indicator = no indication (00) • Called party's category indicator = no indication (00) • End-to-end method indicator = no end-to-end method available (00) • Interworking indicator = interworking encountered (1) • End-to-end information indicator = no end-to-end information available (0) • ISDN user part/BICC indicator = ISDN user part not used all the way (0) • ISDN access indicator = terminating access non-ISDN (0) • Echo control device indicator = Incoming echo control device included (1) 		
ISUP Parameter values	IAM: Transmission Medium Requirement indicator=speech or 3,1 kHz ACM: Backward call indicator Called party's status indicator = no indication		
SIP Parameter values	183: P-Early-Media: sendonly		
Comments			
Message flows	ISUP	MGCF	Mg
	IAM	→	Ti/w1 started
	ACM	←	Ti/w1 expired
	ANM	←	→ INVITE
			← 183 Session Progress
			← 200 OK (INVITE)
			→ ACK
	Apply post test routine		

TP number	TP_205_003	Reference	7.2.3.2.8
TSS reference	ISUP-SIP/Basic call/Sending_of_ANM/		
Selection criteria	PICS 6.2.4/2 AND NOT PICS 6.2.1/18		
Test Purpose name	200 OK received, coding of Backward call indicator in ANM TMR 64 kBit/s unrestricted		
Test Purpose	<p>IAM with Transmission Medium Requirement indicator=64 kBit/s unrestricted received. Ensure that on receipt of a 200 OK INVITE final response, an ANM is sent and the Backward call indicator is set to the following values:</p> <ul style="list-style-type: none"> • Charge indicator = charge (10) • Called party's status indicator = no indication (00) • Called party's category indicator = no indication (00) • End-to-end method indicator = no end-to-end method available (00) • Interworking indicator = interworking encountered (1) • End-to-end information indicator = no end-to-end information available (0) • ISDN user part/BICC indicator = ISDN user part not used all the way (0) • ISDN access indicator = terminating access non-ISDN (0) • Echo control device indicator = Incoming echo control device not included (0) 		
ISUP Parameter values	IAM: Transmission Medium Requirement indicator=64 kBit/s unrestricted ACM: Backward call indicator Called party's status indicator = no indication		
SIP Parameter values	183: P-Early-Media: sendonly		
Comments			
Message flows	ISUP	MGCF	Mg
	IAM	→ Ti/w1 started	
	ACM	← Ti/w1 expired	→ INVITE ← 183 Session Progress
	ANM	←	← 200 OK (INVITE) → ACK
	Apply post test routine		

TP number	TP_205_004	Reference	7.2.3.2.8
TSS reference	ISUP-SIP/Basic call/Sending_of_ANM/		
Selection criteria	PICS 6.2.4/2 AND PICS 6.2.1/18		
Test Purpose name	200 OK received, coding of Backward call indicator in ANM TMR 64 kBit/s unrestricted		
Test Purpose	<p>IAM with Transmission Medium Requirement indicator=64 kBit/s unrestricted received. Ensure that on receipt of a 200 OK INVITE final response, an ANM is sent and the Backward call indicator is set to the following values:</p> <ul style="list-style-type: none"> • Charge indicator = charge (10) • Called party's status indicator = no indication (00) • Called party's category indicator = no indication (00) • End-to-end method indicator = no end-to-end method available (00) • Interworking indicator = no interworking encountered (0) • End-to-end information indicator = no end-to-end information available (0) • ISDN user part/BICC indicator = ISDN user part used all the way (1) • ISDN access indicator = terminating access ISDN (1) • Echo control device indicator = Incoming echo control device not included (0) 		
ISUP Parameter values	IAM: Transmission Medium Requirement indicator=64 kBit/s unrestricted ACM: Backward call indicator Called party's status indicator = no indication		
SIP Parameter values	183: P-Early-Media: sendonly		
Comments			
Message flows	ISUP	MGCF	Mg
	IAM	→ Ti/w1 started	
	ACM	← Ti/w1 expired	→ INVITE ← 183 Session Progress
	ANM	←	← 200 OK (INVITE) → ACK
	Apply post test routine		

TP number	TP_205_005	Reference	7.2.3.2.8
TSS reference	ISUP-SIP/Basic call/Sending_of_ANM/		
Selection criteria	PICS 6.2.1/9		
Test Purpose name	200 OK received, coding of Backward call indicator in ANM HLC "Facsimile Group 2/3"		
Test Purpose	IAM with Transmission Medium Requirement indicator=3,1 kHz and High Layer Compatibility= Facsimile Group 2/3 received. Ensure that on receipt of a 200 OK INVITE final response, an ANM is sent and the Backward call indicator is set to the following values: <ul style="list-style-type: none"> • Charge indicator = charge (10) • Called party's status indicator = no indication (00) • Called party's category indicator = no indication (00) • End-to-end method indicator = no end-to-end method available (00) • Interworking indicator = interworking encountered (1) • End-to-end information indicator = no end-to-end information available (0) • ISDN user part/BICC indicator = ISDN user part not used all the way (0) • ISDN access indicator = terminating access non-ISDN (0) • Echo control device indicator = Incoming echo control device not included (0) 		
ISUP Parameter values	IAM: Transmission Medium Requirement indicator=3,1 kHz High Layer Compatibility= Facsimile Group 2/3 ACM: Backward call indicator Called party's status indicator = no indication		
SIP Parameter values	183: P-Early-Media: sendonly		
Comments			
Message flows	ISUP	MGCF	Mg
	IAM	→ Ti/w1 started	
	ACM	← Ti/w1 expired	→ INVITE ← 183 Session Progress
	ANM	←	← 200 OK (INVITE) → ACK
	Apply post test routine		

TP number	TP_205_006	Reference	7.2.3.2.9.2
TSS reference	ISUP-SIP/Basic call/Sending_of_ANM/		
Selection criteria	PICS 6.2.1/5		
Test Purpose name	Mapping of PSTN XML ProgressIndicator 1 in 200 OK into ATP in the ANM		
Test Purpose	Ensure that on receipt of a PSTN XML ProgressIndicator value 1 in a 200 OK INVITE, an ANM is sent and an Access Transport Parameter is present containing a Progress Indicator #1		
ISUP Parameter values	ANM: Access Transport Progress Indicator Progress Description='0000001'		
SIP Parameter values	200 OK: <?xml version="1.0" encoding="utf-8"?> PSTN ProgressIndicator ProgressOctet4 ProgressDescription>0000001<		
Comments			
Message flows	ISUP	MGCF	Mg
	IAM	→	→ INVITE ← 100 Trying
	ACM	←	← 180 Ringing
	ANM	←	← 200 OK (INVITE) → ACK
	Apply post test routine		

TP number	TP_205_007	Reference	7.2.3.2.9.2
TSS reference	ISUP-SIP/Basic call/Sending_of_ANM/		
Selection criteria	PICS 6.2.1/5		
Test Purpose name	Mapping of PSTN XML ProgressIndicator 2 in 200 OK into ATP in the ANM		
Test Purpose	Ensure that on receipt of a PSTN XML ProgressIndicator value 2 in a 200 OK INVITE, an ANM is sent and an Access Transport Parameter is present containing a Progress Indicator #2		
ISUP Parameter values	ANM: Access Transport Progress Indicator Progress Description='0000010'		
SIP Parameter values	200 OK: <?xml version="1.0" encoding="utf-8"?> PSTN ProgressIndicator ProgressOctet4 ProgressDescription>0000010<		
Comments			
Message flows	ISUP	MGCF	Mg
	IAM	→	→ INVITE
	ACM	←	← 100 Trying
	ANM	←	← 180 Ringing
			← 200 OK (INVITE)
			→ ACK
	Apply post test routine		

TP number	TP_205_008	Reference	7.2.3.2.9.2
TSS reference	ISUP-SIP/Basic call/Sending_of_ANM/		
Selection criteria	PICS 6.2.1/5		
Test Purpose name	Mapping of PSTN XML ProgressIndicator 4 in 200 OK into ATP in the ANM		
Test Purpose	Ensure that on receipt of a PSTN XML ProgressIndicator value 4 in a 200 OK INVITE, an ANM is sent and an Access Transport Parameter is present containing a Progress Indicator #4		
ISUP Parameter values	ANM: Access Transport Progress Indicator Progress Description='0000100'		
SIP Parameter values	200 OK: <?xml version="1.0" encoding="utf-8"?> PSTN ProgressIndicator ProgressOctet4 ProgressDescription>0000100<		
Comments			
Message flows	ISUP	MGCF	Mg
	IAM	→	→ INVITE
	ACM	←	← 100 Trying
	ANM	←	← 180 Ringing
			← 200 OK (INVITE)
			→ ACK
	Apply post test routine		

TP number	TP_205_009	Reference	7.2.3.2.9.2
TSS reference	ISUP-SIP/Basic call/Sending_of_ANM/		
Selection criteria	PICS 6.2.1/5		
Test Purpose name	Mapping of PSTN XML ProgressIndicator 5 in 200 OK into ATP in the ANM		
Test Purpose	Ensure that on receipt of a PSTN XML ProgressIndicator value 5 in a 200 OK INVITE, an ANM is sent and an Access Transport Parameter is present containing a Progress Indicator #5		
ISUP Parameter values	IAM: USI=speech or 3,1 kHz audio, USI prime=unrestricted digital info with T/A, TMR=64 kbit/s preferred, TMR prime = speech or 3,1 kHz audio ANM: Access Transport Progress Indicator Progress Description='0000101'		
SIP Parameter values	200 OK: <?xml version="1.0" encoding="utf-8"?> PSTN ProgressIndicator ProgressOctet4 ProgressDescription>0000101<		
Comments			
Message flows	ISUP IAM → ACM ← ANM ←	MGCF → INVITE ← 100 Trying ← 180 Ringing ← 200 OK (INVITE) → ACK	Mg
	Apply post test routine		

TP number	TP_205_010	Reference	7.2.3.2.9.2
TSS reference	ISUP-SIP/Basic call/Sending_of_ANM/		
Selection criteria	PICS 6.2.1/5		
Test Purpose name	No mapping of PSTN XML ProgressIndicator 7 in 200 OK into ATP in the ANM		
Test Purpose	Ensure that on receipt of a PSTN XML ProgressIndicator value 7 in a 200 OK INVITE, an ANM is sent and no Access Transport Parameter is present containing a Progress Indicator #7. The Backward call indicator is set to the following values: ISDN User Part indicator ISDN User Part used all the way ISDN access indicator Terminating access ISDN Interworking indicator no interworking encountered		
ISUP Parameter values	ANM: Access Transport not present Backward call indicator ISDN User Part indicator ISDN User Part used all the way ISDN access indicator Terminating access ISDN Interworking indicator no interworking encountered		
SIP Parameter values	200 OK: <?xml version="1.0" encoding="utf-8"?> PSTN ProgressIndicator ProgressOctet4 ProgressDescription>0000111<		
Comments			
Message flows	ISUP IAM → ACM ← ANM ←	MGCF → INVITE ← 100 Trying ← 180 Ringing ← 200 OK (INVITE) → ACK	Mg
	Apply post test routine		

TP number	TP_205_011	Reference	7.2.3.2.9.2
TSS reference	ISUP-SIP/Basic call/Sending_of_ANM/		
Selection criteria	PICS 6.2.1/5		
Test Purpose name	Mapping of PSTN XML HighLayerCompatibility in 200 OK into ATP in ANM		
Test Purpose	Ensure that on receipt of 200 OK INVITE and a PSTN XML HighLayerCompatibility element is present an ANM is sent and a Access Transport Parameter is present containing a High layer compatibility IE and the value is set to the value HLC_VA as indicated in table 6.1.2.5-1		
ISUP Parameter values	ANM: Access Transport High layer compatibility High layer characteristics identification = HLC_VA		
SIP Parameter values	200 OK: PSTN XML MIME body <?xml version="1.0" encoding="utf-8"?> PSTN HighLayerCompatibility HLOctet3 CodingStandard>00< Interpretation>100< PresentationMethod>01< HLOctet4 HighLayerCharacteristics> HLC_VA <		
Comments			
Message flows	ISUP IAM → ACM ← ANM ←	MGCF → ← ←	Mg INVITE 100 Trying 180 Ringing 200 OK (INVITE) ACK Apply post test routine

Table 6.1.2.5-1: Mapping of PSTN XML HighLayerCharacteristic into ISUP ATP High layer compatibility

HLC_VA	XML HighLayerCharacteristic	DSS1 High layer characteristics identification
HLC_VA_1	'0000001'	Telephony
HLC_VA_2	'0000100'	Facsimile Group 2/3
HLC_VA_3	'0100001'	Facsimile Group 4 Class I
HLC_VA_4	'0100100'	Facsimile service Group 4, Classes II and III
HLC_VA_5	'0110010'	Syntax based Videotex
HLC_VA_6	'0110011'	International Videotex interworking via gateways or interworking units
HLC_VA_7	'0110101'	Telex service
HLC_VA_8	'1000010'	FTAM application
HLC_VA_9	'1100000'	Videotelephony

TP number	TP_205_012	Reference	7.2.3.2.9.2
TSS reference	ISUP-SIP/Basic call/Sending_of_ANM/		
Selection criteria	PICS 6.2.1/5		
Test Purpose name	Mapping of PSTN XML BearerCapability in 200 OK into ATP in ANM		
Test Purpose	Ensure that on receipt of 200 OK INVITE and a PSTN XML BearerCapability element is present, an ANM is sent and a Access Transport Parameter is present containing a Bearer Capability IE and the value is set to the value ITC_value as indicated in table 6.1.2.5-1		
ISUP Parameter values	IAM: USI=speech or 3,1 kHz audio, USI prime=unrestricted digital info with T/A, TMR=64 kbit/s preferred, TMR prime = speech or 3,1 kHz audio ANM: Access Transport Bearer Capability Information Transfer Capability = ITC_value		
SIP Parameter values	200 OK: <?xml version="1.0" encoding="utf-8"?> PSTN BearerCapability BCoctet3 CodingStandard>00< InformationTransferCapability> ITC_value < BCoctet4 TransferMode>00< InformationTransferRate>10000<		
Comments			
Message flows	ISUP IAM → ACM ← ANM ←	MGCF → INVITE ← 100 Trying ← 180 Ringing ← 200 OK (INVITE) → ACK	Mg
	Apply post test routine		

Table 6.1.2.5-2: Mapping of PSTN XML BearerCapability into ISUP ATP Bearer Capability

ITC_value	XML InformationTransferCapability	BC Information transfer capability
VA_01	'00000'	speech
VA_02	'10000'	3,1 kHz audio

TP number	TP_205_013	Reference	7.2.3.2.9.3
TSS reference	ISUP-SIP/Basic call/Sending_of_ANM/		
Selection criteria	PICS 6.2.1/5		
Test Purpose name	Mapping of PSTN XML BearerCapability into Transmission medium used parameter		
Test Purpose	Ensure that on receipt of a PSTN XML BearerCapability element in a 200 OK INVITE a Transmission Medium Used parameter is present in the sent ANM message. The value of the PSTN XML InformationTransferCapability value TMU_VA_BC is mapped into the value of the Transmission Medium Used parameter TMU_VA_TMU as described in table 6.1.2.5-3		
ISUP Parameter values	IAM: USI=speech or 3,1 kHz audio, USI prime=unrestricted digital info with T/A, TMR=64 kbit/s preferred, TMR prime = speech or 3,1 kHz audio ANM: TMU: TMU_VA_TMU		
SIP Parameter values	200 OK: <?xml version="1.0" encoding="utf-8"?> PSTN BearerCapability BCoctet3 CodingStandard>00< InformationTransferCapability>TMU_VA_BC<		
Comments			
Message flows	ISUP IAM → ACM ← ANM ←	MGCF → ← ←	Mg → INVITE ← 100 Trying ← 180 Ringing ← 200 OK (INVITE) → ACK Apply post test routine

Table 6.1.2.5-3: Mapping of PSTN XML BearerCapability into ISUP TMU parameter

TMU_VA	PSTN XML BearerCapability TMU_VA_BC	TMU value TMU_VA_TMU
TMU_VA_01	'00000'	'speech'
TMU_VA_02	'10000'	'3,1 kHz audio'
TMU_VA_03	'10001'	No mapping (see note 1)
TMU_VA_04	Not present (see note 2)	'3,1 kHz audio'

NOTE 1: The value of 'UDITA' is sent when fallback does not occur.
NOTE 2: The absence of a PSTN XML attachment indicates that a non ISDN destination is reached.

6.1.2.6 Sending of the Connect message (CON)

TP number	TP_206_001	Reference	7.2.3.2.11
TSS reference	ISUP-SIP/Basic call/Sending_of_CON/		
Selection criteria			
Test Purpose name	Sending of CON message after 200 OK was received		
Test Purpose	Ensure that on receipt of a 200 OK INVITE and no ACM was sent, a CON message is sent		
ISUP Parameter values			
SIP Parameter values			
Comments			
Message flows	ISUP IAM → CON ←	MGCF → ← ←	Mg → INVITE ← 100 Trying ← 200 OK (INVITE) → ACK Apply post test routine

TP number	TP_206_002	Reference	7.2.3.2.11.1
TSS reference	ISUP-SIP/Basic call/Sending_of_CON/		
Selection criteria	NOT PICS 6.2.1/18		
Test Purpose name	200 OK received, coding of Backward call indicator in CON TMR speech or 3,1 kHz audio		
Test Purpose	<p>IAM with Transmission Medium Requirement indicator=speech or 3,1 kHz received. Ensure that on receipt of a 200 OK INVITE final response, a CON is sent and the Backward call indicator is set to the following values:</p> <ul style="list-style-type: none"> • Charge indicator = charge (10) • Called party's status indicator = no indication (00) • Called party's category indicator = no indication (00) • End-to-end method indicator = no end-to-end method available (00) • Interworking indicator = interworking encountered (1) • End-to-end information indicator = no end-to-end information available (0) • ISDN user part/BICC indicator = ISDN user part not used all the way (0) • ISDN access indicator = terminating access non-ISDN (0) • Echo control device indicator = Incoming echo control device included (1) 		
ISUP Parameter values	IAM: Transmission Medium Requirement indicator=speech or 3,1 kHz CON: Backward call indicator Called party's status indicator = no indication		
SIP Parameter values			
Comments			
Message flows	ISUP IAM → CON ←	MGCF → ← →	Mg INVITE 100 Trying 200 OK (INVITE) ACK Apply post test routine

TP number	TP_206_003	Reference	7.2.3.2.11.1
TSS reference	ISUP-SIP/Basic call/Sending_of_CON/		
Selection criteria	PICS 6.2.4/2 AND NOT PICS 6.2.1/18		
Test Purpose name	200 OK received, coding of Backward call indicator in CON TMR 64 kBit/s unrestricted		
Test Purpose	<p>IAM with Transmission Medium Requirement indicator=64 kBit/s unrestricted received. Ensure that on receipt of a 200 OK INVITE final response, a CON is sent and the Backward call indicator is set to the following values:</p> <ul style="list-style-type: none"> • Charge indicator = charge (10) • Called party's status indicator = no indication (00) • Called party's category indicator = no indication (00) • End-to-end method indicator = no end-to-end method available (00) • Interworking indicator = interworking encountered (1) • End-to-end information indicator = no end-to-end information available (0) • ISDN user part/BICC indicator = ISDN user part not used all the way (0) • ISDN access indicator = terminating access non-ISDN (0) • Echo control device indicator = Incoming echo control device not included (0) 		
ISUP Parameter values	IAM: Transmission Medium Requirement indicator=64 kBit/s unrestricted CON: Backward call indicator Called party's status indicator = no indication		
SIP Parameter values			
Comments			
Message flows	ISUP IAM → CON ←	MGCF → ← →	Mg INVITE 100 Trying 200 OK (INVITE) ACK Apply post test routine

TP number	TP_206_004	Reference	7.2.3.2.11.1
TSS reference	ISUP-SIP/Basic call/Sending_of_CON/		
Selection criteria	PICS 6.2.4/2 AND PICS 6.2.1/18		
Test Purpose name	200 OK received, coding of Backward call indicator in ANM TMR 64 kBit/s unrestricted		
Test Purpose	<p>IAM with Transmission Medium Requirement indicator=64 kBit/s unrestricted received. Ensure that on receipt of a 200 OK INVITE final response, an CON is sent and the Backward call indicator is set to the following values:</p> <ul style="list-style-type: none"> • Charge indicator = charge (10) • Called party's status indicator = no indication (00) • Called party's category indicator = no indication (00) • End-to-end method indicator = no end-to-end method available (00) • Interworking indicator = no interworking encountered (0) • End-to-end information indicator = no end-to-end information available (0) • ISDN user part/BICC indicator = ISDN user part used all the way (1) • ISDN access indicator = terminating access ISDN (1) • Echo control device indicator = Incoming echo control device not included (0) 		
ISUP Parameter values	IAM: Transmission Medium Requirement indicator=64 kBit/s unrestricted CON: Backward call indicator Called party's status indicator = no indication		
SIP Parameter values			
Comments			
Message flows	ISUP IAM → CON ←	MGCF → ← →	Mg INVITE 100 Trying 200 OK (INVITE) ACK Apply post test routine

TP number	TP_206_005	Reference	7.2.3.2.11.1
TSS reference	ISUP-SIP/Basic call/Sending_of_CON/		
Selection criteria			
Test Purpose name	200 OK received, coding of Backward call indicator in CON HLC "Facsimile Group 2/3"		
Test Purpose	<p>IAM with Transmission Medium Requirement indicator=3,1 kHz and High Layer Compatibility= Facsimile Group 2/3 received. Ensure that on receipt of a 200 OK INVITE final response, an CON is sent and the Backward call indicator is set to the following values:</p> <ul style="list-style-type: none"> • Charge indicator = charge (10) • Called party's status indicator = no indication (00) • Called party's category indicator = no indication (00) • End-to-end method indicator = no end-to-end method available (00) • Interworking indicator = interworking encountered (1) • End-to-end information indicator = no end-to-end information available (0) • ISDN user part/BICC indicator = ISDN user part not used all the way (0) • ISDN access indicator = terminating access non-ISDN (0) • Echo control device indicator = Incoming echo control device not included (0) 		
ISUP Parameter values	IAM: Transmission Medium Requirement indicator=3,1 kHz High Layer Compatibility= Facsimile Group 2/3 CON: Backward call indicator Called party's status indicator = no indication		
SIP Parameter values			
Comments			
Message flows	ISUP IAM → CON ←	MGCF → ← →	Mg INVITE 100 Trying 200 OK (INVITE) ACK Apply post test routine

TP number	TP_206_006	Reference	7.2.3.2.11.2
TSS reference	ISUP-SIP/Basic call/Sending_of_CON/		
Selection criteria	PICS 6.2.1/5		
Test Purpose name	Mapping of PSTN XML ProgressIndicator 1 in 200 OK into ATP in the CON		
Test Purpose	Ensure that on receipt of a PSTN XML ProgressIndicator value 1 in a 200 OK INVITE, a CON is sent and an Access Transport Parameter is present containing a Progress Indicator #1		
ISUP Parameter values	CON: Access Transport Progress Indicator Progress Description='0000001'		
SIP Parameter values	200 OK: <?xml version="1.0" encoding="utf-8"?> PSTN ProgressIndicator ProgressOctet4 ProgressDescription>0000001<		
Comments			
Message flows	ISUP	MGCF	Mg
	IAM	→	→ INVITE
			← 100 Trying
	CON	←	← 200 OK (INVITE)
			→ ACK
	Apply post test routine		

TP number	TP_206_007	Reference	7.2.3.2.11.2
TSS reference	ISUP-SIP/Basic call/Sending_of_CON/		
Selection criteria	PICS 6.2.1/5		
Test Purpose name	Mapping of PSTN XML ProgressIndicator 2 in 200 OK into ATP in the CON		
Test Purpose	Ensure that on receipt of a PSTN XML ProgressIndicator value 2 in a 200 OK INVITE, a CON is sent and an Access Transport Parameter is present containing a Progress Indicator #2		
ISUP Parameter values	CON: Access Transport Progress Indicator Progress Description='0000010'		
SIP Parameter values	200 OK: <?xml version="1.0" encoding="utf-8"?> PSTN ProgressIndicator ProgressOctet4 ProgressDescription>0000010<		
Comments			
Message flows	ISUP	MGCF	Mg
	IAM	→	→ INVITE
			← 100 Trying
	CON	←	← 200 OK (INVITE)
			→ ACK
	Apply post test routine		

TP number	TP_206_008	Reference	7.2.3.2.11.2
TSS reference	ISUP-SIP/Basic call/Sending_of_CON/		
Selection criteria	PICS 6.2.1/5		
Test Purpose name	Mapping of PSTN XML ProgressIndicator 4 in 200 OK into ATP in the CON		
Test Purpose	Ensure that on receipt of a PSTN XML ProgressIndicator value 4 in a 200 OK INVITE, a CON is sent and an Access Transport Parameter is present containing a Progress Indicator #4		
ISUP Parameter values	CON: Access Transport Progress Indicator Progress Description='0000100'		
SIP Parameter values	200 OK: <?xml version="1.0" encoding="utf-8"?> PSTN ProgressIndicator ProgressOctet4 ProgressDescription>0000100<		
Comments			
Message flows	ISUP	MGCF	Mg
	IAM	→	→ INVITE
			← 100 Trying
	CON	←	← 200 OK (INVITE)
			→ ACK
	Apply post test routine		

TP number	TP_206_009	Reference	7.2.3.2.11.2
TSS reference	ISUP-SIP/Basic call/Sending_of_CON/		
Selection criteria	PICS 6.2.1/5		
Test Purpose name	Mapping of PSTN XML ProgressIndicator 5 in 200 OK into ATP in the CON		
Test Purpose	Ensure that on receipt of a PSTN XML ProgressIndicator value 5 in a 200 OK INVITE, a CON is sent and an Access Transport Parameter is present containing a Progress Indicator #5		
ISUP Parameter values	IAM: USI=speech or 3,1 kHz audio, USI prime=unrestricted digital info with T/A, TMR=64 kbit/s preferred, TMR prime = speech or 3,1 kHz audio CON: Access Transport Progress Indicator Progress Description='0000101'		
SIP Parameter values	200 OK: <?xml version="1.0" encoding="utf-8"?> PSTN ProgressIndicator ProgressOctet4 ProgressDescription>0000101<		
Comments			
Message flows	ISUP	MGCF	Mg
	IAM	→	→ INVITE
			← 100 Trying
	CON	←	← 200 OK (INVITE)
			→ ACK
	Apply post test routine		

TP number	TP_206_010	Reference	7.2.3.2.11.2																														
TSS reference	ISUP-SIP/Basic call/Sending_of_CON/																																
Selection criteria	PICS 6.2.1/5																																
Test Purpose name	No mapping of PSTN XML ProgressIndicator 7 in 200 OK into ATP in the CON																																
Test Purpose	Ensure that on receipt of a PSTN XML ProgressIndicator value 7 in a 200 OK INVITE, a CON is sent and no Access Transport Parameter is present containing a Progress Indicator #7. The Backward call indicator is set to the following values: ISDN User Part indicator ISDN User Part used all the way ISDN access indicator Terminating access non-ISDN Interworking indicator no interworking encountered																																
ISUP Parameter values	CON: Access Transport not present Backward call indicator ISDN User Part indicator ISDN User Part used all the way ISDN access indicator Terminating access non-ISDN Interworking indicator no interworking encountered																																
SIP Parameter values	200 OK: <?xml version="1.0" encoding="utf-8"?> PSTN ProgressIndicator ProgressOctet4 ProgressDescription>0000111<																																
Comments																																	
Message flows	<table style="width:100%; border:none;"> <tr> <td style="width:30%;"></td> <td style="text-align:center;">ISUP</td> <td style="width:20%;"></td> <td style="text-align:center;">MGCF</td> <td style="width:20%;"></td> <td style="text-align:center;">Mg</td> </tr> <tr> <td>IAM</td> <td style="text-align:center;">→</td> <td></td> <td></td> <td style="text-align:center;">→</td> <td>INVITE</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td style="text-align:center;">←</td> <td>100 Trying</td> </tr> <tr> <td>CON</td> <td style="text-align:center;">←</td> <td></td> <td></td> <td style="text-align:center;">←</td> <td>200 OK (INVITE)</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td style="text-align:center;">→</td> <td>ACK</td> </tr> </table> <p style="text-align:center;">Apply post test routine</p>				ISUP		MGCF		Mg	IAM	→			→	INVITE					←	100 Trying	CON	←			←	200 OK (INVITE)					→	ACK
	ISUP		MGCF		Mg																												
IAM	→			→	INVITE																												
				←	100 Trying																												
CON	←			←	200 OK (INVITE)																												
				→	ACK																												

TP number	TP_206_011	Reference	7.2.3.2.11.2																														
TSS reference	ISUP-SIP/Basic call/Sending_of_CON/																																
Selection criteria	PICS 6.2.1/5																																
Test Purpose name	Mapping of PSTN XML HighLayerCompatibility in 200 OK into ATP in CON																																
Test Purpose	Ensure that on receipt of 200 OK INVITE and a PSTN XML HighLayerCompatibility element is present a CON is sent and a Access Transport Parameter is present containing a High layer compatibility IE and the value is set to the value HLC_VA as indicated in table 6.1.2.5-1																																
ISUP Parameter values	CON: Access Transport High layer compatibility High layer characteristics identification = HLC_VA																																
SIP Parameter values	200 OK: PSTN XML MIME body <?xml version="1.0" encoding="utf-8"?> PSTN HighLayerCompatibility HLOctet3 CodingStandard>00< Interpretation>100< PresentationMethod>01< HLOctet4 HighLayerCharacteristics> HLC_VA <																																
Comments																																	
Message flows	<table style="width:100%; border:none;"> <tr> <td style="width:30%;"></td> <td style="text-align:center;">ISUP</td> <td style="width:20%;"></td> <td style="text-align:center;">MGCF</td> <td style="width:20%;"></td> <td style="text-align:center;">Mg</td> </tr> <tr> <td>IAM</td> <td style="text-align:center;">→</td> <td></td> <td></td> <td style="text-align:center;">→</td> <td>INVITE</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td style="text-align:center;">←</td> <td>100 Trying</td> </tr> <tr> <td>CON</td> <td style="text-align:center;">←</td> <td></td> <td></td> <td style="text-align:center;">←</td> <td>200 OK (INVITE)</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td style="text-align:center;">→</td> <td>ACK</td> </tr> </table> <p style="text-align:center;">Apply post test routine</p>				ISUP		MGCF		Mg	IAM	→			→	INVITE					←	100 Trying	CON	←			←	200 OK (INVITE)					→	ACK
	ISUP		MGCF		Mg																												
IAM	→			→	INVITE																												
				←	100 Trying																												
CON	←			←	200 OK (INVITE)																												
				→	ACK																												

TP number	TP_206_012	Reference	7.2.3.2.11.2																														
TSS reference	ISUP-SIP/Basic call/Sending_of_CON/																																
Selection criteria	PICS 6.2.1/5																																
Test Purpose name	Mapping of PSTN XML BearerCapability in 200 OK into ATP in CON																																
Test Purpose	Ensure that on receipt of 200 OK INVITE and a PSTN XML BearerCapability element is present, a CON is sent and a Access Transport Parameter is present containing a Bearer Capability IE and the value is set to the value ITC_value as indicated in table 6.1.2.5-1																																
ISUP Parameter values	CON: Access Transport Bearer Capability Information Transfer Capability = ITC_value																																
SIP Parameter values	200 OK: <?xml version="1.0" encoding="utf-8"?> PSTN BearerCapability BCoctet3 CodingStandard>00< InformationTransferCapability> ITC_value < BCoctet4 TransferMode>00< InformationTransferRate>10000<																																
Comments																																	
Message flows	<table style="width:100%; border:none;"> <tr> <td style="width:30%;"></td> <td style="text-align:center;">ISUP</td> <td style="width:20%;"></td> <td style="text-align:center;">MGCF</td> <td style="width:20%;"></td> <td style="text-align:center;">Mg</td> </tr> <tr> <td>IAM</td> <td style="text-align:center;">→</td> <td></td> <td></td> <td style="text-align:center;">→</td> <td>INVITE</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td style="text-align:center;">←</td> <td>100 Trying</td> </tr> <tr> <td>CON</td> <td style="text-align:center;">←</td> <td></td> <td></td> <td style="text-align:center;">←</td> <td>200 OK (INVITE)</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td style="text-align:center;">→</td> <td>ACK</td> </tr> </table> <p style="text-align:center;">Apply post test routine</p>				ISUP		MGCF		Mg	IAM	→			→	INVITE					←	100 Trying	CON	←			←	200 OK (INVITE)					→	ACK
	ISUP		MGCF		Mg																												
IAM	→			→	INVITE																												
				←	100 Trying																												
CON	←			←	200 OK (INVITE)																												
				→	ACK																												

TP number	TP_206_013	Reference	7.2.3.2.11																														
TSS reference	ISUP-SIP/Basic call/Sending_of_CON/																																
Selection criteria	PICS 6.2.1/5																																
Test Purpose name	Mapping of PSTN XML BearerCapability into Transmission medium used parameter																																
Test Purpose	Ensure that on receipt of a PSTN XML BearerCapability element in a 200 OK INVITE a Transmission Medium Used parameter is present in the sent CON message. The value of the PSTN XML InformationTransferCapability value TMU_VA_BC is mapped into the value of the Transmission Medium Used parameter TMU_VA_TMU as described in table 6.1.2.5-3																																
ISUP Parameter values	IAM: USI=speech or 3,1 kHz audio, USI prime=unrestricted digital info with T/A, TMR=64 kbit/s preferred, TMR prime = speech or 3,1 kHz audio CON: TMU: TMU_VA_TMU																																
SIP Parameter values	200 OK: <?xml version="1.0" encoding="utf-8"?> PSTN BearerCapability BCoctet3 CodingStandard>00< InformationTransferCapability>TMU_VA_BC<																																
Comments																																	
Message flows	<table style="width:100%; border:none;"> <tr> <td style="width:30%;"></td> <td style="text-align:center;">ISUP</td> <td style="width:20%;"></td> <td style="text-align:center;">MGCF</td> <td style="width:20%;"></td> <td style="text-align:center;">Mg</td> </tr> <tr> <td>IAM</td> <td style="text-align:center;">→</td> <td></td> <td></td> <td style="text-align:center;">→</td> <td>INVITE</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td style="text-align:center;">←</td> <td>100 Trying</td> </tr> <tr> <td>CON</td> <td style="text-align:center;">←</td> <td></td> <td></td> <td style="text-align:center;">←</td> <td>200 OK (INVITE)</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td style="text-align:center;">→</td> <td>ACK</td> </tr> </table> <p style="text-align:center;">Apply post test routine</p>				ISUP		MGCF		Mg	IAM	→			→	INVITE					←	100 Trying	CON	←			←	200 OK (INVITE)					→	ACK
	ISUP		MGCF		Mg																												
IAM	→			→	INVITE																												
				←	100 Trying																												
CON	←			←	200 OK (INVITE)																												
				→	ACK																												

TP number	TP_206_014	Reference	7.2.3.2.11A
TSS reference	ISUP-SIP/Basic call/Sending_of_CON/		
Selection criteria	PICS 6.2.1/19		
Test Purpose name	Receipt of a reINVITE request		
Test Purpose	Ensure that on receipt of a reINVITE received from the SIP network containing a Call-Info header, the SUT instruct the MGW to send the associated media to the PSTN leg of the communication		
ISUP Parameter values			
SIP Parameter values	INVITE2: Call-Info: <media resource URL>		
Comments			
Message flows	ISUP	MGCF	Mg
	IAM →		→ INVITE1
	ACM ←		← 180 Ringing
	ANM ←		← 200 OK INVITE
			→ ACK
			← INVITE
			→ 200 OK INVITE2
			← ACK
		<i>media</i>	
		Apply post test routine	

6.1.2.7 Receipt of Status Codes 3xx, 4xx, 5xx or 6xx

TP number	TP_207_001	Reference	7.2.3.2.12
TSS reference	ISUP-SIP/Basic call/Receipt_of_4xx-5xx-6xx/		
Selection criteria			
Test Purpose name	Mapping of unsuccessful final responses to ISUP/BICC Release messages		
Test Purpose	Ensure that on receipt of an unsuccessful final response SIP_Response before an early dialogue is established, a Release message Cause value REL_cause is sent on the ISUP/BICC leg of the connection. The mapping is according the table 6.1.2.7-1. The location value in the REL message is set to 'network beyond interworking point'		
ISUP Parameter values	REL: Cause = REL_cause		
SIP Parameter values	SIP_Response		
Comments			
Message flows	ISUP	MGCF	Mg
	IAM →		→ INVITE
			← 100 Trying
	REL ←		← SIP_Response
	RLC →		→ ACK

Table 6.1.2.7-1: Received status codes on SIP side of O-MGCF mapping to REL

SIP_Response_VA	←REL (cause code) REL_cause	←4xx/5xx/6xx SIP Message SIP_Response
VA_01	111 (protocol error, unspecified)	400 Bad Request
VA_02	127 (interworking unspecified)	401 Unauthorized
VA_03	127 (interworking unspecified)	402 Payment Required
VA_04	79 (Service or option not implemented, unspecified)	403 Forbidden
VA_05	1 (Unallocated number)	404 Not Found
VA_06	127 (interworking unspecified)	405 Method Not Allowed
VA_07	127 (interworking unspecified)	406 Not Acceptable
VA_08	127 (interworking unspecified)	407 Proxy authentication required
VA_09	102 (recovery on timer expiry)	408 Request Timeout
VA_10	22 (Number changed)	410 Gone
VA_11	127 (interworking unspecified)	413 Request Entity too long
VA_12	111 (protocol error, unspecified)	414 Request-URI too long
VA_13	127 (interworking unspecified)	415 Unsupported Media type
VA_14	111 (protocol error, unspecified)	416 Unsupported URI scheme
VA_15	79 (Service or option not implemented, unspecified)	417 Unknown Resource-Priority
VA_16	111 (protocol error, unspecified)	420 Bad Extension
VA_17	111 (protocol error, unspecified)	421 Extension required
VA_18	31 (Normal, unspecified)	422 Session Interval Too Small
VA_19	127 (interworking unspecified)	423 Interval Too Brief
VA_20	24 (call rejected due to ACR supplementary service)	433 Anonymity Disallowed.
VA_21	20 Subscriber absent	480 Temporarily Unavailable
VA_22	127 (interworking unspecified)	440 Max-Breadth Exceeded
VA_23	127 (interworking unspecified)	481 Call/Transaction does not exist
VA_24	127 (interworking unspecified)	482 Loop detected
VA_25	25 (Exchange routing error)	483 Too many hops
VA_26	28 (Invalid Number format)	484 Address Incomplete
VA_27	Cause value No. 1 (unallocated (unassigned) number)	485 Ambiguous
VA_28	17 (User busy)	486 Busy Here
VA_29	127 (Interworking unspecified) or not interworked	487 Request terminated
VA_30	50 (requested facility no subscribed)	488 Not acceptable here
VA_31	127 (interworking unspecified)	493 Undecipherable
VA_32	127 (interworking unspecified)	500 Server Internal error
VA_33	79 (service or option not implemented)	501 Not implemented
VA_34	27 (Destination out of order)	502 Bad Gateway
VA_35	127 (interworking unspecified)	503 Service Unavailable
VA_36	102 (Recovery on timer expiry)	504 Server timeout
VA_37	127 (interworking unspecified)	505 Version not supported
VA_38	127 (interworking unspecified)	513 Message too large
VA_39	127 (interworking unspecified)	580 Precondition failure
VA_40	17 (User busy)	600 Busy Everywhere
VA_41	21 (Call rejected)	603 Decline
VA_42	2 (No route to specified transit network)	604 Does not exist anywhere
VA_43	88 (incompatible destination)	606 Not acceptable

TP number	TP_207_002	Reference	7.2.3.2.12
TSS reference	ISUP-SIP/Basic call/Receipt_of_4xx-5xx-6xx/		
Selection criteria			
Test Purpose name	Mapping of unsuccessful final responses to REL after 180 was received		
Test Purpose	Ensure that on receipt of an unsuccessful final response SIP_Response after an early dialogue was established due to the receipt of a 180 Ringing, a REL is sent. The Cause value of the REL is mapped from the received status code as indicated in table 6.1.2.7-2. The location value in the REL message is set to 'network beyond interworking point'		
ISUP Parameter values	REL: Cause = REL_cause		
SIP Parameter values	SIP_Response		
Comments			
Message flows	ISUP	MGCF	Mg
	IAM	→	→ INVITE ← 100 Trying ← 180 Ringing
	REL	←	← SIP_Response
	RLC	→	→ ACK

TP number	TP_207_003	Reference	7.2.3.2.12
TSS reference	ISUP-SIP/Basic call/Receipt_of_4xx-5xx-6xx/		
Selection criteria			
Test Purpose name	Mapping of unsuccessful final responses to REL after 181 was received		
Test Purpose	Ensure that on receipt of an unsuccessful final response SIP_Response after an early dialogue was established due to the receipt of a 181 Call is Being Forwarded, a REL is sent. The Cause value of the REL is mapped from the received status code as indicated in table 6.1.2.7-2. The location value in the REL message is set to 'network beyond interworking point'		
ISUP Parameter values	REL: Cause = REL_cause		
SIP Parameter values	SIP_Response		
Comments			
Message flows	ISUP	MGCF	Mg
	IAM	→	→ INVITE ← 100 Trying ← 181 Call is Being Forwarded
	REL	←	← SIP_Response
	RLC	→	→ ACK

TP number	TP_207_004	Reference	7.2.3.2.12
TSS reference	ISUP-SIP/Basic call/Receipt_of_4xx-5xx-6xx/		
Selection criteria			
Test Purpose name	Mapping of unsuccessful final responses to REL after 183 was received		
Test Purpose	Ensure that on receipt of an unsuccessful final response SIP_Response after an early dialogue was established due to the receipt of a 183 Session Progress, a REL is sent. The Cause value of the REL is mapped from the received status code as indicated in table 6.1.2.7-2. The location value in the REL message is set to 'network beyond interworking point'		
ISUP Parameter values	REL: Cause = REL_cause		
SIP Parameter values	SIP_Response		
Comments			
Message flows	ISUP	MGCF	Mg
	IAM	→	→ INVITE ← 100 Trying ← 183 Session Progress
	REL	←	← SIP_Response
	RLC	→	→ ACK

Table 6.1.2.7-2: Received status codes on SIP side of O-MGCF mapping to REL

SIP_Response_VA	←REL (cause code) REL_cause	←4xx/5xx/6xx SIP Message SIP_Response
VA_01	111 (protocol error, unspecified)	400 Bad Request
VA_02	127 (interworking unspecified)	402 Payment Required
VA_03	79 (Service or option not implemented, unspecified)	403 Forbidden
VA_04	127 (interworking unspecified)	406 Not Acceptable
VA_05	102 (recovery on timer expiry)	408 Request Timeout
VA_06	22 (Number changed)	410 Gone
VA_07	127 (interworking unspecified)	423 Interval Too Brief
VA_08	20 Subscriber absent	480 Temporarily Unavailable
VA_09	127 (interworking unspecified)	481 Call/Transaction does not exist
VA_10	127 (interworking unspecified)	482 Loop detected
VA_11	25 (Exchange routing error)	483 Too many hops
VA_12	1 (Unallocated (unassigned) number)	485 Ambiguous
VA_13	50 (requested facility no subscribed)	488 Not acceptable here
VA_14	127 (interworking unspecified)	500 Server Internal error
VA_15	79 (service or option not implemented)	501 Not implemented
VA_16	27 (Destination out of order)	502 Bad Gateway
VA_17	102 (Recovery on timer expiry)	504 Server timeout
VA_18	21 (Call rejected)	603 Decline
VA_19	2 (No route to specified transit network)	604 Does not exist anywhere
VA_20	88 (incompatible destination)	606 Not acceptable

TP number	TP_207_005	Reference	7.2.3.2.12
TSS reference	ISUP-SIP/Basic call/Receipt_of_4xx-5xx-6xx/		
Selection criteria			
Test Purpose name	Mapping of Reason header into Cause value of REL		
Test Purpose	Ensure that on receipt of an unsuccessful final response SIP_Response and a Reason header is present set to cause SIP_cause, this value is used in the corresponding REL message. The mapping is indicated in table 6.1.2.7-3. The location value in the REL message is set to 'network beyond interworking point'		
ISUP Parameter values	REL: Cause= SIP_cause		
SIP Parameter values	SIP_Response: Reason: cause= SIP_cause		
Comments	The use of different cause values in the Reason header is recommended. The cause value should be adequate to the response code.		
Message flows	<p style="text-align: center;">ISUP</p> <p>IAM →</p> <p>REL ←</p> <p>RLC →</p>	<p style="text-align: center;">MGCF</p> <p>→ INVITE</p> <p>← 100 Trying</p> <p>← SIP_Response</p> <p>→ ACK</p>	<p style="text-align: center;">Mg</p>

Table 6.1.2.7-3: Received status codes on SIP side of O-MGCF mapping to REL

SIP_Response_VA	←REL (cause code) SIP_cause	←4xx/5xx/6xx SIP Message SIP_Response
VA_01	SIP_cause	400 Bad Request
VA_02	SIP_cause	401 Unauthorized
VA_03	SIP_cause	402 Payment Required
VA_04	SIP_cause	403 Forbidden
VA_05	SIP_cause	404 Not Found
VA_06	SIP_cause	405 Method Not Allowed
VA_07	SIP_cause	406 Not Acceptable
VA_08	SIP_cause	407 Proxy authentication required
VA_09	SIP_cause	408 Request Timeout
VA_10	SIP_cause	410 Gone
VA_11	SIP_cause	413 Request Entity too long
VA_12	SIP_cause	414 Request-URI too long
VA_13	SIP_cause	415 Unsupported Media type
VA_14	SIP_cause	416 Unsupported URI scheme
VA_15	SIP_cause	417 Unknown Resource-Priority
VA_16	SIP_cause	420 Bad Extension
VA_17	SIP_cause	421 Extension required
VA_18	SIP_cause	422 Session Interval Too Small
VA_19	SIP_cause	423 Interval Too Brief
VA_20	SIP_cause	433 Anonymity Disallowed.
VA_21	SIP_cause	440 Max-Breadth Exceeded
VA_22	SIP_cause	480 Temporarily Unavailable
VA_223	SIP_cause	481 Call/Transaction does not exist
VA_24	SIP_cause	482 Loop detected
VA_25	SIP_cause	483 Too many hops
VA_26	SIP_cause	484 Address Incomplete
VA_27	SIP_cause	485 Ambiguous
VA_28	SIP_cause	486 Busy Here
VA_29	SIP_cause	487 Request terminated
VA_30	SIP_cause	488 Not acceptable here
VA_31	SIP_cause	493 Undecipherable
VA_32	SIP_cause	500 Server Internal error
VA_33	SIP_cause	501 Not implemented
VA_34	SIP_cause	502 Bad Gateway
VA_35	SIP_cause	503 Service Unavailable
VA_36	SIP_cause	504 Server timeout
VA_37	SIP_cause	505 Version not supported
VA_38	SIP_cause	513 Message too large
VA_39	SIP_cause	580 Precondition failure
VA_40	SIP_cause	600 Busy Everywhere
VA_41	SIP_cause	603 Decline
VA_42	SIP_cause	604 Does not exist anywhere
VA_43	SIP_cause	606 Not acceptable

TP number	TP_207_006	Reference	7.2.3.2.12
TSS reference	ISUP-SIP/Basic call/Receipt_of_4xx-5xx-6xx/		
Selection criteria	PICS 6.2.1/5		
Test Purpose name	Mapping of PSTN XML ProgressIndicator 1 in an unsuccessful final response into ATP in the REL		
Test Purpose	Ensure that on receipt of a PSTN XML ProgressIndicator value 1 in an unsuccessful final response as indicated in table 6.1.2.7-4, a REL is sent and an Access Transport Parameter is present containing a Progress Indicator #1		
ISUP Parameter values	REL: Access Transport Progress Indicator Progress Description='0000001'		
SIP Parameter values	SIP_Response: <?xml version="1.0" encoding="utf-8"?> PSTN ProgressIndicator ProgressOctet4 ProgressDescription>0000001<		
Comments			
Message flows	ISUP	MGCF	Mg
	IAM	→	→ INVITE
	REL	←	← 100 Trying
	RLC	→	← SIP_Response
			→ ACK

TP number	TP_207_007	Reference	7.2.3.2.12
TSS reference	ISUP-SIP/Basic call/Receipt_of_4xx-5xx-6xx/		
Selection criteria	PICS 6.2.1/5		
Test Purpose name	Mapping of PSTN XML ProgressIndicator 2 in an unsuccessful final response into ATP in the REL		
Test Purpose	Ensure that on receipt of a PSTN XML ProgressIndicator value 2 in an unsuccessful final response as indicated in table 6.1.2.7-4, a REL is sent and an Access Transport Parameter is present containing a Progress Indicator #2		
ISUP Parameter values	REL: Access Transport Progress Indicator Progress Description='0000010'		
SIP Parameter values	SIP_Response: <?xml version="1.0" encoding="utf-8"?> PSTN ProgressIndicator ProgressOctet4 ProgressDescription>0000010<		
Comments			
Message flows	Mg	MGCF	ISUP
	IAM	→	→ INVITE
	REL	←	← 100 Trying
	RLC	→	← SIP_Response
			→ ACK

TP number	TP_207_008	Reference	7.2.3.2.12
TSS reference	ISUP-SIP/Basic call/Receipt_of_4xx-5xx-6xx/		
Selection criteria	PICS 6.2.1/5		
Test Purpose name	Mapping of PSTN XML ProgressIndicator 4 in an unsuccessful final response into ATP in the REL		
Test Purpose	Ensure that on receipt of a PSTN XML ProgressIndicator value 4 in an unsuccessful final response as indicated in table 6.1.2.7-4, a REL is sent and an Access Transport Parameter is present containing a Progress Indicator #4		
ISUP Parameter values	REL: Access Transport Progress Indicator Progress Description='0000100'		
SIP Parameter values	SIP_Response: <?xml version="1.0" encoding="utf-8"?> PSTN ProgressIndicator ProgressOctet4 ProgressDescription>0000100<		
Comments			
Message flows	ISUP	MGCF	Mg
	IAM	→	→ INVITE
			← 100 Trying
	REL	←	← SIP_Response
	RLC	→	→ ACK

TP number	TP_207_009	Reference	7.2.3.2.12
TSS reference	ISUP-SIP/Basic call/Receipt_of_4xx-5xx-6xx/		
Selection criteria	PICS 6.2.1/5		
Test Purpose name	Mapping of PSTN XML ProgressIndicator 5 in an unsuccessful final response into ATP in the REL		
Test Purpose	Ensure that on receipt of a PSTN XML ProgressIndicator value 5 in an unsuccessful final response as indicated in table 6.1.2.7-4, a REL is sent and an Access Transport Parameter is present containing a Progress Indicator #5		
ISUP Parameter values	IAM: USI=speech or 3,1 kHz audio, USI prime=unrestricted digital info with T/A, TMR=64 kbit/s preferred, TMR prime = speech or 3,1 kHz audio REL: Access Transport Progress Indicator Progress Description='0000101'		
SIP Parameter values	SIP_Response: <?xml version="1.0" encoding="utf-8"?> PSTN ProgressIndicator ProgressOctet4 ProgressDescription>0000101<		
Comments			
Message flows	ISUP	MGCF	Mg
	IAM	→	→ INVITE
			← 100 Trying
	REL	←	← SIP_Response
	RLC	→	→ ACK

Table 6.1.2.7-4: Received status codes on SIP side of O-MGCF mapping to REL

SIP_Response_VA	←4xx/5xx/6xx SIP Message SIP_Response
VA_01	400 Bad Request
VA_02	403 Forbidden
VA_03	406 Not Acceptable
VA_04	408 Request Timeout
VA_05	410 Gone
VA_06	480 Temporarily Unavailable
VA_07	488 Not acceptable here
VA_08	500 Server Internal error
VA_09	502 Bad Gateway
VA_10	504 Server timeout
VA_11	603 Decline
VA_12	606 Not acceptable

TP number	TP_207_010	Reference	7.2.3.2.12
TSS reference	ISUP-SIP/Basic call/Receipt_of_4xx-5xx-6xx/		
Selection criteria	PICS 6.2.1/5		
Test Purpose name	Mapping of PSTN XML HighLayerCompatibility in an unsuccessful final response into ATP in REL		
Test Purpose	Ensure that on receipt of an unsuccessful final response and a PSTN XML HighLayerCompatibility element is present a REL is sent and a Access Transport Parameter is present containing a High layer compatibility IE and the value is set to the value HLC_VA as indicated in table 6.1.2.5-1		
ISUP Parameter values	REL: Access Transport High layer compatibility High layer characteristics identification = HLC_VA		
SIP Parameter values	SIP_Response: PSTN XML MIME body <?xml version="1.0" encoding="utf-8"?> PSTN HighLayerCompatibility HLOctet3 CodingStandard>00< Interpretation>100< PresentationMethod>01< HLOctet4 HighLayerCharacteristics>HLC_VA<		
Comments			
Message flows	ISUP	MGCF	Mg
	IAM	→	→ INVITE
			← 100 Trying
	REL	←	← SIP_Response
	RLC	→	→ ACK

TP number	TP_207_011	Reference	7.2.3.2.12
TSS reference	ISUP-SIP/Basic call/Receipt_of_4xx-5xx-6xx/		
Selection criteria	PICS 6.2.1/5		
Test Purpose name	Mapping of PSTN XML BearerCapability in an unsuccessful final response into ATP in REL		
Test Purpose	Ensure that on receipt of an unsuccessful final response and a PSTN XML BearerCapability element is present, a REL is sent and a Access Transport Parameter is present containing a Bearer Capability IE and the value is set to the value ITC_value as indicated in table 6.1.2.5-2		
ISUP Parameter values	REL: Access Transport Bearer Capability Information Transfer Capability = ITC_value		
SIP Parameter values	SIP_Response: <?xml version="1.0" encoding="utf-8"?> PSTN BearerCapability BCoctet3 CodingStandard>00< InformationTransferCapability> ITC_value < BCoctet4 TransferMode>00< InformationTransferRate>10000<		
Comments			
Message flows	ISUP	MGCF	Mg
	IAM	→	→ INVITE
			← 100 Trying
	REL	←	← SIP_Response
	RLC	→	→ ACK

TP number	TP_207_012	Reference	7.2.3.2.12
TSS reference	ISUP-SIP/Basic call/Receipt_of_4xx-5xx-6xx/		
Selection criteria	PICS 6.2.1/20		
Test Purpose name	Play media provided in an Error-Info header received in an unsuccessful final response		
Test Purpose	Ensure that the SUT instructs the MGW to play out media associated with an URL present in an Error-Info header received in an unsuccessful final response as indicated in table 6.1.2.7-4		
ISUP Parameter values			
SIP Parameter values	SIP_Response: Error-Info: <Media re source URL>		
Comments			
Message flows	ISUP	MGCF	Mg
	IAM	→	→ INVITE
			← 100 Trying
			← SIP_Response
			→ ACK
	<i>media</i>		
			Apply post test routine

TP number	TP_207_013	Reference	7.2.3.2.12.1, 7.2.3.3
TSS reference	ISUP-SIP/Basic call/Receipt_of_4xx-5xx-6xx/		
Selection criteria	PICS 6.2.3/2		
Test Purpose name	Handling of 404 and 484 responses after sending of INVITE		
Test Purpose	Ensure that on receipt of a 404 Not Found or 484 Address Incomplete responses after sending of INVITE without determining the end of address signalling, timer Ti/w3. After expiry of T i/w3 a REL is sent, the Cause parameter value is set to #28		
ISUP Parameter values	REL: Cause=28		
SIP Parameter values			
Comments			
Message flows	ISUP	MGCF	Mg
	IAM	→ Ti/w2 started Ti/w3 started	→ INVITE ← 484 Address Incomplete → ACK
	SAM	→ Ti/w2 started Ti/w3 started	→ INVITE ← 484 Address Incomplete → ACK
	REL	← Ti/w3 expired	
	RLC	→	

TP number	TP_207_014	Reference	7.2.3.2.19
TSS reference	ISUP-SIP/Basic call/Receipt_of_4xx-5xx-6xx/		
Selection criteria			
Test Purpose name	Handling of 3xx responses after sending of INVITE		
Test Purpose	Ensure that on receipt of a 3xx final responses as indicated in table 6.1.2.7-5, an ISUP REL is sent. The Cause value in the sent REL is set to value 127		
ISUP Parameter values	REL: Cause=127		
SIP Parameter values			
Comments			
Message flows	ISUP	MGCF	Mg
	IAM	→	→ INVITE
	REL	←	← 3xx_VA
	RLC	→	→ ACK

Table 6.1.2.7-5: Mapping of 3xx final responses in ISUP REL

3xx_VA	XML HighLayerCharacteristic
3xx_VA_01	300 Multiple Choices
3xx_VA_02	301 Moved Permanently
3xx_VA_03	302 Moved Temporarily
3xx_VA_04	305 Use Proxy
3xx_VA_05	380 Alternative Service

TP number	TP_207_015	Reference	7.2.3.2.17.2
TSS reference	ISUP-SIP/Basic call/Receipt_of_4xx-5xx-6xx/		
Selection criteria	PICS 6.2.1/3		
Test Purpose name	580 response to an UPDATE within an early dialog		
Test Purpose	Ensure that on receipt of a 580 Precondition Failure final response after an UPDATE request was sent in the early dialogue, a REL is sent and the Cause value is set to 127		
ISUP Parameter values	IAM: Nature of connection indicator= continuity check required on this circuit or continuity check performed on previous circuit COT: Continuity indicator=continuity check successful REL: Cause=127		
SIP Parameter values	INVITE: Supported: precondition, 100rel SDP a=curr:qos local none a=curr:qos remote none a=des:qos mandatory local sendrecv a=des:qos none remote sendrecv 183: Require: 100rel SDP a=curr:qos local none a=curr:qos remote none a=des:qos mandatory local sendrecv a=des:qos mandatory remote sendrecv a=conf:qos remote sendrecv UPDATE: SDP a=curr:qos local sendrecv a=curr:qos remote none a=des:qos mandatory local sendrecv a=des:qos mandatory remote sendrecv		
Comments			
Message flows	ISUP IAM → COT → REL ← RLC →	MGCF → ← → ←	Mg → INVITE ← 100 Trying ← 183 Session Progress → PRACK ← 200 OK (PRACK) → UPDATE ← 580 Precondition Failure Apply post test routine

6.1.2.8 Receipt of a BYE

TP number	TP_208_001	Reference	7.2.3.2.13
TSS reference	ISUP-SIP/Basic call/Receipt_of_BYE/		
Selection criteria			
Test Purpose name	BYE received, REL is sent		
Test Purpose	Ensure that on receipt of a BYE message and no reason header is present, a REL is sent. The Cause value of the REL is set to #16, the location is set to 'network beyond interworking point'		
ISUP Parameter values			
SIP Parameter values			
Comments			
Message flows	ISUP IAM → ACM ← ANM ← REL ← RLC →	MGCF → ← ← ← →	Mg → INVITE ← 100 Trying ← 180 Ringing ← 200 OK (INVITE) → ACK ← BYE → 200 OK (BYE)

TP number	TP_208_002	Reference	7.2.3.2.13
TSS reference	ISUP-SIP/Basic call/Receipt_of_BYE/		
Selection criteria			
Test Purpose name	BYE received a Reason header is present, REL Cause derived from the Reason cause value		
Test Purpose	Ensure that on receipt of a BYE request and a Reason header is present, a REL is sent. The Cause parameter is derived from cause parameter in the Reason header		
ISUP Parameter values	REL: Cause=<Reason cause>		
SIP Parameter values	BYE: Reason: cause		
Comments			
Message flows	ISUP	MGCF	Mg
	IAM	→	→ INVITE
			← 100 Trying
	ACM	←	← 180 Ringing
			← 200 OK (INVITE)
			→ ACK
	REL	←	← BYE
	RLC	→	→ 200 OK (BYE)

TP number	TP_208_003	Reference	7.2.3.2.13
TSS reference	ISUP-SIP/Basic call/Receipt_of_BYE/		
Selection criteria	PICS 6.2.1/5		
Test Purpose name	Mapping of PSTN XML ProgressIndicator 1 in a BYE into ATP in the REL		
Test Purpose	Ensure that on receipt of a PSTN XML ProgressIndicator value 1 in a BYE request, a REL is sent and an Access Transport Parameter is present containing a Progress Indicator #1		
ISUP Parameter values	REL: Access Transport Progress Indicator Progress Description='0000001'		
SIP Parameter values	BYE: <?xml version="1.0" encoding="utf-8"?> PSTN ProgressIndicator ProgressOctet4 ProgressDescription>0000001<		
Comments			
Message flows	ISUP	MGCF	Mg
	IAM	→	→ INVITE
			← 100 Trying
	ACM	←	← 180 Ringing
			← 200 OK (INVITE)
			→ ACK
	REL	←	← BYE
	RLC	→	→ 200 OK (BYE)

TP number	TP_208_004	Reference	7.2.3.2.13
TSS reference	ISUP-SIP/Basic call/Receipt_of_BYE/		
Selection criteria	PICS 6.2.1/5		
Test Purpose name	Mapping of PSTN XML ProgressIndicator 2 in a BYE into ATP in the REL		
Test Purpose	Ensure that on receipt of a PSTN XML ProgressIndicator value 2 in a BYE request, a REL is sent and an Access Transport Parameter is present containing a Progress Indicator #2		
ISUP Parameter values	REL: Access Transport Progress Indicator Progress Description='0000010'		
SIP Parameter values	BYE: <?xml version="1.0" encoding="utf-8"?> PSTN ProgressIndicator ProgressOctet4 ProgressDescription>0000010<		
Comments			
Message flows	ISUP	MGCF	Mg
	IAM	→	→ INVITE
			← 100 Trying
	ACM	←	← 180 Ringing
			← 200 OK (INVITE)
			→ ACK
	ANM	←	
			← BYE
	REL	←	→ 200 OK (BYE)
	RLC	→	

TP number	TP_208_005	Reference	7.2.3.2.13
TSS reference	ISUP-SIP/Basic call/Receipt_of_BYE/		
Selection criteria	PICS 6.2.1/5		
Test Purpose name	Mapping of PSTN XML ProgressIndicator 4 in a BYE into ATP in the REL		
Test Purpose	Ensure that on receipt of a PSTN XML ProgressIndicator value 4 in a BYE request, a REL is sent and an Access Transport Parameter is present containing a Progress Indicator #4		
ISUP Parameter values	REL: Access Transport Progress Indicator Progress Description='0000100'		
SIP Parameter values	BYE: <?xml version="1.0" encoding="utf-8"?> PSTN ProgressIndicator ProgressOctet4 ProgressDescription>0000100<		
Comments			
Message flows	ISUP	MGCF	Mg
	IAM	→	→ INVITE
			← 100 Trying
	ACM	←	← 180 Ringing
			← 200 OK (INVITE)
			→ ACK
	ANM	←	
			← BYE
	REL	←	→ 200 OK (BYE)
	RLC	→	

TP number	TP_208_006	Reference	7.2.3.2.13
TSS reference	ISUP-SIP/Basic call/Receipt_of_BYE/		
Selection criteria	PICS 6.2.1/5		
Test Purpose name	Mapping of PSTN XML ProgressIndicator 5 in a BYE into ATP in the REL		
Test Purpose	Ensure that on receipt of a PSTN XML ProgressIndicator value 5 in a BYE request, a REL is sent and an Access Transport Parameter is present containing a Progress Indicator #5		
ISUP Parameter values	IAM: USI=speech or 3,1 kHz audio, USI prime=unrestricted digital info with T/A, TMR=64 kbit/s preferred, TMR prime = speech or 3,1 kHz audio REL: Access Transport Progress Indicator Progress Description='0000101'		
SIP Parameter values	BYE: <?xml version="1.0" encoding="utf-8"?> PSTN ProgressIndicator ProgressOctet4 ProgressDescription>0000101<		
Comments			
Message flows	ISUP	MGCF	Mg
	IAM	→	→ INVITE
	ACM	←	← 100 Trying
	ANM	←	← 180 Ringing
	REL	←	← 200 OK (INVITE)
	RLC	→	→ ACK
			← BYE
			→ 200 OK (BYE)

TP number	TP_208_007	Reference	7.2.3.2.13
TSS reference	ISUP-SIP/Basic call/Receipt_of_BYE/		
Selection criteria	PICS 6.2.1/5		
Test Purpose name	Mapping of PSTN XML HighLayerCompatibility in a BYE into ATP in REL		
Test Purpose	Ensure that on receipt of BYE request and a PSTN XML HighLayerCompatibility element is present a REL is sent and a Access Transport Parameter is present containing a High layer compatibility IE and the value is set to the value HLC_VA as indicated in table 6.1.2.5-1		
ISUP Parameter values	REL: Access Transport High layer compatibility High layer characteristics identification = HLC_VA		
SIP Parameter values	BYE: PSTN XML MIME body <?xml version="1.0" encoding="utf-8"?> PSTN HighLayerCompatibility HLOctet3 CodingStandard>00< Interpretation>100< PresentationMethod>01< HLOctet4 HighLayerCharacteristics>HLC_VA<		
Comments			
Message flows	ISUP	MGCF	Mg
	IAM	→	→ INVITE
	ACM	←	← 100 Trying
	ANM	←	← 180 Ringing
	REL	←	← 200 OK (INVITE)
	RLC	→	→ ACK
			← BYE
			→ 200 OK (BYE)

TP number	TP_208_008	Reference	7.2.3.2.13
TSS reference	ISUP-SIP/Basic call/Receipt_of_BYE/		
Selection criteria	PICS 6.2.1/5		
Test Purpose name	Mapping of PSTN XML BearerCapability in a BYE into ATP in REL		
Test Purpose	Ensure that on receipt of a BYE request and a PSTN XML BearerCapability element is present, a REL is sent and a Access Transport Parameter is present containing a Bearer Capability IE and the value is set to the value ITC_value as indicated in table 6.1.2.5-2		
ISUP Parameter values	REL: Access Transport Bearer Capability Information Transfer Capability = ITC_value		
SIP Parameter values	BYE: <?xml version="1.0" encoding="utf-8"?> PSTN BearerCapability BCoet3 CodingStandard>00< InformationTransferCapability> ITC_value < BCoet4 TransferMode>00< InformationTransferRate>10000<		
Comments			
Message flows	ISUP	MGCF	Mg
	IAM	→	→ INVITE ← 100 Trying
	ACM	←	← 180 Ringing
	ANM	←	← 200 OK (INVITE) → ACK
	REL	←	← BYE
	RLC	→	→ 200 OK (BYE)

6.1.2.9 Receipt of the Release Message

TP number	TP_209_001	Reference	7.2.3.2.14
TSS reference	ISUP-SIP/Basic call/Receipt_of_REL/		
Selection criteria			
Test Purpose name	REL received before an early dialogue was established, a CANCEL is sent		
Test Purpose	Ensure that on receipt of a REL message before an early dialogue was established, a CANCEL request is sent and the Reason header is present, the cause value is derived from the Cause value in the received REL		
ISUP Parameter values	REL: Cause value		
SIP Parameter values	CANCEL: Reason: cause=<Cause value>		
Comments			
Message flows	ISUP	MGCF	Mg
	IAM	→	→ INVITE ← 100 Trying
	REL	→	→ CANCEL
	RLC	←	← 200 OK (CANCEL) ← 487 Request Terminated → ACK

TP number	TP_209_002	Reference	7.2.3.2.14
TSS reference	ISUP-SIP/Basic call/Receipt_of_REL/		
Selection criteria			
Test Purpose name	REL received after an early dialogue with 180 was established, a CANCEL is sent		
Test Purpose	Ensure that on receipt of a REL message after an early dialogue due to a 180 Ringing response was established, a CANCEL request is sent and the Reason header is present, the cause value is derived from the Cause value in the received REL		
ISUP Parameter values	REL: Cause value		
SIP Parameter values	CANCEL: Reason: cause=<Cause value>		
Comments			
Message flows	ISUP	MGCF	Mg
	IAM	→	→ INVITE
			← 100 Trying
	ACM	←	← 180 Ringing
	REL	→	→ CANCEL
	RLC	←	← 200 OK (CANCEL)
			← 487 Request Terminated
			→ ACK

TP number	TP_209_003	Reference	7.2.3.2.14
TSS reference	ISUP-SIP/Basic call/Receipt_of_REL/		
Selection criteria			
Test Purpose name	REL received after an early dialogue with 181 was established, a CANCEL is sent		
Test Purpose	Ensure that on receipt of a REL message after an early dialogue due to a 181 Call is Being Forwarded response was established, a CANCEL request is sent and the Reason header is present, the cause value is derived from the Cause value in the received REL		
ISUP Parameter values	REL: Cause value		
SIP Parameter values	CANCEL: Reason: cause=<Cause value>		
Comments			
Message flows	ISUP	MGCF	Mg
	IAM	→	→ INVITE
			← 100 Trying
	ACM	←	← 181 Being forwarded
	REL	→	→ CANCEL
	RLC	←	← 200 OK (CANCEL)
			← 487 Request Terminated
			→ ACK

TP number	TP_209_004	Reference	7.2.3.2.14
TSS reference	ISUP-SIP/Basic call/Receipt_of_REL/		
Selection criteria			
Test Purpose name			
Test Purpose	REL received after an early dialogue with 182 was established, a CANCEL is sent		
ISUP Parameter values	Ensure that on receipt of a REL message after an early dialogue due to a 182 Queued response was established, a CANCEL request is sent and the Reason header is present, the cause value is derived from the Cause value in the received REL		
SIP Parameter values	REL: Cause value		
Comments	CANCEL: Reason: cause=<Cause value>		
Message flows	ISUP	MGCF	Mg
	IAM	→	→ INVITE
			← 100 Trying
	ACM	←	← 182 Queued
	REL	→	→ CANCEL
	RLC	←	← 200 OK (CANCEL)
			← 487 Request Terminated
			→ ACK

TP number	TP_209_005	Reference	7.2.3.2.14
TSS reference	ISUP-SIP/Basic call/Receipt_of_REL/		
Selection criteria			
Test Purpose name	REL received after an early dialogue with 183 was established, a CANCEL is sent		
Test Purpose	Ensure that on receipt of a REL message after an early dialogue due to a 183 Session Progress response was established, a CANCEL request is sent and the Reason header is present, the cause value is derived from the Cause value in the received REL		
ISUP Parameter values	REL: Cause value		
SIP Parameter values	CANCEL: Reason: cause=<Cause value>		
Comments			
Message flows	ISUP	MGCF	Mg
	IAM	→	→ INVITE
			← 100 Trying
	ACM	←	← 183 Session Progress
	REL	→	→ CANCEL
	RLC	←	← 200 OK (CANCEL)
			← 487 Request Terminated
			→ ACK

TP number	TP_209_006	Reference	7.2.3.2.14
TSS reference	ISUP-SIP/Basic call/Receipt_of_REL/		
Selection criteria			
Test Purpose name	REL received in the confirmed dialogue a BYE is sent		
Test Purpose	Ensure that on receipt of a REL message in the confirmed dialogue, a BYE request is sent and the Reason header is present, the cause value is derived from the Cause value in the received REL		
ISUP Parameter values	REL: Cause value		
SIP Parameter values	BYE: Reason: cause=<Cause value>		
Comments			
Message flows	ISUP	MGCF	Mg
	IAM	→	→ INVITE
			← 100 Trying
	ACM	←	← 180 Ringing
	ANM	←	← 200 OK (INVITE)
			→ ACK
	REL	→	→ BYE
	RLC	←	← 200 OK (BYE)

TP number	TP_209_007	Reference	7.2.3.2.14
TSS reference	ISUP-SIP/Basic call/Receipt_of_REL/		
Selection criteria	PICS 6.2.1/5		
Test Purpose name	Mapping of REL ATP Progress Indicator #1 into PSTN XML ProgressIndicator #1 in the BYE		
Test Purpose	Ensure that on receipt of a REL message and a ATP containing a Progress Indicator #2 in the confirmed dialogue, a BYE request is sent and a PSTN XML ProgressIndicator is present, the ProgressDescription is set to #1		
ISUP Parameter values	REL: Access Transport Progress Indicator Progress Description='0000001'		
SIP Parameter values	BYE: <?xml version="1.0" encoding="utf-8"?> PSTN ProgressIndicator ProgressOctet4 ProgressDescription>0000001<		
Comments			
Message flows	ISUP	MGCF	Mg
	IAM	→	→ INVITE
			← 100 Trying
	ACM	←	← 180 Ringing
	ANM	←	← 200 OK (INVITE)
			→ ACK
	REL	→	→ BYE
	RLC	←	← 200 OK (BYE)

TP number	TP_209_008	Reference	7.2.3.2.14
TSS reference	ISUP-SIP/Basic call/Receipt_of_REL/		
Selection criteria	PICS 6.2.1/5		
Test Purpose name	Mapping of REL ATP Progress Indicator #2 into PSTN XML ProgressIndicator #2 in the BYE		
Test Purpose	Ensure that on receipt of a REL message and a ATP containing a Progress Indicator #2 in the confirmed dialogue, a BYE request is sent and a PSTN XML ProgressIndicator is present, the ProgressDescription is set to #2		
ISUP Parameter values	REL: Access Transport Progress Indicator Progress Description='0000010'		
SIP Parameter values	BYE: <?xml version="1.0" encoding="utf-8"?> PSTN ProgressIndicator ProgressOctet4 ProgressDescription>0000010<		
Comments			
Message flows	ISUP	MGCF	Mg
	IAM	→	→ INVITE
			← 100 Trying
	ACM	←	← 180 Ringing
	ANM	←	← 200 OK (INVITE)
			→ ACK
	REL	→	→ BYE
	RLC	←	← 200 OK (BYE)

TP number	TP_209_009	Reference	7.2.3.2.14
TSS reference	ISUP-SIP/Basic call/Receipt_of_REL/		
Selection criteria	PICS 6.2.1/5		
Test Purpose name	Mapping of REL ATP Progress Indicator #4 into PSTN XML ProgressIndicator #4 in the BYE		
Test Purpose	Ensure that on receipt of a REL message and a ATP containing a Progress Indicator #4 in the confirmed dialogue, a BYE request is sent and a PSTN XML ProgressIndicator is present, the ProgressDescription is set to #4		
ISUP Parameter values	REL: Access Transport Progress Indicator Progress Description='0000100'		
SIP Parameter values	BYE: <?xml version="1.0" encoding="utf-8"?> PSTN ProgressIndicator ProgressOctet4 ProgressDescription>0000100<		
Comments			
Message flows	ISUP	MGCF	Mg
	IAM	→	→ INVITE
			← 100 Trying
	ACM	←	← 180 Ringing
	ANM	←	← 200 OK (INVITE)
			→ ACK
	REL	→	→ BYE
	RLC	←	← 200 OK (BYE)

TP number	TP_209_010	Reference	7.2.3.2.14
TSS reference	ISUP-SIP/Basic call/Receipt_of_REL/		
Selection criteria	PICS 6.2.1/5		
Test Purpose name	Mapping of REL ATP Progress Indicator #5 into PSTN XML ProgressIndicator #5 in the BYE		
Test Purpose	Ensure that on receipt of a REL message and an ATP containing a Progress Indicator #5 in the confirmed dialogue, a BYE request is sent and a PSTN XML ProgressIndicator is present, the ProgressDescription is set to #5		
ISUP Parameter values	REL: Access Transport Progress Indicator Progress Description='0000101'		
SIP Parameter values	BYE: <?xml version="1.0" encoding="utf-8"?> PSTN ProgressIndicator ProgressOctet4 ProgressDescription>0000101<		
Comments			
Message flows	ISUP	MGCF	Mg
	IAM	→	→ INVITE
			← 100 Trying
	ACM	←	← 180 Ringing
	ANM	←	← 200 OK (INVITE)
			→ ACK
	REL	→	→ BYE
	RLC	←	← 200 OK (BYE)

TP number	TP_209_011	Reference	7.2.3.2.14
TSS reference	ISUP-SIP/Basic call/Receipt_of_REL/		
Selection criteria	PICS 6.2.1/5		
Test Purpose name	Mapping of REL ATP High layer compatibility into PSTN XML HighLayerCompatibility in the BYE		
Test Purpose	Ensure that on receipt of a REL message and an ATP containing a High layer compatibility IE in the confirmed dialogue, a BYE request is sent and a PSTN XML HighLayerCompatibility is present, the HighLayerCharacteristics is set to HLC_VA as indicated in table 6.1.2.1-4		
ISUP Parameter values	REL: Access Transport High layer compatibility High layer characteristics identification = HLC_VA		
SIP Parameter values	BYE: PSTN XML MIME body <?xml version="1.0" encoding="utf-8"?> PSTN HighLayerCompatibility HLOctet3 CodingStandard>00< Interpretation>100< PresentationMethod>01< HLOctet4 HighLayerCharacteristics> HLC_VA <		
Comments			
Message flows	ISUP		MGCF
	IAM	→	→ INVITE
	ACM	←	← 100 Trying
	ANM	←	← 180 Ringing
	REL	→	← 200 OK (INVITE)
	RLC	←	→ ACK
			→ BYE
			← 200 OK (BYE)

TP number	TP_209_012	Reference	7.2.3.2.14
TSS reference	ISUP-SIP/Basic call/Receipt_of_REL/		
Selection criteria	PICS 6.2.1/5		
Test Purpose name	Mapping of REL ATP Low Layer Compatibility into PSTN XML LowLayerCompatibility in the BYE		
Test Purpose	Ensure that on receipt of a REL message and an ATP containing a Low Layer Compatibility IE in the confirmed dialogue, a BYE request is sent and a PSTN XML LowLayerCompatibility is present, the InformationTransferCapability is set to ITC_value as indicated in table 6.1.1.4-4		
ISUP Parameter values	REL: Access Transport Low Layer Compatibility Information Transfer Capability = ITC_value		
SIP Parameter values	BYE: <?xml version="1.0" encoding="utf-8"?> PSTN LowLayerCompatibility LLoctet3 CodingStandard>00< InformationTransferCapability> ITC_value < LLoctet4 TransferMode>00< InformationTransferRate>10000<		
Comments			
Message flows	Mg	MGCF	ISUP
	IAM	→	→ INVITE
			← 100 Trying
	ACM	←	← 180 Ringing
			← 200 OK (INVITE)
			→ ACK
	ANM	←	
			← 200 OK (INVITE)
			→ ACK
	REL	→	→ BYE
	RLC	←	← 200 OK (BYE)

6.1.2.10 Receipt of RSC, GRS or CGB (H/W oriented)

TP number	TP_210_001	Reference	7.2.3.2.15
TSS reference	ISUP-SIP/Basic call/Receipt_of_RSC-GRS-CGB/		
Selection criteria			
Test Purpose name	Receipt of RSC before an early dialogue was established		
Test Purpose	Ensure that on receipt of a RSC before an early dialogue is established, a CANCEL request is sent containing a Reason header. The SUT received a 487 Request Terminated and sends an ACK request		
ISUP Parameter values			
SIP Parameter values	CANCEL: Reason:		
Comments			
Message flows	ISUP	MGCF	Mg
	IAM	→	→ INVITE
			← 100 Trying
	RSC	→	→ CANCEL
	RLC	←	← 200 OK (CANCEL)
			← 487 Request Terminated
			→ ACK

TP number	TP_210_002	Reference	7.2.3.2.15
TSS reference	ISUP-SIP/Basic call/Receipt_of_RSC-GRS-CGB/		
Selection criteria			
Test Purpose name	Receipt of RSC after an early dialogue with 180 was established		
Test Purpose	Ensure that on receipt of a RSC after an early dialogue with receipt of a 180 Ringing provisional response is established, a CANCEL request is sent containing a Reason header. The SUT receives a 487 Request Terminated and sends an ACK request		
ISUP Parameter values			
SIP Parameter values	CANCEL: Reason:		
Comments			
Message flows	ISUP	MGCF	Mg
	IAM	→	→ INVITE
	ACM	←	← 180 Ringing
	RSC	→	→ CANCEL
	RLC	←	← 200 OK (CANCEL)
			← 487 Request Terminated
			→ ACK

TP number	TP_210_003	Reference	7.2.3.2.15
TSS reference	ISUP-SIP/Basic call/Receipt_of_RSC-GRS-CGB/		
Selection criteria			
Test Purpose name	Receipt of RSC after an early dialogue with 181 was established		
Test Purpose	Ensure that on receipt of a RSC after an early dialogue with receipt of a 181 Being forwarded provisional response is established, a CANCEL request is sent containing a Reason header. The SUT receives a 487 Request Terminated and sends an ACK request		
ISUP Parameter values			
SIP Parameter values	CANCEL: Reason:		
Comments			
Message flows	ISUP	MGCF	Mg
	IAM	→	→ INVITE
			← 181 Being forwarded
	RSC	→	→ CANCEL
	RLC	←	← 200 OK (CANCEL)
			← 487 Request Terminated
			→ ACK

TP number	TP_210_004	Reference	7.2.3.2.15
TSS reference	ISUP-SIP/Basic call/Receipt_of_RSC-GRS-CGB/		
Selection criteria			
Test Purpose name	Receipt of RSC after an early dialogue with 183 was established		
Test Purpose	Ensure that on receipt of a RSC after an early dialogue with receipt of a 183 Session Progress provisional response is established, a CANCEL request is sent containing a Reason header. The SUT receives a 487 Request Terminated and sends an ACK request		
ISUP Parameter values			
SIP Parameter values	CANCEL: Reason:		
Comments			
Message flows	ISUP	MGCF	Mg
	IAM	→	→ INVITE
			← 183 Session Progress
	RSC	→	→ CANCEL
	RLC	←	← 200 OK (CANCEL)
			← 487 Request Terminated
			→ ACK

TP number	TP_210_005	Reference	7.2.3.2.15
TSS reference	ISUP-SIP/Basic call/Receipt_of_RSC-GRS-CGB/		
Selection criteria			
Test Purpose name	Receipt of RSC after a confirmed dialogue was established		
Test Purpose	Ensure that on receipt of RSC after a confirmed dialogue with a 200 OK (INVITE) final response was established, a BYE request is sent		
ISUP Parameter values			
SIP Parameter values	BYE: Reason:		
Comments			
Message flows	ISUP	MGCF	Mg
	IAM →		INVITE
	ACM ←		180 Ringing
	ANM ←		200 OK (INVITE)
			ACK
	RSC →		BYE
	RLC ←		200 OK (BYE)

TP number	TP_210_006	Reference	7.2.3.2.15
TSS reference	ISUP-SIP/Basic call/Receipt_of_RSC-GRS-CGB/		
Selection criteria			
Test Purpose name	Receipt of GRS before an early dialogue was established		
Test Purpose	Ensure that on receipt of a GRS before an early dialogue is established, a CANCEL request is sent containing a Reason header. The SUT received a 487 Request Terminated and sends an ACK request		
ISUP Parameter values			
SIP Parameter values	CANCEL: Reason:		
Comments			
Message flows	ISUP	MGCF	Mg
	IAM →		INVITE
			100 Trying
	GRS →		CANCEL
	GRA ←		200 OK (CANCEL)
			487 Request Terminated
			ACK

TP number	TP_210_007	Reference	7.2.3.2.15
TSS reference	ISUP-SIP/Basic call/Receipt_of_RSC-GRS-CGB/		
Selection criteria			
Test Purpose name	Receipt of GRS after an early dialogue with 180 was established		
Test Purpose	Ensure that on receipt of a GRS after an early dialogue with receipt of a 180 Ringing provisional response is established, a CANCEL request is sent containing a Reason header. The SUT receives a 487 Request Terminated and sends an ACK request		
ISUP Parameter values			
SIP Parameter values	CANCEL: Reason:		
Comments			
Message flows	ISUP	MGCF	Mg
	IAM →		INVITE
	ACM ←		180 Ringing
	GRS →		CANCEL
	GRA ←		200 OK (CANCEL)
			487 Request Terminated
			ACK

TP number	TP_210_008	Reference	7.2.3.2.15
TSS reference	ISUP-SIP/Basic call/Receipt_of_RSC-GRS-CGB/		
Selection criteria			
Test Purpose name	Receipt of GRS after an early dialogue with 181 was established		
Test Purpose	Ensure that on receipt of a GRS after an early dialogue with receipt of a 181 Being forwarded provisional response is established, a CANCEL request is sent containing a Reason header. The SUT receives a 487 Request Terminated and sends an ACK request		
ISUP Parameter values			
SIP Parameter values	CANCEL: Reason:		
Comments			
Message flows	ISUP	MGCF	Mg
	IAM	→	→ INVITE ← 181 Being forwarded
	GRS	→	→ CANCEL
	GRA	←	← 200 OK (CANCEL) ← 487 Request Terminated → ACK

TP number	TP_210_009	Reference	7.2.3.2.15
TSS reference	ISUP-SIP/Basic call/Receipt_of_RSC-GRS-CGB/		
Selection criteria			
Test Purpose name	Receipt of GRS after an early dialogue with 183 was established		
Test Purpose	Ensure that on receipt of a GRS after an early dialogue with receipt of a 183 Session Progress provisional response is established, a CANCEL request is sent containing a Reason header. The SUT receives a 487 Request Terminated and sends an ACK request		
ISUP Parameter values			
SIP Parameter values	CANCEL: Reason:		
Comments			
Message flows	ISUP	MGCF	Mg
	IAM	→	→ INVITE ← 183 Session Progress
	GRS	→	→ CANCEL
	GRA	←	← 200 OK (CANCEL) ← 487 Request Terminated → ACK

TP number	TP_210_010	Reference	7.2.3.2.15
TSS reference	ISUP-SIP/Basic call/Receipt_of_RSC-GRS-CGB/		
Selection criteria			
Test Purpose name	Receipt of GRS after a confirmed dialogue was established		
Test Purpose	Ensure that on receipt of GRS after a confirmed dialogue with a 200 OK (INVITE) final response was established, a BYE request is sent		
ISUP Parameter values			
SIP Parameter values	BYE: Reason:		
Comments			
Message flows	ISUP	MGCF	Mg
	IAM	→	→ INVITE
	ACM	←	← 180 Ringing
	ANM	←	← 200 OK (INVITE) → ACK
	GRS	→	→ BYE
	GRA	←	← 200 OK (BYE)

TP number	TP_210_011	Reference	7.2.3.2.15
TSS reference	ISUP-SIP/Basic call/Receipt_of_RSC-GRS-CGB/		
Selection criteria			
Test Purpose name	Receipt of GRS after a confirmed dialogue was established, all affected communications are terminated.		
Test Purpose	Two connections are established. Ensure that on receipt of GRS after a confirmed dialogue with a 200 OK (INVITE) final response was established, a BYE request for each of the established connection is sent		
ISUP Parameter values			
SIP Parameter values	BYE: Reason:		
Comments			
Message flows	ISUP	MGCF	Mg
		Two connection are established	
	GRS	→	
	GRA	←	
		→	BYE (1)
		←	200 OK (BYE)
		→	BYE (2)
		←	200 OK (BYE)

TP number	TP_210_012	Reference	7.2.3.2.15
TSS reference	ISUP-SIP/Basic call/Receipt_of_RSC-GRS-CGB/		
Selection criteria			
Test Purpose name	Receipt of CGB 'hardware oriented' before an early dialogue was established		
Test Purpose	Ensure that on receipt of a CGB 'hardware oriented' before an early dialogue is established, a CANCEL request is sent containing a Reason header. The SUT received a 487 Request Terminated and sends an ACK request		
ISUP Parameter values	CGB: Circuit group supervision message type=hardware failure oriented		
SIP Parameter values	CANCEL: Reason:		
Comments			
Message flows	ISUP	MGCF	Mg
	IAM	→	→ INVITE
			← 100 Trying
	CGB	→	→ CANCEL
	CGBA	←	← 200 OK (CANCEL)
			← 487 Request Terminated
			→ ACK

TP number	TP_210_013	Reference	7.2.3.2.15
TSS reference	ISUP-SIP/Basic call/Receipt_of_RSC-GRS-CGB/		
Selection criteria			
Test Purpose name	Receipt of CGB 'hardware oriented' after an early dialogue with 180 was established		
Test Purpose	Ensure that on receipt of a CGB 'hardware oriented' after an early dialogue with receipt of a 180 Ringing provisional response is established, a CANCEL request is sent containing a Reason header. The SUT receives a 487 Request Terminated and sends an ACK request		
ISUP Parameter values	CGB: Circuit group supervision message type=hardware failure oriented		
SIP Parameter values	CANCEL: Reason:		
Comments			
Message flows	ISUP	MGCF	Mg
	IAM	→	→ INVITE
	ACM	←	← 180 Ringing
	CGB	→	→ CANCEL
	CGBA	←	← 200 OK (CANCEL)
			← 487 Request Terminated
			→ ACK

TP number	TP_210_014	Reference	7.2.3.2.15
TSS reference	ISUP-SIP/Basic call/Receipt_of_RSC-GRS-CGB/		
Selection criteria			
Test Purpose name	Receipt of CGB 'hardware oriented' after an early dialogue with 181 was established		
Test Purpose	Ensure that on receipt of a CGB 'hardware oriented' after an early dialogue with receipt of a 181 Being forwarded provisional response is established, a CANCEL request is sent containing a Reason header. The SUT receives a 487 Request Terminated and sends an ACK request		
ISUP Parameter values	CGB: Circuit group supervision message type=hardware failure oriented		
SIP Parameter values	CANCEL: Reason:		
Comments			
Message flows	ISUP	MGCF	Mg
	IAM	→	→ INVITE ← 181 Being forwarded
	CGB	→	→ CANCEL
	CGBA	←	← 200 OK (CANCEL) ← 487 Request Terminated → ACK

TP number	TP_210_015	Reference	7.2.3.2.15
TSS reference	ISUP-SIP/Basic call/Receipt_of_RSC-GRS-CGB/		
Selection criteria			
Test Purpose name	Receipt of CGB 'hardware oriented' after an early dialogue with 183 was established		
Test Purpose	Ensure that on receipt of a CGB 'hardware oriented' after an early dialogue with receipt of a 183 Session Progress provisional response is established, a CANCEL request is sent containing a Reason header. The SUT receives a 487 Request Terminated and sends an ACK request		
ISUP Parameter values	CGB: Circuit group supervision message type=hardware failure oriented		
SIP Parameter values	CANCEL: Reason:		
Comments			
Message flows	ISUP	MGCF	Mg
	IAM	→	→ INVITE ← 183 Session Progress
	CGB	→	→ CANCEL
	CGBA	←	← 200 OK (CANCEL) ← 487 Request Terminated → ACK

TP number	TP_210_016	Reference	7.2.3.2.15
TSS reference	ISUP-SIP/Basic call/Receipt_of_RSC-GRS-CGB/		
Selection criteria			
Test Purpose name	Receipt of CGB 'hardware oriented' after a confirmed dialogue was established		
Test Purpose	Ensure that on receipt of CGB 'hardware oriented' after a confirmed dialogue with a 200 OK (INVITE) final response was established, a BYE request is sent		
ISUP Parameter values	CGB: Circuit group supervision message type=hardware failure oriented		
SIP Parameter values	BYE: Reason:		
Comments			
Message flows	ISUP	MGCF	Mg
	IAM	→	→ INVITE
	ACM	←	← 180 Ringing
	ANM	←	← 200 OK (INVITE) → ACK
	CGB	→	→ BYE
	CGBA	←	← 200 OK (BYE)

TP number	TP_210_017	Reference	7.2.3.2.15
TSS reference	ISUP-SIP/Basic call/Receipt_of_RSC-GRS-CGB/		
Selection criteria			
Test Purpose name	Receipt of CGB 'hardware oriented' after a confirmed dialogue was established, all affected communications are terminated		
Test Purpose	Two connections are established. Ensure that on receipt of CGB 'hardware oriented' after a confirmed dialogue with a 200 OK (INVITE) final response was established, a BYE request for each of the established connection is sent		
ISUP Parameter values	CGB: Circuit group supervision message type=hardware failure oriented		
SIP Parameter values	BYE: Reason:		
Comments			
Message flows	ISUP	MGCF	Mg
		Two connection are established	
	CGB	→	
	CGBA	←	
		→	BYE (1)
		←	200 OK (BYE)
		→	BYE (2)
		←	200 OK (BYE)

6.1.2.11 Autonomous Release at O-MGCF

TP number	TP_211_001	Reference	7.2.3.2.16
TSS reference	ISUP-SIP/Basic call/Autonomous_Release/		
Selection criteria	PICS 6.2.1/3		
Test Purpose name	COT procedure fails		
Test Purpose	IAM received and the continuity check indicator is set to 'continuitycheck required' or 'performed on a previous circuit'. Ensure that on receipt of a COT message and the continuity indicator is set to 'continuity check failed' the already established early dialog is terminated. A CANCEL request is sent. A Reason header is present containing the cause value '41'		
ISUP Parameter values	COT: 'continuity check failed'		
SIP Parameter values			
Comments			
Message flows	ISUP	MGCF	Mg
	IAM	→	
		→	INVITE
		←	100 Trying
		←	183 Session Progress
		→	PRACK
		←	200 OK (PRACK)
	COT	→	
		→	CANCEL
		←	200 OK (CANCEL)
		←	487 Request Terminated
		→	ACK

TP number	TP_211_002	Reference	7.2.3.2.16
TSS reference	ISUP-SIP/Basic call/Autonomous_Release/		
Selection criteria	PICS 6.2.1/3		
Test Purpose name	T8 expires		
Test Purpose	IAM received and the continuity check indicator is set to 'continuitycheck required' or 'performed on a previous circuit'. Ensure that on expiry of ISUP timer T8 the already established early dialog is terminated. A CANCEL request is sent		
ISUP Parameter values			
SIP Parameter values			
Comments			
Message flows	<p style="text-align: center;">ISUP</p> <p>IAM →</p> <p style="text-align: center;">Start T8</p> <p style="text-align: center;">T8 expires</p>	<p style="text-align: center;">MGCF</p> <p>→</p> <p>←</p> <p>→</p> <p>←</p> <p>→</p> <p>←</p> <p>→</p> <p>←</p> <p>→</p>	<p style="text-align: center;">Mg</p> <p>→ INVITE</p> <p>← 100 Trying</p> <p>← 183 Session Progress</p> <p>→ PRACK</p> <p>← 200 OK (PRACK)</p> <p>→ CANCEL</p> <p>← 200 OK (CANCEL)</p> <p>← 487 Request Terminated</p> <p>→ ACK</p>

TP number	TP_211_003	Reference	7.2.3.2.16
TSS reference	ISUP-SIP/Basic call/Autonomous_Release/		
Selection criteria			
Test Purpose name	Call is released to due message compatibility instruction 'Release call' received in the early dialogue		
Test Purpose	Ensure that on receipt of an unknown ISUP message in the early dialogue and the message compatibility is set to 'release call' an ISUP REL message is sent and the Cause indicator is set to value 97. In addition a SIP CANCEL request is sent and a Reason header field is present		
ISUP Parameter values	??? = unknown message: Message compatibility information: Release call indicator=release call REL: Cause=97		
SIP Parameter values	CANCEL: Reason:		
Comments	For an unknown message use a message type unknown in the SUT.		
Message flows	<p style="text-align: center;">ISUP</p> <p>IAM →</p> <p>ACM ←</p> <p>???</p> <p>REL ←</p> <p>RLC →</p>	<p style="text-align: center;">MGCF</p> <p>→</p> <p>←</p> <p>→</p> <p>←</p> <p>→</p> <p>←</p> <p>→</p>	<p style="text-align: center;">Mg</p> <p>→ INVITE</p> <p>← 180 Ringing</p> <p>→ CANCEL</p> <p>← 200 OK (CANCEL)</p> <p>← 487 Request Terminated</p> <p>→ ACK</p>

TP number	TP_211_004	Reference	7.2.3.2.16
TSS reference	ISUP-SIP/Basic call/Autonomous_Release/		
Selection criteria			
Test Purpose name	Call is released to due message compatibility instruction 'Release call' received in the confirmed dialogue		
Test Purpose	Ensure that on receipt of an unknown ISUP message in the confirmed dialogue and the message compatibility is set to 'release call' an ISUP REL message is sent and the Cause indicator is set to value 97. In addition a SIP BYE request is sent and a Reason header field is present		
ISUP Parameter values	??? = unknown message: Message compatibility information: Release call indicator=release call REL: Cause=97		
SIP Parameter values	BYE: Reason:		
Comments	For an unknown message use a message type unknown in the SUT.		
Message flows	ISUP	MGCF	Mg
	IAM	→	→ INVITE
	ACM	←	← 180 Ringing
		←	← 200 OK (INVITE)
			→ ACK
	???	→	
	REL	←	→ BYE
	RLC	→	← 200 OK (BYE)

TP number	TP_211_005	Reference	7.2.3.2.16
TSS reference	ISUP-SIP/Basic call/Autonomous_Release/		
Selection criteria			
Test Purpose name	Call is released to due parameter compatibility instruction 'Release call' received in the early dialogue		
Test Purpose	Ensure that on receipt of a CPG in the early dialogue and an unknown parameter is present the parameter compatibility instruction is set to 'release call' an ISUP REL message is sent and the Cause indicator is set to value 99 or 110. In addition a SIP CANCEL request is sent and a Reason header field is present.		
ISUP Parameter values	CPG: Parameter compatibility information: Release call indicator=release call REL: Cause=99 or 110		
SIP Parameter values	CANCEL: Reason:		
Comments	For an unknown parameter use a parameter type unknown in the SUT.		
Message flows	ISUP	MGCF	Mg
	IAM	→	→ INVITE
	ACM	←	← 180 Ringing
	CPG	→	
	REL	←	→ CANCEL
	RLC	→	← 200 OK (CANCEL)
			← 487 Request Terminated
			→ ACK

TP number	TP_211_006	Reference	7.2.3.2.16
TSS reference	ISUP-SIP/Basic call/Autonomous_Release/		
Selection criteria			
Test Purpose name	Call is released to due parameter compatibility instruction 'Release call' received in the confirmed dialogue		
Test Purpose	Ensure that on receipt of a CPG in the confirmed dialogue and an unknown parameter is present the parameter compatibility instruction is set to 'release call' an ISUP REL message is sent and the Cause indicator is set to value 99 or 110. In addition a SIP BYE request is sent and a Reason header field is present		
ISUP Parameter values	CPG: Parameter compatibility information: Release call indicator=release call REL: Cause=99 or 110		
SIP Parameter values	BYE: Reason:		
Comments	For an unknown parameter use a parameter type unknown in the SUT.		
Message flows	ISUP	MGCF	Mg
	IAM	→	INVITE
	ACM	←	180 Ringing
	ANM	←	200 OK (INVITE)
			→ ACK
	CPG	→	
	REL	←	→ BYE
	RLC	→	← 200 OK (BYE)

6.2 Supplementary Services

6.2.1 Void

6.2.2 Connected line presentation and restriction (COLP/COLR)

TP number	TP_302_001	Reference	7.4.2
TSS reference	PSTN-SS/COL/		
Selection criteria	NOT PICS 6.3.4/1 AND (PICS 6.3.1/1 OR PICS 6.3.1/2) AND PICS 6.3.2/2		
Test Purpose name	The SUT does not invoke the COLP service		
Test Purpose	Ensure that on receipt of an INVITE request ant the SUT does not invoke the COLP service, an IAM is sent and the Connected Line Identity Request indicator" field of the Optional forward call indicators parameter of the IAM to 'not requested'. A received connected number is not interworked		
ISUP Parameter values	IAM: Optional forward call indicators = 'not requested' ANM/CON: Connected number present		
SIP Parameter values	200 OK: P-Asserted-Identity not present		
Comments			
Message flows	Mg	MGCF	ISUP
	INVITE	→	IAM
	100 Trying	←	
	CASE A		
	180 Ringing	←	← ACM
	200 OK (INVITE)	←	← ANM
	ACK	→	
	CASE B		
	200 OK (INVITE)	←	← CON
	ACK	→	
	Apply post test routine		

TP number	TP_302_002	Reference	7.4.2.1.2																																																												
TSS reference	PSTN-SS/COLP/																																																														
Selection criteria	PICS 6.3.4/1 AND (PICS 6.3.1/1 OR PICS 6.3.1/2) AND PICS 6.3.2/2																																																														
Test Purpose name	The SUT invokes the COLP service presentation allowed																																																														
Test Purpose	<p>Ensure that on receipt of an INVITE request ant the SUT invokes the COLP service, an IAM is sent and the Connected Line Identity Request indicator" field of the Optional forward call indicators parameter of the IAM to 'requested'. A received connected number presentation allowed is interworked.</p> <p>Connected number Nature of Address Indicator equal to</p> <ul style="list-style-type: none"> 'national (significant) number' 200 OK INVITE P-Asserted-Identity Add CC (of the country where the SUT is located) to Connected number address signals to construct an E.164 number in the URI. Prefix number with '+' in the format '+ CC NDC SN.' 'international number' 200 OK INVITE P-Asserted-Identity Map complete Connected number address signals to construct an E.164 number in the URI. Prefix number with "+" in the Format '+ CC NDC SN'. <p>Address presentation restriction indicator</p> <ul style="list-style-type: none"> 'presentation allowed' Privacy header is not present or if present the value is not equal to 'id' 																																																														
ISUP Parameter values	IAM: Optional forward call indicators = 'not requested' ANM/CON: Connected number present																																																														
SIP Parameter values	INVITE: P-Asserted-Identity present 200 OK: P-Asserted-Identity present																																																														
Comments																																																															
Message flows	<table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left; width: 30%;"></th> <th style="text-align: center; width: 15%;">Mg</th> <th style="text-align: center; width: 15%;"></th> <th style="text-align: center; width: 15%;">MGCF</th> <th style="text-align: center; width: 15%;"></th> <th style="text-align: center; width: 15%;">ISUP</th> </tr> </thead> <tbody> <tr> <td>INVITE</td> <td></td> <td style="text-align: center;">→</td> <td></td> <td style="text-align: center;">→</td> <td>IAM</td> </tr> <tr> <td>100 Trying</td> <td></td> <td style="text-align: center;">←</td> <td></td> <td></td> <td></td> </tr> <tr> <td colspan="6">CASE A</td> </tr> <tr> <td>180 Ringing</td> <td></td> <td style="text-align: center;">←</td> <td></td> <td style="text-align: center;">←</td> <td>ACM</td> </tr> <tr> <td>200 OK (INVITE)</td> <td></td> <td style="text-align: center;">←</td> <td></td> <td style="text-align: center;">←</td> <td>ANM</td> </tr> <tr> <td>ACK</td> <td></td> <td style="text-align: center;">→</td> <td></td> <td></td> <td></td> </tr> <tr> <td colspan="6">CASE B</td> </tr> <tr> <td>200 OK (INVITE)</td> <td></td> <td style="text-align: center;">←</td> <td></td> <td style="text-align: center;">←</td> <td>CON</td> </tr> <tr> <td>ACK</td> <td></td> <td style="text-align: center;">→</td> <td></td> <td></td> <td></td> </tr> </tbody> </table> <p style="text-align: center;">Apply post test routine</p>				Mg		MGCF		ISUP	INVITE		→		→	IAM	100 Trying		←				CASE A						180 Ringing		←		←	ACM	200 OK (INVITE)		←		←	ANM	ACK		→				CASE B						200 OK (INVITE)		←		←	CON	ACK		→			
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CASE B																																																															
200 OK (INVITE)		←		←	CON																																																										
ACK		→																																																													

TP number	TP_302_003	Reference	7.4.2.1.2																																																																						
TSS reference	PSTN-SS/COL/																																																																								
Selection criteria	PICS 6.3.4/1 AND (PICS 6.3.1/1 OR PICS 6.3.1/2) AND PICS 6.3.2/2																																																																								
Test Purpose name	The SUT invokes the COLP service presentation restricted																																																																								
Test Purpose	<p>Ensure that on receipt of an INVITE request ant the SUT invokes the COLP service, an IAM is sent and the Connected Line Identity Request indicator" field of the Optional forward call indicators parameter of the IAM to 'requested'. A received connected number presentation restricted is interworked</p> <p>Connected number Nature of Address Indicator equal to</p> <ul style="list-style-type: none"> 'national (significant) number' 200 OK INVITE P-Asserted-Identity Add CC (of the country where the SUT is located) to Connected number address signals to construct an E.164 number in the URI. Prefix number with '+' in the format '+ CC NDC SN.' 'international number' 200 OK INVITE P-Asserted-Identity Map complete Connected number address signals to construct an E.164 number in the URI. Prefix number with "+" in the Format '+ CC NDC SN'. <p>Address presentation restriction indicator</p> <ul style="list-style-type: none"> 'presentation restricted' Privacy: id 																																																																								
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	Mg	→	MGCF	→		ISUP																																																																			
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CASE B																																																																									
200 OK (INVITE)		←		←	CON																																																																				
ACK		→																																																																							

TP number	TP_302_004	Reference	7.4.2.2
TSS reference	PSTN-SS/COL/		
Selection criteria	(PICS 6.3.1/1 OR PICS 6.3.1/2) AND PICS 6.3.2/2		
Test Purpose name	COL request is set to 'not requested'		
Test Purpose	Ensure that on receipt of an IAM and the Connected Line Identity Request indicator in the Optional Forward Call Indicators parameter is set to 'not requested', no P-Asserted-Identity received in a provisional or successful final response is present. No connected number is sent in an ANM or CON.		
ISUP Parameter values			
SIP Parameter values			
Comments			
Message flows	ISUP	MGCF	Mg
	IAM	→	→ INVITE ← 100 Trying
	CASE A		
	ACM	←	← 180 Ringing
	ANM	←	← 200 OK (INVITE) → ACK
	CASE B		
	CON	←	← 200 OK (INVITE) → ACK
	Apply post test routine		

TP number	TP_302_004A	Reference	7.4.2.2
TSS reference	PSTN-SS/COL/		
Selection criteria	(PICS 6.3.1/1 OR PICS 6.3.1/2) AND PICS 6.3.2/2		
Test Purpose name	COL request is set to not requested P-Asserted-Identity is not mapped		
Test Purpose	Ensure that on receipt of an IAM and the Connected Line Identity Request indicator in the Optional Forward Call Indicators parameter is set to 'not requested', a P-Asserted-Identity received in a provisional or successful final response is present. No connected number is sent in an ANM or CON.		
ISUP Parameter values			
SIP Parameter values	200 OK: P-Asserted-Identity present		
Comments			
Message flows	ISUP	MGCF	Mg
	IAM	→	→ INVITE ← 100 Trying
	CASE A		
	ACM	←	← 180 Ringing
	ANM	←	← 200 OK (INVITE) → ACK
	CASE B		
	CON	←	← 200 OK (INVITE) → ACK
	Apply post test routine		

TP number	TP_302_004B	Reference	7.4.2.2
TSS reference	PSTN-SS/COL/		
Selection criteria	(PICS 6.3.1/1 OR PICS 6.3.1/2) AND PICS 6.3.2/2		
Test Purpose name	COL request is set to requested P-Asserted-Identity is not received a network provided Connected number is sent		
Test Purpose	<p>Ensure that on receipt of an IAM and the Connected Line Identity Request indicator in the Optional Forward Call Indicators parameter is set to 'requested', no P-Asserted-Identity received in a provisional or successful final response is present. A network provided connected number is sent in an ANM or CON.</p> <ul style="list-style-type: none"> • The Nature of address indicator is set to = spare • Numbering plan indicator = spare • Address presentation restriction indicator = Address not available • Screening indicator = network provided • Address signals: not present 		
ISUP Parameter values	ANM/CON: Connected number		
SIP Parameter values			
Comments			
Message flows	<p style="text-align: center;">ISUP</p> <p>IAM →</p> <p>CASE A</p> <p>ACM ←</p> <p>ANM ←</p> <p>CASE B</p> <p>CON ←</p>	<p style="text-align: center;">MGCF</p> <p>→</p> <p>←</p> <p>←</p> <p>→</p> <p>←</p> <p>→</p>	<p style="text-align: center;">Mg</p> <p>INVITE</p> <p>100 Trying</p> <p>180 Ringing</p> <p>200 OK (INVITE)</p> <p>ACK</p> <p>200 OK (INVITE)</p> <p>ACK</p> <p style="text-align: center;">Apply post test routine</p>

TP number	TP_302_005	Reference	7.4.2.2
TSS reference	PSTN-SS/COL/		
Selection criteria	(PICS 6.3.1/1 OR PICS 6.3.1/2) AND PICS 6.3.2/2		
Test Purpose name	COL request is set to 'requested' Terminating identity received in a 180 response		
Test Purpose	<p>Ensure that on receipt of an IAM and the Connected Line Identity Request indicator in the Optional Forward Call Indicators parameter is set to 'requested', the P-Asserted-Identity received in a provisional response is sent in the ANM.</p> <p>Coding of Connected number parameter</p> <p>Number incomplete indicator equal to 'Complete'</p> <p>Numbering Plan Indicator equal to 'ISDN/Telephony (Recommendation E.164 [i.1])'</p> <p>Nature of Address Indicator</p> <p>If CC encoded in the URI is equal to the CC of the country where MGCF is located AND the next BICC/ISUP node is located in the same country then set to "national (significant) number"</p> <p>else set to "international number"</p> <p>Address Presentation Restricted Indicator derived from the Privacy header according the mapping as described in table 6.2.2-1</p>		
ISUP Parameter values	<p>IAM: Optional Forward Call Indicators Connected Line Identity Request = requested</p> <p>ANM: Connected number Presentation restriction Privacy_VA</p>		
SIP Parameter values	180: P-Asserted-Identity		
Comments			
Message flows	<p style="text-align: center;">ISUP</p> <p>IAM →</p> <p>ACM ←</p> <p>ANM ←</p>	<p style="text-align: center;">MGCF</p> <p>→</p> <p>←</p> <p>←</p> <p>→</p>	<p style="text-align: center;">Mg</p> <p>INVITE</p> <p>100 Trying</p> <p>180 Ringing</p> <p>200 OK (INVITE)</p> <p>ACK</p> <p style="text-align: center;">Apply post test routine</p>

TP number	TP_302_006	Reference	7.4.2.2
TSS reference	PSTN-SS/COL/		
Selection criteria	(PICS 6.3.1/1 OR PICS 6.3.1/2) AND PICS 6.3.2/2		
Test Purpose name	COL request is set to 'requested' Terminating identity received in a 200 OK response		
Test Purpose	<p>Ensure that on receipt of an IAM and the Connected Line Identity Request indicator in the Optional Forward Call Indicators parameter is set to 'requested', the P-Asserted-Identity received in a 200 OK response is sent in the ANM.</p> <p>Coding of Connected number parameter</p> <p>Number incomplete indicator equal to 'Complete'</p> <p>Numbering Plan Indicator equal to 'ISDN/Telephony (<i>Recommendation E.164 [i.1]</i>)'</p> <p>Nature of Address Indicator</p> <p>If CC encoded in the URI is equal to the CC of the country where MGCF is located AND the next BICC/ISUP node is located in the same country then set to "national (significant) number"</p> <p>else set to "international number"</p> <p>Address Presentation Restricted Indicator derived from the Privacy header according the mapping as described in table 6.2.2-1</p>		
ISUP Parameter values	IAM: Optional Forward Call Indicators Connected Line Identity Request = requested ANM: Connected number Presentation restriction Privacy_VA		
SIP Parameter values	200: P-Asserted-Identity		
Comments			
Message flows	ISUP	MGCF	Mg
	IAM →		→ INVITE
			← 100 Trying
	ACM ←		← 180 Ringing
	ANM ←		← 200 OK (INVITE)
			→ ACK
	Apply post test routine		

TP number	TP_302_007	Reference	7.4.2.2
TSS reference	PSTN-SS/COL/		
Selection criteria	(PICS 6.3.1/1 OR PICS 6.3.1/2) AND PICS 6.3.2/2		
Test Purpose name	COL request is set to requested Terminating identity received in a 200 OK response		
Test Purpose	<p>Ensure that on receipt of an IAM and the Connected Line Identity Request indicator in the Optional Forward Call Indicators parameter is set to 'requested', if no provisional response was received the P-Asserted-Identity received in a 200 OK response is sent in the CON.</p> <p>Coding of Connected number parameter</p> <p>Number incomplete indicator equal to 'Complete'</p> <p>Numbering Plan Indicator equal to 'ISDN/Telephony (<i>Recommendation E.164 [i.1]</i>)'</p> <p>Nature of Address Indicator</p> <p>If CC encoded in the URI is equal to the CC of the country where MGCF is located AND the next BICC/ISUP node is located in the same country then set to "national (significant) number"</p> <p>else set to "international number"</p> <p>Address Presentation Restricted Indicator derived from the Privacy header according the mapping as described in table 6.2.2-1</p>		
ISUP Parameter values	IAM: Optional Forward Call Indicators Connected Line Identity Request = requested CON: Connected number Presentation restriction Privacy_VA		
SIP Parameter values	200: P-Asserted-Identity		
Comments			
Message flows	ISUP	MGCF	Mg
	IAM →		→ INVITE
			← 100 Trying
	ANM ←		← 200 OK (INVITE)
			→ ACK
	Apply post test routine		

Table 6.2.2-1: Mapping of Privacy value into Address presentation restriction indicator

Privacy_VA	Privacy value	Address Presentation Restricted Indicator
Privacy_VA_01	Header	Presentation restricted
Privacy_VA_02	User	Presentation restricted
Privacy_VA_03	None	Presentation allowed
Privacy_VA_04	Id	Presentation restricted
Privacy_VA_05	Privacy header not present	Presentation allowed

6.2.3 Malicious call identification

TP number	TP_303_001	Reference	7.4.4																																			
TSS reference	PSTN-SS/MCID/																																					
Selection criteria	NOT PICS 6.3.2/3																																					
Test Purpose name	MCID request before ACM																																					
Test Purpose	Ensure that a MCID request before an ACM received in an ISUP IDR is discarded without disrupt the call setup procedure. The sending of an IRS is optional																																					
ISUP Parameter values																																						
SIP Parameter values																																						
Comments																																						
Message flows	<table style="width:100%; border:none;"> <thead> <tr> <th style="text-align:center">Mg</th> <th style="text-align:center">→</th> <th style="text-align:center">MGCF</th> <th style="text-align:center">→</th> <th style="text-align:center">ISUP</th> </tr> </thead> <tbody> <tr> <td>INVITE</td> <td style="text-align:center">→</td> <td></td> <td style="text-align:center">→</td> <td>IAM</td> </tr> <tr> <td>100 Trying</td> <td style="text-align:center">←</td> <td></td> <td></td> <td></td> </tr> <tr> <td>CASE A</td> <td></td> <td></td> <td style="text-align:center">←</td> <td>IDR</td> </tr> <tr> <td></td> <td></td> <td></td> <td style="text-align:center">→</td> <td>IRS</td> </tr> <tr> <td>CASE B</td> <td></td> <td></td> <td style="text-align:center">←</td> <td>IDR</td> </tr> <tr> <td colspan="5" style="text-align:right">Apply post test routine</td> </tr> </tbody> </table>			Mg	→	MGCF	→	ISUP	INVITE	→		→	IAM	100 Trying	←				CASE A			←	IDR				→	IRS	CASE B			←	IDR	Apply post test routine				
Mg	→	MGCF	→	ISUP																																		
INVITE	→		→	IAM																																		
100 Trying	←																																					
CASE A			←	IDR																																		
			→	IRS																																		
CASE B			←	IDR																																		
Apply post test routine																																						

TP number	TP_303_002	Reference	7.4.4																																								
TSS reference	PSTN-SS/MCID/																																										
Selection criteria	NOT PICS 6.3.2/3																																										
Test Purpose name	MCID request after ACM																																										
Test Purpose	Ensure that a MCID request after an ACM received in an ISUP IDR is discarded without disrupt the call setup procedure. The sending of an IRS is optional																																										
ISUP Parameter values																																											
SIP Parameter values																																											
Comments																																											
Message flows	<table style="width:100%; border:none;"> <thead> <tr> <th style="text-align:center">Mg</th> <th style="text-align:center">→</th> <th style="text-align:center">MGCF</th> <th style="text-align:center">→</th> <th style="text-align:center">ISUP</th> </tr> </thead> <tbody> <tr> <td>INVITE</td> <td style="text-align:center">→</td> <td></td> <td style="text-align:center">→</td> <td>IAM</td> </tr> <tr> <td>100 Trying</td> <td style="text-align:center">←</td> <td></td> <td></td> <td></td> </tr> <tr> <td>180 Ringing</td> <td style="text-align:center">←</td> <td></td> <td style="text-align:center">←</td> <td>ACM</td> </tr> <tr> <td>CASE A</td> <td></td> <td></td> <td style="text-align:center">←</td> <td>IDR</td> </tr> <tr> <td></td> <td></td> <td></td> <td style="text-align:center">→</td> <td>IRS</td> </tr> <tr> <td>CASE B</td> <td></td> <td></td> <td style="text-align:center">←</td> <td>IDR</td> </tr> <tr> <td colspan="5" style="text-align:right">Apply post test routine</td> </tr> </tbody> </table>			Mg	→	MGCF	→	ISUP	INVITE	→		→	IAM	100 Trying	←				180 Ringing	←		←	ACM	CASE A			←	IDR				→	IRS	CASE B			←	IDR	Apply post test routine				
Mg	→	MGCF	→	ISUP																																							
INVITE	→		→	IAM																																							
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180 Ringing	←		←	ACM																																							
CASE A			←	IDR																																							
			→	IRS																																							
CASE B			←	IDR																																							
Apply post test routine																																											

6.2.4 Subaddressing (SUB)

TP number	TP_304_001	Reference	7.4.5.2												
TSS reference	PSTN-SS/SUB/														
Selection criteria	PICS 6.3.2/4														
Test Purpose name	isub parameter in the To header is mapped into Called party Subaddress														
Test Purpose	<p>Ensure that on receipt of an initial INVITE request, an IAM is sent. The isub parameter present in the To header is mapped into the Called party Subaddress covered in an Access Transport parameter in the sent IAM. If the isub-encoding parameter is present, the values 'nsap-ia5', 'nsap-bcd' or 'nsap' are relevant for mapping</p> <p>Encoding of the Subaddress in the IAM: Type of Subaddress='NSAP' Subaddress digits derived from the uric of the isub parameter</p>														
ISUP Parameter values	IAM: Access Transport Called party subaddress Type of Subaddress=NSAP Subaddress digits derived from the uric of the isub parameter														
SIP Parameter values	INVITE: To: isub uric Subaddress digits isub-encoding: Not present nsap-ia5 nsap-bcd nsap														
Comments															
Message flows	<table style="width:100%; border:none;"> <tr> <td style="text-align:center;">Mg</td> <td style="text-align:center;">MGCF</td> <td style="text-align:center;">ISUP</td> </tr> <tr> <td>INVITE</td> <td style="text-align:center;">→</td> <td>→ IAM</td> </tr> <tr> <td>100 Trying</td> <td style="text-align:center;">←</td> <td></td> </tr> <tr> <td colspan="3" style="text-align:center;">Apply post test routine</td> </tr> </table>			Mg	MGCF	ISUP	INVITE	→	→ IAM	100 Trying	←		Apply post test routine		
Mg	MGCF	ISUP													
INVITE	→	→ IAM													
100 Trying	←														
Apply post test routine															

TP number	TP_304_002	Reference	7.4.5.2												
TSS reference	PSTN-SS/SUB/														
Selection criteria	PICS 6.3.2/4														
Test Purpose name	isub parameter in the To header is not mapped														
Test Purpose	<p>Ensure that on receipt of an initial INVITE request, an IAM is sent. The isub parameter present in the To header is not mapped into the Called party Subaddress if the value of the isub-encoding parameter is other then 'nsap-ia5', 'nsap-bcd' or 'nsap'</p>														
ISUP Parameter values															
SIP Parameter values	INVITE: To: isub uric Subaddress digits isub-encoding: <any token>														
Comments															
Message flows	<table style="width:100%; border:none;"> <tr> <td style="text-align:center;">Mg</td> <td style="text-align:center;">MGCF</td> <td style="text-align:center;">ISUP</td> </tr> <tr> <td>INVITE</td> <td style="text-align:center;">→</td> <td>→ IAM</td> </tr> <tr> <td>100 Trying</td> <td style="text-align:center;">←</td> <td></td> </tr> <tr> <td colspan="3" style="text-align:center;">Apply post test routine</td> </tr> </table>			Mg	MGCF	ISUP	INVITE	→	→ IAM	100 Trying	←		Apply post test routine		
Mg	MGCF	ISUP													
INVITE	→	→ IAM													
100 Trying	←														
Apply post test routine															

TP number	TP_304_003	Reference	7.4.5.2												
TSS reference	PSTN-SS/SUB/														
Selection criteria	PICS 6.3.2/4														
Test Purpose name	isub parameter in the P-Asserted-Identity header is mapped into Calling party Subaddress														
Test Purpose	<p>Ensure that on receipt of an initial INVITE request, an IAM is sent. The isub parameter present in the P-Asserted-Identity header is mapped into the Calling party Subaddress covered in an Access Transport parameter in the sent IAM. If the isub-encoding parameter is present, the values 'nsap-ia5', 'nsap-bcd' or 'nsap' are relevant for mapping</p> <p>Encoding of the Subaddress: Type of Subaddress='NSAP' Subaddress digits derived from the uric of the isub parameter</p>														
ISUP Parameter values	IAM: Access Transport Calling party subaddress Type of Subaddress=NSAP Subaddress digits derived from the uric of the isub parameter														
SIP Parameter values	INVITE: P-Asserted-Identity: isub uric Subaddress digits isub-encoding: Not present nsap-ia5 nsap-bcd nsap														
Comments															
Message flows	<table style="width:100%; border:none;"> <tr> <td style="text-align:center;">Mg</td> <td style="text-align:center;">MGCF</td> <td style="text-align:center;">ISUP</td> </tr> <tr> <td>INVITE</td> <td style="text-align:center;">→</td> <td style="text-align:center;">→ IAM</td> </tr> <tr> <td>100 Trying</td> <td style="text-align:center;">←</td> <td></td> </tr> <tr> <td colspan="3" style="text-align:center;">Apply post test routine</td> </tr> </table>			Mg	MGCF	ISUP	INVITE	→	→ IAM	100 Trying	←		Apply post test routine		
Mg	MGCF	ISUP													
INVITE	→	→ IAM													
100 Trying	←														
Apply post test routine															

TP number	TP_304_004	Reference	7.4.5.2												
TSS reference	PSTN-SS/SUB/														
Selection criteria	PICS 6.3.2/4														
Test Purpose name	isub parameter in the P-Asserted-Identity header in the INVITE is not mapped														
Test Purpose	<p>Ensure that on receipt of an initial INVITE request, an IAM is sent. The isub parameter present in the P-Asserted-Identity header is not mapped into the Calling party Subaddress if the value of the isub-encoding parameter is other then 'nsap-ia5', 'nsap-bcd' or 'nsap'</p>														
ISUP Parameter values															
SIP Parameter values	INVITE: P-Asserted-Identity: isub uric Subaddress digits isub-encoding: <any token>														
Comments															
Message flows	<table style="width:100%; border:none;"> <tr> <td style="text-align:center;">Mg</td> <td style="text-align:center;">MGCF</td> <td style="text-align:center;">ISUP</td> </tr> <tr> <td>INVITE</td> <td style="text-align:center;">→</td> <td style="text-align:center;">→ IAM</td> </tr> <tr> <td>100 Trying</td> <td style="text-align:center;">←</td> <td></td> </tr> <tr> <td colspan="3" style="text-align:center;">Apply post test routine</td> </tr> </table>			Mg	MGCF	ISUP	INVITE	→	→ IAM	100 Trying	←		Apply post test routine		
Mg	MGCF	ISUP													
INVITE	→	→ IAM													
100 Trying	←														
Apply post test routine															

TP number	TP_304_005	Reference	7.4.5.2
TSS reference	PSTN-SS/SUB/		
Selection criteria	PICS 6.3.2/4		
Test Purpose name	Connected party Subaddress in the ANM is mapped into the isub parameter in the P-Asserted-Identity header in the 200 OK		
Test Purpose	Ensure that on receipt of an ANM message containing a Connected party Subaddress parameter in an Access Transport parameter, a 200 OK (INVITE) is sent and the P-Asserted-Identity header contains an isub parameter, the uric value is derived from the Connected Subaddress digits of the Connected party subaddress digits		
ISUP Parameter values	ANM: Access Transport Connected party subaddress Type of Subaddress=NSAP Subaddress digits		
SIP Parameter values	200 OK: P-Asserted-Identity: isub uric digits derived from the Connected party Subaddress digits		
Comments			
Message flows	Mg INVITE → 180 Ringing ← 200 OK (INVITE) ← ACK →	MGCF → ← ← →	ISUP → IAM ← ACM ← ANM
	Apply post test routine		

TP number	TP_304_006	Reference	7.4.5.2
TSS reference	PSTN-SS/SUB/		
Selection criteria	PICS 6.3.2/4		
Test Purpose name	Connected party Subaddress in the ANM is not mapped		
Test Purpose	Ensure that on receipt of an ANM message containing a Connected party Subaddress parameter in an Access Transport parameter, a 200 OK (INVITE) is sent and the Connected party subaddress is not mapped if the Type of subaddress is not equal 'NSAP'		
ISUP Parameter values	ANM: Access Transport Connected party subaddress Type of Subaddress other than NSAP		
SIP Parameter values			
Comments			
Message flows	Mg INVITE → 180 Ringing ← 200 OK (INVITE) ← ACK →	MGCF → ← ← →	ISUP → IAM ← ACM ← ANM
	Apply post test routine		

TP number	TP_304_007	Reference	7.4.5.3																		
TSS reference	PSTN-SS/SUB/																				
Selection criteria	PICS 6.3.2/4																				
Test Purpose name	Mapping of Called Party subaddress in the IAM into isub parameter in the To header in the INVITE																				
Test Purpose	Ensure that on receipt of an IAM containing a Called party subaddress in the Access Transport parameter, an initial INVITE is sent. The Called party subaddress is mapped into an isub parameter present in the To header in the INVITE if the Type of number of the subaddress is set to 'NSAP', the isub-encoding parameter is set to 'nsap-ia5'.																				
ISUP Parameter values	IAM: Access Transport Called party subaddress Type of Subaddress=NSAP Subaddress digits																				
SIP Parameter values	INVITE: To: isub uric digits derived from the Called party Subaddress digits isub-encoding=nsap-ia5																				
Comments																					
Message flows	<table style="width: 100%; border: none;"> <tr> <td style="width: 25%;"></td> <td style="text-align: center;">ISUP</td> <td style="text-align: center;">→</td> <td style="text-align: center;">MGCF</td> <td style="text-align: center;">→</td> <td style="text-align: center;">Mg</td> </tr> <tr> <td style="vertical-align: middle;">IAM</td> <td></td> <td></td> <td></td> <td style="vertical-align: middle;">←</td> <td style="vertical-align: middle;">INVITE 100 Trying</td> </tr> <tr> <td colspan="6" style="text-align: center;">Apply post test routine</td> </tr> </table>				ISUP	→	MGCF	→	Mg	IAM				←	INVITE 100 Trying	Apply post test routine					
	ISUP	→	MGCF	→	Mg																
IAM				←	INVITE 100 Trying																
Apply post test routine																					

TP number	TP_304_008	Reference	7.4.5.3																		
TSS reference	PSTN-SS/SUB/																				
Selection criteria	PICS 6.3.2/4																				
Test Purpose name	No mapping of Called Party subaddress in the IAM																				
Test Purpose	Ensure that on receipt of an IAM containing a Called party subaddress in the Access Transport parameter, an initial INVITE is sent. The Called party subaddress is not mapped into an isub parameter present in the To header of the INVITE if the Type of number of the subaddress is not equal to 'NSAP'																				
ISUP Parameter values	IAM: Access Transport Called party subaddress Type of Subaddress not NSAP Subaddress digits																				
SIP Parameter values																					
Comments																					
Message flows	<table style="width: 100%; border: none;"> <tr> <td style="width: 25%;"></td> <td style="text-align: center;">Mg</td> <td style="text-align: center;">→</td> <td style="text-align: center;">MGCF</td> <td style="text-align: center;">→</td> <td style="text-align: center;">ISUP</td> </tr> <tr> <td style="vertical-align: middle;">IAM</td> <td></td> <td></td> <td></td> <td style="vertical-align: middle;">←</td> <td style="vertical-align: middle;">INVITE 100 Trying</td> </tr> <tr> <td colspan="6" style="text-align: center;">Apply post test routine</td> </tr> </table>				Mg	→	MGCF	→	ISUP	IAM				←	INVITE 100 Trying	Apply post test routine					
	Mg	→	MGCF	→	ISUP																
IAM				←	INVITE 100 Trying																
Apply post test routine																					

TP number	TP_304_009	Reference	7.4.5.3																								
TSS reference	PSTN-SS/SUB/																										
Selection criteria	PICS 6.3.2/4																										
Test Purpose name	Mapping of Calling Party subaddress in the IAM into isub parameter in the P-Asserted-Identity header in the INVITE																										
Test Purpose	Ensure that on receipt of an IAM containing a Calling party subaddress in the Access Transport parameter, an initial INVITE is sent. The Calling party subaddress is mapped into an isub parameter present in the P-Asserted-Identity header in the INVITE if the Type of number of the subaddress is equal to 'NSAP', the isub-encoding parameter is set to 'nsap-ia5'.																										
ISUP Parameter values	IAM: Access Transport Calling party subaddress Type of Subaddress=NSAP Subaddress digits																										
SIP Parameter values	INVITE: P-Asserted-Identity: isub istic digits derived from the Calling party Subaddress digits isub-encoding=nsap-ia5																										
Comments																											
Message flows	<table style="width: 100%; border: none;"> <tr> <td style="width: 25%;"></td> <td style="text-align: center;">ISUP</td> <td style="text-align: center;">→</td> <td style="text-align: center;">MGCF</td> <td style="text-align: center;">→</td> <td style="text-align: center;">Mg</td> </tr> <tr> <td>IAM</td> <td></td> <td></td> <td></td> <td></td> <td>INVITE</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td>← 100 Trying</td> </tr> <tr> <td></td> <td></td> <td></td> <td style="text-align: center;">Apply post test routine</td> <td></td> <td></td> </tr> </table>				ISUP	→	MGCF	→	Mg	IAM					INVITE						← 100 Trying				Apply post test routine		
	ISUP	→	MGCF	→	Mg																						
IAM					INVITE																						
					← 100 Trying																						
			Apply post test routine																								

TP number	TP_304_010	Reference	7.4.5.3																								
TSS reference	PSTN-SS/SUB/																										
Selection criteria	AND PICS 6.3.2/4																										
Test Purpose name	No mapping of Calling Party subaddress in the IAM																										
Test Purpose	Ensure that on receipt of an IAM containing a Calling party subaddress in the Access Transport parameter, an initial INVITE is sent. The Calling party subaddress is not mapped into an isub parameter present in the P-Asserted-Identity header in the INVITE if the Type of number of the subaddress is not equal to 'NSAP'																										
ISUP Parameter values	IAM: Access Transport Calling party subaddress Type of Subaddress not NSAP Subaddress digits																										
SIP Parameter values																											
Comments																											
Message flows	<table style="width: 100%; border: none;"> <tr> <td style="width: 25%;"></td> <td style="text-align: center;">Mg</td> <td style="text-align: center;">→</td> <td style="text-align: center;">MGCF</td> <td style="text-align: center;">→</td> <td style="text-align: center;">ISUP</td> </tr> <tr> <td>IAM</td> <td></td> <td></td> <td></td> <td></td> <td>INVITE</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td>← 100 Trying</td> </tr> <tr> <td></td> <td></td> <td></td> <td style="text-align: center;">Apply post test routine</td> <td></td> <td></td> </tr> </table>				Mg	→	MGCF	→	ISUP	IAM					INVITE						← 100 Trying				Apply post test routine		
	Mg	→	MGCF	→	ISUP																						
IAM					INVITE																						
					← 100 Trying																						
			Apply post test routine																								

TP number	TP_304_011	Reference	7.4.5.3
TSS reference	PSTN-SS/SUB/		
Selection criteria	PICS 6.3.2/4		
Test Purpose name	Mapping of isub parameter in the 200 OK into the Connected party subaddress in the ANM		
Test Purpose	Ensure that on receipt of an isub parameter present in the P-Asserted-Identity in a 200 OK (INVITE), an ANM is sent and the received Subaddress is mapped in the Connected party subaddress present in the Access Transport parameter in the ANM. If the isub-encoding parameter is present, the values 'nsap-ia5', 'nsap-bcd' or 'nsap' are relevant for mapping		
ISUP Parameter values	ANM: Access Transport Connected party subaddress Type of Subaddress=NSAP Subaddress digits derived from the uric of the isub parameter		
SIP Parameter values	200 OK: P-Asserted-Identity: isub uric Subaddress digits isub-encoding: Not present nsap-ia5 nsap-bcd nsap		
Comments			
Message flows	ISUP	MGCF	Mg
	IAM	→	→ INVITE
	ACM	←	← 180 Ringing
	ANM	←	← 200 OK (INVITE)
			→ ACK
	Apply post test routine		

TP number	TP_304_012	Reference	7.4.5.3
TSS reference	PSTN-SS/SUB/		
Selection criteria	PICS 6.3.2/4		
Test Purpose name	Mapping of isub parameter in the 200 OK into the Connected party subaddress in the ANM		
Test Purpose	Ensure that on receipt of an isub parameter present in the P-Asserted-Identity in a 200 OK (INVITE), an ANM is sent and the received Subaddress is not mapped in the Connected party subaddress present in the Access Transport parameter in the ANM If the isub-encoding parameter is present and the value is not equal to 'nsap-ia5', 'nsap-bcd' or 'nsap'		
ISUP Parameter values			
SIP Parameter values	200 OK: P-Asserted-Identity: isub isub-encoding: Not nsap-ia5, nsap-bcd, nsap		
Comments			
Message flows	Mg	MGCF	ISUP
	IAM	→	→ INVITE
	ACM	←	← 180 Ringing
	ANM	←	← 200 OK (INVITE)
			→ ACK
	Apply post test routine		

6.2.5 Call Forwarding Busy (CFB)/Call Forwarding No Reply (CFNR)/Call Forwarding Unconditional (CFU)

TP number	TP_305_001	Reference	7.4.6.2.2 table 7.4.6.2.2.2									
TSS reference	PSTN-SS/CDIV/											
Selection criteria	PICS 6.3.1/1 AND PICS 6.3.2/5											
Test Purpose name	Mapping of 181 hi-targeted-to-uri into early ACM Redirection number and Redirecting Reason											
Test Purpose	<p>Ensure that on receipt of 181 (Call Is Being Forwarded) an ACM is sent. The called party status is set to 'no indication'. The History-Info entry following the last History-Info entry containing a Reason header is mapped into the Redirection number:</p> <ul style="list-style-type: none"> • If CC is equal the country code where the SUT is located: Nature of address indicator is set to 'national (significant) number', the country code is removed from the digit string and sent in the Address signal of the Redirection number • If the country code is not equal the country code where the SUT is located: Nature of address indicator is set to 'international number' the digit string is used unchanged and sent in the Address signal of the Redirection number <p>The Redirecting reason in the Call Diversion Information parameter is set as indicated in table 6.2.5-1</p>											
ISUP Parameter values	ACM: Called party status=no indication Redirection number Nature of address indicator Address signal Derived from the last History-Info entry Call Diversion Information Redirecting reason= Redirecting_Reason											
SIP Parameter values	181: History-Info: <sip:any proper URI?Reason=SIP;cause= CAUSE_value >; index=1, <sip:any proper URI>; index=1.1											
Comments												
Message flows	<table style="width:100%; border:none;"> <tr> <td style="text-align:center;">ISUP</td> <td style="text-align:center;">MGCF</td> <td style="text-align:center;">Mg</td> </tr> <tr> <td>IAM</td> <td style="text-align:center;">→</td> <td>INVITE</td> </tr> <tr> <td>ACM</td> <td style="text-align:center;">←</td> <td>181 Call Is Being Forwarded</td> </tr> </table> <p style="text-align:center;">Apply post test routine</p>			ISUP	MGCF	Mg	IAM	→	INVITE	ACM	←	181 Call Is Being Forwarded
ISUP	MGCF	Mg										
IAM	→	INVITE										
ACM	←	181 Call Is Being Forwarded										

Table 6.2.5-1: Mapping of Reason header into Redirecting reason

CAUSE	CAUSE_value	Redirecting_Reason
VA_01	302	Deflection immediate response
VA_02	486	User busy
VA_03	408	No reply
VA_04	503	Mobile subscriber not reachable

TP number	TP_305_001A	Reference	7.4.6.2.2 table 7.4.6.2.2.2									
TSS reference	PSTN-SS/CDIV/											
Selection criteria	PICS 6.3.1/1 AND PICS 6.3.2/5											
Test Purpose name	Mapping of 181 into early ACM Generic notification is set to 'Call is diverting'											
Test Purpose	Ensure that on receipt of 181 (Call Is Being Forwarded) History-Info header, an ACM is sent. The Generic notification indicator is set to 'Call is diverting'											
ISUP Parameter values	ACM: Called party status=no indication Generic Notification call is diverting											
SIP Parameter values	181: History-Info: <sip:any proper URI?Reason=SIP;cause=any >; index=1, <sip:any proper URI>; index=1.1											
Comments												
Message flows	<table style="width:100%; border:none;"> <tr> <td style="text-align:center;">ISUP</td> <td style="text-align:center;">MGCF</td> <td style="text-align:center;">Mg</td> </tr> <tr> <td>IAM</td> <td style="text-align:center;">→</td> <td>INVITE</td> </tr> <tr> <td>ACM</td> <td style="text-align:center;">←</td> <td>181 Call Is Being Forwarded</td> </tr> </table> <p style="text-align:center;">Apply post test routine</p>			ISUP	MGCF	Mg	IAM	→	INVITE	ACM	←	181 Call Is Being Forwarded
ISUP	MGCF	Mg										
IAM	→	INVITE										
ACM	←	181 Call Is Being Forwarded										

TP number	TP_305_002	Reference	7.4.6.2.2 table 7.4.6.2.2.4																				
TSS reference	PSTN-SS/CDIV/																						
Selection criteria	PICS 6.3.1/1 AND PICS 6.3.2/5																						
Test Purpose name	Mapping of 181 Privacy header into early ACM Notification subscription options																						
Test Purpose	Ensure that on receipt of 181 (Call Is Being Forwarded) containing a Privacy header, an ACM is sent. The called party status is set to 'no indication'. The Notification subscription options in the Call Diversion Information parameter is set according the Privacy header in the message body as indicated in table 6.2.5-2																						
ISUP Parameter values	ACM: Called party status=no indication Call Diversion Information Notification subscription options= SUBS_options																						
SIP Parameter values	181: Privacy: Priv-value History-Info: <sip:any proper URI?Reason=SIP;cause=any value >; index=1, <sip:any proper URI>; index=1.1																						
Comments																							
Message flows	<table style="width:100%; border:none;"> <tr> <td style="text-align:center;">ISUP</td> <td style="text-align:center;">→</td> <td style="text-align:center;">MGCF</td> <td style="text-align:center;">→</td> <td style="text-align:center;">Mg</td> </tr> <tr> <td>IAM</td> <td></td> <td></td> <td></td> <td>INVITE</td> </tr> <tr> <td>ACM</td> <td></td> <td></td> <td></td> <td>181 Call Is Being Forwarded</td> </tr> <tr> <td></td> <td style="text-align:center;">←</td> <td></td> <td style="text-align:center;">←</td> <td></td> </tr> </table> <p style="text-align:center;">Apply post test routine</p>			ISUP	→	MGCF	→	Mg	IAM				INVITE	ACM				181 Call Is Being Forwarded		←		←	
ISUP	→	MGCF	→	Mg																			
IAM				INVITE																			
ACM				181 Call Is Being Forwarded																			
	←		←																				

Table 6.2.5-2: Mapping of Privacy value into Notification subscription options

CAUSE	Priv-value	SUBS_options
VA_01	history	presentation not allowed
VA_02	session	presentation not allowed
VA_03	header	presentation not allowed
VA_04	None or <i>absent</i>	Presentation allowed with redirection number

TP number	TP_305_003	Reference	7.4.6.2.2 table 7.4.6.2.2.4																				
TSS reference	PSTN-SS/CDIV/																						
Selection criteria	PICS 6.3.1/1 AND PICS 6.3.2/5																						
Test Purpose name	Mapping of 181 escaped Privacy header into early ACM Notification subscription options																						
Test Purpose	Ensure that on receipt of 181 (Call Is Being Forwarded) containing an escaped Privacy header field in the last hi-targeted-to-uri, an ACM is sent. The called party status is set to 'no indication'. The Notification subscription options in the Call Diversion Information parameter is set according the escaped Privacy header in the last History entry as indicated in table 6.2.5-3																						
ISUP Parameter values	ACM: Called party status=no indication Call Diversion Information Notification subscription options= SUBS_options																						
SIP Parameter values	181: History-Info: <sip:any proper URI?Reason=SIP;cause= <i>any</i> >; index=1, <sip:any proper URI?Privacy= Priv-value >; index=1.1 <sip:any proper URI>; index=1.2																						
Comments	Privacy and Reason header can appear in reverse order																						
Message flows	<table style="width:100%; border:none;"> <tr> <td style="text-align:center;">ISUP</td> <td style="text-align:center;">→</td> <td style="text-align:center;">MGCF</td> <td style="text-align:center;">→</td> <td style="text-align:center;">Mg</td> </tr> <tr> <td>IAM</td> <td></td> <td></td> <td></td> <td>INVITE</td> </tr> <tr> <td>ACM</td> <td></td> <td></td> <td></td> <td>181 Call Is Being Forwarded</td> </tr> <tr> <td></td> <td style="text-align:center;">←</td> <td></td> <td style="text-align:center;">←</td> <td></td> </tr> </table> <p style="text-align:center;">Apply post test routine</p>			ISUP	→	MGCF	→	Mg	IAM				INVITE	ACM				181 Call Is Being Forwarded		←		←	
ISUP	→	MGCF	→	Mg																			
IAM				INVITE																			
ACM				181 Call Is Being Forwarded																			
	←		←																				

Table 6.2.5-3: Mapping of Privacy value into Notification subscription options

CAUSE	Priv-value	SUBS_options
VA_01	history	presentation allowed without redirection number
VA_02	session	presentation allowed without redirection number
VA_03	header	presentation allowed without redirection number
VA_04	None or <i>absent</i>	Presentation allowed with redirection number

TP number	TP_305_004	Reference	7.4.6.2.2 table 7.4.6.2.2.3												
TSS reference	PSTN-SS/CDIV/														
Selection criteria	PICS 6.3.1/1 AND PICS 6.3.2/5														
Test Purpose name	Mapping of 181 Privacy header into early ACM Redirection number restriction														
Test Purpose	Ensure that on receipt of 181 (Call Is Being Forwarded) containing a Privacy header, an ACM is sent. The called party status is set to 'no indication'. The Redirection number restriction is set according the Privacy header in the message body as indicated in table 6.2.5-4														
ISUP Parameter values	ACM: Called party status=no indication Redirection number restriction= PRES_restr														
SIP Parameter values	181: Privacy: Priv-value History-Info: <sip:any proper URI?Reason=SIP;cause= <i>any</i> >; index=1, <sip:any proper URI>; index=1.1														
Comments															
Message flows	<table style="width:100%; border:none;"> <tr> <td style="text-align:center;">ISUP</td> <td style="text-align:center;">MGCF</td> <td style="text-align:center;">Mg</td> </tr> <tr> <td>IAM</td> <td style="text-align:center;">→</td> <td>INVITE</td> </tr> <tr> <td>ACM</td> <td style="text-align:center;">←</td> <td>181 Call Is Being Forwarded</td> </tr> <tr> <td colspan="3" style="text-align:center;">Apply post test routine</td> </tr> </table>			ISUP	MGCF	Mg	IAM	→	INVITE	ACM	←	181 Call Is Being Forwarded	Apply post test routine		
ISUP	MGCF	Mg													
IAM	→	INVITE													
ACM	←	181 Call Is Being Forwarded													
Apply post test routine															

TP number	TP_305_005	Reference	7.4.6.2.2 table 7.4.6.2.2.3												
TSS reference	PSTN-SS/CDIV/														
Selection criteria	PICS 6.3.1/1 AND PICS 6.3.2/5														
Test Purpose name	Mapping of 181 escaped Privacy header into early ACM Redirection number restriction														
Test Purpose	Ensure that on receipt of 181 (Call Is Being Forwarded), an ACM is sent. The called party status is set to 'no indication'. The Redirection number restriction is set according the escaped Privacy header in the last History entry as indicated in table 6.2.5-4														
ISUP Parameter values	ACM: Called party status=no indication Redirection number restriction= PRES_restr														
SIP Parameter values	181: History-Info: <sip:any proper URI?Reason=SIP;cause= <i>any</i> >; index=1, <sip:any proper URI?Privacy= Priv-value >; index=1.1														
Comments															
Message flows	<table style="width:100%; border:none;"> <tr> <td style="text-align:center;">ISUP</td> <td style="text-align:center;">MGCF</td> <td style="text-align:center;">Mg</td> </tr> <tr> <td>IAM</td> <td style="text-align:center;">→</td> <td>INVITE</td> </tr> <tr> <td>ACM</td> <td style="text-align:center;">←</td> <td>181 Call Is Being Forwarded</td> </tr> <tr> <td colspan="3" style="text-align:center;">Apply post test routine</td> </tr> </table>			ISUP	MGCF	Mg	IAM	→	INVITE	ACM	←	181 Call Is Being Forwarded	Apply post test routine		
ISUP	MGCF	Mg													
IAM	→	INVITE													
ACM	←	181 Call Is Being Forwarded													
Apply post test routine															

Table 6.2.5-4: Mapping of Privacy value into Redirection number restriction

CAUSE	Priv-value	PRES_restr
VA_01	history	Presentation restricted
VA_02	session	Presentation restricted
VA_03	header	Presentation restricted
VA_04	None or <i>absent</i>	Presentation allowed or <i>absent</i>

TP number	TP_305_006	Reference	7.4.6.2.2 table 7.4.6.2.2.2, table 7.4.6.2.2.7
TSS reference	PSTN-SS/CDIV/		
Selection criteria	PICS 6.3.1/1 AND PICS 6.3.2/5		
Test Purpose name	Mapping of 181 hi-targeted-to-uri into CPG Redirection number and Redirecting Reason		
Test Purpose	<p>Ensure that on receipt of 181 (Call Is Being Forwarded) a CPG is sent. The Event indicator is set to 'Progress'. The History-Info entry following the last History-Info entry containing a Reason header is mapped into the Redirection number:</p> <ul style="list-style-type: none"> • If CC is equal the country code where the SUT is located: Nature of address indicator is set to 'national (significant) number', the country code is removed from the digit string • If the country code is not equal the country code where the SUT is located: Nature of address indicator is set to 'international number' the digit string is used unchanged. <p>The Redirecting reason in the Call Diversion Information parameter is set as indicated in table 6.2.5-5</p>		
ISUP Parameter values	CPG: Event=Progress OR Event= Redirecting_Reason Redirection number Derived from the last History-Info entry Call Diversion Information Redirecting reason= Redirecting_Reason		
SIP Parameter values	181: History-Info: <sip:any proper URI?Reason=SIP;cause= CAUSE_value >; index=1, <sip:any proper URI>; index=1.1		
Comments			
Message flows	ISUP IAM → ACM ← CPG ←	MGCF → ← ←	Mg → INVITE ← 180 Ringing ← 181 Call Is Being Forwarded Apply post test routine

Table 6.2.5-5: Mapping of Reason header into Redirecting reason

CAUSE	CAUSE_value	Redirecting_Reason
VA_01	302	Deflection immediate response
VA_02	486	User busy
VA_03	408	No reply
VA_04	503	Mobile subscriber not reachable

TP number	TP_305_006A	Reference	7.4.6.2.2 table 7.4.6.2.2.2, table 7.4.6.2.2.7
TSS reference	PSTN-SS/CDIV/		
Selection criteria	PICS 6.3.1/1 AND PICS 6.3.2/5		
Test Purpose name	Mapping of 181 hi-targeted-to-uri into CPG Generic notification is set to 'Call is diverting'		
Test Purpose	Ensure that on receipt of 181 (Call Is Being Forwarded) a CPG is sent. The Event indicator is set to 'Progress'. The Generic notification indicator is set to 'Call is diverting'.		
ISUP Parameter values	CPG: Event=Progress Generic Notification call is diverting		
SIP Parameter values	181: History-Info: <sip:any proper URI?Reason=SIP;cause=any>; index=1, <sip:any proper URI>; index=1.1		
Comments			
Message flows	ISUP IAM → ACM ← CPG ←	MGCF → ← ←	Mg → INVITE ← 180 Ringing ← 181 Call Is Being Forwarded Apply post test routine

TP number	TP_305_007	Reference	7.4.6.2.2 table 7.4.6.2.2.2 table 7.4.6.2.2.7	
TSS reference	PSTN-SS/CDIV/			
Selection criteria	PICS 6.3.5/1 AND PICS 6.3.1/1 AND PICS 6.3.2/5			
Test Purpose name	Mapping of 181 hi-targeted-to-uri escaped Reason header into CPG Event indicator			
Test Purpose	<p>Ensure that on receipt of 181 (Call Is Being Forwarded) a CPG is sent. The Event indicator is set to 'Redirecting_Reason' as indicated in table 6.2.5-6. The History-Info entry following the last History-Info entry containing a Reason header is mapped into the Redirection number:</p> <ul style="list-style-type: none"> • If CC is equal the country code where the SUT is located: Nature of address indicator is set to 'national (significant) number', the country code is removed from the digit string • If the country code is not equal the country code where the SUT is located: Nature of address indicator is set to 'international number' the digit string is used unchanged 			
ISUP Parameter values	CPG: Event= Redirecting_Reason Redirection number Derived from the last History-Info entry			
SIP Parameter values	181: History-Info: <sip:any proper URI?Reason=SIP;cause= CAUSE_value >; index=1, <sip:any proper URI>; index=1.1			
Comments				
Message flows	ISUP IAM ACM CPG	→ ← ←	MGCF → INVITE ← 180 Ringing ← 181 Call Is Being Forwarded	Mg
Apply post test routine				

Table 6.2.5-6: Mapping of Reason header into Event indicator

	CAUSE_value	Redirecting_Reason
VA_01	486	User busy
VA_02	408	No reply

TP number	TP_305_008	Reference	7.4.6.2.2 table 7.4.6.2.2.4	
TSS reference	PSTN-SS/CDIV/			
Selection criteria	PICS 6.3.1/1 AND PICS 6.3.2/5			
Test Purpose name	Mapping of 181 Privacy header into CPG Notification subscription options			
Test Purpose	<p>Ensure that on receipt of 181 (Call Is Being Forwarded) containing a Privacy header, a CPG is sent. The Event indicator is set to 'Progress'.</p> <p>The Notification subscription options in the Call Diversion Information parameter is set according the Privacy header in the message body as indicated in table 6.2.5-7</p>			
ISUP Parameter values	CPG: Event=Progress Call Diversion Information Notification subscription options= SUBS_options			
SIP Parameter values	181: Privacy: Priv-value History-Info: <sip:any proper URI?Reason=SIP;cause=any >; index=1, <sip:any proper URI>; index=1.1			
Comments				
Message flows	ISUP IAM ACM CPG	→ ← ←	MGCF → INVITE ← 180 Ringing ← 181 Call Is Being Forwarded	Mg
Apply post test routine				

Table 6.2.5-7: Mapping of Privacy value into Notification subscription options

CAUSE	Priv-value	SUBS_options
VA_01	history	presentation not allowed
VA_02	session	presentation not allowed
VA_03	header	presentation not allowed
VA_04	None or <i>absent</i>	Presentation allowed with redirection number

TP number	TP_305_009	Reference	7.4.6.2.2 table 7.4.6.2.2.4																									
TSS reference	PSTN-SS/CDIV/																											
Selection criteria	PICS 6.3.1/1 AND PICS 6.3.2/5																											
Test Purpose name	Mapping of 181 escaped Privacy header into CPG Notification subscription options																											
Test Purpose	Ensure that on receipt of 181 (Call Is Being Forwarded) containing an escaped Privacy header field in the last hi-targeted-to-uri, a CPG is sent. The Event indicator is set to 'Progress'. The Notification subscription options in the Call Diversion Information parameter is set according the escaped Privacy header in the last History entry as indicated in table 6.2.5-8																											
ISUP Parameter values	CPG: Event=Progress Call Diversion Information Notification subscription options= SUBS_options																											
SIP Parameter values	181: History-Info: <sip:any proper URI?Reason=SIP;cause=any >; index=1, <sip:any proper URI?Privacy= Priv-value >; index=1.1																											
Comments																												
Message flows	<table style="width:100%; border:none;"> <tr> <td style="text-align:center;">ISUP</td> <td style="text-align:center;">→</td> <td style="text-align:center;">MGCF</td> <td style="text-align:center;">→</td> <td style="text-align:center;">Mg</td> </tr> <tr> <td>IAM</td> <td></td> <td></td> <td></td> <td>INVITE</td> </tr> <tr> <td>ACM</td> <td>←</td> <td></td> <td></td> <td>180 Ringing</td> </tr> <tr> <td>CPG</td> <td>←</td> <td></td> <td></td> <td>181 Call Is Being Forwarded</td> </tr> <tr> <td colspan="5" style="text-align:center;">Apply post test routine</td> </tr> </table>			ISUP	→	MGCF	→	Mg	IAM				INVITE	ACM	←			180 Ringing	CPG	←			181 Call Is Being Forwarded	Apply post test routine				
ISUP	→	MGCF	→	Mg																								
IAM				INVITE																								
ACM	←			180 Ringing																								
CPG	←			181 Call Is Being Forwarded																								
Apply post test routine																												

Table 6.2.5-8: Mapping of Privacy value into Notification subscription options

CAUSE	Priv-value	SUBS_options
VA_01	history	presentation allowed without redirection number
VA_02	session	presentation allowed without redirection number
VA_03	header	presentation allowed without redirection number
VA_04	None or <i>absent</i>	Presentation allowed with redirection number

TP number	TP_305_010	Reference	7.4.6.2.2 table 7.4.6.2.2.3																									
TSS reference	PSTN-SS/CDIV/																											
Selection criteria	PICS 6.3.1/1 AND PICS 6.3.2/5																											
Test Purpose name	Mapping of 181 Privacy header into CPG Redirection number restriction																											
Test Purpose	Ensure that on receipt of 181 (Call Is Being Forwarded) containing a Privacy header in the message body, a CPG is sent. The Event indicator is set to 'Progress'. The Redirection number restriction is set according the Privacy header in the message body as indicated in table 6.2.5-9																											
ISUP Parameter values	CPG: Event=Progress Redirection number restriction= PRES_restr																											
SIP Parameter values	181: <i>Privacy: Priv-value</i> History-Info: <sip:any proper URI?Reason=SIP;cause=any value>; index=1, <sip:any proper URI>; index=1.1																											
Comments																												
Message flows	<table style="width:100%; border:none;"> <tr> <td style="text-align:center;">ISUP</td> <td style="text-align:center;">→</td> <td style="text-align:center;">MGCF</td> <td style="text-align:center;">→</td> <td style="text-align:center;">Mg</td> </tr> <tr> <td>IAM</td> <td></td> <td></td> <td></td> <td>INVITE</td> </tr> <tr> <td>ACM</td> <td>←</td> <td></td> <td></td> <td>180 Ringing</td> </tr> <tr> <td>CPG</td> <td>←</td> <td></td> <td></td> <td>181 Call Is Being Forwarded</td> </tr> <tr> <td colspan="5" style="text-align:center;">Apply post test routine</td> </tr> </table>			ISUP	→	MGCF	→	Mg	IAM				INVITE	ACM	←			180 Ringing	CPG	←			181 Call Is Being Forwarded	Apply post test routine				
ISUP	→	MGCF	→	Mg																								
IAM				INVITE																								
ACM	←			180 Ringing																								
CPG	←			181 Call Is Being Forwarded																								
Apply post test routine																												

TP number	TP_305_011	Reference	7.4.6.2.2 table 7.4.6.2.2.3
TSS reference	PSTN-SS/CDIV/		
Selection criteria	PICS 6.3.1/1 AND PICS 6.3.2/5		
Test Purpose name	Mapping of 181 escaped Privacy header into CPG Redirection number restriction		
Test Purpose	Ensure that on receipt of 181 (Call Is Being Forwarded), a CPG is sent. The Event indicator is set to 'Progress'. The Redirection number restriction is set according the escaped Privacy header in the last History entry as indicated in table 6.2.5-9		
ISUP Parameter values	CPG: Event=Progress Redirection number restriction= PRES_restr		
SIP Parameter values	181: History-Info: <sip:any proper URI?Reason=SIP;cause=any>; index=1, <sip:any proper URI?Privacy= Priv-value >; index=1.1		
Comments			
Message flows	ISUP	MGCF	Mg
	IAM →		INVITE
	ACM ←		180 Ringing
	CPG ←		181 Call Is Being Forwarded
	Apply post test routine		

Table 6.2.5-9: Mapping of Privacy value into Redirection number restriction

CAUSE	Priv-value	PRES_restr
VA_01	history	Presentation restricted
VA_02	session	Presentation restricted
VA_03	header	Presentation restricted
VA_04	None or <i>absent</i>	Presentation allowed or <i>absent</i>

TP number	TP_305_012	Reference	7.4.6.2.2 table 7.4.6.2.2.2, table 7.4.6.2.2.4
TSS reference	PSTN-SS/CDIV/		
Selection criteria	PICS 6.3.1/1 AND PICS 6.3.2/5		
Test Purpose name	Mapping of 180 hi-targeted-to-uri into ACM Redirection number and Redirecting Reason		
Test Purpose	Ensure that on receipt of 180 (Ringing) an ACM is sent. The called party status is set to 'subscriber free'. The History-Info entry following the last History-Info entry containing a Reason header is mapped into the Redirection number: <ul style="list-style-type: none"> If CC is equal the country code where the SUT is located: Nature of address indicator is set to 'national (significant) number', the country code is removed from the digit string If the country code is not equal the country code where the SUT is located: Nature of address indicator is set to 'international number' the digit string is used unchanged. The Redirecting reason in the Call Diversion Information parameter is set as indicated in table 6.2.5-10		
ISUP Parameter values	ACM: Called party status=subscriber free Redirection number Derived from the last History-Info entry Call Diversion Information Redirecting reason= Redirecting_Reason		
SIP Parameter values	180: History-Info: <sip:any proper URI?Reason=SIP;cause= CAUSE_value >; index=1, <sip:any proper URI>; index=1.1		
Comments			
Message flows	ISUP	MGCF	Mg
	IAM →		INVITE
	ACM ←		180 Ringing
	Apply post test routine		

Table 6.2.5-10: Mapping of Reason header into Redirecting reason

CAUSE	Redirecting Reason	CAUSE_value
VA_01	Deflection immediate response	302
VA_02	User busy	486
VA_03	No reply	408
VA_04	Mobile subscriber not reachable	503

TP number	TP_305_012A	Reference	7.4.6.2.2 table 7.4.6.2.2.2, table 7.4.6.2.2.4												
TSS reference	PSTN-SS/CDIV/														
Selection criteria	PICS 6.3.1/1 AND PICS 6.3.2/5														
Test Purpose name	Mapping of 180 hi-targeted-to-uri into ACM Generic notification 'Call is diverted'														
Test Purpose	Ensure that on receipt of 180 (Ringing) an ACM is sent. The called party status is set to 'subscriber free'. The History-Info entry following the last History-Info entry containing a Reason header is mapped into the Redirection number: The Generic notification indicator is set to 'Call is diverted'														
ISUP Parameter values	ACM: Called party status=subscriber free Generic Notification call is diverting														
SIP Parameter values	180: History-Info: <sip:any proper URI?Reason=SIP;cause=any>; index=1, <sip:any proper URI>; index=1.1														
Comments															
Message flows	<table style="width:100%; border:none;"> <tr> <td style="text-align:center;">ISUP</td> <td style="text-align:center;">MGCF</td> <td style="text-align:center;">Mg</td> </tr> <tr> <td>IAM</td> <td style="text-align:center;">→</td> <td>INVITE</td> </tr> <tr> <td>ACM</td> <td style="text-align:center;">←</td> <td>180 Ringing</td> </tr> <tr> <td colspan="3" style="text-align:center;">Apply post test routine</td> </tr> </table>			ISUP	MGCF	Mg	IAM	→	INVITE	ACM	←	180 Ringing	Apply post test routine		
ISUP	MGCF	Mg													
IAM	→	INVITE													
ACM	←	180 Ringing													
Apply post test routine															

TP number	TP_305_013	Reference	7.4.6.2.2 table 7.4.6.2.2.4												
TSS reference	PSTN-SS/CDIV/														
Selection criteria	PICS 6.3.1/1 AND PICS 6.3.2/5														
Test Purpose name	Mapping of 180 Privacy header into ACM Notification subscription options														
Test Purpose	Ensure that on receipt of 180 (Ringing) containing a Privacy header in the message body, an ACM is sent. The called party status is set to 'subscriber free'. The Notification subscription options in the Call Diversion Information parameter is set according the Privacy header in the message body as indicated in table 6.2.5-11														
ISUP Parameter values	ACM: Called party status=subscriber free Call Diversion Information Notification subscription options= SUBS_options														
SIP Parameter values	180: <i>Privacy: Priv-value</i> History-Info: <sip:any proper URI?Reason=SIP;cause=any value>; index=1, <sip:any proper URI; index=1.1														
Comments															
Message flows	<table style="width:100%; border:none;"> <tr> <td style="text-align:center;">ISUP</td> <td style="text-align:center;">MGCF</td> <td style="text-align:center;">Mg</td> </tr> <tr> <td>IAM</td> <td style="text-align:center;">→</td> <td>INVITE</td> </tr> <tr> <td>ACM</td> <td style="text-align:center;">←</td> <td>180 Ringing</td> </tr> <tr> <td colspan="3" style="text-align:center;">Apply post test routine</td> </tr> </table>			ISUP	MGCF	Mg	IAM	→	INVITE	ACM	←	180 Ringing	Apply post test routine		
ISUP	MGCF	Mg													
IAM	→	INVITE													
ACM	←	180 Ringing													
Apply post test routine															

Table 6.2.5-11: Mapping of Privacy value into Notification subscription options

CAUSE	Priv-value	SUBS_options
VA_01	history	presentation not allowed
VA_02	session	presentation not allowed
VA_03	header	presentation not allowed
VA_04	None or <i>absent</i>	Presentation allowed with redirection number

TP number	TP_305_014	Reference	7.4.6.2.2 table 7.4.6.2.2.4																				
TSS reference	PSTN-SS/CDIV/																						
Selection criteria	PICS 6.3.1/1 AND PICS 6.3.2/5																						
Test Purpose name	Mapping of 180 escaped Privacy header into ACM Notification subscription options																						
Test Purpose	Ensure that on receipt of 180 (Ringing) containing an escaped Privacy header field in the last hi-targeted-to-uri, an ACM is sent. The called party status is set to 'subscriber free'. The Notification subscription options in the Call Diversion Information parameter is set according the escaped Privacy header in the last History entry as indicated in table 6.2.5-12																						
ISUP Parameter values	ACM: Called party status=subscriber free Call Diversion Information Notification subscription options= SUBS_options																						
SIP Parameter values	180: History-Info: <sip:any proper URI?Reason=SIP;cause=any>; index=1, <sip:any proper URI?Privacy= Priv-value >; index=1.1																						
Comments																							
Message flows	<table style="width:100%; border:none;"> <tr> <td style="text-align:center;">ISUP</td> <td style="text-align:center;">→</td> <td style="text-align:center;">MGCF</td> <td style="text-align:center;">→</td> <td style="text-align:center;">Mg</td> </tr> <tr> <td>IAM</td> <td></td> <td></td> <td></td> <td>INVITE</td> </tr> <tr> <td>ACM</td> <td></td> <td></td> <td></td> <td>180 Ringing</td> </tr> <tr> <td></td> <td style="text-align:center;">←</td> <td></td> <td style="text-align:center;">←</td> <td></td> </tr> </table> <p style="text-align:center;">Apply post test routine</p>			ISUP	→	MGCF	→	Mg	IAM				INVITE	ACM				180 Ringing		←		←	
ISUP	→	MGCF	→	Mg																			
IAM				INVITE																			
ACM				180 Ringing																			
	←		←																				

Table 6.2.5-12: Mapping of Privacy value into Notification subscription options

CAUSE	Priv-value	SUBS_options
VA_01	history	presentation allowed without redirection number
VA_02	session	presentation allowed without redirection number
VA_03	header	presentation allowed without redirection number
VA_04	None or <i>absent</i>	Presentation allowed with redirection number

TP number	TP_305_015	Reference	7.4.6.2.2 table 7.4.6.2.2.3																				
TSS reference	PSTN-SS/CDIV/																						
Selection criteria	PICS 6.3.1/1 AND PICS 6.3.2/5																						
Test Purpose name	Mapping of 180 Privacy header into ACM Redirection number restriction																						
Test Purpose	Ensure that on receipt of 180 (Ringing) containing a Privacy header in the message body, an ACM is sent. The called party status is set to 'subscriber free'. The Redirection number restriction is set according the Privacy header in the message body as indicated in table 6.2.5-13																						
ISUP Parameter values	ACM: Called party status=subscriber free Redirection number restriction= PRES_restr																						
SIP Parameter values	181: <i>Privacy: Priv-value</i> History-Info: <sip:any proper URI?Reason=SIP;cause=any value>; index=1, <sip:any proper URI >; index=1.1																						
Comments																							
Message flows	<table style="width:100%; border:none;"> <tr> <td style="text-align:center;">ISUP</td> <td style="text-align:center;">→</td> <td style="text-align:center;">MGCF</td> <td style="text-align:center;">→</td> <td style="text-align:center;">Mg</td> </tr> <tr> <td>IAM</td> <td></td> <td></td> <td></td> <td>INVITE</td> </tr> <tr> <td>ACM</td> <td></td> <td></td> <td></td> <td>180 Ringing</td> </tr> <tr> <td></td> <td style="text-align:center;">←</td> <td></td> <td style="text-align:center;">←</td> <td></td> </tr> </table> <p style="text-align:center;">Apply post test routine</p>			ISUP	→	MGCF	→	Mg	IAM				INVITE	ACM				180 Ringing		←		←	
ISUP	→	MGCF	→	Mg																			
IAM				INVITE																			
ACM				180 Ringing																			
	←		←																				

TP number	TP_305_016	Reference	7.4.6.2.2 table 7.4.6.2.2.3									
TSS reference	PSTN-SS/CDIV/											
Selection criteria	PICS 6.3.1/1 AND PICS 6.3.2/5											
Test Purpose name	Mapping of 180 escaped Privacy header into ACM Redirection number restriction											
Test Purpose	Ensure that on receipt of 180 (Ringing) containing an escaped Privacy header in the last hi-targeted-to-uri, an ACM is sent. The called party status is set to 'subscriber free'. The Redirection number restriction is set according the escaped Privacy header in the last History entry as indicated in table 6.2.5-13											
ISUP Parameter values	ACM: Called party status=subscriber free Redirection number restriction= PRES_restr											
SIP Parameter values	181: History-Info: <sip:any proper URI?Reason=SIP;cause=any >; index=1, <sip:any proper URI?Privacy= Priv-value >; index=1.1											
Comments												
Message flows	<table style="width:100%; border:none;"> <tr> <td style="text-align:center;">ISUP</td> <td style="text-align:center;">MGCF</td> <td style="text-align:center;">Mg</td> </tr> <tr> <td>IAM</td> <td style="text-align:center;">→</td> <td>INVITE</td> </tr> <tr> <td>ACM</td> <td style="text-align:center;">←</td> <td>181 Ringing</td> </tr> </table> <p style="text-align:center;">Apply post test routine</p>			ISUP	MGCF	Mg	IAM	→	INVITE	ACM	←	181 Ringing
ISUP	MGCF	Mg										
IAM	→	INVITE										
ACM	←	181 Ringing										

Table 6.2.5-13: Mapping of Privacy value into Redirection number restriction

CAUSE	Priv-value	PRES_restr
VA_01	history	Presentation restricted
VA_02	session	Presentation restricted
VA_03	header	Presentation restricted
VA_04	None or <i>absent</i>	Presentation allowed or <i>absent</i>

TP number	TP_305_017	Reference	7.4.6.2.2 table 7.4.6.2.2.2 table 7.4.6.2.2.4 table 7.4.6.2.2.9												
TSS reference	PSTN-SS/CDIV/														
Selection criteria	PICS 6.3.1/1 AND PICS 6.3.2/5														
Test Purpose name	Mapping of 180 hi-targeted-to-uri into CPG Redirection number and Redirecting Reason														
Test Purpose	Ensure that on receipt of 180 (Ringing) a CPG is sent. The Event indicator is set to 'ALERTING'. The History-Info entry concerning the diverted-to number is mapped into the Redirection number: <ul style="list-style-type: none"> If CC is equal the country code where the SUT is located: Nature of address indicator is set to 'national (significant) number', the country code is removed from the digit string If the country code is not equal the country code where the SUT is located: Nature of address indicator is set to 'international number' the digit string is used unchanged. 														
ISUP Parameter values	CPG: Redirection number Derived from the last History-Info entry Call Diversion Information Redirecting reason= any value														
SIP Parameter values	181: History-Info: <sip:any proper URI?Reason=SIP;cause=any value>; index=1, <sip: any proper URI >; index=1.1														
Comments															
Message flows	<table style="width:100%; border:none;"> <tr> <td style="text-align:center;">ISUP</td> <td style="text-align:center;">MGCF</td> <td style="text-align:center;">Mg</td> </tr> <tr> <td>IAM</td> <td style="text-align:center;">→</td> <td>INVITE</td> </tr> <tr> <td>ACM</td> <td style="text-align:center;">←</td> <td>181 Call Is Being Forwarded</td> </tr> <tr> <td>CPG</td> <td style="text-align:center;">←</td> <td>180 Ringing</td> </tr> </table> <p style="text-align:center;">Apply post test routine</p>			ISUP	MGCF	Mg	IAM	→	INVITE	ACM	←	181 Call Is Being Forwarded	CPG	←	180 Ringing
ISUP	MGCF	Mg													
IAM	→	INVITE													
ACM	←	181 Call Is Being Forwarded													
CPG	←	180 Ringing													

Table 6.2.5-14: Void

TP number	TP_305_017A	Reference	7.4.6.2.2 table 7.4.6.2.2.2 table 7.4.6.2.2.4 table 7.4.6.2.2.9
TSS reference	PSTN-SS/CDIV/		
Selection criteria	PICS 6.3.1/1 AND PICS 6.3.2/5		
Test Purpose name	Mapping of 180 hi-targeted-to-uri into CPG Generic notification 'Call is diverting'		
Test Purpose	Ensure that on receipt of 180 (Ringing) a CPG is sent. The History-Info entry concerning the diverted-to number is mapped into the Redirection number: The Generic notification indicator is set to 'Call is diverting'.		
ISUP Parameter values	CPG: Generic Notification call is diverting		
SIP Parameter values	181: History-Info: <sip:any proper URI?Reason=SIP;cause=any value>; index=1, <sip: any proper URI >; index=1.1		
Comments			
Message flows	ISUP	MGCF	Mg
	IAM →		INVITE
	ACM ←		181 Call Is Being Forwarded
	CPG ←		180 Ringing
	Apply post test routine		

TP number	TP_305_017B	Reference	7.4.6.2.2 table 7.4.6.2.2.2 table 7.4.6.2.2.4 table 7.4.6.2.2.9
TSS reference	PSTN-SS/CDIV/		
Selection criteria	PICS 6.3.1/1 AND PICS 6.3.2/5		
Test Purpose name	Mapping of 180 hi-targeted-to-uri into CPG Event indicator 'ALERTING'		
Test Purpose	Ensure that on receipt of 180 (Ringing) a CPG is sent. The History-Info entry concerning the diverted-to number is mapped into the Redirection number: The Event information is set to 'Alerting'.		
ISUP Parameter values	CPG: Event=ALERTING		
SIP Parameter values	181: History-Info: <sip:any proper URI?Reason=SIP;cause=any value>; index=1, <sip: any proper URI >; index=1.1		
Comments			
Message flows	ISUP	MGCF	Mg
	IAM →		INVITE
	ACM ←		181 Call Is Being Forwarded
	CPG ←		180 Ringing
	Apply post test routine		

TP number	TP_305_018	Reference	7.4.6.2.2 table 7.4.6.2.2.4
TSS reference	PSTN-SS/CDIV/		
Selection criteria	PICS 6.3.1/1 AND PICS 6.3.2/5		
Test Purpose name	Mapping of 180 Privacy header into CPG Notification subscription options		
Test Purpose	Ensure that on receipt of 180 (Ringing) containing a Privacy header, a CPG is sent. The Notification subscription options in the Call Diversion Information parameter is set according the Privacy header in the message body as indicated in table 6.2.5-15		
ISUP Parameter values	CPG: Call Diversion Information Notification subscription options= SUBS_options		
SIP Parameter values	180: Privacy: Priv-value History-Info: <sip:any proper URI?Reason=SIP;cause=any value>; index=1, <sip:any proper URI>; index=1.1		
Comments			
Message flows	ISUP	MGCF	Mg
	IAM →		INVITE
	ACM ←		181 Call Is Being Forwarded
	CPG ←		180 Ringing
	Apply post test routine		

Table 6.2.5-15: Mapping of Privacy value into Notification subscription options

CAUSE	Priv-value	SUBS_options
VA_01	history	presentation not allowed
VA_02	session	presentation not allowed
VA_03	header	presentation not allowed
VA_04	None or <i>absent</i>	Presentation allowed with redirection number

TP number	TP_305_019	Reference	7.4.6.2.2 table 7.4.6.2.2.4
TSS reference	PSTN-SS/CDIV/		
Selection criteria	PICS 6.3.1/1 AND PICS 6.3.2/5		
Test Purpose name	Mapping of 180 escaped Privacy header into CPG Notification subscription options		
Test Purpose	Ensure that on receipt of 180 (Ringing) containing an escaped Privacy header field in the last hi-targeted-to-uri, a CPG is sent. The Notification subscription options in the Call Diversion Information parameter is set according the escaped Privacy header in the last History entry as indicated in table 6.2.5-16		
ISUP Parameter values	CPG: Call Diversion Information Notification subscription options= SUBS_options		
SIP Parameter values	180: History-Info: <sip:any proper URI?Reason=SIP;cause=any>; index=1, <sip:any proper URI?Privacy= Priv-value >; index=1.1		
Comments			
Message flows	ISUP	MGCF	Mg
	IAM →		INVITE
	ACM ←		181 Call Is Being Forwarded
	CPG ←		180 Ringing
	Apply post test routine		

Table 6.2.5-16: Mapping of Privacy value into Notification subscription options

CAUSE	Priv-value	SUBS_options
VA_01	history	presentation allowed without redirection number
VA_02	session	presentation allowed without redirection number
VA_03	header	presentation allowed without redirection number
VA_04	None or <i>absent</i>	Presentation allowed with redirection number

TP number	TP_305_020	Reference	7.4.6.2.2 table 7.4.6.2.2.3
TSS reference	PSTN-SS/CDIV/		
Selection criteria	PICS 6.3.1/1 AND PICS 6.3.2/5		
Test Purpose name	Mapping of 180 Privacy header into CPG Redirection number restriction		
Test Purpose	Ensure that on receipt of 180 (Ringing) containing a Privacy header, a CPG is sent. The Redirection number restriction is set according the Privacy header in the message body as indicated in table 6.2.5-17		
ISUP Parameter values	CPG: Redirection number restriction= PRES_restr		
SIP Parameter values	180: <i>Privacy: Priv-value</i> History-Info: <sip:any proper URI?Reason=SIP;cause=any value>; index=1, <sip:any proper URI>; index=1.1		
Comments			
Message flows	ISUP	MGCF	Mg
	IAM →		INVITE
	ACM ←		181 Call Is Being Forwarded
	CPG ←		180 Ringing
	Apply post test routine		

TP number	TP_305_021	Reference	7.4.6.2.2 table 7.4.6.2.2.3
TSS reference	PSTN-SS/CDIV/		
Selection criteria	PICS 6.3.1/1 AND PICS 6.3.2/5		
Test Purpose name	Mapping of 180 escaped Privacy header into CPG Redirection number restriction		
Test Purpose	Ensure that on receipt of 180 (Ringing), a CPG is sent. The Redirection number restriction is set according the escaped Privacy header in the last History entry as indicated in table 6.2.5-17		
ISUP Parameter values	CPG: Redirection number restriction= PRES_restr		
SIP Parameter values	180: History-Info: <sip:any proper URI?Reason=SIP;cause=any>; index=1, <sip:any proper URI?Privacy= <i>Priv-value</i> >; index=1.1		
Comments			
Message flows	ISUP	MGCF	Mg
	IAM →		INVITE
	ACM ←		181 Call Is Being Forwarded
	CPG ←		180 Ringing
	Apply post test routine		

Table 6.2.5-17: Mapping of Privacy value into Redirection number restriction

CAUSE	Priv-value	PRES_restr
VA_01	history	Presentation restricted
VA_02	session	Presentation restricted
VA_03	header	Presentation restricted
VA_04	None or <i>absent</i>	Presentation allowed <i>or absent</i>

TP number	TP_305_022	Reference	7.4.6.2.2 table 7.4.6.2.2.2 table 7.4.6.2.2.10
TSS reference	PSTN-SS/CDIV/		
Selection criteria	PICS 6.3.1/1 AND PICS 6.3.2/5		
Test Purpose name	Mapping of 200 hi-targeted-to-uri into ANM Redirection number		
Test Purpose	<p>Ensure that on receipt of 200 OK (INVITE) an ANM is sent. The History-Info entry following the last History-Info entry in the format +'CC+NDC+SN' containing a Reason header is mapped into the Redirection number:</p> <ul style="list-style-type: none"> • If 'CC' is equal the country code where the SUT is located: Nature of address indicator is set to 'national (significant) number', the country code is removed from the digit string • If the 'CC' is not equal the country code where the SUT is located: Nature of address indicator is set to 'international number' the digit string is used unchanged. 		
ISUP Parameter values	ANM: Redirection number Derived from the last History-Info entry		
SIP Parameter values	200: History-Info: <sip:any proper URI?Reason=SIP;cause=any value>; index=1, <sip:any proper URI>; index=1.1		
Comments			
Message flows	ISUP	MGCF	Mg
	IAM →	→	INVITE
	ACM ←	←	180 Ringing
	ANM ←	←	200 OK INVITE
		→	ACK
	Apply post test routine		

TP number	TP_305_023	Reference	7.4.6.2.2 table 7.4.6.2.2.3
TSS reference	PSTN-SS/CDIV/		
Selection criteria	PICS 6.3.1/1 AND PICS 6.3.2/5		
Test Purpose name	Mapping of 200 Privacy header into ANM Redirection number restriction		
Test Purpose	Ensure that on receipt of 200 OK (INVITE) containing a Privacy header, an ANM is sent. The Redirection number restriction is set according the Privacy header in the message body as indicated in table 6.2.5-18		
ISUP Parameter values	ANM: Redirection number restriction= PRES_restr		
SIP Parameter values	200: <i>Privacy: Priv-value</i> History-Info: <sip:any proper URI?Reason=SIP;cause=any value>; index=1, <sip:any proper URI>; index=1.1		
Comments			
Message flows	ISUP	MGCF	Mg
	IAM →	→	INVITE
	ACM ←	←	180 Ringing
	ANM ←	←	200 OK INVITE
		→	ACK
	Apply post test routine		

TP number	TP_305_024	Reference	7.4.6.2.2 table 7.4.6.2.2.3
TSS reference	PSTN-SS/CDIV/		
Selection criteria	PICS 6.3.1/1 AND PICS 6.3.2/5		
Test Purpose name	Mapping of 200 escaped Privacy header into ANM Redirection number restriction		
Test Purpose	Ensure that on receipt of 200 OK (INVITE), an ANM is sent. The Redirection number restriction is set according the escaped Privacy header in the last History entry as indicated in table 6.2.5-18		
ISUP Parameter values	ANM: Redirection number restriction= PRES_restr		
SIP Parameter values	200: History-Info: <sip:any proper URI?Reason=SIP;cause=any>; index=1, <sip:any proper URI?Privacy= Priv-value >; index=1.1		
Comments			
Message flows	ISUP	MGCF	Mg
	IAM →		INVITE
	ACM ←		180 Ringing
	ANM ←		200 OK INVITE
			→ ACK
	Apply post test routine		

TP number	TP_305_025	Reference	7.4.6.2.2 table 7.4.6.2.2.2, table 7.4.6.2.2.10
TSS reference	PSTN-SS/CDIV/		
Selection criteria	PICS 6.3.1/1 AND PICS 6.3.2/5		
Test Purpose name	Mapping of 200 hi-targeted-to-uri into CON Redirection number		
Test Purpose	Ensure that on receipt of 200 OK (INVITE) a CON is sent. The History-Info entry following the last History-Info entry in the format +CC+NDC+SN' containing a Reason header is mapped into the Redirection number: <ul style="list-style-type: none"> • If 'CC' is equal the country code where the SUT is located: Nature of address indicator is set to 'national (significant) number', the country code is removed from the digit string • If 'CC' is not equal the country code where the SUT is located: Nature of address indicator is set to 'international number' the digit string is used unchanged 		
ISUP Parameter values	CON: Redirection number Derived from the last History-Info entry		
SIP Parameter values	200: History-Info: <sip:any proper URI?Reason=SIP;cause=any value>; index=1, <sip: any proper URI >; index=1.1		
Comments			
Message flows	ISUP	MGCF	Mg
	IAM →		INVITE
	ANM ←		200 OK INVITE
			→ ACK
	Apply post test routine		

TP number	TP_305_026	Reference	7.4.6.2.2 table 7.4.6.2.2.3												
TSS reference	PSTN-SS/CDIV/														
Selection criteria	PICS 6.3.1/1 AND PICS 6.3.2/5														
Test Purpose name	Mapping of 200 Privacy header into CON Redirection number restriction														
Test Purpose	Ensure that on receipt of 200 OK (INVITE) containing a Privacy header, a CON is sent. The Redirection number restriction is set according the Privacy header in the message body as indicated in table 6.2.5-18														
ISUP Parameter values	CON: Redirection number restriction= PRES_restr														
SIP Parameter values	200: <i>Privacy: Priv-value</i> History-Info: <sip:any proper URI?Reason=SIP;cause=any value>; index=1, <sip:any proper URI>; index=1.1 <sip:any proper URI>; index=1.2														
Comments															
Message flows	<table style="width:100%; border:none;"> <tr> <td style="text-align:center;">ISUP</td> <td style="text-align:center;">MGCF</td> <td style="text-align:center;">Mg</td> </tr> <tr> <td>IAM</td> <td style="text-align:center;">→</td> <td>INVITE</td> </tr> <tr> <td>ANM</td> <td style="text-align:center;">←</td> <td>200 OK INVITE</td> </tr> <tr> <td></td> <td></td> <td>→ ACK</td> </tr> </table> <p style="text-align:center;">Apply post test routine</p>			ISUP	MGCF	Mg	IAM	→	INVITE	ANM	←	200 OK INVITE			→ ACK
ISUP	MGCF	Mg													
IAM	→	INVITE													
ANM	←	200 OK INVITE													
		→ ACK													

TP number	TP_305_027	Reference	7.4.6.2.2 table 7.4.6.2.2.3												
TSS reference	PSTN-SS/CDIV/														
Selection criteria	PICS 6.3.1/1 AND PICS 6.3.2/5														
Test Purpose name	Mapping of 200 escaped Privacy header into CON Redirection number restriction														
Test Purpose	Ensure that on receipt of 200 OK (INVITE), a CON is sent. The Redirection number restriction is set according the escaped Privacy header in the last History entry as indicated in table 6.2.5-18														
ISUP Parameter values	ANM: Redirection number restriction= PRES_restr														
SIP Parameter values	200: History-Info: <sip:any proper URI&Reason=SIP;cause=any>; index=1, <sip:any proper URI?Privacy= <i>Priv-value</i> >; index=1.1 <sip:any proper URI>; index=1.2														
Comments															
Message flows	<table style="width:100%; border:none;"> <tr> <td style="text-align:center;">ISUP</td> <td style="text-align:center;">MGCF</td> <td style="text-align:center;">Mg</td> </tr> <tr> <td>IAM</td> <td style="text-align:center;">→</td> <td>INVITE</td> </tr> <tr> <td>ANM</td> <td style="text-align:center;">←</td> <td>200 OK INVITE</td> </tr> <tr> <td></td> <td></td> <td>→ ACK</td> </tr> </table> <p style="text-align:center;">Apply post test routine</p>			ISUP	MGCF	Mg	IAM	→	INVITE	ANM	←	200 OK INVITE			→ ACK
ISUP	MGCF	Mg													
IAM	→	INVITE													
ANM	←	200 OK INVITE													
		→ ACK													

Table 6.2.5-18: Mapping of Privacy value into Redirection number restriction

CAUSE	Priv-value	PRES_restr
VA_01	history	Presentation restricted
VA_02	session	Presentation restricted
VA_03	header	Presentation restricted
VA_04	None or <i>absent</i>	Presentation allowed or <i>absent</i>

TP number	TP_305_028	Reference	7.4.6.2.3 table 7.4.6.2.3.1																		
TSS reference	PSTN-SS/CDIV/																				
Selection criteria	PICS 6.3.1/1 AND PICS 6.3.2/5																				
Test Purpose name	Mapping of Redirecting number Address Signals																				
Test Purpose	Ensure that on receipt of an IAM containing a Redirecting number parameter and a Redirection Information parameter, an INVITE request is sent and a History-Info header is present. The value of the second last hi-targeted-to-uri Value of Redirecting number is mapped from the Redirecting number Address Signals as indicated in table 6.2.5-19																				
ISUP Parameter values	IAM: Redirecting number Nature of Address: NoA_value Address Signals <any appropriate value> Redirection Information Original called number																				
SIP Parameter values	INVITE: History-Info: <sip:any proper URI?Reason=SIP;cause=404>; index=1, <sip: Value of Redirecting number ?Reason=SIP;cause=any>; index=1.1, <sip:any proper URI>; index=1.1.1																				
Comments																					
Message flows	<table style="width:100%; border:none;"> <tr> <td style="text-align:center;">ISUP</td> <td style="text-align:center;">→</td> <td style="text-align:center;">MGCF</td> <td style="text-align:center;">→</td> <td style="text-align:center;">INVITE</td> <td style="text-align:center;">Mg</td> </tr> <tr> <td style="text-align:center;">IAM</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td colspan="6" style="text-align:center;">Apply post test routine</td> </tr> </table>			ISUP	→	MGCF	→	INVITE	Mg	IAM						Apply post test routine					
ISUP	→	MGCF	→	INVITE	Mg																
IAM																					
Apply post test routine																					

Table 6.2.5-19: Mapping of Redirecting number into second last Hist-entry

	NoA_value	Value of Redirecting number second last hi-targeted-to-uri
VA_01	<i>national (significant) number</i>	Add '+' and the country code where the SUT is located to the Address Signal digits of the Redirecting number
VA_02	<i>international number</i>	Add '+' to the Address Signal digits of the Redirecting number

TP number	TP_305_029	Reference	7.4.6.2.3 table 7.4.6.2.3.1																		
TSS reference	PSTN-SS/CDIV/																				
Selection criteria	PICS 6.3.1/1 AND PICS 6.3.2/5																				
Test Purpose name	Mapping of Redirecting number Address presentation restricted indicator																				
Test Purpose	Ensure that on receipt of an IAM containing a Redirecting number parameter, an INVITE request is sent and a History-Info header is present. A Privacy header is escaped in the second last hi-targeted-to-uri and the PRIV_value is mapped from the Address presentation restricted indicator of the Redirecting number as indicated in table 6.2.5-20																				
ISUP Parameter values	IAM: Redirecting number Address presentation restricted indicator: APRI_value Redirection Information Original called number																				
SIP Parameter values	INVITE: History-Info: <sip:any proper URI?Reason=SIP;cause=404>; index=1, <sip:any proper URI?Privacy= PRIV_value &Reason=SIP;cause=any>; index=1.1, <sip:any proper URI>; index=1.1.1																				
Comments																					
Message flows	<table style="width:100%; border:none;"> <tr> <td style="text-align:center;">ISUP</td> <td style="text-align:center;">→</td> <td style="text-align:center;">MGCF</td> <td style="text-align:center;">→</td> <td style="text-align:center;">INVITE</td> <td style="text-align:center;">Mg</td> </tr> <tr> <td style="text-align:center;">IAM</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td colspan="6" style="text-align:center;">Apply post test routine</td> </tr> </table>			ISUP	→	MGCF	→	INVITE	Mg	IAM						Apply post test routine					
ISUP	→	MGCF	→	INVITE	Mg																
IAM																					
Apply post test routine																					

Table 6.2.5-20: Mapping of Redirecting number APRI into Privacy header in the second last Hist-entry

	APRI_value	PRIV_value second last hi-targeted-to-uri
VA_01	presentation restricted	history
VA_02	presentation allowed	Header absent or 'none'

TP number	TP_305_030	Reference	7.4.6.2.3 table 7.4.6.2.3.1												
TSS reference	PSTN-SS/CDIV/														
Selection criteria	PICS 6.3.1/1 AND PICS 6.3.2/5														
Test Purpose name	Mapping of Redirection Information Redirecting indicator														
Test Purpose	Ensure that on receipt of an IAM containing a Redirecting number and a Redirection Information parameter, an INVITE request is sent and a History-Info header is present. A Privacy header is escaped in the second last hi-targeted-to-uri and the PRIV_value is mapped from the Redirecting indicator of the Redirection Information as indicated in table 6.2.5-21														
ISUP Parameter values	IAM: Redirection Information Redirecting indicator= RDIND_value														
SIP Parameter values	INVITE: History-Info: <sip:any proper URI?Reason=SIP;cause=404>; index=1, <sip:any proper URI?Privacy= PRIV_value &Reason=SIP;cause=any>; index=1.1, <sip:any proper URI>; index=1.1.1														
Comments															
Message flows	<table style="width:100%; border:none;"> <tr> <td style="text-align:center;">ISUP</td> <td style="text-align:center;">→</td> <td style="text-align:center;">MGCF</td> <td style="text-align:center;">→</td> <td style="text-align:center;">INVITE</td> <td style="text-align:center;">Mg</td> </tr> <tr> <td style="text-align:left;">IAM</td> <td></td> <td style="text-align:center;">Apply post test routine</td> <td></td> <td></td> <td></td> </tr> </table>			ISUP	→	MGCF	→	INVITE	Mg	IAM		Apply post test routine			
ISUP	→	MGCF	→	INVITE	Mg										
IAM		Apply post test routine													

Table 6.2.5-21: Mapping of Redirecting indicator into Privacy header in the second last Hist-entry

	RDIND_value	PRIV_value second last hi-targeted-to-uri
VA_01	Call diverted, all redirection info presentation restricted	history
VA_02	Call diverted	none
VA_03	Call diverted AND Redirecting number APRI presentation restricted	history

TP number	TP_305_031	Reference	7.4.6.2.3 table 7.4.6.2.3.1												
TSS reference	PSTN-SS/CDIV/														
Selection criteria	PICS 6.3.1/1 AND PICS 6.3.2/5														
Test Purpose name	Mapping of Redirection Information Redirection counter														
Test Purpose	Ensure that on receipt of an IAM containing a Redirecting number and a Redirection Information parameter, an INVITE request is sent and a the hi-targeted-to-uri and the index parameter of the Redirection counter as indicated in table 6.2.5-22														
ISUP Parameter values	IAM: Redirection Information Redirection counter= RDCONT_value														
SIP Parameter values	INVITE: History-Info: ENTRY_values														
Comments															
Message flows	<table style="width:100%; border:none;"> <tr> <td style="text-align:center;">ISUP</td> <td style="text-align:center;">→</td> <td style="text-align:center;">MGCF</td> <td style="text-align:center;">→</td> <td style="text-align:center;">INVITE</td> <td style="text-align:center;">Mg</td> </tr> <tr> <td style="text-align:left;">IAM</td> <td></td> <td style="text-align:center;">Apply post test routine</td> <td></td> <td></td> <td></td> </tr> </table>			ISUP	→	MGCF	→	INVITE	Mg	IAM		Apply post test routine			
ISUP	→	MGCF	→	INVITE	Mg										
IAM		Apply post test routine													

Table 6.2.5-22: Mapping of Redirection counter into index parameter of History-Info header

	RDCONT_value	ENTRY_values
VA_01	1	<sip: represents the Original called number>; index=1 , <sip: represents the Called party number;cause=any>; index=1.1
VA_02	2	<sip: represents the Original called number>; index=1 , <sip: represents the Redirecting number;cause=404>; index=1.1 , <sip: represents the Called party number;cause=any>; index=1.1.1
VA_03	3	<sip: represents the Original called number>; index=1 , <sip: represents any placeholder value;cause=404>; index=1.1 , <sip: represents the Redirecting number;cause=404>; index=1.1.1 , <sip: represents the Called party number;cause=any>; index=1.1.1.1
VA_04	4	<sip: represents the Original called number>; index=1 , <sip: represents any placeholder value;cause=404>; index=1.1 , <sip: represents any placeholder value;cause=404>; index=1.1.1 , <sip: represents the Redirecting number;cause=404>; index=1.1.1.1 , <sip: represents the Called party number;cause=any>; index=1.1.1.1.1
VA_05	5	<sip: represents the Original called number>; index=1 , <sip: represents any placeholder value;cause=404>; index=1.1 , <sip: represents any placeholder value;cause=404>; index=1.1.1 , <sip: represents any placeholder value;cause=404>; index=1.1.1.1 , <sip: represents the Redirecting number;cause=404>; index=1.1.1.1.1 , <sip: represents the Called party number;cause=any>; index=1.1.1.1.1.1

TP number	TP_305_032	Reference	7.4.6.2.3 table 7.4.6.2.3.1																		
TSS reference	PSTN-SS/CDIV/																				
Selection criteria	PICS 6.3.1/1 AND PICS 6.3.2/5																				
Test Purpose name	Mapping of Redirection Information Original redirection reason																				
Test Purpose	Ensure that on receipt of an IAM containing a Redirection number an Original called number and a Redirection Information parameter, an INVITE request is sent. The Original redirection reason indicator ' unknown ' of the Redirection Information is mapped into the cause parameter value ' 404 ' of the first hi-targeted-to-uri of the History-Info header in the sent INVITE.																				
ISUP Parameter values	IAM: Redirection Information Original redirection reason= unknown																				
SIP Parameter values	INVITE: History-Info: <sip:any proper URI?Reason=SIP;cause= 404 >; index=1, <sip:any proper URI?Reason=SIP;cause=any>; index=1.1, <sip:any proper URI>; index=1.1.1																				
Comments																					
Message flows	<table style="width: 100%; border: none;"> <tr> <td style="text-align: center;">ISUP</td> <td style="text-align: center;">→</td> <td style="text-align: center;">MGCF</td> <td style="text-align: center;">→</td> <td style="text-align: center;">INVITE</td> <td style="text-align: center;">Mg</td> </tr> <tr> <td style="text-align: center;">IAM</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td colspan="2" style="text-align: center;">Apply post test routine</td> <td></td> <td></td> </tr> </table>			ISUP	→	MGCF	→	INVITE	Mg	IAM								Apply post test routine			
ISUP	→	MGCF	→	INVITE	Mg																
IAM																					
		Apply post test routine																			

Table 6.2.5-23: Void

TP number	TP_305_033	Reference	7.4.6.2.3 table 7.4.6.2.3.1																		
TSS reference	PSTN-SS/CDIV/																				
Selection criteria	PICS 6.3.1/1 AND PICS 6.3.2/5																				
Test Purpose name	Mapping of Redirection Information Redirecting reason																				
Test Purpose	Ensure that on receipt of an IAM containing a Redirection number an Original called number and a Redirection Information parameter, an INVITE request is sent. The Redirecting reason indicator REAS_value of the Redirection Information is mapped into the cause parameter Cause_value of the second last hi-targeted-to-uri of the History-Info header in the sent INVITE as indicated in table 6.2.5-24																				
ISUP Parameter values	IAM: Redirection Information Redirecting reason = REAS_value																				
SIP Parameter values	INVITE: History-Info: <sip:any proper URI?Reason=SIP;cause=404>; index=1, <sip:any proper URI?Reason=SIP;cause= Cause_value >; index=1.1, <sip:any proper URI>; index=1.1.1																				
Comments																					
Message flows	<table style="width: 100%; border: none;"> <tr> <td style="text-align: center;">ISUP</td> <td style="text-align: center;">→</td> <td style="text-align: center;">MGCF</td> <td style="text-align: center;">→</td> <td style="text-align: center;">INVITE</td> <td style="text-align: center;">Mg</td> </tr> <tr> <td style="text-align: center;">IAM</td> <td></td> <td></td> <td></td> <td style="text-align: center;">INVITE</td> <td></td> </tr> <tr> <td colspan="6" style="text-align: center;">Apply post test routine</td> </tr> </table>			ISUP	→	MGCF	→	INVITE	Mg	IAM				INVITE		Apply post test routine					
ISUP	→	MGCF	→	INVITE	Mg																
IAM				INVITE																	
Apply post test routine																					

Table 6.2.5-24: Mapping of Redirecting reason into Reason header in the second last Hist-entry

	REAS_value	Cause_value Second last hi-targeted-to-uri
VA_01	unknown	404
VA_02	unconditional	302
VA_03	User Busy	486
VA_04	No reply	408
VA_05	Deflection during alerting	302
VA_06	Deflection immediate response	302
VA_07	Mobile subscriber not reachable	503

TP number	TP_305_034	Reference	7.4.6.2.3 table 7.4.6.2.3.1																		
TSS reference	PSTN-SS/CDIV/																				
Selection criteria	PICS 6.3.1/1 AND PICS 6.3.2/5																				
Test Purpose name	Mapping of Called party number Address Signals																				
Test Purpose	Ensure that on receipt of an IAM containing a Redirecting number parameter and a Redirection Information parameter, an INVITE request is sent and a History-Info header is present. The Called party number is mapped into the last hi-targeted-to-uri of the History-Info header as indicated in table 6.2.5-25																				
ISUP Parameter values	IAM: Called party number Nature of Address: NoA_value Address Signals																				
SIP Parameter values	INVITE: History-Info: <sip:any proper URI?Reason=SIP;cause=404>; index=1, <sip:any proper URI?Reason=SIP;cause=any>; index=1.1 <sip: Value of Called party number >; index=1.1.1																				
Comments																					
Message flows	<table style="width: 100%; border: none;"> <tr> <td style="text-align: center;">ISUP</td> <td style="text-align: center;">→</td> <td style="text-align: center;">MGCF</td> <td style="text-align: center;">→</td> <td style="text-align: center;">INVITE</td> <td style="text-align: center;">Mg</td> </tr> <tr> <td style="text-align: center;">IAM</td> <td></td> <td></td> <td></td> <td style="text-align: center;">INVITE</td> <td></td> </tr> <tr> <td colspan="6" style="text-align: center;">Apply post test routine</td> </tr> </table>			ISUP	→	MGCF	→	INVITE	Mg	IAM				INVITE		Apply post test routine					
ISUP	→	MGCF	→	INVITE	Mg																
IAM				INVITE																	
Apply post test routine																					

Table 6.2.5-25: Mapping of Called party number into last Hist-entry

	NoA_value	Value of Called party number last hi-targeted-to-uri
VA_01	<i>national (significant) number</i>	Add '+' and the country code where the SUT is located to the Address Signal digits of the Called party number
VA_02	<i>international number</i>	Add '+' to the Address Signal digits of the Called party number

TP number	TP_305_035	Reference	7.4.6.2.3 table 7.4.6.2.3.1
TSS reference	PSTN-SS/CDIV/		
Selection criteria	PICS 6.3.1/1 AND PICS 6.3.2/5		
Test Purpose name	Mapping of Original called number Address Signals		
Test Purpose	Ensure that on receipt of an IAM containing an Original called number parameter and a Redirection Information parameter, an INVITE request is sent and a History-Info header is present. The value of the first hi-targeted-to-uri Value of Original called number is mapped from the Original called number Address Signals as indicated in table 6.2.5-26		
ISUP Parameter values	IAM: Original called number Nature of Address: NoA_value Address Signals < Digits >		
SIP Parameter values	INVITE: History-Info: <sip:Original called number?Reason=SIP;cause=404>; index=1 <sip:any proper URI?Reason=SIP;cause=any>; index=1.1 <sip:any proper URI>; index=1.1.1		
Comments			
Message flows	IAM	ISUP →	MGCF → INVITE Mg Apply post test routine

Table 6.2.5-26: Mapping of Original called number into first Hist-entry

	NoA_value	Value of Original called number First hi-targeted-to-uri
VA_01	<i>national (significant) number</i>	Add '+' and the country code where the SUT is located to the Address Signal digits of the Original called number
VA_02	<i>international number</i>	Add '+' to the Address Signal digits of the Original called number

TP number	TP_305_036	Reference	7.4.6.2.3 table 7.4.6.2.3.1
TSS reference	PSTN-SS/CDIV/		
Selection criteria	PICS 6.3.1/1 AND PICS 6.3.2/5		
Test Purpose name	Mapping of Original called number Address presentation restricted indicator		
Test Purpose	Ensure that on receipt of an IAM containing an Original called number parameter, an INVITE request is sent and a History-Info header is present. A Privacy header escaped in the first hi-targeted-to-uri and the PRIV_value is mapped from the Address presentation restricted indicator of the Original called number as indicated in table 6.2.5-27		
ISUP Parameter values	IAM: Original called number Address presentation restricted indicator: APRI_value Address Signals <any appropriate value>		
SIP Parameter values	INVITE: History-Info: <sip:any proper URI?Privacy=PRIV_value&Reason=SIP;cause=404>; index=1, <sip:any proper URI?Reason=SIP;cause=any>; index=1.1 <sip:any proper URI>; index=1.1.1		
Comments			
Message flows	IAM	ISUP →	MGCF → INVITE Mg Apply post test routine

Table 6.2.5-27: Mapping of Original called number APRI into Privacy header in the first Hist-entry

	APRI_value	PRIV_value first hi-targeted-to-uri
VA_01	presentation restricted	history
VA_02	presentation allowed	none

TP number	TP_305_037	Reference	7.4.6.3.2 table 7.4.6.3.2.2																				
TSS reference	PSTN-SS/CDIV/																						
Selection criteria	PICS 6.3.1/1 AND PICS 6.3.2/5																						
Test Purpose name	Latest History-Info header field entry containing a Reason header is mapped into Redirecting number Nature of address indicator																						
Test Purpose	Ensure that on receipt of an INVITE request containing a History-Info header, an IAM is sent and a Redirecting number an Original called number and a Redirection information parameter is present. The Nature of address indicator of the Redirecting number is mapped from the latest History-Info header field entry in the format 'CC+NDC+SN' containing a Reason header as indicated in table 6.2.5-28																						
ISUP Parameter values	IAM: Redirecting number Nature of address indicator= NoA_value																						
SIP Parameter values	INVITE: History-Info: <sip:any proper URI>; index=1, <sip: Second last entry URI ?Reason=SIP;cause=any>; index=1.1, <sip:any proper URI>; index=1.1.1																						
Comments																							
Message flows	<table style="width:100%; border:none;"> <tr> <td style="text-align:center;">Mg</td> <td></td> <td style="text-align:center;">MGCF</td> <td></td> <td style="text-align:center;">ISUP</td> </tr> <tr> <td>INVITE</td> <td style="text-align:center;">→</td> <td></td> <td style="text-align:center;">→</td> <td>IAM</td> </tr> <tr> <td>100 Trying</td> <td style="text-align:center;">←</td> <td></td> <td></td> <td></td> </tr> <tr> <td colspan="5" style="text-align:center;">Apply post test routine</td> </tr> </table>			Mg		MGCF		ISUP	INVITE	→		→	IAM	100 Trying	←				Apply post test routine				
Mg		MGCF		ISUP																			
INVITE	→		→	IAM																			
100 Trying	←																						
Apply post test routine																							

Table 6.2.5-28: Mapping of second last first Hist-entry into Redirecting number Nature of address indicator

	Second last entry URI	NoA_value
VA_01	CC is equal to the country code of the country where MGCF is located AND the next ISUP node is located in the same country	<i>national (significant) number</i>
VA_02	CC is not equal to the country code of the country where MGCF is located	<i>international number</i>

TP number	TP_305_038	Reference	7.4.6.3.2 table 7.4.6.3.2.2																				
TSS reference	PSTN-SS/CDIV/																						
Selection criteria	PICS 6.3.1/1 AND PICS 6.3.2/5																						
Test Purpose name	Latest History-Info header field entry containing a Reason header is mapped into Redirecting number Address signal																						
Test Purpose	Ensure that on receipt of an INVITE request containing a History-Info header, an IAM is sent and a Redirecting number an Original called number and a Redirection information parameter is present. The Address signal of the Redirecting number is mapped from the latest History-Info header field entry in the format 'CC+NDC+SN' containing a Reason header as indicated in table 6.2.5-29																						
ISUP Parameter values	IAM: Redirecting number Address signal <i>derived from the second last Hist-entry</i>																						
SIP Parameter values	INVITE: History-Info: <sip:any proper URI>; index=1, <sip: Second last entry URI ?Reason=SIP;cause=any>; index=1.1, <sip:any proper URI>; index=1.1.1																						
Comments																							
Message flows	<table style="width:100%; border:none;"> <tr> <td style="text-align:center;">Mg</td> <td></td> <td style="text-align:center;">MGCF</td> <td></td> <td style="text-align:center;">ISUP</td> </tr> <tr> <td>INVITE</td> <td style="text-align:center;">→</td> <td></td> <td style="text-align:center;">→</td> <td>IAM</td> </tr> <tr> <td>100 Trying</td> <td style="text-align:center;">←</td> <td></td> <td></td> <td></td> </tr> <tr> <td colspan="5" style="text-align:center;">Apply post test routine</td> </tr> </table>			Mg		MGCF		ISUP	INVITE	→		→	IAM	100 Trying	←				Apply post test routine				
Mg		MGCF		ISUP																			
INVITE	→		→	IAM																			
100 Trying	←																						
Apply post test routine																							

Table 6.2.5-29: Mapping of second last first Hist-entry into Redirecting number Address signal

	Second last entry URI	NoA_value
VA_01	CC is equal to the country code of the country where MGCF is located AND the next ISUP node is located in the same country	'+CC' is removed from the userpart digit string used in the Redirecting number Address signal
VA_02	CC is not equal to the country code of the country where MGCF is located	'+' is removed from the userpart digit string used in the Redirecting number Address signal

TP number	TP_305_039	Reference	7.4.6.3.2 table 7.4.6.3.2.2									
TSS reference	PSTN-SS/CDIV/											
Selection criteria	PICS 6.3.1/1 AND PICS 6.3.2/5											
Test Purpose name	Latest History-Info header field entry containing a Reason header escaped Privacy header is mapped into Redirecting number Address presentation restricted indicator											
Test Purpose	Ensure that on receipt of an INVITE request containing a History-Info header, an IAM is sent and a Redirecting number an Original called number and a Redirection information parameter is present. The Address presentation restricted indicator of the Redirecting number is mapped from the escaped Privacy header of the latest History-Info header field entry containing a Reason header as indicated in table 6.2.5-30											
ISUP Parameter values	IAM: Redirecting number Address presentation restricted indicator= APRI_value											
SIP Parameter values	INVITE: History-Info: < sip: any appropriate URI >; index=1, < sip: any proper URI?Privacy= PRIV_value &Reason=SIP;cause=any>; index=1.1, < sip: any proper URI>; index=1.1.1											
Comments												
Message flows	<table style="width: 100%; border: none;"> <tr> <td style="text-align: center;">Mg</td> <td style="text-align: center;">MGCF</td> <td style="text-align: center;">ISUP</td> </tr> <tr> <td>INVITE</td> <td style="text-align: center;">→</td> <td>→ IAM</td> </tr> <tr> <td>100 Trying</td> <td style="text-align: center;">←</td> <td></td> </tr> </table> <p style="text-align: center;">Apply post test routine</p>			Mg	MGCF	ISUP	INVITE	→	→ IAM	100 Trying	←	
Mg	MGCF	ISUP										
INVITE	→	→ IAM										
100 Trying	←											

TP number	TP_305_040	Reference	7.4.6.3.2 table 7.4.6.3.2.2									
TSS reference	PSTN-SS/CDIV/											
Selection criteria	PICS 6.3.1/1 AND PICS 6.3.2/5											
Test Purpose name	Privacy header is mapped into Redirecting number Address presentation restricted indicator											
Test Purpose	Ensure that on receipt of an INVITE request containing a History-Info header, an IAM is sent and a Redirecting number an Original called number and a Redirection information parameter is present. The Address presentation restricted indicator of the Redirecting number is mapped from the Privacy header of the received INVITE request as indicated in table 6.2.5-30											
ISUP Parameter values	IAM: Redirecting number Address presentation restricted indicator= APRI_value											
SIP Parameter values	INVITE: Privacy: PRIV_value History-Info: < sip: any appropriate URI >; index=1, < sip: any proper URI?Reason=SIP;cause=any>; index=1.1, < sip: any proper URI>; index=1.1.1											
Comments												
Message flows	<table style="width: 100%; border: none;"> <tr> <td style="text-align: center;">Mg</td> <td style="text-align: center;">MGCF</td> <td style="text-align: center;">ISUP</td> </tr> <tr> <td>INVITE</td> <td style="text-align: center;">→</td> <td>→ IAM</td> </tr> <tr> <td>100 Trying</td> <td style="text-align: center;">←</td> <td></td> </tr> </table> <p style="text-align: center;">Apply post test routine</p>			Mg	MGCF	ISUP	INVITE	→	→ IAM	100 Trying	←	
Mg	MGCF	ISUP										
INVITE	→	→ IAM										
100 Trying	←											

**Table 6.2.5-30: Mapping of Privacy header into Redirecting number
Address presentation restricted indicator**

	PRIV_value	APRI_value
VA_01	history	presentation restricted
VA_02	session	presentation restricted
VA_03	header	presentation restricted
VA_04	none	presentation allowed
VA_05	Header absent	presentation allowed

TP number	TP_305_041	Reference	7.4.6.3.2 table 7.4.6.3.2.3									
TSS reference	PSTN-SS/CDIV/											
Selection criteria	PICS 6.3.1/1 AND PICS 6.3.2/5											
Test Purpose name	Escaped Privacy header is mapped into Redirection information Redirecting indicator											
Test Purpose	Ensure that on receipt of an INVITE request containing a History-Info header, an IAM is sent and a Redirecting number an Original called number and a Redirection information parameter is present. The Redirecting indicator of the Redirection information is mapped from the escaped Privacy header of the latest History-Info header field entry containing a Reason header in the received INVITE request as indicated in table 6.2.5-31											
ISUP Parameter values	IAM: Redirection information Redirecting indicator= RDIND_value											
SIP Parameter values	INVITE: History-Info: <sip:any appropriate URI>; index=1, <sip:any proper URI?Privacy= PRIV_value &Reason=SIP;cause=any>; index=1.1, <sip:any proper URI>; index=1.1.1											
Comments												
Message flows	<table style="width:100%; border:none;"> <tr> <td style="text-align:center;">Mg</td> <td style="text-align:center;">MGCF</td> <td style="text-align:center;">ISUP</td> </tr> <tr> <td>INVITE</td> <td style="text-align:center;">→</td> <td>→ IAM</td> </tr> <tr> <td>100 Trying</td> <td style="text-align:center;">←</td> <td></td> </tr> </table> <p style="text-align:center;">Apply post test routine</p>			Mg	MGCF	ISUP	INVITE	→	→ IAM	100 Trying	←	
Mg	MGCF	ISUP										
INVITE	→	→ IAM										
100 Trying	←											

TP number	TP_305_042	Reference	7.4.6.3.2 table 7.4.6.3.2.3									
TSS reference	PSTN-SS/CDIV/											
Selection criteria	PICS 6.3.1/1 AND PICS 6.3.2/5											
Test Purpose name	Privacy header is mapped into Redirection information Redirecting indicator											
Test Purpose	Ensure that on receipt of an INVITE request containing a History-Info header, an IAM is sent and a Redirecting number an Original called number and a Redirection information parameter is present. The Redirecting indicator of the Redirection information is mapped from the Privacy header in the received INVITE request as indicated in table 6.2.5-31											
ISUP Parameter values	IAM: Redirection information Redirecting indicator= RDIND_value											
SIP Parameter values	INVITE: Privacy: PRIV_value History-Info: <sip:any appropriate URI>; index=1, <sip:any proper URI?Reason=SIP;cause=any>; index=1.1, <sip:any proper URI>; index=1.1.1											
Comments												
Message flows	<table style="width:100%; border:none;"> <tr> <td style="text-align:center;">Mg</td> <td style="text-align:center;">MGCF</td> <td style="text-align:center;">ISUP</td> </tr> <tr> <td>INVITE</td> <td style="text-align:center;">→</td> <td>→ IAM</td> </tr> <tr> <td>100 Trying</td> <td style="text-align:center;">←</td> <td></td> </tr> </table> <p style="text-align:center;">Apply post test routine</p>			Mg	MGCF	ISUP	INVITE	→	→ IAM	100 Trying	←	
Mg	MGCF	ISUP										
INVITE	→	→ IAM										
100 Trying	←											

Table 6.2.5-31: Mapping of Privacy header into Redirecting indicator

	PRIV_value	RDIND_value
VA_01	history	Call diverted, all redirection info presentation restricted
VA_02	session	Call diverted, all redirection info presentation restricted
VA_03	header	Call diverted, all redirection info presentation restricted
VA_04	none	Call diverted
VA_05	Privacy header field absent	Call diverted

TP number	TP_305_043	Reference	7.4.6.3.2 table 7.4.6.3.2.3									
TSS reference	PSTN-SS/CDIV/											
Selection criteria	PICS 6.3.1/1 AND PICS 6.3.2/5											
Test Purpose name	cause value is mapped into Redirection information Redirecting reason											
Test Purpose	Ensure that on receipt of an INVITE request containing a History-Info header, an IAM is sent and a Redirecting number an Original called number and a Redirection information parameter is present. The Redirecting reason of the Redirection information is mapped from the cause parameter of the Reason header of the latest History-Info header field entry containing a Reason header in the received INVITE request as indicated in table 6.2.5-32											
ISUP Parameter values	IAM: Redirection information Original redirection reason=unknown/not available Redirecting reason= REAS_value											
SIP Parameter values	INVITE: History-Info: <sip:any appropriate URI>; index=1, <sip:any proper URI?Reason=SIP;cause= Cause_value >; index=1.1, <sip:any proper URI>; index=1.1.1											
Comments												
Message flows	<table style="width:100%; border:none;"> <tr> <td style="text-align:center;">Mg</td> <td style="text-align:center;">MGCF</td> <td style="text-align:center;">ISUP</td> </tr> <tr> <td>INVITE</td> <td style="text-align:center;">→</td> <td>→ IAM</td> </tr> <tr> <td>100 Trying</td> <td style="text-align:center;">←</td> <td></td> </tr> </table> <p style="text-align:center;">Apply post test routine</p>			Mg	MGCF	ISUP	INVITE	→	→ IAM	100 Trying	←	
Mg	MGCF	ISUP										
INVITE	→	→ IAM										
100 Trying	←											

Table 6.2.5-32: Mapping of cause parameter in the second last Hist-entry into Redirecting reason

	Cause_value Second last hi-targeted-to-uri	REAS_value
VA_01	302	Deflection immediate response
VA_02	486	User Busy
VA_03	408	No reply
VA_04	503	Mobile subscriber not reachable
VA_05	404	unknown

TP number	TP_305_044	Reference	7.4.6.3.2 table 7.4.6.3.2.3																
TSS reference	PSTN-SS/CDIV/																		
Selection criteria	PICS 6.3.1/1 AND PICS 6.3.2/5																		
Test Purpose name	Hi-index is mapped into Redirection information Redirection counter																		
Test Purpose	Ensure that on receipt of an INVITE request containing a History-Info header, an IAM is sent and a Redirecting number an Original called number and a Redirection information parameter is present. The Redirection counter of the Redirection information is mapped from the hi-index of the last History-Info header field entry in the received INVITE request as indicated in table 6.2.5-33. The number of dots in the hi-index value is equal to the value of the Redirection counter																		
ISUP Parameter values	IAM: Redirection information Redirection counter= RDCONT_value																		
SIP Parameter values	INVITE: History-Info: ENTRY_values																		
Comments																			
Message flows	<table style="width: 100%; border: none;"> <tr> <td style="text-align: center;">Mg</td> <td style="text-align: center;">MGCF</td> <td style="text-align: center;">IAM</td> <td style="text-align: center;">ISUP</td> </tr> <tr> <td>INVITE</td> <td style="text-align: center;">→</td> <td style="text-align: center;">→</td> <td>IAM</td> </tr> <tr> <td>100 Trying</td> <td style="text-align: center;">←</td> <td></td> <td></td> </tr> <tr> <td colspan="4" style="text-align: center;">Apply post test routine</td> </tr> </table>			Mg	MGCF	IAM	ISUP	INVITE	→	→	IAM	100 Trying	←			Apply post test routine			
Mg	MGCF	IAM	ISUP																
INVITE	→	→	IAM																
100 Trying	←																		
Apply post test routine																			

Table 6.2.5-33: Mapping of Redirection counter into index parameters of History-Info header

	ENTRY_values	RDCONT_value
VA_01	<sip: represents the Original called number>; index=1 , <sip: represents the Called party number>; index=1.1	1
VA_02	<sip: represents the Original called number>; index=1 , <sip: represents the Redirecting number;cause=any>; index=1.1 , <sip: represents the Called party number>; index=1.1.1	2
VA_03	<sip: represents the Original called number>; index=1 , <sip: any proper URI;cause=404>; index=1.1 , <sip: represents the Redirecting number;cause=any>; index=1.1.1 , <sip: represents the Called party number>; index=1.1.1.1	3
VA_04	<sip: represents the Original called number>; index=1 , <sip: any proper URI;cause=404>; index=1.1 , <sip: any proper URI;cause=404>; index=1.1.1 , <sip: represents the Redirecting number;cause=any>; index=1.1.1.1 , <sip: represents the Called party number>; index=1.1.1.1.1	4
VA_05	<sip: represents the Original called number>; index=1 , <sip: any proper URI;cause=404>; index=1.1 , <sip: any proper URI;cause=404>; index=1.1.1 , <sip: any proper URI;cause=404>; index=1.1.1.1 , <sip: represents the Redirecting number;cause=any>; index=1.1.1.1.1 , <sip: represents the Called party number>; index=1.1.1.1.1.1	5

TP number	TP_305_045	Reference	7.4.6.3.2 table 7.4.6.3.2.4																
TSS reference	PSTN-SS/CDIV/																		
Selection criteria	PICS 6.3.1/1 AND PICS 6.3.2/5																		
Test Purpose name	First History-Info header field entry is mapped into Original called number Nature of address indicator																		
Test Purpose	Ensure that on receipt of an INVITE request containing a History-Info header, an IAM is sent and a Redirecting number an Original called number and a Redirection information parameter is present. The Nature of address indicator of the Original called number is mapped from the first History-Info header field entry in the format +‘CC+NDC+SN’ as indicated in table 6.2.5-34																		
ISUP Parameter values	IAM: Original called number Numbering Plan Indicator= <i>ISDN (Telephony) numbering plan (Recommendation E.164 [1.1])</i> Nature of address indicator= NoA_value																		
SIP Parameter values	INVITE: History-Info: <sip: First entry URI >; index=1, <sip:any proper URI?Reason=SIP;cause=any>; index=1.1, <sip:any proper URI>; index=1.1.1																		
Comments																			
Message flows	<table style="width:100%; border:none;"> <tr> <td style="text-align:center;">Mg</td> <td style="text-align:center;">MGCF</td> <td style="text-align:center;">IAM</td> <td style="text-align:center;">ISUP</td> </tr> <tr> <td>INVITE</td> <td style="text-align:center;">→</td> <td></td> <td></td> </tr> <tr> <td>100 Trying</td> <td style="text-align:center;">←</td> <td></td> <td></td> </tr> <tr> <td></td> <td colspan="3" style="text-align:center;">Apply post test routine</td> </tr> </table>			Mg	MGCF	IAM	ISUP	INVITE	→			100 Trying	←				Apply post test routine		
Mg	MGCF	IAM	ISUP																
INVITE	→																		
100 Trying	←																		
	Apply post test routine																		

Table 6.2.5-34: Mapping of first Hist-entry into Original called number Nature of address indicator

	First entry URI	NoA_value
VA_01	CC is equal to the country code of the country where MGCF is located AND the next ISUP node is located in the same country	<i>national (significant) number</i>
VA_02	CC is not equal to the country code of the country where MGCF is located	<i>international number</i>

TP number	TP_305_046	Reference	7.4.6.3.2 table 7.4.6.3.2.4																
TSS reference	PSTN-SS/CDIV/																		
Selection criteria	PICS 6.3.1/1 AND PICS 6.3.2/5																		
Test Purpose name	First History-Info header field entry is mapped into Original called Address signal																		
Test Purpose	Ensure that on receipt of an INVITE request containing a History-Info header, an IAM is sent and a Redirecting number an Original called number and a Redirection information parameter is present. The Address signal of the Original called number is mapped from the first History-Info header field entry in the format +‘CC+NDC+SN’ as indicated in table 6.2.5-35.																		
ISUP Parameter values	IAM: Original called Numbering Plan Indicator= <i>ISDN (Telephony) numbering plan (Recommendation E.164 [1.1])</i> Address signal <i>derived from the first Hist-entry</i>																		
SIP Parameter values	INVITE: History-Info: <sip: First entry URI >; index=1, <sip:any proper URI?Reason=SIP;cause=any>; index=1.1, <sip:any proper URI>; index=1.1.1																		
Comments																			
Message flows	<table style="width:100%; border:none;"> <tr> <td style="text-align:center;">Mg</td> <td style="text-align:center;">MGCF</td> <td style="text-align:center;">IAM</td> <td style="text-align:center;">ISUP</td> </tr> <tr> <td>INVITE</td> <td style="text-align:center;">→</td> <td></td> <td></td> </tr> <tr> <td>100 Trying</td> <td style="text-align:center;">←</td> <td></td> <td></td> </tr> <tr> <td></td> <td colspan="3" style="text-align:center;">Apply post test routine</td> </tr> </table>			Mg	MGCF	IAM	ISUP	INVITE	→			100 Trying	←				Apply post test routine		
Mg	MGCF	IAM	ISUP																
INVITE	→																		
100 Trying	←																		
	Apply post test routine																		

Table 6.2.5-35: Mapping of first Hist-entry into Original called number Address signal

	First entry URI	NoA_value
VA_01	CC is equal to the country code of the country where MGCF is located AND the next ISUP node is located in the same country	'+CC' is removed from the userpart digit string used in the Original called number Address signal
VA_02	CC is not equal to the country code of the country where MGCF is located	'+' is removed from the userpart digit string used in the Original called number Address signal

TP number	TP_305_047	Reference	7.4.6.3.2 table 7.4.6.3.2.4																
TSS reference	PSTN-SS/CDIV/																		
Selection criteria	PICS 6.3.1/1 AND PICS 6.3.2/5																		
Test Purpose name	First History-Info header field entry escaped Privacy header is mapped into Original called number Address presentation restricted indicator																		
Test Purpose	Ensure that on receipt of an INVITE request containing a History-Info header, an IAM is sent and a Redirecting number an Original called number and a Redirection information parameter is present. The Address presentation restricted indicator of the Original called number is mapped from the escaped Privacy header of the first History-Info header field entry as indicated in table 6.2.5-36																		
ISUP Parameter values	IAM: Original called Address presentation restricted indicator=APRI_value																		
SIP Parameter values	INVITE: History-Info: <sip:any appropriate URI?Privacy=PRIV_value>; index=1, <sip:any proper URI?Reason=SIP;cause=any>; index=1.1, <sip:any proper URI>; index=1.1.1																		
Comments																			
Message flows	<table style="width:100%; border:none;"> <tr> <td style="text-align:center; width:25%;">Mg</td> <td style="text-align:center; width:25%;">MGCF</td> <td style="text-align:center; width:25%;">IAM</td> <td style="text-align:center; width:25%;">ISUP</td> </tr> <tr> <td>INVITE</td> <td style="text-align:center;">→</td> <td>→</td> <td></td> </tr> <tr> <td>100 Trying</td> <td style="text-align:center;">←</td> <td></td> <td></td> </tr> <tr> <td colspan="4" style="text-align:center;">Apply post test routine</td> </tr> </table>			Mg	MGCF	IAM	ISUP	INVITE	→	→		100 Trying	←			Apply post test routine			
Mg	MGCF	IAM	ISUP																
INVITE	→	→																	
100 Trying	←																		
Apply post test routine																			

TP number	TP_305_048	Reference	7.4.6.3.2 table 7.4.6.3.2.4																
TSS reference	PSTN-SS/CDIV/																		
Selection criteria	PICS 6.3.1/1 AND PICS 6.3.2/5																		
Test Purpose name	Privacy header is mapped into Original called number Address presentation restricted indicator																		
Test Purpose	Ensure that on receipt of an INVITE request containing a History-Info header, an IAM is sent and a Redirecting number an Original called number and a Redirection information parameter is present. The Address presentation restricted indicator of the Original called number is mapped from the Privacy header of the received INVITE request as indicated in table 6.2.5-36																		
ISUP Parameter values	IAM: Original called Address presentation restricted indicator=APRI_value																		
SIP Parameter values	INVITE: <i>Privacy: PRIV_value</i> History-Info: <sip:any appropriate URI>; index=1, <sip:any proper URI?Reason=SIP;cause=any>; index=1.1, <sip:any proper URI>; index=1.1.1																		
Comments																			
Message flows	<table style="width:100%; border:none;"> <tr> <td style="text-align:center; width:25%;">Mg</td> <td style="text-align:center; width:25%;">MGCF</td> <td style="text-align:center; width:25%;">IAM</td> <td style="text-align:center; width:25%;">ISUP</td> </tr> <tr> <td>INVITE</td> <td style="text-align:center;">→</td> <td>→</td> <td></td> </tr> <tr> <td>100 Trying</td> <td style="text-align:center;">←</td> <td></td> <td></td> </tr> <tr> <td colspan="4" style="text-align:center;">Apply post test routine</td> </tr> </table>			Mg	MGCF	IAM	ISUP	INVITE	→	→		100 Trying	←			Apply post test routine			
Mg	MGCF	IAM	ISUP																
INVITE	→	→																	
100 Trying	←																		
Apply post test routine																			

**Table 6.2.5-36: Mapping of Privacy header into Redirecting number
Address presentation restricted indicator**

	PRIV_value	APRI_value
VA_01	history	presentation restricted
VA_02	session	presentation restricted
VA_03	header	presentation restricted
VA_04	none	presentation allowed
VA_05	Header absent	presentation allowed

TP number	TP_305_049	Reference	7.4.6.3.3 table 7.4.6.3.3.1, table 7.4.6.3.3.3
TSS reference	PSTN-SS/CDIV/		
Selection criteria	PICS 6.3.1/1 AND PICS 6.3.2/5		
Test Purpose name	Mapping of ACM Redirection number into 181 (Being forwarded) History-Info header		
Test Purpose	Ensure that on receipt of an ACM a Redirection number and the Call diversion parameter is present as an indication a call diversion occurred, a 181 (Being forwarded) is sent. The Redirection number is mapped into the hi-targeted-to-uri in a History-Info header containing one hi-entry in the sent 181 as indicated in table 6.2.5-37		
ISUP Parameter values	ACM: Backward call indicator Called party statue='no indication' Generic notification=call is diverting Call diversion information Redirection number Nature of address indicator= NOA_value Address signal Digits		
SIP Parameter values	181: History-Info: <sip:unknown@unknown.invalid>; index=1, <sip: LAST_HIST_URI ;cause=any>; index=1.1 OR History-Info: <sip:unknown@unknown.invalid?Reason=SIP;cause=any>; index=1, <sip: LAST_HIST_URI >; index=1.1		
Comments			
Message flows	Mg INVITE 181 Being forwarded	MGCF → ← Apply post test routine	ISUP → IAM ← ACM

Table 6.2.5-37: Mapping Redirection number into History-Info header

	NOA_value	History-Info header: LAST_HIST_URI
VA_01	<i>national (significant) number</i>	Add '+' and CC (of the country where the MGCF is located) to Redirection number Address Signals then map to user portion of the last hi-targeted-to-uri in the format '+ CC NDC SN'.
VA_01	<i>international number</i>	Map complete Redirection number Address Signals and '+' to user portion of the last hi-targeted-to-uri in the format '+ CC NDC SN'

TP number	TP_305_050	Reference	7.4.6.3.3 table 7.4.6.3.3.1, table 7.4.6.3.3.3
TSS reference	PSTN-SS/CDIV/		
Selection criteria	NOT PICS 6.3.5/2 AND PICS 6.3.1/1 AND PICS 6.3.2/5		
Test Purpose name	Mapping of ACM Redirecting reason into 181 (Being forwarded) History-Info header cause parameter		
Test Purpose	Ensure that on receipt of an ACM a Redirection number and the Call diversion parameter is present as an indication a call diversion occurred, a 181 (Being forwarded) is sent. The Call diversion information Redirecting reason is mapped into the cause parameter of the last hi-targeted-to-uri in a History-Info header in the sent 181 as indicated in table 6.2.5-38		
ISUP Parameter values	ACM: Backward call indicator Called party statue='no indication' Generic notification=call is diverting Redirection number Call diversion information Redirecting reason = REAS_value		
SIP Parameter values	181: History-Info: <sip:unknown@unknown.invalid>; index=1, <sip:derived from Redirection number;cause= Cause_value >; index=1.1 or History-Info: <sip:unknown@unknown.invalid?Reason=SIP;cause= Cause_value >; index=1, <sip:derived from Redirection number>; index=1.1		
Comments			
Message flows	Mg INVITE 181 Being forwarded	MGCF → ← Apply post test routine	ISUP → IAM ← ACM

Table 6.2.5-38: Mapping of Redirecting reason into cause parameter

CAUSE	Redirecting_Reason REAS_value	Cause parameter, CAUSE_value
VA_01	unknown	404
VA_02	unconditional	302
VA_03	User Busy	486
VA_04	No reply	408
VA_05	Deflection during alerting	302
VA_06	Deflection immediate response	302
VA_07	Mobile subscriber not reachable	503

TP number	TP_305_051	Reference	7.4.6.3.3 table 7.4.6.3.3.1, table 7.4.6.3.3.3												
TSS reference	PSTN-SS/CDIV/														
Selection criteria	PICS 6.3.5/2 AND PICS 6.3.1/1 AND PICS 6.3.2/5														
Test Purpose name	Mapping of ACM Redirecting reason into 181 (Being forwarded) History-Info header Reason header														
Test Purpose	Ensure that on receipt of an ACM a Redirection number and the Call diversion parameter is present as an indication a call diversion occurred, a 181 (Being forwarded) is sent. The Call diversion information Redirecting reason is mapped into the Reason header of the second last hi-targeted-to-uri in a History-Info header in the sent 181 as indicated in table 6.2.5-39														
ISUP Parameter values	ACM: Backward call indicator Called party status=no indication Generic notification=call is diverting Redirection number Call diversion information Redirecting reason = REAS_value														
SIP Parameter values	181: History-Info: <sip:unknown@unknown.invalid>; index=1, <sip:derived from Redirection number;cause= Cause_value >; index=1.1 or History-Info: <sip:unknown@unknown.invalid?Reason=SIP;cause= Cause_value >; index=1, <sip:derived from Redirection number>; index=1.1														
Comments															
Message flows	<table style="width:100%; border:none;"> <tr> <td style="text-align:center;">Mg</td> <td style="text-align:center;">MGCF</td> <td style="text-align:center;">ISUP</td> </tr> <tr> <td>INVITE</td> <td style="text-align:center;">→</td> <td>→ IAM</td> </tr> <tr> <td>181 Being forwarded</td> <td style="text-align:center;">←</td> <td>← ACM</td> </tr> <tr> <td colspan="3" style="text-align:center;">Apply post test routine</td> </tr> </table>			Mg	MGCF	ISUP	INVITE	→	→ IAM	181 Being forwarded	←	← ACM	Apply post test routine		
Mg	MGCF	ISUP													
INVITE	→	→ IAM													
181 Being forwarded	←	← ACM													
Apply post test routine															

Table 6.2.5-39: Mapping of Redirecting reason into Reason header

CAUSE	Redirecting_Reason REAS_value	Reason header, CAUSE_value
VA_01	unknown	302
VA_02	unconditional	302
VA_03	User Busy	486
VA_04	No reply	408
VA_05	Deflection during alerting	302
VA_06	Deflection immediate response	302
VA_07	Mobile subscriber not reachable	503

TP number	TP_305_052	Reference	7.4.6.3.3 table 7.4.6.3.3.1, table 7.4.6.3.3.3												
TSS reference	PSTN-SS/CDIV/														
Selection criteria	PICS 6.3.1/1 AND PICS 6.3.2/5														
Test Purpose name	Mapping of ACM Notification subscription options no 181 (Being forwarded) is sent														
Test Purpose	Ensure that on receipt of an ACM a Redirection number and the Call diversion parameter is present as an indication a call diversion occurred, if the Call diversion information Notification subscription options is set to presentation not allowed no 181 (Being forwarded) is sent														
ISUP Parameter values	ACM: Generic notification=call is diverting Redirection number Call diversion information Notification subscription options=presentation not allowed														
SIP Parameter values															
Comments															
Message flows	<table style="width:100%; border:none;"> <tr> <td style="text-align:center;">Mg</td> <td style="text-align:center;">MGCF</td> <td style="text-align:center;">ISUP</td> </tr> <tr> <td>INVITE</td> <td style="text-align:center;">→</td> <td>→ IAM</td> </tr> <tr> <td></td> <td></td> <td>← ACM</td> </tr> <tr> <td colspan="3" style="text-align:center;">Apply post test routine</td> </tr> </table>			Mg	MGCF	ISUP	INVITE	→	→ IAM			← ACM	Apply post test routine		
Mg	MGCF	ISUP													
INVITE	→	→ IAM													
		← ACM													
Apply post test routine															

TP number	TP_305_053	Reference	7.4.6.3.3 table 7.4.6.3.3.1, table 7.4.6.3.3.3												
TSS reference	PSTN-SS/CDIV/														
Selection criteria	PICS 6.3.1/1 AND PICS 6.3.2/5														
Test Purpose name	Mapping of ACM Notification subscription options into 181 (Being forwarded) escaped Privacy header														
Test Purpose	Ensure that on receipt of an ACM a Redirection number and the Call diversion parameter is present as an indication a call diversion occurred, a 181 (Being forwarded) is sent. The Call diversion information Notification subscription options is mapped into the escaped Privacy header of the last hi-targeted-to-uri in a History-Info header in the sent 181 as indicated in table 6.2.5-40														
ISUP Parameter values	ACM: Generic notification=call is diverting Redirection number Call diversion information Notification subscription options= NSO_value														
SIP Parameter values	181: History-Info: <sip:unknown@unknown.invalid>; index=1, <sip:any proper URI;cause=any?Privacy= PRIV_value >;index=1.1														
Comments															
Message flows	<table style="width:100%; border:none;"> <tr> <td style="text-align:center;">Mg</td> <td style="text-align:center;">MGCF</td> <td style="text-align:center;">ISUP</td> </tr> <tr> <td>INVITE</td> <td style="text-align:center;">→</td> <td>→ IAM</td> </tr> <tr> <td>181 Being forwarded</td> <td style="text-align:center;">←</td> <td>← ACM</td> </tr> <tr> <td colspan="3" style="text-align:center;">Apply post test routine</td> </tr> </table>			Mg	MGCF	ISUP	INVITE	→	→ IAM	181 Being forwarded	←	← ACM	Apply post test routine		
Mg	MGCF	ISUP													
INVITE	→	→ IAM													
181 Being forwarded	←	← ACM													
Apply post test routine															

Table 6.2.5-40: Mapping of Notification subscription options into Privacy header

CAUSE	NSO_value	PRIV_value
VA_01	Unknown	history
VA_02	presentation allowed with redirection number	Header not present
VA_03	presentation allowed without redirection number	history

TP number	TP_305_054	Reference	7.4.6.3.3 table 7.4.6.3.3.1, table 7.4.6.3.3.4															
TSS reference	PSTN-SS/CDIV/																	
Selection criteria	PICS 6.3.1/1 AND PICS 6.3.2/5																	
Test Purpose name	Mapping of CPG Redirection number into 181 (Being forwarded) History-Info header																	
Test Purpose	Ensure that on receipt of a CPG the Event indicator is set to 'Progress' a Redirection number and the Call diversion parameter is present as an indication a call diversion occurred, a 181 (Being forwarded) is sent. The Redirection number is mapped into the last hi-targeted-to-uri in a History-Info header in the sent 181 as indicated in table 6.2.5-37																	
ISUP Parameter values	CPG: Event=Progress Generic notification=call is diverting Call diversion information Redirection number Nature of address indicator= NOA_value Address signal Digits																	
SIP Parameter values	181: History-Info: <sip:unknown@unknown.invalid>; index=1, <sip: LAST_HIST_URI ;cause=any>; index=1.1																	
Comments																		
Message flows	<table style="width:100%; border:none;"> <tr> <td style="text-align:center;">Mg</td> <td style="text-align:center;">MGCF</td> <td style="text-align:center;">ISUP</td> </tr> <tr> <td>INVITE</td> <td style="text-align:center;">→</td> <td>→ IAM</td> </tr> <tr> <td>180 Ringing</td> <td style="text-align:center;">←</td> <td>← ACM</td> </tr> <tr> <td>181 Being forwarded</td> <td style="text-align:center;">←</td> <td>← CPG</td> </tr> <tr> <td colspan="3" style="text-align:center;">Apply post test routine</td> </tr> </table>			Mg	MGCF	ISUP	INVITE	→	→ IAM	180 Ringing	←	← ACM	181 Being forwarded	←	← CPG	Apply post test routine		
Mg	MGCF	ISUP																
INVITE	→	→ IAM																
180 Ringing	←	← ACM																
181 Being forwarded	←	← CPG																
Apply post test routine																		

TP number	TP_305_055	Reference	7.4.6.3.3 table 7.4.6.3.3.1, table 7.4.6.3.3.4
TSS reference	PSTN-SS/CDIV/		
Selection criteria	PICS 6.3.5/2 AND PICS 6.3.1/1 AND PICS 6.3.2/5		
Test Purpose name	Mapping of CPG Redirecting reason into 181 (Being forwarded) History-Info header cause parameter		
Test Purpose	Ensure that on receipt of a CPG the Event indicator is set to 'Progress' a Redirection number and the Call diversion parameter is present as an indication a call diversion occurred, a 181 (Being forwarded) is sent. The Call diversion information Redirecting reason is mapped into the cause parameter of the last hi-targeted-to-uri in a History-Info header in the sent 181 as indicated in table 6.2.5-38		
ISUP Parameter values	CPG: Event=Progress Generic notification=call is diverting Redirection number Call diversion information Redirecting reason = REAS_value		
SIP Parameter values	181: History-Info: <sip:unknown@unknown.invalid>; index=1, <sip:derived from Redirection number in ACM;cause= Cause_value >; index=1.1 or History-Info: <sip:unknown@unknown.invalid?Reason=SIP;cause= Cause_value >; index=1, <sip:derived from Redirection number>; index=1.1		
Comments			
Message flows	Mg INVITE → 180 Ringing ← 181 Being forwarded ←	MGCF → ← ←	ISUP → IAM ← ACM ← CPG Apply post test routine

TP number	TP_305_056	Reference	7.4.6.3.3 table 7.4.6.3.3.1, table 7.4.6.3.3.4
TSS reference	PSTN-SS/CDIV/		
Selection criteria	PICS 6.3.5/2 AND PICS 6.3.1/1 AND PICS 6.3.2/5		
Test Purpose name	Mapping of CPG Redirecting reason into 181 (Being forwarded) History-Info header Reason header		
Test Purpose	Ensure that on receipt of a CPG the Event indicator is set to 'Progress' a Redirection number and the Call diversion parameter is present as an indication a call diversion occurred, a 181 (Being forwarded) is sent. The Call diversion information Redirecting reason is mapped into the Reason header of the second last hi-targeted-to-uri in a History-Info header in the sent 181 as indicated in table 6.2.5-39		
ISUP Parameter values	CPG: Event=Progress Generic notification=call is diverting Redirection number Call diversion information Redirecting reason = REAS_value		
SIP Parameter values	181: History-Info: <sip:unknown@unknown.invalid>; index=1, <sip:derived from Redirection number;cause= Cause_value >; index=1.1 or History-Info: <sip:unknown@unknown.invalid?Reason=SIP;cause= Cause_value >; index=1, <sip: derived from Redirection number>; index=1.1		
Comments			
Message flows	Mg INVITE → 180 Ringing ← 181 Being forwarded ←	MGCF → ← ←	ISUP → IAM ← ACM ← CPG Apply post test routine

TP number	TP_305_057	Reference	7.4.6.3.3 table 7.4.6.3.3.1, table 7.4.6.3.3.4
TSS reference	PSTN-SS/CDIV/		
Selection criteria	PICS 6.3.1/1 AND PICS 6.3.2/5		
Test Purpose name	Mapping of CPG Notification subscription options no 181 (Being forwarded) is sent		
Test Purpose	Ensure that on receipt of a CPG the Event indicator is set to 'Progress' a Redirection number and the Call diversion parameter is present as an indication a call diversion occurred, if the Call diversion information Notification subscription options is set to presentation not allowed no 181 (Being forwarded) is sent		
ISUP Parameter values	CPG: Event=Progress Generic notification=call is diverting Redirection number Call diversion information Notification subscription options=presentation not allowed		
SIP Parameter values			
Comments			
Message flows	Mg INVITE → 180 Ringing ←	MGCF → ← ←	ISUP IAM ACM CPG
Apply post test routine			

TP number	TP_305_058	Reference	7.4.6.3.3 table 7.4.6.3.3.1, table 7.4.6.3.3.4
TSS reference	PSTN-SS/CDIV/		
Selection criteria	PICS 6.3.1/1 AND PICS 6.3.2/5		
Test Purpose name	Mapping of CPG Notification subscription options into 181 (Being forwarded) escaped Privacy header		
Test Purpose	Ensure that on receipt of a CPG the Event indicator is set to 'Progress' a Redirection number and the Call diversion parameter is present as an indication a call diversion occurred, a 181 (Being forwarded) is sent. The Call diversion information Notification subscription options is mapped into the escaped Privacy header of the last hi-targeted-to-uri in a History-Info header in the sent 181 as indicated in table 6.2.5-40		
ISUP Parameter values	CPG: Event=Progress Generic notification=call is diverting Redirection number Call diversion information Notification subscription options= NSO_value		
SIP Parameter values	181: History-Info: <sip:unknown@unknown.invalid>; index=1, <sip:any proper URI;cause=any?Privacy= PRIV_value >; index=1.1		
Comments			
Message flows	Mg INVITE → 180 Ringing ← 181 Being forwarded ←	MGCF → ← ←	ISUP IAM ACM CPG
Apply post test routine			

TP number	TP_305_059	Reference	7.4.6.3.3 table 7.4.6.3.3.1, table 7.4.6.3.3.5
TSS reference	PSTN-SS/CDIV/		
Selection criteria	PICS 6.3.1/1 AND PICS 6.3.2/5		
Test Purpose name	Mapping of a CPG Alerting Redirection number into 180 (Ringing) History-Info header Redirecting reason is mapped into the cause parameter		
Test Purpose	Ensure that on receipt of a CPG the Event indicator is set to 'Alerting' a Redirection number is present, a 180 (Ringing) is sent. The Redirection number Address signal digits are mapped into the last hi-targeted-to-uri in a History-Info header in the sent 180 as indicated in table 6.2.5-37 and the cause parameter value in the last entry is mapped from the received Redirecting reason as indicated in table 6.2.5-38		
ISUP Parameter values	ACM: Backward call indicator Called party status=no indication Optional backward call indicator In-band info or appropriate pattern is now available CPG: Event indicator=Alerting Redirection number Nature of address indicator= NOA_value Address signal Digits Call diversion information Redirecting reason = REAS_value		
SIP Parameter values	180: History-Info: <sip:unknown@unknown.invalid>; index=1, <sip: LAST_HIST_URI !cause= Cause_value >; index=1.1 or History-Info: <sip:unknown@unknown.invalid >; index=1, <sip: LAST_HIST_URI ?Reason=SIP;cause= Cause_value >; index=1.1		
Comments			
Message flows	Mg INVITE → 183 Session Progress ← 180 Ringing ←	MGCF → ← ←	ISUP IAM ACM CPG
	Apply post test routine		

TP number	TP_305_060	Reference	7.4.6.3.3 table 7.4.6.3.3.1, table 7.4.6.3.3.5
TSS reference	PSTN-SS/CDIV/		
Selection criteria	PICS 6.3.1/1 AND PICS 6.3.2/5		
Test Purpose name	Mapping of a CPG Alerting Redirection number into 180 (Ringing) History-Info header Redirecting reason in the first entry is mapped from a previous received ACM		
Test Purpose	Ensure that on receipt of a CPG the Event indicator is set to 'Alerting' a Redirection number is present, a 180 (Ringing) is sent. The Redirection number Address signal digits are mapped into the last hi-targeted-to-uri in a History-Info header in the sent 180 as indicated in table 6.2.5-37 and the cause parameter value is mapped from a previous received Redirecting reason in an ACM as indicated in table 6.2.5-38		
ISUP Parameter values	ACM: Backward call indicator Called party status=no indication Generic notification=call is diverting Call diversion information Redirecting reason = REAS_value Redirection number CPG: Event indicator=Alerting Redirection number Nature of address indicator= NOA_value Address signal Digits		
SIP Parameter values	180: History-Info: <sip:unknown@unknown.invalid;cause= Cause_value >; index=1, <sip: LAST_HIST_URI ;cause=any>; index=1.1 or History-Info: <sip:unknown@unknown.invalid?Reason=SIP;cause= Cause_value >; index=1, <sip: LAST_HIST_URI ;cause=any >; index=1.1		
Comments			
Message flows	Mg	MGCF	ISUP
	INVITE	→	→ IAM
	181 Being forwarded	←	← ACM
	180 Ringing	←	← CPG
	Apply post test routine		

TP number	TP_305_061	Reference	7.4.6.3.3 table 7.4.6.3.3.1, table 7.4.6.3.3.5
TSS reference	PSTN-SS/CDIV/		
Selection criteria	PICS 6.3.1/1 AND PICS 6.3.2/5		
Test Purpose name	Mapping of CPG Alerting Redirection Number Restriction into 180 (Ringing) Privacy header		
Test Purpose	Ensure that on receipt of a CPG the Event indicator is set to 'Alerting' a Redirection Number Restriction parameter is present, a 180 (Ringing) is sent. The Redirection Number Restriction parameter value is mapped into the Privacy header in the sent 180 as indicated in table 6.2.5-41.		
ISUP Parameter values	ACM: Backward call indicator Called party status=no indication Generic notification=call is diverting Call diversion information Redirection number CPG: Event indicator=Alerting Redirection Number Restriction= PRES_restr		
SIP Parameter values	180: History-Info: <sip:unknown@unknown.invalid>; index=1, <sip:any proper URI?Privacy= PRIV_value ;cause=any>; index=1.1		
Comments			
Message flows	Mg	MGCF	ISUP
	INVITE	→	→ IAM
	181 Being forwarded	←	← ACM
	180 Ringing	←	← CPG
	Apply post test routine		

Table 6.2.5-41: Mapping of Redirection Number Restriction parameter into Privacy header

CAUSE	Redirection Number Restriction PRES_restr	Privacy PRIV_value
VA_01	Presentation allowed	'none' OR Header not present
VA_02	Presentation restricted	'History'

TP number	TP_305_062	Reference	7.4.6.3.3 table 7.4.6.3.3.1, table 7.4.6.3.3.6															
TSS reference	PSTN-SS/CDIV/																	
Selection criteria	PICS 6.3.1/1 AND PICS 6.3.2/5																	
Test Purpose name	Mapping of ANM Redirection number into 200 OK History-Info header Redirecting reason is mapped into the cause parameter																	
Test Purpose	Ensure that on receipt of an ANM a Redirection number is present, a 200 OK (INVITE) is sent. The Redirection number Address signal digits are mapped into the last hi-targeted-to-uri in a History-Info header in the sent 200 OK as indicated in table 6.2.5-37 and the cause parameter value is mapped from the received Redirecting reason as indicated in table 6.2.5-38																	
ISUP Parameter values	ACM: Backward call indicator Called party status=subscriber free ANM: Generic notification=call is diverting Call diversion information Redirecting reason = REAS_value Redirection number Nature of address indicator= NOA_value Address signal Digits																	
SIP Parameter values	200 OK: History-Info: <sip:unknown@unknown.invalid>; index=1, <sip: LAST_HIST_URI ;cause= Cause_value >; index=1.1 or History-Info: <sip:unknown@unknown.invalid?Reason=SIP;cause= Cause_value >; index=1, <sip: LAST_HIST_URI >; index=1.1																	
Comments																		
Message flows	<table style="width:100%; border:none;"> <thead> <tr> <th style="text-align:center;">Mg</th> <th style="text-align:center;">MGCF</th> <th style="text-align:center;">ISUP</th> </tr> </thead> <tbody> <tr> <td>INVITE</td> <td style="text-align:center;">→</td> <td style="text-align:center;">→ IAM</td> </tr> <tr> <td>183 Session Progress</td> <td style="text-align:center;">←</td> <td style="text-align:center;">← ACM</td> </tr> <tr> <td>200 OK INVITE</td> <td style="text-align:center;">←</td> <td style="text-align:center;">← ANM</td> </tr> <tr> <td>ACK</td> <td style="text-align:center;">→</td> <td></td> </tr> </tbody> </table> <p style="text-align:center;">Apply post test routine</p>			Mg	MGCF	ISUP	INVITE	→	→ IAM	183 Session Progress	←	← ACM	200 OK INVITE	←	← ANM	ACK	→	
Mg	MGCF	ISUP																
INVITE	→	→ IAM																
183 Session Progress	←	← ACM																
200 OK INVITE	←	← ANM																
ACK	→																	

TP number	TP_305_063	Reference	7.4.6.3.3 table 7.4.6.3.3.1, table 7.4.6.3.3.6
TSS reference	PSTN-SS/CDIV/		
Selection criteria	PICS 6.3.1/1 AND PICS 6.3.2/5		
Test Purpose name	Mapping of ANM Redirection number into 200 OK History-Info header a previous received Redirecting reason is mapped into the cause parameter in the first entry.		
Test Purpose	Ensure that on receipt of an ANM a Redirection number is present, a 200 OK (INVITE) is sent. The Redirection number Address signal digits are mapped into the last hi-targeted-to-uri in a History-Info header in the sent 200 as indicated in table 6.2.5-37 and the cause parameter value is mapped from a previous received Redirecting reason as indicated in table 6.2.5-39		
ISUP Parameter values	CPG: Event information ALERTING Generic notification=call is diverting Call diversion information Redirecting reason = REAS_value Redirection number ANM: Redirection number Nature of address indicator= NOA_value Address signal Digits		
SIP Parameter values	200 OK: History-Info: <sip:unknown@unknown.invalid>; index=1, <sip: LAST_HIST_URI ;cause= Cause_value any>; index=1.1 or History-Info: <sip:unknown@unknown.invalid?Reason=SIP;cause= Cause_value >; index=1, <sip: LAST_HIST_URI >; index=1.1		
Comments			
Message flows	Mg INVITE → 183 Session Progress ← 180 Ringing ← 200 OK INVITE ← ACK →	MGCF → ← ← ← →	ISUP IAM ACM CPG ANM Apply post test routine

TP number	TP_305_064	Reference	7.4.6.3.3 table 7.4.6.3.3.1, table 7.4.6.3.3.6
TSS reference	PSTN-SS/CDIV/		
Selection criteria	PICS 6.3.1/1 AND PICS 6.3.2/5		
Test Purpose name	Mapping of ANM Redirection Number Restriction into 200 OK INVITE Privacy header		
Test Purpose	Ensure that on receipt of an ANM a Redirection Number Restriction parameter is present as an indication a call diversion occurred, a 200 OK INVITE is sent. The Redirection Number Restriction parameter value is mapped into the Privacy header in the sent 180 as indicated in table 6.2.5-41		
ISUP Parameter values	ACM: Generic notification=call is diverting Call diversion information Generic notification Redirection number ANM: Redirection Number Restriction= PRES_restr		
SIP Parameter values	200: History-Info: <sip:unknown@unknown.invalid>; index=1, <sip:any proper URI;cause=any?Privacy= PRIV_value >; index=1.1		
Comments			
Message flows	Mg INVITE → 181 Being forwarded ← 180 Ringing ← 200 OK INVITE ← ACK →	MGCF → ← ← ← →	ISUP IAM ACM CPG ANM Apply post test routine

TP number	TP_305_065	Reference	7.4.6.1														
TSS reference	PSTN-SS/CDIV/																
Selection criteria	NOT PICS 6.3.2/5																
Test Purpose name	No mapping of Redirecting number, Original called number and Redirection Information																
Test Purpose	Ensure that on receipt of an IAM containing a Redirecting number parameter, a Original called number and a Redirection Information parameter Redirecting reason indicator is set to REAS_value as indicated in table 6.2.5-42, an INVITE request is sent and no History-Info header is present. The call setup is not disrupted																
ISUP Parameter values	IAM: Redirecting number Redirection Information Redirecting reason = REAS_value Original called number																
SIP Parameter values																	
Comments																	
Message flows	<table style="width: 100%; border: none;"> <tr> <td style="text-align: center;">IAM</td> <td style="text-align: center;">ISUP</td> <td style="text-align: center;">→</td> <td style="text-align: center;">MGCF</td> <td style="text-align: center;">→</td> <td style="text-align: center;">INVITE</td> <td style="text-align: center;">Mg</td> </tr> <tr> <td colspan="7" style="text-align: center;">Apply post test routine</td> </tr> </table>			IAM	ISUP	→	MGCF	→	INVITE	Mg	Apply post test routine						
IAM	ISUP	→	MGCF	→	INVITE	Mg											
Apply post test routine																	

Table 6.2.5-42: Value of Redirecting reason received in Redirection Information

	REAS_value
VA_01	unknown
VA_02	unconditional
VA_03	User Busy
VA_04	Deflection immediate response
VA_05	Mobile subscriber not reachable

TP number	TP_305_066	Reference	7.4.6.3.3 table 7.4.6.3.3.1, table 7.4.6.3.3.3												
TSS reference	PSTN-SS/CDIV/														
Selection criteria	NOT PICS 6.3.2/5														
Test Purpose name	No mapping of ACM Redirection number and Call diversion information														
Test Purpose	Ensure that on receipt of an ACM a Redirection number and the Call diversion parameter the Redirecting reason is set to REAS_value as indicated in table 6.2.5-43 is present as an indication a call diversion occurred, a 180 Ringing is sent and no History-Info header is present. The call setup is not disrupted														
ISUP Parameter values	ACM: Generic notification=call is diverting Redirection number Call diversion information Redirecting reason = REAS_value														
SIP Parameter values															
Comments															
Message flows	<table style="width: 100%; border: none;"> <tr> <td style="text-align: center;">Mg</td> <td style="text-align: center;">MGCF</td> <td style="text-align: center;">ISUP</td> </tr> <tr> <td style="text-align: center;">INVITE</td> <td style="text-align: center;">→</td> <td style="text-align: center;">→ IAM</td> </tr> <tr> <td style="text-align: center;">180 Ringing</td> <td style="text-align: center;">←</td> <td style="text-align: center;">← ACM</td> </tr> <tr> <td colspan="3" style="text-align: center;">Apply post test routine</td> </tr> </table>			Mg	MGCF	ISUP	INVITE	→	→ IAM	180 Ringing	←	← ACM	Apply post test routine		
Mg	MGCF	ISUP													
INVITE	→	→ IAM													
180 Ringing	←	← ACM													
Apply post test routine															

Table 6.2.5-43: Value of Redirecting reason received in Call diversion information

CAUSE	Redirecting Reason REAS_value
VA_01	unknown
VA_02	unconditional
VA_03	User Busy
VA_04	Deflection immediate response
VA_05	Mobile subscriber not reachable

6.2.6 Explicit Call Transfer (ECT)

TP number	TP_306_001	Reference	7.4.8
TSS reference	PSTN-SS/ECT/		
Selection criteria	PICS 6.3.2/6		
Test Purpose name	A session is retrieved when a notification 'call transfer, active' in a FAC was received and the session is on hold		
Test Purpose	I-MGCF: A session is on hold. Ensure that on receipt of an FAC message and the Generic notification indicator is set to 'call transfer, active', a reINVITE is sent the a attribute in the SDP is set to 'sendrecv'		
ISUP Parameter values	FAC: Generic notification=transfer active		
SIP Parameter values	INVITE 2 SDP a=sendonly INVITE 3 SDP a=sendrecv		
Comments			
Message flows	Mg	MGCF	ISUP
	INVITE 1	→	→ IAM
	100 Trying	←	
	180 Ringing	←	← ACM
	200 OK (INVITE)	←	← ANM
	ACK	→	
	INVITE 2	←	← CPG(hold)
	200 OK (INVITE)	→	
	ACK	←	
	INVITE 3	←	← FAC(call transfer, active)
	200 OK (INVITE)	→	
	ACK	←	
	Apply post test routine		

TP number	TP_306_002	Reference	7.4.8
TSS reference	PSTN-SS/ECT/		
Selection criteria	PICS 6.3.2/6		
Test Purpose name	A session is retrieved when a notification 'call transfer, alerting' in a FAC was received and the session is on hold		
Test Purpose	I-MGCF: A session is on hold. Ensure that on receipt of an FAC message and the Generic notification indicator is set to 'call transfer, alerting', no reINVITE is sent. The session is retrieved when a FAC is received the Generic notification set to 'call transfer active' subsequently.		
ISUP Parameter values	FAC: Generic notification=transfer alerting		
SIP Parameter values	INVITE 2 SDP a=sendonly INVITE 3 SDP a=sendrecv		
Comments			
Message flows	Mg	MGCF	ISUP
	INVITE 1	→	→ IAM
	100 Trying	←	
	180 Ringing	←	← ACM
	200 OK (INVITE)	←	← ANM
	ACK	→	
	INVITE 2	←	← CPG(hold)
	200 OK (INVITE)	→	
	ACK	←	
			← FAC(call transfer, alerting)
	INVITE 3	←	← FAC(call transfer, active)
	200 OK (INVITE)	→	
	ACK	←	
	Apply post test routine		

TP number	TP_306_003	Reference	7.4.8
TSS reference	PSTN-SS/ECT/		
Selection criteria	PICS 6.3.2/6		
Test Purpose name	A session is retrieved when a notification 'call transfer, active' in a CPG was received and the session is on hold		
Test Purpose	O-MGCF: A session is on hold. Ensure that on receipt of an CPG message and the Generic notification indicator is set to 'call transfer, active', a reINVITE is sent the a attribute in the SDP is set to 'sendrecv'		
ISUP Parameter values	CPG: Generic notification=transfer active		
SIP Parameter values	INVITE 2 SDP a=sendonly INVITE 3 SDP a=sendrecv		
Comments			
Message flows	Mg	MGCF	ISUP
	INVITE	←	← IAM
	100 Trying	→	
	180 Ringing	→	→ ACM
	200 OK (INVITE)	→	→ ANM
	ACK	←	
	INVITE 2	←	← CPG(hold)
	200 OK (INVITE)	→	
	ACK	←	
	INVITE 3	←	← CPG(call transfer, active)
	200 OK (INVITE)	→	
	ACK	←	
	Apply post test routine		

TP number	TP_306_004	Reference	7.4.8
TSS reference	PSTN-SS/ECT/		
Selection criteria	PICS 6.3.2/6		
Test Purpose name	A session is retrieved when a notification 'call transfer, alerting' in a CPG was received and the session is on hold		
Test Purpose	O-MGCF: A session is on hold. Ensure that on receipt of an CPG message and the Generic notification indicator is set to 'call transfer, alerting', no reINVITE is sent. The session is retrieved when a FAC is received the Generic notification set to 'call transfer active' subsequently.		
ISUP Parameter values	CPG: Generic notification=transfer alerting		
SIP Parameter values	INVITE 2 SDP a=sendonly INVITE 3 SDP a=sendrecv		
Comments			
Message flows	Mg	MGCF	ISUP
	INVITE	←	← IAM
	100 Trying	→	
	180 Ringing	→	→ ACM
	200 OK (INVITE)	→	→ ANM
	ACK	←	
	INVITE 2	←	← CPG(hold)
	200 OK (INVITE)	→	
	ACK	←	
			← CPG(call transfer, alerting)
	INVITE 3	←	← FAC(call transfer, active)
	200 OK (INVITE)	→	
	ACK	←	
	Apply post test routine		

TP number	TP_306_005	Reference	7.4.8
TSS reference	PSTN-SS/ECT/		
Selection criteria	PICS 6.3.2/6		
Test Purpose name	FAC with generic notification 'call transfer, active' received, no mapping		
Test Purpose	I-MGCF: Ensure that on receipt of a FAC message and the Generic notification indicator is coded as 'call transfer, active' and the session is not on hold, no mapping occurs on the SIP side		
ISUP Parameter values	FAC: Generic notification=transfer active		
SIP Parameter values			
Comments			
Message flows	Mg	MGCF	ISUP
	INVITE	→	→ IAM
	100 Trying	←	
	180 Ringing	←	← ACM
	200 OK (INVITE)	←	← ANM
	ACK	→	
			← FAC(call transfer, active)
			Apply post test routine

TP number	TP_306_006	Reference	7.4.8
TSS reference	PSTN-SS/ECT/		
Selection criteria	PICS 6.3.2/6		
Test Purpose name	FAC with generic notification 'call transfer, alerting' received, no mapping		
Test Purpose	I-MGCF: Ensure that on receipt of a FAC message and the Generic notification indicator is coded as 'call transfer, alerting' and the session is not on hold, no mapping occurs on the SIP side		
ISUP Parameter values	FAC: Generic notification=transfer alerting		
SIP Parameter values			
Comments			
Message flows	Mg	MGCF	ISUP
	INVITE	→	→ IAM
	100 Trying	←	
	180 Ringing	←	← ACM
	200 OK (INVITE)	←	← ANM
	ACK	→	
			← FAC(call transfer, alerting)
			Apply post test routine

TP number	TP_306_007	Reference	7.4.8
TSS reference	PSTN-SS/ECT/		
Selection criteria	PICS 6.3.2/6		
Test Purpose name	CPG with generic notification 'call transfer, active' received, no mapping		
Test Purpose	I-MGCF: Ensure that on receipt of a CPG message and the Generic notification indicator is coded as 'call transfer, active' and the session is not on hold, no mapping occurs on the SIP side		
ISUP Parameter values	CPG: Generic notification=transfer active		
SIP Parameter values			
Comments			
Message flows	Mg	MGCF	ISUP
	INVITE	→	→ IAM
	100 Trying	←	
	180 Ringing	←	← ACM
	200 OK (INVITE)	←	← ANM
	ACK	→	
			← CPG(call transfer, active)
			Apply post test routine

TP number	TP_306_008	Reference	7.4.8
TSS reference	PSTN-SS/ECT/		
Selection criteria	PICS 6.3.2/6		
Test Purpose name	CPG with generic notification 'call transfer, alerting' received, no mapping		
Test Purpose	I-MGCF: Ensure that on receipt of a CPG message and the Generic notification indicator is coded as 'call transfer, alerting' and the session is not on hold, no mapping occurs on the SIP side		
ISUP Parameter values	CPG: Generic notification=transfer alerting		
SIP Parameter values			
Comments			
Message flows	Mg	MGCF	ISUP
	INVITE	→	→ IAM
	100 Trying	←	
	180 Ringing	←	← ACM
	200 OK (INVITE)	←	← ANM
	ACK	→	
			← CPG(call transfer, alerting)
			Apply post test routine

6.2.7 Call Waiting

TP number	TP_307_001	Reference	7.4.9
TSS reference	PSTN-SS/CW/		
Selection criteria	PICS 6.3.1/1 AND PICS 6.3.2/7		
Test Purpose name	Generic notification 'Call is a waiting call' in ACM is not interworked		
Test Purpose	Ensure that on receipt of an ACM and the called party status indicator is set to 'subscriber free', a 180 Ringing is sent. The Generic notification 'Call is a waiting call' is not interworked		
ISUP Parameter values	ACM: BCI Called party Status=subscriber free, Generic notification=Call is a waiting call		
SIP Parameter values			
Comments			
Message flows	Mg	MGCF	ISUP
	INVITE	→	→ IAM
	100 Trying	←	
	180 Ringing	←	← ACM
			Apply post test routine

TP number	TP_307_002	Reference	7.4.9
TSS reference	PSTN-SS/CW/		
Selection criteria	PICS 6.3.1/1 AND PICS 6.3.2/7		
Test Purpose name	Generic notification 'Call is a waiting call' in CPG is not interworked		
Test Purpose	An ACM called party status 'no indication' was received. Ensure that on receipt of a CPG and the Event indication is set to 'Alerting', a 180 Ringing is sent. The Generic notification 'Call is a waiting call' is not interworked.		
ISUP Parameter values	ACM: BCI Called party Status=no indication, oBCI=inband info available CPG: Event indication=ALERTING, Generic notification=Call is a waiting call		
SIP Parameter values	183 P-Early-Media:		
Comments			
Message flows	Mg	MGCF	ISUP
	INVITE	→	→ IAM
	100 Trying	←	
	180 Ringing	←	← ACM(no indication) ← CPG(ALERTING)
			Apply post test routine

6.2.8 Call Hold

TP number	TP_308_001	Reference	7.4.10
TSS reference	PSTN-SS/HOLD/		
Selection criteria	(PICS 6.3.1/1 OR PICS 6.3.1/2) AND PICS 6.3.2/9		
Test Purpose name	Hold and Retrieve requested from the ISUP		
Test Purpose	Ensure that on receipt of a CPG message and the Generic notification is set to 'Remote hold' in the confirmed dialogue, an INVITE or UPDATE is sent. The media stream in the SDP is set to 'sendonly'. Ensure that on receipt of a CPG message and the Generic notification is set to 'Remote retrieval', an INVITE or UPDATE is sent. The media stream in the SDP is set to 'sendrecv'		
ISUP Parameter values	CPG: Generic notification Remote hold Remote retrieval		
SIP Parameter values	INVITE/UPDATE:SDP 1 a=sendonly SDP 2 a=sendrecv		
Comments			
Message flows	Mg	MGCF	ISUP
	Establish a confirmed dialogue		
	CASE A		
	INVITE(SDP 1 = sendonly)	←	← CPG(hold)
	200 OK (INVITE)	→	
	ACK	←	
	CASE B		
	UPDATE(SDP 1 = sendonly)	←	
	200 OK (UPDATE)	→	
	CASE A		
	INVITE(SDP 2 = sendrecv)	←	← CPG(retrieve)
	200 OK (INVITE)	→	
	ACK	←	
	CASE B		
	UPDATE(SDP 2 = sendrecv)	←	
	200 OK (UPDATE)	→	
	Apply post test routine		

TP number	TP_308_002	Reference	7.4.10
TSS reference	PSTN-SS/HOLD/		
Selection criteria	(PICS 6.3.1/1 OR PICS 6.3.1/2) AND PICS 6.3.2/9		
Test Purpose name	Hold and Retrieve requested from SIP in reINVITE request		
Test Purpose	Ensure that on receipt of an INVITE request in the confirmed dialogue and the media stream in the SDP is set to 'sendonly', a CPG message is sent the Generic notification indicator is set to 'remote hold'. Ensure that on receipt of an INVITE request in the confirmed dialogue and the media stream in the SDP is set to 'sendrecv', a CPG message is sent the Generic notification indicator is set to 'remote retrieval'		
ISUP Parameter values	CPG: Generic notification Remote hold Remote retrieval		
SIP Parameter values	INVITE/UPDATE:SDP 1 a=sendonly SDP 2 a=sendrecv		
Comments			
Message flows	Mg	MGCF	ISUP
		Establish a confirmed dialogue	
INVITE(sendonly)	→		→ CPG(hold)
200 OK (INVITE)	←		
ACK	→		
INVITE(sendrecv)	→		→ CPG(retrieve)
200 OK (INVITE)	←		
ACK	→		
		Apply post test routine	

TP number	TP_308_003	Reference	7.4.10
TSS reference	PSTN-SS/HOLD/		
Selection criteria	(PICS 6.3.1/1 OR PICS 6.3.1/2) AND PICS 6.3.2/9		
Test Purpose name	Hold and Retrieve requested from SIP in UPDATE request		
Test Purpose	Ensure that on receipt of an UPDATE request in the confirmed dialogue and the media stream in the SDP is set to 'sendonly', a CPG message is sent the Generic notification indicator is set to 'remote hold'. Ensure that on receipt of an UPDATE request in the confirmed dialogue and the media stream in the SDP is set to 'sendrecv', a CPG message is sent the Generic notification indicator is set to 'remote retrieval'		
ISUP Parameter values	CPG: Generic notification Remote hold Remote retrieval		
SIP Parameter values	INVITE/UPDATE:SDP 1 a=sendonly SDP 2 a=sendrecv		
Comments			
Message flows	Mg	MGCF	ISUP
		Establish a confirmed dialogue	
UPDATE(sendonly)	→		→ CPG(hold)
200 OK (UPDATE)	←		
ACK	→		
UPDATE(sendrecv)	→		→ CPG(retrieve)
200 OK (UPDATE)	←		
ACK	→		
		Apply post test routine	

TP number	TP_308_004	Reference	7.4.10
TSS reference	PSTN-SS/HOLD/		
Selection criteria	(PICS 6.3.1/1 OR PICS 6.3.1/2) AND PICS 6.3.2/9		
Test Purpose name	Hold requested from both ends, session inactive sent		
Test Purpose	Ensure that on receipt of a CPG message and the Generic notification indicator is set to 'remote hold' and the session was set on hold before, an INVITE or UPDATE request is sent and the media stream is set to 'inactive'		
ISUP Parameter values	CPG: Generic notification Remote hold		
SIP Parameter values	INVITE/UPDATE:SDP 1 a=sendonly SDP 2 a=inactive		
Comments			
Message flows	Mg	MGCF	ISUP
		Establish a confirmed dialogue	
	INVITE(SDP 1 = sendonly)	→	→ CPG(hold)
	200 OK (INVITE)	←	
	ACK	→	
	CASE A		
	INVITE(SDP 2 = inactive)	←	← CPG(hold)
	200 OK (INVITE)	→	
	ACK	←	
	CASE B		
	UPDATE(SDP 2 = inactive)	←	
	200 OK (UPDATE)	→	
		Apply post test routine	

TP number	TP_308_005	Reference	7.4.10
TSS reference	PSTN-SS/HOLD/		
Selection criteria	(PICS 6.3.1/1 OR PICS 6.3.1/2) AND PICS 6.3.2/9		
Test Purpose name	Hold requested from both ends, session inactive received		
Test Purpose	The session is already set on hold. Ensure that on receipt of an INVITE request and the media stream in the SDP is set to 'inactive', a CPG message is sent and the Notification indicator is set to 'remote hold'		
ISUP Parameter values	CPG: Generic notification Remote hold		
SIP Parameter values	INVITE/UPDATE:SDP 1 a=sendonly SDP 2 a=inactive		
Comments			
Message flows	Mg	MGCF	ISUP
		Establish a confirmed dialogue	
	CASE A		
	INVITE(SDP 1 = sendonly)	←	← CPG(hold)
	200 OK (INVITE)	→	
	ACK	←	
	CASE B		
	UPDATE(SDP 1 = sendonly)	←	
	200 OK (UPDATE)	→	
	INVITE(SDP 2 = inactive)	→	→ CPG(hold)
	200 OK (INVITE)	←	
	ACK	→	
		Apply post test routine	

TP number	TP_308_006	Reference	7.4.10
TSS reference	PSTN-SS/HOLD/		
Selection criteria	(PICS 6.3.1/1 OR PICS 6.3.1/2) AND PICS 6.3.2/9		
Test Purpose name	First hold from SIP. Session inactive, Retrieve requested from SIP		
Test Purpose	The session is set on hold at first from SIP as well as second from ISUP. Ensure that on receipt of an INVITE request and the media stream in the SDP is set to 'recvonly', a CPG message is sent and the Generic notification indicator is set to 'remote retrieval'		
ISUP Parameter values	CPG 1: Generic notification Remote hold CPG 2: Generic notification Remote retrieval		
SIP Parameter values	INVITE/UPDATE:SDP 1 a=sendonly SDP 2 a=inactive SDP 3 a=recvonly		
Comments			
Message flows	Mg	MGCF	ISUP
		Establish a confirmed dialogue	
	INVITE(SDP 1 = sendonly)	→	CPG 1 (hold)
	200 OK (INVITE)	←	
	ACK	→	
	CASE A		
	INVITE(SDP 2 = inactive)	←	← CPG 1 (hold)
	200 OK (INVITE)	→	
	ACK	←	
	CASE B		
	UPDATE(SDP 2 = inactive)	←	
	200 OK (UPDATE)	→	
	INVITE(SDP 3 = recvonly)	→	→ CPG 2 (retrieve)
	200 OK (INVITE)	←	
	ACK	→	
		Apply post test routine	

TP number	TP_308_007	Reference	7.4.10
TSS reference	PSTN-SS/HOLD/		
Selection criteria	(PICS 6.3.1/1 OR PICS 6.3.1/2) AND PICS 6.3.2/9		
Test Purpose name	First hold from SIP. Session inactive, Retrieve requested from ISUP		
Test Purpose	The session is set on hold at first from SIP as well as second from ISUP. Ensure that on receipt of a CPG message and the Generic notification indicator is set to 'remote retrieval', an INVITE or UPDATE request is sent and the media stream in the SDP I set to 'recvonly'		
ISUP Parameter values	CPG: Generic notification Remote hold		
SIP Parameter values	INVITE/UPDATE:SDP 1 a=sendonly SDP 2 a=inactive SDP 3 a=recvonly		
Comments			
Message flows	Mg	MGCF	ISUP
		Establish a confirmed dialogue	
	INVITE(SDP 1 = sendonly)	→	→ CPG(hold)
	200 OK (INVITE)	←	
	ACK	→	
	CASE A		
	INVITE(SDP 2 = inactive)	←	← CPG(hold)
	200 OK (INVITE)	→	
	ACK	←	
	CASE B		
	UPDATE(SDP 2 = inactive)	←	
	200 OK (UPDATE)	→	
	CASE A		
	INVITE(SDP 3 = recvonly)	←	← CPG(retrieve)
	200 OK (INVITE)	→	
	ACK	←	
	CASE B		
	UPDATE(SDP 3 = recvonly)	←	
	200 OK (UPDATE)	→	
		Apply post test routine	

TP number	TP_308_008	Reference	7.4.10
TSS reference	PSTN-SS/HOLD/		
Selection criteria	(PICS 6.3.1/1 OR PICS 6.3.1/2) AND PICS 6.3.2/9		
Test Purpose name	First hold from ISUP. Session inactive, Retrieve requested from SIP		
Test Purpose	The session is set on hold at first from ISUP as well as second from SIP. Ensure that on receipt of an INVITE request and the media stream in the SDP is set to 'recvonly', a CPG message is sent and the Generic notification indicator is set to 'remote retrieval'		
ISUP Parameter values	CPG: Generic notification Remote hold		
SIP Parameter values	INVITE/UPDATE:SDP 1 a=sendonly SDP 2 a=inactive SDP 3 a=recvonly		
Comments			
Message flows	Mg	MGCF	ISUP
	Establish a confirmed dialogue		
	CASE A		
	INVITE(SDP 1 = sendonly)	←	← CPG(hold)
	200 OK (INVITE)	→	
	ACK	←	
	CASE B		
	UPDATE(SDP 1 = sendonly)	←	
	200 OK (UPDATE)	→	
	INVITE(SDP 2 = inactive)	→	→ CPG(hold)
	200 OK (INVITE)	←	
	ACK	→	
	INVITE(SDP 3 = recvonly)	→	→ CPG(retrieve)
	200 OK (INVITE)	←	
	ACK	→	
	Apply post test routine		

TP number	TP_308_009	Reference	7.4.10
TSS reference	PSTN-SS/HOLD/		
Selection criteria	(PICS 6.3.1/1 OR PICS 6.3.1/2) AND PICS 6.3.2/9		
Test Purpose name	First hold from ISUP. Session inactive, Retrieve requested from ISUP		
Test Purpose	The session is set on hold at first from ISUP as well as second from SIP. Ensure that on receipt of a CPG message and the Generic notification indicator is set to 'remote retrieval', an INVITE or UPDATE request is sent and the media stream in the SDP is set to 'recvonly'		
ISUP Parameter values	CPG: Generic notification Remote hold		
SIP Parameter values	INVITE/UPDATE:SDP 1 a=sendonly SDP 2 a=inactive SDP 3 a=recvonly		
Comments			
Message flows	Mg	MGCF	ISUP
	Establish a confirmed dialogue		
	CASE A		
	INVITE(SDP 1 = sendonly)	←	← CPG(hold)
	200 OK (INVITE)	→	
	ACK	←	
	CASE B		
	UPDATE(SDP 1 = sendonly)	←	
	200 OK (UPDATE)	→	
	INVITE(SDP 2 = inactive)	→	→ CPG(hold)
	200 OK (INVITE)	←	
	ACK	→	
	CASE A		
	INVITE(SDP 3 = recvonly)	←	← CPG(retrieve)
	200 OK (INVITE)	→	
	ACK	←	
	CASE B		
	UPDATE(SDP 3 = recvonly)	←	
	200 OK (UPDATE)	→	
	Apply post test routine		

TP number	TP_308_010	Reference	7.4.10.2
TSS reference	PSTN-SS/HOLD/		
Selection criteria	(PICS 6.3.1/1 OR PICS 6.3.1/2) AND PICS 6.3.2/9 AND PICS 6.3.6/1		
Test Purpose name	CPG hold received before an dialogue was established UPDATE is sent in early dialogue		
Test Purpose	Ensure that on receipt of a CPG message and the Generic notification indicator is set to 'remote hold' before an early dialogue is established, the UPDATE request indicating the hold indication is sent after the early dialogue by receiving a 180 Ringing is established. The media stream in the SDP is set to sendonly indicating the hold state		
ISUP Parameter values	CPG: Generic notification Remote hold		
SIP Parameter values	UPDATE: SDP a=sendonly		
Comments	A CPG is received after an ACM was sent.		
Message flows	ISUP	MGCF	Mg
	IAM	→ Start Ti/w2	→ INVITE
	ACM	← Timeout Ti/w2	← 100 Trying
	CPG(hold)	→	← 180 Ringing
			→ UPDATE(sendonly)
			← 200 OK (UPDATE)
	Apply post test routine		

TP number	TP_308_011	Reference	7.4.10.2
TSS reference	PSTN-SS/HOLD/		
Selection criteria	(PICS 6.3.1/1 OR PICS 6.3.1/2) AND PICS 6.3.2/9 AND PICS 6.3.6/1		
Test Purpose name	CPG hold received before an dialogue was established UPDATE is sent in confirmed dialogue		
Test Purpose	Ensure that on receipt of a CPG message and the Generic notification indicator is set to 'remote hold' before an early dialogue is established, the INVITE or UPDATE request indicating the hold indication is sent after the confirmed dialogue by receiving a 200 OK (INVITE) is established. The media stream in the SDP is set to sendonly indicating the hold state		
ISUP Parameter values	CPG: Generic notification Remote hold		
SIP Parameter values	INVITE/UPDATE:SDP a=sendonly		
Comments			
Message flows	ISUP	MGCF	Mg
	IAM →		→ INVITE ← 100 Trying
	CPG(hold) → CON ←		← 200 OK (INVITE) → ACK
	CASE A		→ INVITE(sendonly) ← 200 OK (INVITE) → ACK
	CASE B		→ UPDATE(sendonly) ← 200 OK (UPDATE)
	Apply post test routine		

TP number	TP_308_012	Reference	7.4.10.2
TSS reference	PSTN-SS/HOLD/		
Selection criteria	(PICS 6.3.1/1 OR PICS 6.3.1/2) AND PICS 6.3.2/9 AND PICS 6.3.6/1		
Test Purpose name	CPG hold received after several early dialogues was established UPDATE is sent on the last established early dialogue		
Test Purpose	Two early dialogues are established. Ensure that on receipt of a CPG message and the Generic notification indicator is set to 'remote hold', an UPDATE request is sent on the latest established early dialogue		
ISUP Parameter values	CPG: Generic notification Remote hold		
SIP Parameter values	180 1: To: <appropriate URI>; tag=1 180 1: To: <appropriate URI>; tag=2 UPDATE: To: <appropriate URI>; tag=2		
Comments	For all dialogues the Call-ID and the From tag are equal. The different dialogues can be distinguished by the To tag		
Message flows	ISUP	MGCF	Mg
	IAM → ACM ←		→ INVITE ← 180 Ringing 1 ← 180 Ringing 2
	CPG(hold) →		→ UPDATE 2 (sendonly) ← 200 OK (UPDATE)
	Apply post test routine		

TP number	TP_308_013	Reference	7.4.10.2
TSS reference	PSTN-SS/HOLD/		
Selection criteria	(PICS 6.3.1/1 OR PICS 6.3.1/2) AND PICS 6.3.2/9 AND PICS 6.3.6/1		
Test Purpose name	An UPDATE (hold) is repeated in the early dialogue after SDP offer answer exchange		
Test Purpose	Ensure that on receipt of an UPDATE request after the session was set on hold indicating a new SDP, an UPDATE request is sent and the media stream is set to 'sendonly' to refresh the previous held state		
ISUP Parameter values	CPG: Generic notification Remote hold		
SIP Parameter values	INVITE: SDP1 UPDATE 1: SDP a=sendonly UPDATE 2: SDP 2		
Comments			
Message flows	ISUP	MGCF	Mg
	IAM →		→ INVITE(SDP1)
	ACM ←		← 180 Ringing
	CPG(hold) →		→ UPDATE 1 (sendonly)
			← 200 OK (UPDATE)
			← UPDATE 2 (SDP2)
			→ 200 OK (UPDATE)
			→ UPDATE 1 (sendonly)
			← 200 OK (UPDATE)
			Apply post test routine

TP number	TP_308_014	Reference	7.4.10.2
TSS reference	PSTN-SS/HOLD/		
Selection criteria	(PICS 6.3.1/1 OR PICS 6.3.1/2) AND PICS 6.3.2/9 AND PICS 6.3.6/1		
Test Purpose name	An UPDATE (hold) is sent after an additional early dialogue is established		
Test Purpose	An early dialogue is established and set on hold. Ensure that on receipt of a 180 Ringing establish a new early dialogue, an UPDATE request is sent on this dialogue and the media stream is set to 'sendonly'		
ISUP Parameter values	CPG: Generic notification Remote hold		
SIP Parameter values	180 1: To: <appropriate URI>; tag=1 180 1: To: <appropriate URI>; tag=2 UPDATE 2: To: <appropriate URI>; tag=2		
Comments			
Message flows	ISUP	MGCF	Mg
	IAM →		→ INVITE
	ACM ←		← 180 Ringing 1
	CPG(hold) →		→ UPDATE 1 (sendonly)
			← 200 OK (UPDATE)
			← 180 Ringing 2
			→ UPDATE 2 (sendonly)
			← 200 OK (UPDATE)
			Apply post test routine

TP number	TP_308_015	Reference	7.4.10.2
TSS reference	PSTN-SS/HOLD/		
Selection criteria	(PICS 6.3.1/1 OR PICS 6.3.1/2) AND PICS 6.3.2/9 AND PICS 6.3.6/1		
Test Purpose name	An INVITE or UPDATE (hold condition) is sent after 200 OK INVITE was received when a CPG (hold) was received in early dialogue		
Test Purpose	A CPG indicating Hold was received in the early dialogue. Ensure that on receipt of a 200 OK (INVITE) establishing the confirmed dialogue, an INVITE or UPDATE request is sent and the media stream is set to 'sendonly' indicating the held state		
ISUP Parameter values	CPG: Generic notification Remote hold		
SIP Parameter values	INVITE/UPDATE 2: SDP a=sendonly		
Comments			
Message flows	ISUP	MGCF	Mg
	IAM	→	INVITE
	ACM	←	180 Ringing
	CPG(hold)	→	UPDATE(sendonly)
			← 200 OK (UPDATE)
	ANM	←	← 200 OK (INVITE)
			→ ACK
	CASE A		→ INVITE 2 (sendonly)
			← 200 OK (INVITE)
			→ ACK
	CASE B		→ UPDATE 2 (sendonly)
			← 200 OK (UPDATE)
	Apply post test routine		

TP number	TP_308_016	Reference	7.4.10
TSS reference	PSTN-SS/HOLD/		
Selection criteria	(PICS 6.3.1/1 OR PICS 6.3.1/2) AND PICS 6.3.2/9 AND PICS 6.3.6/1		
Test Purpose name	'sendonly' and 'sendrecv' received from the terminating SIP user in the early dialogue		
Test Purpose	Ensure that on receipt of an UPDATE request in the early dialogue and the media stream is set to 'sendonly' a CPG message is sent and the Generic notification indicator is set to 'remote hold'. Ensure that on receipt of an UPDATE request in the early dialogue and the media stream is already set on hold the media stream is set to 'sendrecv' in the received UPDATE, a CPG message is sent and the Generic notification indicator is set to 'remote retrieval'		
ISUP Parameter values			
SIP Parameter values			
Comments			
Message flows	ISUP	MGCF	Mg I
	IAM	→	INVITE
			← 100 Trying
	ACM	←	← 180 Ringing
	CPG(hold)	←	← UPDATE(sendonly)
			→ 200 OK (UPDATE)
	CPG(retrieve)	←	← UPDATE(sendrecv)
			→ 200 OK (UPDATE)
	Apply post test routine		

TP number	TP_308_017	Reference	7.4.2
TSS reference	PSTN-SS/HOLD/		
Selection criteria	(PICS 6.3.1/1 OR PICS 6.3.1/2) AND PICS 6.3.2/9 AND PICS 6.3.6/1		
Test Purpose name	'sendonly' and 'sendrecv' received from the originating SIP user in the early dialogue		
Test Purpose	Ensure that on receipt of an UPDATE request in the early dialogue and the media stream is set to 'sendonly', a CPG message is sent and the Generic notification indicator is set to 'remote hold'. Ensure that on receipt of an UPDATE request in the early dialogue and the media stream is set to 'sendonly' the session is already set on hold, a CPG message is sent and the Generic notification indicator is set to 'remote retrieval'		
ISUP Parameter values			
SIP Parameter values			
Comments			
Message flows	Mg	MGCF	ISUP
	INVITE	→	IAM
	180 Ringing	←	ACM
	UPDATE(sendonly)	→	CPG(hold)
	200 OK (UPDATE)	←	
	UPDATE(sendrecv)	→	CPG(retrieve)
	200 OK (UPDATE)	←	
	Apply post test routine		

TP number	TP_308_018	Reference	7.4.10
TSS reference	PSTN-SS/HOLD/		
Selection criteria	(PICS 6.3.1/1 OR PICS 6.3.1/2) AND PICS 6.3.2/9 AND PICS 6.3.6/1		
Test Purpose name	'hold' and 'retrieve' received from the originating PSTN user in the early dialogue		
Test Purpose	Ensure that on receipt of a CPG message and the Generic notification indicator is set to 'remote hold' in the early dialogue, an UPDATE request is sent and the mediastream is set to 'sendonly'. Ensure that on receipt of a CPG message and the Generic notification indicator is set to 'remote retrieval' and the session is already set on hold, an UPDATE request is sent and the media stream is set to 'sendrecv'		
ISUP Parameter values			
SIP Parameter values			
Comments			
Message flows	ISUP	MGCF	Mg
	IAM	→	INVITE
	ACM	←	100 Trying
		←	180 Ringing
	CPG(hold)	→	UPDATE(sendonly)
		←	200 OK (UPDATE)
	CPG(retrieve)	→	UPDATE(sendrecv)
		←	200 OK (UPDATE)
	Apply post test routine		

6.2.9 Call Completion on busy subscriber

TP number	TP_309_001	Reference	7.4.11
TSS reference	PSTN-SS/CCBS/		
Selection criteria	PICS 6.3.1/1 AND PICS 6.3.2/10		
Test Purpose name	The diagnostic field is not interworked		
Test Purpose	Ensure that on receipt of an REL message cause #17 and a diagnostic field is present set to 'CCBS possible', a final SIP response 486 Busy Here is sent no indication of CCBS facility is present		
ISUP Parameter values	REL: Cause indicator CCBS possible indicator=CCBS possible		
SIP Parameter values			
Comments	The CCBS possible indicator is contained in the diagnostic field of the Cause indicator		
Message flows	Mg	MGCF	ISUP
	INVITE	→	→ IAM
	100 Trying	←	
	486 Busy Here	←	← REL(17)
	ACK	→	→ RLC

6.2.10 Completion of Calls on No Reply (CCNR)

TP number	TP_310_001	Reference	7.4.12
TSS reference	PSTN-SS/CCNR/		
Selection criteria	PICS 6.3.1/1 AND PICS 6.3.2/11		
Test Purpose name	CCNR possible indication received in an ACM, discarded		
Test Purpose	Ensure that on receipt of an ACM and a CCNR possible indicator is present the value set to 'CCNR possible', a 180 Ringing is sent without indication of CCNR facility		
ISUP Parameter values	ACM: BCI called party status indicator=subscriber free, CCNR Possible Indicator=CCNR possible		
SIP Parameter values			
Comments			
Message flows	Mg	MGCF	ISUP
	INVITE	→	→ IAM
	100 Trying	←	
	180 Ringing	←	← ACM
	Apply post test routine		

TP number	TP_310_002	Reference	7.4.12
TSS reference	PSTN-SS/CCNR/		
Selection criteria	PICS 6.3.1/1 AND PICS 6.3.2/11		
Test Purpose name	CCNR possible indication received in an CPG, discarded		
Test Purpose	Ensure that on receipt of an CPG and a CCNR possible indicator is present the value set to 'CCNR possible', a 180 Ringing is sent without indication of CCNR facility		
ISUP Parameter values	ACM: BCI called party status indicator=no indication, oBCI=inband info available CPG: Event indicator= ALERTING, CCNR Possible Indicator=CCNR possible		
SIP Parameter values			
Comments			
Message flows	Mg	MGCF	ISUP
	INVITE	→	→ IAM
	100 Trying	←	
	180 Ringing	←	← ACM(no indication) ← CPG
	Apply post test routine		

6.2.11 Terminal Portability (TP)

TP number	TP_311_001	Reference	7.4.13
TSS reference	PSTN-SS/TP/		
Selection criteria	PICS 6.3.2/12		
Test Purpose name	SUS user initiated is mapped into an reINVITE SDP sendonly		
Test Purpose	Ensure that on receipt of an SUS message and the Suspend/Resume indicator is set to 'ISDN subscriber initiated', a reINVITE is sent and the media stream indicated in the SDP is set to 'sendonly'		
ISUP Parameter values	SUS: Suspend/Resume ISDN subscriber initiated		
SIP Parameter values	INVITE: SDP a=sendonly		
Comments			
Message flows	Mg	MGCF	ISUP
	INVITE	→	→ IAM
	100 Trying	←	
	180 Ringing	←	← ACM
	200 OK (INVITE)	←	← ANM
	ACK	→	
	INVITE(sendonly)	←	← SUS(user)
	200 OK (INVITE)	→	
	ACK	←	
	Apply post test routine		

TP number	TP_311_002	Reference	7.4.13
TSS reference	PSTN-SS/TP/		
Selection criteria	PICS 6.3.2/12		
Test Purpose name	RES user initiated is mapped into an reINVITE SDP sendrecv		
Test Purpose	A SUS message and the Suspend/Resume indicator is set to 'ISDN subscriber initiated' was received. Ensure that on receipt of an RES message and the Suspend/Resume indicator is set to 'ISDN subscriber initiated', a reINVITE is sent and the media stream indicated in the SDP is set to 'sendrecv'		
ISUP Parameter values	RES: Suspend/Resume ISDN subscriber initiated		
SIP Parameter values	INVITE: SDP a=sendrecv		
Comments			
Message flows	ISUP	MGCF	Mg
	IAM	→	→ INVITE
	ACM	←	← 100 Trying
	ANM	←	← 180 Ringing
		←	← 200 OK (INVITE)
		→	→ ACK
	INVITE(sendonly)	←	← SUS(user)
	200 OK (INVITE)	→	
	ACK	←	
	INVITE(sendrecv)	←	← RES(user)
	200 OK (INVITE)	→	
	ACK	←	
	Apply post test routine		

6.2.12 Conference calling (CONF) / Three-Party Service (3PTY)

TP number	TP_312_001	Reference	7.4.14
TSS reference	PSTN-SS/CONF/		
Selection criteria	PICS 6.3.1/1 AND PICS 6.3.2/13		
Test Purpose name	I-MGCF: Session not on hold, notification 'conference established'		
Test Purpose	A session at the I-MGCF is in the confirmed state and not set on hold. Ensure that on receipt of a CPG message the Generic notification indicator is set to 'Conference established' no reINVITE is sent		
ISUP Parameter values	CPG: Generic notification Conference established		
SIP Parameter values			
Comments	This state is applicable for CONF and 3PTY		
Message flows	Mg	MGCF	ISUP
	INVITE	→	→ IAM
	100 Trying	←	
	180 Ringing	←	← ACM
	200 OK (INVITE)	←	← ANM
	ACK	→	
			← CPG
	Apply post test routine		

TP number	TP_312_002	Reference	7.4.14
TSS reference	PSTN-SS/CONF/		
Selection criteria	PICS 6.3.1/1 AND PICS 6.3.2/13		
Test Purpose name	O-MGCF: Session not on hold, notification 'conference established'		
Test Purpose	A session at the O-MGCF is in the confirmed state and not set on hold. Ensure that on receipt of a CPG message the Generic notification indicator is set to 'Conference established' no reINVITE is sent		
ISUP Parameter values	CPG: Generic notification= Conference established		
SIP Parameter values			
Comments	This state is applicable for CONF and 3PTY		
Message flows	ISUP	MGCF	Mg
	IAM	→	→ INVITE
			← 100 Trying
	ACM	←	← 180 Ringing
			← 200 OK (INVITE)
			→ ACK
	CPG	→	
	Apply post test routine		

TP number	TP_312_003	Reference	7.4.14
TSS reference	PSTN-SS/CONF/		
Selection criteria	PICS 6.3.1/1 AND PICS 6.3.2/13		
Test Purpose name	I-MGCF: Session on hold, notification 'conference established'		
Test Purpose	A session at the I-MGCF is in the confirmed state and set on hold. Ensure that on receipt of a CPG message the Generic notification indicator is set to 'Conference established' a reINVITE request is sent the 'a' attribute in the SDP is set to 'sendrecv'		
ISUP Parameter values	CPG 1: Generic notification Remote hold CPG 2: Generic notification Conference established		
SIP Parameter values	INVITE 1: SDP a=sendonly INVITE 2: SDP a=sendrecv		
Comments	This state is applicable for 3PTY		
Message flows	Mg	MGCF	ISUP
	INVITE	→	→ IAM
	100 Trying	←	
	180 Ringing	←	← ACM
	200 OK (INVITE)	←	← ANM
	ACK	→	
	INVITE 1 (sendonly)	←	← CPG 1
	200 OK INVITE (recvonly)	→	
	ACK	←	
	INVITE 2 (sendrecv)	←	← CPG 2
	200 OK INVITE (sendrecv)	→	
	ACK	←	
	Apply post test routine		

TP number	TP_312_004	Reference	7.4.14
TSS reference	PSTN-SS/CONF/		
Selection criteria	PICS 6.3.1/1 AND PICS 6.3.2/13		
Test Purpose name	O-MGCF: Session on hold, notification 'conference established'		
Test Purpose	A session at the O-MGCF is in the confirmed state and set on hold. Ensure that on receipt of a CPG message the Generic notification indicator is set to 'Conference established' a reINVITE request is sent the 'a' attribute in the SDP is set to 'sendrcv'		
ISUP Parameter values	CPG 1: Generic notification Remote hold CPG 2: Generic notification Conference established		
SIP Parameter values	INVITE 1: SDP a=sendonly INVITE 2: SDP a=sendrcv		
Comments	This state is applicable for 3PTY		
Message flows	ISUP	MGCF	Mg
	IAM	→	→ INVITE
	ACM	←	← 100 Trying
	ANM	←	← 180 Ringing
	CPG 1	→	← 200 OK (INVITE)
			→ ACK
	CPG 2	→	→ INVITE 1 (sendonly)
			← 200 OK INVITE (rcvonly)
			→ ACK
			→ INVITE 2 (sendrcv)
			← 200 OK INVITE (sendrcv)
			→ ACK
			Apply post test routine

TP number	TP_312_005	Reference	7.4.14
TSS reference	PSTN-SS/CONF/		
Selection criteria	PICS 6.3.1/1 AND PICS 6.3.2/13		
Test Purpose name	I-MGCF: Session not on hold, notification 'Conference disconnected'		
Test Purpose	A session at the I-MGCF is in the confirmed state not set on hold and a conference is established. Ensure that on receipt of a CPG message the Generic notification indicator is set to 'Conference disconnected' no reINVITE is sent		
ISUP Parameter values	CPG 1: Generic notification Conference established CPG 2: Generic notification Conference disconnected		
SIP Parameter values			
Comments	This state is applicable for CONF and 3PTY		
Message flows	Mg	MGCF	ISUP
	INVITE	→	→ IAM
	100 Trying	←	
	180 Ringing	←	← ACM
	200 OK (INVITE)	←	← ANM
	ACK	→	
			← CPG 1
			← CPG 2
			Apply post test routine

TP number	TP_312_006	Reference	7.4.14
TSS reference	PSTN-SS/CONF/		
Selection criteria	PICS 6.3.1/1 AND PICS 6.3.2/13		
Test Purpose name	O-MGCF: Session not on hold, notification 'Conference disconnected'		
Test Purpose	A session at the O-MGCF is in the confirmed state not set on hold and a conference is established. Ensure that on receipt of a CPG message the Generic notification indicator is set to 'Conference disconnected' no reINVITE is sent		
ISUP Parameter values	CPG 1: Generic notification Conference established CPG 2: Generic notification Conference disconnected		
SIP Parameter values			
Comments	This state is applicable for CONF and 3PTY		
Message flows	ISUP	MGCF	Mg
	IAM	→	→ INVITE
	ACM	←	← 100 Trying
	ANM	←	← 180 Ringing
			← 200 OK (INVITE)
			→ ACK
	CPG 1	→	
	CPG 2	→	
	Apply post test routine		

TP number	TP_312_007	Reference	7.4.14
TSS reference	PSTN-SS/CONF/		
Selection criteria	PICS 6.3.1/1 AND PICS 6.3.2/13		
Test Purpose name	I-MGCF: Session on hold, notification 'Conference disconnected'		
Test Purpose	A session at the I-MGCF is in the confirmed state set on hold and a conference is established. Ensure that on receipt of a CPG message the Generic notification indicator is set to 'Conference disconnected' a reINVITE request is sent the 'a' attribute in the SDP is set to 'sendonly'		
ISUP Parameter values	CPG 1: Generic notification Remote hold CPG 2: Generic notification Conference established CPG 3: Generic notification Conference disconnected		
SIP Parameter values	INVITE 1: SDP a=sendonly INVITE 2: SDP a=sendrecv INVITE 3: SDP a=sendonly		
Comments	This state is applicable for 3PTY		
Message flows	Mg	MGCF	ISUP
	INVITE	→	→ IAM
	100 Trying	←	
	180 Ringing	←	← ACM
	200 OK (INVITE)	←	← ANM
	ACK	→	
	INVITE 1 (sendonly)	←	← CPG 1
	200 OK INVITE (recvonly)	→	
	ACK	←	
	INVITE 2 (sendrecv)	←	← CPG 2
	200 OK INVITE (sendrecv)	→	
	ACK	←	
	INVITE 3 (sendonly)	←	← CPG 3
	200 OK INVITE (recvonly)	→	
	ACK	←	
	Apply post test routine		

TP number	TP_312_008	Reference	7.4.14
TSS reference	PSTN-SS/CONF/		
Selection criteria	PICS 6.3.1/1 AND PICS 6.3.2/13		
Test Purpose name	O-MGCF: Session on hold, notification 'Conference disconnected'		
Test Purpose	A session at the O-MGCF is in the confirmed state set on hold and a conference is established. Ensure that on receipt of a CPG message the Generic notification indicator is set to 'Conference disconnected' a reINVITE request is sent the 'a' attribute in the SDP is set to 'sendonly'		
ISUP Parameter values	CPG 1: Generic notification Remote hold CPG 2: Generic notification Conference established CPG 3: Generic notification Conference disconnected		
SIP Parameter values	INVITE 1: SDP a=sendonly INVITE 2: SDP a=sendrecv INVITE 1: SDP a=sendonly		
Comments	This state is applicable for 3PTY		
Message flows	ISUP	MGCF	Mg
		A conference is established	
	IAM	→	→ INVITE
	ACM	←	← 100 Trying
	ANM	←	← 180 Ringing
	CPG 1	→	← 200 OK (INVITE)
			→ ACK
	CPG 1	→	→ INVITE 1 (sendonly)
			← 200 OK INVITE (recvonly)
			→ ACK
	CPG 2	→	→ INVITE 2 (sendrecv)
			← 200 OK INVITE (sendrecv)
			→ ACK
	CPG 3	→	→ INVITE 3 (sendonly)
			← 200 OK INVITE (recvonly)
			→ ACK
			Apply post test routine

TP number	TP_312_009	Reference	7.4.14
TSS reference	PSTN-SS/CONF/		
Selection criteria	PICS 6.3.1/1 AND PICS 6.3.2/13		
Test Purpose name	I-MGCF: notification 'isolated' and 'reattached' interworked		
Test Purpose	A conference at the I-MFCF is established. Ensure that on receipt of a CPG message the Generic notification indicator is set to 'isolated' a reINVITE request is sent the 'a' attribute in the SDP is set to 'sendonly'. Subsequently on receipt of a CPG message the Generic notification indicator is set to 'reattached' a reINVITE request is sent the 'a' attribute in the SDP is set to 'sendrecv'		
ISUP Parameter values	CPG 1: Generic notification Conference established CPG 2: Generic notification isolated CPG 3: Generic notification reattached		
SIP Parameter values	INVITE 1: SDP a=sendonly INVITE 2: SDP a=sendrecv		
Comments	This state is applicable for CONF		
Message flows	Mg	MGCF	ISUP
	INVITE	→	→ IAM
	100 Trying	←	
	180 Ringing	←	← ACM
	200 OK (INVITE)	←	← ANM
	ACK	→	
			← CPG 1
	INVITE 1 (sendonly)	←	← CPG 2
	200 OK INVITE (recvonly)	→	
	ACK	←	
	INVITE 2 (sendrecv)	←	← CPG 3
	200 OK INVITE (sendrecv)	→	
	ACK	←	
	Apply post test routine		

TP number	TP_312_010	Reference	7.4.14
TSS reference	PSTN-SS/CONF/		
Selection criteria	PICS 6.3.1/1 AND PICS 6.3.2/13		
Test Purpose name	O-MGCF: notification 'isolated' and 'reattached' interworked		
Test Purpose	A conference at the O-MFCF is established. Ensure that on receipt of a CPG message the Generic notification indicator is set to 'isolated' a reINVITE request is sent the 'a' attribute in the SDP is set to 'sendonly'. Subsequently on receipt of a CPG message the Generic notification indicator is set to 'reattached' a reINVITE request is sent the 'a' attribute in the SDP is set to 'sendrecv'		
ISUP Parameter values	CPG 1: Generic notification Conference established CPG 2: Generic notification isolated CPG 3: Generic notification reattached		
SIP Parameter values	INVITE 1: SDP a=sendonly INVITE 2: SDP a=sendrecv		
Comments	This state is applicable for CONF		
Message flows	ISUP	MGCF	Mg
	IAM	→	→ INVITE ← 100 Trying
	ACM	←	← 180 Ringing
	ANM	←	← 200 OK (INVITE) → ACK
	CPG 1	→	
	CPG 2	→	→ INVITE 1 (sendonly) ← 200 OK INVITE (recvonly) → ACK
	CPG 3	→	→ INVITE 2 (sendrecv) ← 200 OK INVITE (sendrecv) → ACK
	Apply post test routine		

6.2.13 Closed User Group (CUG)

TP number	TP_313_001	Reference	7.4.16
TSS reference	PSTN-SS/CUG/		
Selection criteria	PICS 6.3.1/1 AND PICS 6.3.2/14		
Test Purpose name	oFCi CUG outgoing access allowed call successful		
Test Purpose	Ensure that on receipt of an IAM the optional Forward call indicator is set to 'CUG with outgoing access allowed' an INVITE is sent. No CUG information is present in the INVITE		
ISUP Parameter values	IAM: Optional Forward Call indicator: CUG with outgoing access allowed		
SIP Parameter values			
Comments			
Message flows	ISUP	MGCF	Mg
	IAM	→	→ INVITE ← 100 Trying
	Apply post test routine		

TP number	TP_313_002	Reference	7.4.16
TSS reference	PSTN-SS/CUG/		
Selection criteria	PICS 6.3.1/1 AND PICS 6.3.2/14		
Test Purpose name	oFCi CUG outgoing access not allowed		
Test Purpose	Ensure that on receipt of an IAM the optional Forward call indicator is set to 'CUG with outgoing access not allowed' a REL message is sent the cause value is set to 29 and diagnostics indicating CUG without access is sent towards the originating exchange		
ISUP Parameter values	IAM: Optional Forward Call indicator: CUG with outgoing access not allowed REL: Cause value (if sent) 29 Diagnostics=CUG without access		
SIP Parameter values			
Comments			
Message flows	ISUP	MGCF	Mg
	IAM	→	
	REL #29	←	
	RLC	→	

6.2.14 Multi-Level Precedence and Pre-emption (MLPP)

TP number	TP_314_001	Reference	7.4.17
TSS reference	PSTN-SS/MLPP/		
Selection criteria	PICS 6.3.2/15		
Test Purpose name	Precedence parameter received in IAM, discarded		
Test Purpose	Ensure that on receipt of an IAM and a Precedence parameter is present, this parameter is discarded without affect the ongoing call setup		
ISUP Parameter values	IAM: Precedence		
SIP Parameter values			
Comments			
Message flows	ISUP	MGCF	Mg
	IAM	→	→ INVITE
			← 100 Trying
		Apply post test routine	

TP number	TP_314_002	Reference	7.4.17
TSS reference	PSTN-SS/MLPP/		
Selection criteria	PICS 6.3.2/15		
Test Purpose name	A REL cause #9 terminates an early dialogue		
Test Purpose	Ensure that on receipt of a REL message in an early dialogue at the O-MGCF and the Cause value is set to '9', a CANCEL request is sent. A Reason header is contained in the CANCEL request and the cause value is set to '9'		
ISUP Parameter values	REL: Cause = 9		
SIP Parameter values	CANCEL: Reason: Q.850; cause=9		
Comments			
Message flows	ISUP	MGCF	Mg
		A Session is already in early dialogue	
	REL	→	→ CANCEL
	RLC	←	← 200 OK CANCEL
			← 487 Request Terminated
			→ ACK

TP number	TP_314_003	Reference	7.4.17
TSS reference	PSTN-SS/MLPP/		
Selection criteria	PICS 6.3.2/15		
Test Purpose name	A REL cause #8 terminates an early dialogue		
Test Purpose	Ensure that on receipt of a REL message in an early dialogue at the I-MGCF and the Cause value is set to '8', a 4xx or 5xx final response is sent. A Reason header is contained in the final response message and the cause value is set to '9'		
ISUP Parameter values	REL: Cause = 8		
SIP Parameter values	480: Reason: Q.850; cause=8		
Comments			
Message flows	Mg	MGCF	ISUP
	A Session is already in early dialogue		
	4xx/5xx	←	← REL
	ACK	→	→ RLC

TP number	TP_314_004	Reference	7.4.17
TSS reference	PSTN-SS/MLPP/		
Selection criteria	PICS 6.3.2/15		
Test Purpose name	A REL cause #9 terminates a confirmed dialogue		
Test Purpose	Ensure that on receipt of a REL message in a confirmed dialogue and the Cause value is set to '9', a BYE request is sent. A Reason header is contained in the BYE request and the cause value is set to '9'		
ISUP Parameter values	REL: Cause = 9		
SIP Parameter values	BYE: Reason: Q.850; cause=9		
Comments			
Message flows	ISUP	MGCF	Mg
	A Session is already established		
	REL	→	→ BYE
	RLC	←	← 200 OK BYE

6.2.15 Global Virtual Network Service (GVNS)

TP number	TP_315_001	Reference	7.4.18
TSS reference	PSTN-SS/GVNS/		
Selection criteria	PICS 6.3.2/16		
Test Purpose name	Forward GVNS parameter in IAM discarded		
Test Purpose	Ensure that on receipt of an IAM containing a request for GVNS service, the Forward GVNS parameter is discarded without affect the ongoing call setup		
ISUP Parameter values	IAM: Called party number Forward GVNS Originating participating service provider GVNS user group Terminating network routing number		
SIP Parameter values			
Comments			
Message flows	ISUP	MGCF	Mg
	IAM	→	→ INVITE
			← 100 Trying
	Apply post test routine		

TP number	TP_316_004	Reference	7.4.20
TSS reference	PSTN-SS/REV/		
Selection criteria	PICS 6.3.7/2 AND PICS 6.3.2/17		
Test Purpose name	REV request in IAM explicit rejected		
Test Purpose	<p>Ensure that on receipt of an IAM message and a Remote Operation parameter is present containing REVCallingReqSetup invoke component and the explicit rejection of this service is supported, the SUT sends in a:</p> <ul style="list-style-type: none"> • ANM a Remote Operation parameter containing a REVCallingReqSetup return error component set to rejectedByNetwork OR • REL a Remote Operation parameter containing a REVCallingReqSetup return error component set to rejectedByNetwork and the Cause value is set to '29' 		
ISUP Parameter values	<p>IAM: Called party number Remote Operation REVCallingReqSetup invoke transferRequested = true callingUserNumber</p> <p>ANM: Remote Operation REVCallingReqSetup return error rejectedByNetwork</p> <p>REL: Cause 29 Remote Operation REVCallingReqSetup return error rejectedByNetwork</p>		
SIP Parameter values			
Comments			
Message flows	ISUP	MGCF	Mg
	IAM	→	
	CASE A		→ INVITE
	ACM	←	← 180 Ringing
	ANM	←	← 200 OK INVITE
			→ ACK
		Apply post test routine	
	CASE B		
	REL	←	
	RLC	→	

TP number	TP_316_005	Reference	7.4.20
TSS reference	PSTN-SS/REV/		
Selection criteria	PICS 6.3.7/2 AND PICS 6.3.2/17		
Test Purpose name	REV request in the active state explicit rejected at the O-MGCF		
Test Purpose	<p>Ensure that on receipt of an FAC message at the O-MGCF in the active state of the call and a Remote Operation parameter is present containing REVCallingReqSetup invoke component and the explicit rejection of this service is supported, the SUT sends in a FRJ message a Remote Operation parameter containing a REVCallingReqActive return error component set to rejectedByNetwork</p>		
ISUP Parameter values	<p>FAC: Remote Operation REVCallingReqActive invoke transferRequested = true callingUserNumber</p> <p>FRJ: Remote Operation REVCallingReqActive return error rejectedByNetwork</p>		
SIP Parameter values			
Comments			
Message flows	ISUP	MGCF	Mg
		A confirmed dialogue is already established	
	FAC	→	
	FRJ	←	
		Apply post test routine	

TP number	TP_316_006	Reference	7.4.20
TSS reference	PSTN-SS/REV/		
Selection criteria	PICS 6.3.7/2 AND PICS 6.3.2/17		
Test Purpose name	REV request in the active state explicit rejected at the I-MGCF		
Test Purpose	Ensure that on receipt of an FAC message at the O-MGCF in the active state of the call and a Remote Operation parameter is present containing REVCallingReqSetup invoke component and the explicit rejection of this service is supported, the SUT sends in a FRJ message a Remote Operation parameter containing a REVCalledRequest return error component set to rejectedByNetwork		
ISUP Parameter values	FAC: Remote Operation REVCalledRequest invoke transferRequested = true calledUserNumber FRJ: Remote Operation REVCalledRequest return error rejectedByNetwork		
SIP Parameter values			
Comments			
Message flows	Mg	MGCF	ISUP
	A confirmed dialogue is already established ← FAC → FRJ Apply post test routine		

6.2.17 User-to-User Signalling (UUS)

6.2.17.1 User-to-User Signalling (UUS) service 1 (implicit)

TP number	TP_317_001	Reference	7.4.21.1.2
TSS reference	PSTN-SS/UUS/		
Selection criteria	PICS 6.3.2/18		
Test Purpose name	User to user information received in an INVITE is sent in an IAM		
Test Purpose	Ensure that on receipt of a User-to-User header field in an initial INVITE request and the 'encoding' parameter is set to 'hex' an ISUP IAM message is sent. A User-to-user parameter is present. The User Information is derived from the uuidata parameter of the SIP User-to-User header field and the ISUP User-to-user Protocol discriminator is set to '04'		
ISUP Parameter values	IAM: User-to-user Information User Information		
SIP Parameter values	INVITE: User-to-User: <uuidata>; encoding=hex		
Comments			
Message flows	Mg	MGCF	ISUP
	INVITE 100 Trying	→ ←	→ IAM
	Apply post test routine		

TP number	TP_317_002	Reference	7.4.21.1.2
TSS reference	PSTN-SS/UUS/		
Selection criteria	PICS 6.3.2/18		
Test Purpose name	User to user information received in a Cancel is sent in a REL		
Test Purpose	Ensure that on receipt of a User-to-User header field in a CANCEL request and the 'encoding' parameter is set to 'hex' an ISUP REL message is sent. A User-to-user parameter is present. The User Information is derived from the uuidata parameter of the SIP User-to-User header field and the ISUP User-to-user Protocol discriminator is set to '04'		
ISUP Parameter values	REL: User-to-user Information User Information		
SIP Parameter values	CANCEL: User-to-User: <uuidata>; encoding=hex		
Comments			
Message flows	Mg	MGCF	ISUP
	INVITE	→	→ IAM
	CANCEL	→	→ REL
	200 OK CANCEL	←	← RLC
	487 Request Terminated	←	
	ACK	→	
	Apply post test routine		

TP number	TP_317_003	Reference	7.4.21.1.2
TSS reference	PSTN-SS/UUS/		
Selection criteria	PICS 6.3.2/18		
Test Purpose name	User to user information received in a BYE is sent in a REL		
Test Purpose	Ensure that on receipt of a User-to-User header field in a BYE request after a confirmed dialogue was established and the 'encoding' parameter is set to 'hex' an ISUP REL message is sent. A User-to-user parameter is present. The User Information is derived from the uuidata parameter of the SIP User-to-User header field and the ISUP User-to-user Protocol discriminator is set to '04'		
ISUP Parameter values	REL: User-to-user Information User Information		
SIP Parameter values	BYE: User-to-User: <uuidata>; encoding=hex		
Comments			
Message flows	Mg	MGCF	ISUP
	A confirmed dialogue is already established		
	BYE	→	→ REL
	200 OK BYE	←	← RLC

TP number	TP_317_004	Reference	7.4.21.1.3
TSS reference	PSTN-SS/UUS/		
Selection criteria	PICS 6.3.2/18		
Test Purpose name	User to user information received in an IAM is sent in an INVITE		
Test Purpose	Ensure that on receipt of User-to-user parameter contained in an IAM, an INVITE request is sent and the User-to-User header is present. The uuidata parameter is derived from the User Information of the User-to-user parameter of the IAM, the encoding parameter is set to 'hex'		
ISUP Parameter values	IAM: User-to-user Information User Information		
SIP Parameter values	INVITE: User-to-User: <uuidata>; encoding=hex		
Comments			
Message flows	ISUP	MGCF	Mg
	IAM	→	→ INVITE
			← 100 Trying
	Apply post test routine		

TP number	TP_317_005	Reference	7.4.21.1.3
TSS reference	PSTN-SS/UUS/		
Selection criteria	PICS 6.3.2/18		
Test Purpose name	User to user information received in a REL is sent in a CANCEL		
Test Purpose	Ensure that on receipt of User-to-user parameter contained in a REL before the dialogue is confirmed, a CANCEL request is sent and the User-to-User header is present. The uuidata parameter is derived from the User Information of the User-to-user parameter of the REL, the encoding parameter is set to 'hex'		
ISUP Parameter values	REL: User-to-user Information User Information		
SIP Parameter values	CANCEL: User-to-User: <uuidata>; encoding=hex		
Comments			
Message flows	ISUP	MGCF	Mg
	IAM	→	INVITE
			← 100 Trying
	REL	→	CANCEL
	RLC	←	← 200 OK CANCEL
			← 487 Request Terminated
			→ ACK
	Apply post test routine		

TP number	TP_317_006	Reference	7.4.21.1.3
TSS reference	PSTN-SS/UUS/		
Selection criteria	PICS 6.3.2/18		
Test Purpose name	User to user information received in a REL is sent in a BYE		
Test Purpose	Ensure that on receipt of User-to-user parameter contained in a REL after the dialogue is confirmed, a BYE request is sent and the User-to-User header is present. The uuidata parameter is derived from the User Information of the User-to-user parameter of the REL, the encoding parameter is set to 'hex'		
ISUP Parameter values	REL: User-to-user Information User Information		
SIP Parameter values	BYE: User-to-User: <uuidata>; encoding=hex		
Comments			
Message flows	ISUP	MGCF	Mg
		A confirmed dialogue is already established	
	REL	→	BYE
	RLC	←	← 200 OK BYE
	Apply post test routine		

6.2.17.2 User-to-User Signalling (UUS) service 1 (explicit)

TP number	TP_317_101	Reference	7.4.21.2
TSS reference	PSTN-SS/UUS/		
Selection criteria	PICS 6.3.2/18 AND NOT PICS 6.3.8/1		
Test Purpose name	User-to-user indicator service 1 'not essential' received in IAM, discarded		
Test Purpose	Ensure that on receipt of an IAM and a User-to-user indicator parameter for the service 1 is present the request is 'not essential' the call setup is not disrupted		
ISUP Parameter values	IAM: User-to-user Indicator Request service 1 not essential User-to-user Information User Information		
SIP Parameter values			
Comments			
Message flows	ISUP	MGCF	Mg
	IAM	→	INVITE
	ACM	←	← 180 Ringing
	ANM	←	← 200 OK INVITE
			→ ACK
	Apply post test routine		

TP number	TP_317_102	Reference	7.4.21.2
TSS reference	PSTN-SS/UUS/		
Selection criteria	PICS 6.3.2/18 AND PICS 6.3.8/1		
Test Purpose name	User-to-user indicator service 1 'not essential' received in IAM, User-to-user indicator response in ACM or ANM 'not provided'		
Test Purpose	Ensure that on receipt of an IAM and a User-to-user indicator parameter for the service 1 is present the request is 'not essential' the call setup is not disrupted A User-to-user indicator is sent in an ACM or ANM with a response for service 1 'not provided'		
ISUP Parameter values	IAM: User-to-user Indicator Request service 1 not essential User-to-user Information User Information ACM or ANM: User-to-user Indicator Response service 1 not Provided		
SIP Parameter values			
Comments			
Message flows	ISUP	MGCF	Mg
	IAM →		INVITE
	ACM ←		180 Ringing
	ANM ←		200 OK INVITE
			→ ACK
	Apply post test routine		

TP number	TP_317_103	Reference	7.4.21.2
TSS reference	PSTN-SS/UUS/		
Selection criteria	PICS 6.3.2/18 AND PICS 6.3.8/1		
Test Purpose name	User-to-user indicator service 1 'essential' received in IAM, call is rejected		
Test Purpose	Ensure that on receipt of an IAM and a User-to-user indicator parameter for the service 1 is present the request is 'essential' the call setup is rejected. A REL is sent the Cause value is set to '29 ' the Diagnostics field contains the parameter name of the User-to-user indicator '42'		
ISUP Parameter values	IAM: User-to-user Indicator Request service 1 essential User-to-user Information User Information REL: Cause indicator Cause 29 Diagnostics 42		
SIP Parameter values			
Comments			
Message flows	ISUP	MGCF	Mg
	IAM →		
	REL ←		
	RLC →		

6.2.17.3 User-to-User Signalling (UUS) service 2

TP number	TP_317_201	Reference	7.4.21.2
TSS reference	PSTN-SS/UUS/		
Selection criteria	PICS 6.3.2/18 AND NOT PICS 6.3.8/1		
Test Purpose name	User-to-user indicator service 2 'not essential' received in IAM, discarded		
Test Purpose	Ensure that on receipt of an IAM and a User-to-user indicator parameter for the service 2 is present the request is 'not essential' the call setup is not disrupted		
ISUP Parameter values	IAM: User-to-user Indicator Request service 2 not essential User-to-user Information User Information		
SIP Parameter values			
Comments			
Message flows	ISUP IAM	→	MGCF → INVITE ← 100 Trying Apply post test routine

TP number	TP_317_202	Reference	7.4.21.2
TSS reference	PSTN-SS/UUS/		
Selection criteria	PICS 6.3.2/18 AND PICS 6.3.8/1		
Test Purpose name	User-to-user indicator service 2 'not essential' received in IAM, User-to-user indicator response in ACM or ANM 'not provided'		
Test Purpose	Ensure that on receipt of an IAM and a User-to-user indicator parameter for the service 2 is present the request is 'not essential', the call setup is not disrupted A User-to-user indicator is sent in an ACM or ANM with a response for service 2 'not provided'		
ISUP Parameter values	IAM: User-to-user Indicator Request service 2 not essential User-to-user Information User Information ACM or ANM: User-to-user Indicator Response service 2 not Provided		
SIP Parameter values			
Comments			
Message flows	Mg IAM ACM ANM	→ ← ←	MGCF → INVITE ← 180 Ringing ← 200 OK INVITE → ACK Apply post test routine

TP number	TP_317_203	Reference	7.4.21.2
TSS reference	PSTN-SS/UUS/		
Selection criteria	PICS 6.3.2/18 AND PICS 6.3.8/1		
Test Purpose name	User-to-user indicator service 2 'essential' received in IAM, call is rejected		
Test Purpose	Ensure that on receipt of an IAM and a User-to-user indicator parameter for the service 2 is present the request is 'essential', the call setup is rejected. A REL is sent the Cause value is set to '29' the Diagnostics field contains the parameter name of the User-to-user indicator '42'		
ISUP Parameter values	IAM: User-to-user Indicator Request service 2 essential User-to-user Information User Information REL: Cause indicator Cause 29 Diagnostics 42		
SIP Parameter values			
Comments			
Message flows	ISUP	MGCF	Mg
	IAM	→	
	REL	←	
	RLC	→	

6.2.17.4 User-to-User Signalling (UUS) service 3

TP number	TP_317_301	Reference	7.4.21.2
TSS reference	PSTN-SS/UUS/		
Selection criteria	PICS 6.3.2/18 AND NOT PICS 6.3.8/1		
Test Purpose name	User-to-user indicator service 3 'not essential' received in IAM, discarded		
Test Purpose	Ensure that on receipt of an IAM and a User-to-user indicator parameter for the service 3 is present the request is 'not essential' the call setup is not disrupted		
ISUP Parameter values	IAM: User-to-user Indicator Request service 3 not essential User-to-user Information User Information		
SIP Parameter values			
Comments			
Message flows	ISUP	MGCF	Mg
	IAM	→	→ INVITE
			← 100 Trying
	Apply post test routine		

TP number	TP_317_302	Reference	7.4.21.2	
TSS reference	PSTN-SS/UUS/			
Selection criteria	AND PICS 6.3.2/18 AND PICS 6.3.8/1			
Test Purpose name	User-to-user indicator service 3 'not essential' received in IAM, User-to-user indicator response in ACM or ANM 'not provided'			
Test Purpose	Ensure that on receipt of an IAM and a User-to-user indicator parameter for the service 3 is present the request is 'not essential', the call setup is not disrupted A User-to-user indicator is sent in an ACM or ANM with a response for service 3 'not provided'			
ISUP Parameter values	IAM: User-to-user Indicator Request service 3 not essential User-to-user Information User Information ACM or ANM: User-to-user Indicator Response service 3 not Provided			
SIP Parameter values				
Comments				
Message flows	ISUP IAM ACM ANM	→ ← ←	MGCF → ← ← →	Mg INVITE 180 Ringing 200 OK INVITE ACK
Apply post test routine				

TP number	TP_317_303	Reference	7.4.21.2	
TSS reference	PSTN-SS/UUS/			
Selection criteria	PICS 6.3.2/18 AND PICS 6.3.8/1			
Test Purpose name	User-to-user indicator service 3 'essential' received in IAM, call is rejected			
Test Purpose	Ensure that on receipt of an IAM and a User-to-user indicator parameter for the service 3 is present the request is 'essential', the call setup is rejected. A REL is sent the Cause value is set to '29' the Diagnostics field contains the parameter name of the User-to-user indicator '42'			
ISUP Parameter values	IAM: User-to-user Indicator Request service 3 essential User-to-user Information User Information REL: Cause indicator Cause 29 Diagnostics 42			
SIP Parameter values				
Comments				
Message flows	ISUP IAM ACM ANM	→ ← ←	MGCF → ← ← →	Mg INVITE 180 Ringing 200 OK INVITE ACK
Apply post test routine				

6.2.18 Anonymous Call rejection

TP number	TP_318_001	Reference	7.4.23
TSS reference	PSTN-SS/ACR/		
Selection criteria			
Test Purpose name	Receipt of REL cause 24		
Test Purpose	Ensure that on receipt of an ISUP REL message cause #24 after the IAM was sent, a 433 (Anonymity Disallowed) final response is sent		
ISUP Parameter values	REL: Cause=24 (call rejected due to ACR supplementary service)		
SIP Parameter values			
Comments			
Message flows	Mg	MGCF	ISUP
	INVITE	→	→ IAM
	100 Trying	←	
	433 (Anonymity Disallowed)	←	← REL
	ACK	→	→ RLC
	Apply post test routine		

TP number	TP_318_002	Reference	7.4.23
TSS reference	PSTN-SS/ACR/		
Selection criteria			
Test Purpose name	Receipt of 433		
Test Purpose	Ensure that on receipt of a 433 (Anonymity Disallowed) final response after an initial INVITE request was sent, an ISUP REL cause #24 is sent		
ISUP Parameter values	REL: Cause=24 (call rejected due to ACR supplementary service)		
SIP Parameter values			
Comments			
Message flows	ISUP	MGCF	Mg
	IAM	→	→ INVITE
			← 100 Trying
	REL	←	← 433 (Anonymity Disallowed)
	RLC	→	→ ACK
	Apply post test routine		

6.3 IMS Supplementary Services

6.3.1 Originating Identification Presentation (OIP) and Originating Identification Restriction (OIR)

TP number	TP_401_001	Reference	7.5.1
TSS reference	IMS-SS/OIP-OIR/		
Selection criteria	PICS 6.3.2/1		
Test Purpose name	INVITE received. From header not present, P-Asserted-Identity not present. Network provided number is sent		
Test Purpose	Ensure that on receipt of an INVITE request the P-Asserted-Identity is not present and the From header does not contain an URI that encodes an E.164 Address, an IAM is sent. An Calling party number parameter is present and the address digits are provided by the SUT		
ISUP Parameter values	IAM: Calling party Number Number incomplete indicator= <i>Complete</i> Numbering Plan Indicator= <i>ISDN/Telephony (Recommendation E.164 [i.1])</i> Nature of Address Indicator If CC encoded in the URI is equal to the CC of the country where MGCF is located AND the next BICC/ISUP node is located in the same country then national (significant) number else international number Screening indicator=Network Provided Presentation restriction=restricted or allowed Address signal provided by the Network if NOA is " <i>national (significant) number</i> " then set to "NDC" + "SN" If NOA is " <i>international number</i> " then set to "CC"+" NDC"+"SN"		
SIP Parameter values	INVITE: P-Asserted-Identity: not present From: does not contain a URI that encodes an E.164 address		
Comments			
Message flows	<div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;"> Mg INVITE 100 Trying </div> <div style="text-align: center;"> → ← </div> <div style="text-align: center;"> MGCF </div> <div style="text-align: center;"> → </div> <div style="text-align: center;"> IAM </div> <div style="text-align: center;"> ISUP </div> </div> <p style="text-align: center; margin-top: 10px;">Apply post test routine</p>		

TP number	TP_401_002	Reference	7.5.1, 7.2.3.1.2.6												
TSS reference	IMS-SS/OIP-OIR/														
Selection criteria	PICS 6.3.3/4 AND PICS 6.3.2/1														
Test Purpose name	INVITE received. From header not present, P-Asserted-Identity not present. Network provided number is sent														
Test Purpose	Ensure that on receipt of an INVITE request the P-Asserted-Identity is not present and the From header does not contain a URI that encodes an E.164 Address, an IAM is sent. A Calling party number parameter is present and the address digits are provided by the SUT. The Presentation restriction indicator is set to 'presentation restricted by network'														
ISUP Parameter values	IAM: Calling party Number Number incomplete indicator= <i>Complete</i> Numbering Plan Indicator= <i>ISDN/Telephony (Recommendation E.164 [i.1])</i> Nature of Address Indicator If CC encoded in the URI is equal to the CC of the country where MGCF is located AND the next BICC/ISUP node is located in the same country then national (significant) number else international number Screening indicator= <i>Network Provided</i> Presentation restriction= <i>presentation restricted by network</i> Address signal provided by the Network if NOA is " <i>national (significant) number</i> " then set to "NDC" + "SN" If NOA is " <i>international number</i> " then set to "CC"+" NDC"+"SN"														
SIP Parameter values	INVITE: P-Asserted-Identity: not present From: does not contain a URI that encodes an E.164 address														
Comments															
Message flows	<table style="width: 100%; border: none;"> <tr> <td style="text-align: center;">Mg</td> <td style="text-align: center;">MGCF</td> <td style="text-align: center;">ISUP</td> </tr> <tr> <td>INVITE</td> <td style="text-align: center;">→</td> <td>IAM</td> </tr> <tr> <td>100 Trying</td> <td style="text-align: center;">←</td> <td></td> </tr> <tr> <td colspan="3" style="text-align: center;">Apply post test routine</td> </tr> </table>			Mg	MGCF	ISUP	INVITE	→	IAM	100 Trying	←		Apply post test routine		
Mg	MGCF	ISUP													
INVITE	→	IAM													
100 Trying	←														
Apply post test routine															

TP number	TP_401_003	Reference	7.5.1, 7.2.3.1.2.6												
TSS reference	IMS-SS/OIP-OIR/														
Selection criteria	PICS 6.3.3/2 AND PICS 6.3.2/1														
Test Purpose name	INVITE received. From header not present, P-Asserted-Identity not present. Address digits omitted														
Test Purpose	Ensure that on receipt of an INVITE request the P-Asserted-Identity is not present and the From header does not contain a URI that encodes an E.164 Address, an IAM is sent. A Calling party number parameter is present and the address digits omitted														
ISUP Parameter values	IAM: Calling party Number not present														
SIP Parameter values	INVITE: P-Asserted-Identity: not present From: does not contain a URI that encodes an E.164 address														
Comments															
Message flows	<table style="width: 100%; border: none;"> <tr> <td style="text-align: center;">Mg</td> <td style="text-align: center;">MGCF</td> <td style="text-align: center;">ISUP</td> </tr> <tr> <td>INVITE</td> <td style="text-align: center;">→</td> <td>IAM</td> </tr> <tr> <td>100 Trying</td> <td style="text-align: center;">←</td> <td></td> </tr> <tr> <td colspan="3" style="text-align: center;">Apply post test routine</td> </tr> </table>			Mg	MGCF	ISUP	INVITE	→	IAM	100 Trying	←		Apply post test routine		
Mg	MGCF	ISUP													
INVITE	→	IAM													
100 Trying	←														
Apply post test routine															

TP number	TP_401_004	Reference	7.5.1, 7.2.3.1.2.6
TSS reference	IMS-SS/OIP-OIR/		
Selection criteria	PICS 6.3.3/2 AND PICS 6.3.3/3 AND PICS 6.3.2/1		
Test Purpose name	INVITE received. From header not present, P-Asserted-Identity not present APRI is set to 'Address not available'		
Test Purpose	Ensure that on receipt of an INVITE request the P-Asserted-Identity is not present and the From header does not contain an URI that encodes an E.164 Address, an IAM is sent. A Calling party number parameter is present and the address digits omitted. The Presentation restriction indicator is set to 'Address not available'		
ISUP Parameter values	IAM: Calling party Number Number incomplete indicator= <i>Complete</i> Numbering Plan Indicator='000' Nature of Address Indicator='0000000' Screening indicator=Network Provided Presentation restriction=Address not available Address signal Address digits not present		
SIP Parameter values	INVITE: P-Asserted-Identity: not present From: does not contain a URI that encodes an E.164 address		
Comments			
Message flows	<div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;"> Mg INVITE 100 Trying </div> <div style="text-align: center;"> → ← </div> <div style="text-align: center;"> MGCF </div> <div style="text-align: center;"> → IAM </div> <div style="text-align: center;"> ISUP </div> </div> <p style="text-align: center;">Apply post test routine</p>		

TP number	TP_401_005	Reference	7.5.1, 7.2.3.1.2.6
TSS reference	IMS-SS/OIP-OIR/		
Selection criteria	PICS 6.3.3/1 PICS 6.3.2/1		
Test Purpose name	INVITE received. From header present, P-Asserted-Identity not present. Network provided number is sent		
Test Purpose	Ensure that on receipt of an INVITE request the P-Asserted-Identity is not present and the From header contains an URI that encodes an E.164 Address, an IAM is sent. A Calling party number parameter is present and the address digits are provided by the SUT. An Additional calling Party number is sent in a Generic number parameter and the Address signals are derived from the Userpart of the From header		
ISUP Parameter values	<p>IAM: Calling party Number Number incomplete indicator=<i>Complete</i> Numbering Plan Indicator=<i>ISDN/Telephony (Recommendation E.164 [i.1])</i> Nature of Address Indicator If CC encoded in the URI is equal to the CC of the country where MGCF is located AND the next BICC/ISUP node is located in the same country then national (significant) number else international number Screening indicator=<i>Network Provided</i> Presentation restriction=<i>restricted or allowed</i> Address signal provided by the Network if NOA is "<i>national (significant) number</i>" then set to "NDC" + "SN" If NOA is "<i>international number</i>" then set to "CC"+" NDC"+"SN"</p> <p>Additional calling party number Nature of Address Indicator If CC encoded in the URI is equal to the CC of the country where MGCF is located AND the next BICC/ISUP node is located in the same country then <i>national (significant) number</i> else <i>international number</i> Number incomplete indicator=<i>Complete</i> Numbering Plan Indicator=<i>ISDN/Telephony (Recommendation E.164 [i.1])</i> Presentation restriction=<i>restricted or allowed</i> Screening indicator=<i>user provided not verified</i> Address digits derived from the 'From' header if NOA is <i>national (significant) number</i> then set to "NDC" + "SN" If NOA is "<i>international number</i>" set to "CC"+" NDC"+"SN"</p>		
SIP Parameter values	INVITE: P-Asserted-Identity: not present From: contains a URI that encodes an E.164 address		
Comments			
Message flows	Mg INVITE 100 Trying	→ ←	MGCF → IAM ISUP Apply post test routine

TP number	TP_401_006	Reference	7.5.1, 7.2.3.1.2.6									
TSS reference	IMS-SS/OIP-OIR/											
Selection criteria	PICS 6.3.3/1 AND PICS 6.3.3/4 AND PICS 6.3.2/1											
Test Purpose name	INVITE received. From header present, P-Asserted-Identity not present. Network provided number is sent											
Test Purpose	Ensure that on receipt of an INVITE request the P-Asserted-Identity is not present and the From header contains an URI that encodes an E.164 Address, an IAM is sent. A Calling party number parameter is present and the address digits are provided by the SUT. The Presentation restriction indicator is set to 'presentation restricted by network'. An Additional calling Party number is sent in a Generic number parameter and the Address signals are derived from the Userpart of the From header and the Presentation restriction indicator is set to 'presentation allowed'											
ISUP Parameter values	IAM: Calling party Number Number incomplete indicator= <i>Complete</i> Numbering Plan Indicator= <i>ISDN/Telephony (Recommendation E.164 [i.1])</i> Nature of Address Indicator If CC encoded in the URI is equal to the CC of the country where MGCF is located AND the next BICC/ISUP node is located in the same country then national (significant) number else international number Screening indicator= <i>Network Provided</i> Presentation restriction= <i>presentation restricted by network</i> Address signal provided by the Network if NOA is " <i>national (significant) number</i> " then set to "NDC" + "SN" If NOA is " <i>international number</i> " then set to "CC"+" NDC"+"SN" Additional calling party number Nature of Address Indicator If CC encoded in the URI is equal to the CC of the country where MGCF is located AND the next BICC/ISUP node is located in the same country then <i>national (significant) number</i> else <i>international number</i> Number incomplete indicator= <i>Complete</i> Numbering Plan Indicator= <i>ISDN/Telephony (Recommendation E.164 [i.1])</i> Presentation restriction= <i>allowed</i> Screening indicator= <i>user provided not verified</i> Address digits derived from the 'From' header if NOA is " <i>national (significant) number</i> " then set to "NDC" + "SN" If NOA is " <i>international number</i> " set to "CC"+" NDC"+"SN"											
SIP Parameter values	INVITE: P-Asserted-Identity: not present From: contains a URI that encodes an E.164 address											
Comments												
Message flows	<table style="width: 100%; border: none;"> <tr> <td style="text-align: center;">Mg</td> <td style="text-align: center;">MGCF</td> <td style="text-align: center;">ISUP</td> </tr> <tr> <td>INVITE</td> <td style="text-align: center;">→</td> <td>→ IAM</td> </tr> <tr> <td>100 Trying</td> <td style="text-align: center;">←</td> <td></td> </tr> </table> <p style="text-align: center;">Apply post test routine</p>			Mg	MGCF	ISUP	INVITE	→	→ IAM	100 Trying	←	
Mg	MGCF	ISUP										
INVITE	→	→ IAM										
100 Trying	←											

TP number	TP_401_007	Reference	7.5.1, 7.2.3.1.2.6																								
TSS reference	IMS-SS/OIP-OIR/																										
Selection criteria	PICS 6.3.3/2 AND NOT PICS 6.3.3/5 AND PICS 6.3.2/1																										
Test Purpose name	INVITE received. From header present, P-Asserted-Identity not present. Address digits omitted																										
Test Purpose	Ensure that on receipt of an INVITE request the P-Asserted-Identity is not present and the From header contains an URI that encodes an E.164 Address, an IAM is sent. A Calling party number parameter is present and the address digits omitted. An Additional calling Party number is sent in a Generic number parameter and the Address signals are derived from the Userpart of the From header																										
ISUP Parameter values	IAM: Calling party Number not present Additional calling party number Nature of Address Indicator If CC encoded in the URI is equal to the CC of the country where MGCF is located AND the next BICC/ISUP node is located in the same country then <i>national (significant) number</i> else <i>international number</i> Number incomplete indicator=Complete Numbering Plan Indicator=ISDN/Telephony (<i>Recommendation E.164 [i.1]</i>) Presentation restriction=restricted or allowed Screening indicator=user provided not verified Address digits derived from the 'From' header if NOA is <i>national (significant) number</i> then set to "NDC" + "SN" If NOA is " <i>international number</i> " set to "CC"+' NDC'+ 'SN'																										
SIP Parameter values	INVITE: P-Asserted-Identity: not present From: contains a URI that encodes an E.164 address																										
Comments																											
Message flows	<table style="width: 100%; border: none;"> <tr> <td style="width: 30%;"></td> <td style="text-align: center;">Mg</td> <td style="width: 30%;"></td> <td style="text-align: center;">MGCF</td> <td style="width: 30%;"></td> <td style="text-align: center;">ISUP</td> </tr> <tr> <td>INVITE</td> <td></td> <td style="text-align: center;">→</td> <td></td> <td style="text-align: center;">→</td> <td>IAM</td> </tr> <tr> <td>100 Trying</td> <td></td> <td style="text-align: center;">←</td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> <td colspan="3" style="text-align: center;">Apply post test routine</td> </tr> </table>				Mg		MGCF		ISUP	INVITE		→		→	IAM	100 Trying		←							Apply post test routine		
	Mg		MGCF		ISUP																						
INVITE		→		→	IAM																						
100 Trying		←																									
			Apply post test routine																								

TP number	TP_401_008	Reference	7.5.1, 7.2.3.1.2.6																								
TSS reference	IMS-SS/OIP-OIR/																										
Selection criteria	PICS 6.3.3/2 AND PICS 6.3.3/5 AND PICS 6.3.2/1																										
Test Purpose name	INVITE received. From header present, P-Asserted-Identity not present. Address digits omitted																										
Test Purpose	Ensure that on receipt of an INVITE request the P-Asserted-Identity is not present and the From header contains an URI that encodes an E.164 Address, an IAM is sent. A Calling party number parameter is present and the address digits omitted. In addition, the Additional calling party number is omitted.																										
ISUP Parameter values	IAM: Calling party Number Number incomplete indicator= <i>Complete</i> Numbering Plan Indicator='000' Nature of Address Indicator='0000000' Screening indicator=Network Provided Presentation restriction= Address not available Address signal Address digits not present Additional calling party number not present																										
SIP Parameter values	INVITE: P-Asserted-Identity: not present From: contains a URI that encodes an E.164 address																										
Comments																											
Message flows	<table style="width: 100%; border: none;"> <tr> <td style="width: 30%;"></td> <td style="text-align: center;">Mg</td> <td style="width: 30%;"></td> <td style="text-align: center;">MGCF</td> <td style="width: 30%;"></td> <td style="text-align: center;">ISUP</td> </tr> <tr> <td>INVITE</td> <td></td> <td style="text-align: center;">→</td> <td></td> <td style="text-align: center;">→</td> <td>IAM</td> </tr> <tr> <td>100 Trying</td> <td></td> <td style="text-align: center;">←</td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> <td colspan="3" style="text-align: center;">Apply post test routine</td> </tr> </table>				Mg		MGCF		ISUP	INVITE		→		→	IAM	100 Trying		←							Apply post test routine		
	Mg		MGCF		ISUP																						
INVITE		→		→	IAM																						
100 Trying		←																									
			Apply post test routine																								

TP number	TP_401_009	Reference	7.5.1, 7.2.3.1.2.6																
TSS reference	IMS-SS/OIP-OIR/																		
Selection criteria	PICS 6.3.2/1																		
Test Purpose name	INVITE received. From header not present, P-Asserted-Identity present Privacy not present																		
Test Purpose	Ensure that on receipt of an INVITE request the P-Asserted-Identity is present and the From header does not contain an URI that encodes an E.164 Address a Privacy header is not present, an IAM is sent. A Calling party number parameter is present and the address digits are derived from the P-Asserted-Identity header																		
ISUP Parameter values	IAM: Calling party Number Number incomplete indicator= <i>Complete</i> Numbering Plan Indicator= <i>ISDN/Telephony (Recommendation E.164 [i.1])</i> Nature of Address Indicator If CC encoded in the URI is equal to the CC of the country where MGCF is located AND the next BICC/ISUP node is located in the same country then national (significant) number else international number Screening indicator=Network Provided Presentation restriction=allowed Address signal derived from the P-Asserted-Identity if NOA is " <i>national (significant) number</i> " then set to "NDC" + "SN" If NOA is ' <i>international number</i> ' then set to "CC"+" NDC"+"SN"																		
SIP Parameter values	INVITE: P-Asserted-Identity: present From: does not contain a URI that encodes an E.164 address Privacy not present																		
Comments																			
Message flows	<table style="width:100%; border:none;"> <tr> <td style="width:33%;"></td> <td style="width:33%; text-align:center;">Mg</td> <td style="width:33%; text-align:center;">MGCF</td> <td style="width:33%; text-align:center;">ISUP</td> </tr> <tr> <td>INVITE</td> <td style="text-align:center;">→</td> <td></td> <td style="text-align:center;">→ IAM</td> </tr> <tr> <td>100 Trying</td> <td style="text-align:center;">←</td> <td></td> <td></td> </tr> <tr> <td></td> <td colspan="3" style="text-align:center;">Apply post test routine</td> </tr> </table>				Mg	MGCF	ISUP	INVITE	→		→ IAM	100 Trying	←				Apply post test routine		
	Mg	MGCF	ISUP																
INVITE	→		→ IAM																
100 Trying	←																		
	Apply post test routine																		

TP number	TP_401_010	Reference	7.5.1, 7.2.3.1.2.6																
TSS reference	IMS-SS/OIP-OIR/																		
Selection criteria	PICS 6.3.2/1																		
Test Purpose name	INVITE received. From header not present, P-Asserted-Identity present, Privacy value 'none'																		
Test Purpose	Ensure that on receipt of an INVITE request the P-Asserted-Identity is present and the From header does not contain an URI that encodes an E.164 Address and a Privacy header is present set to 'none', an IAM is sent. A Calling party number parameter is present and the address digits are derived from the P-Asserted-Identity header. The Presentation restriction is set to 'presentation 'allowed'																		
ISUP Parameter values	IAM: Calling party Number Number incomplete indicator= <i>Complete</i> Numbering Plan Indicator= <i>ISDN/Telephony (Recommendation E.164 [i.1])</i> Nature of Address Indicator If CC encoded in the URI is equal to the CC of the country where MGCF is located AND the next BICC/ISUP node is located in the same country then national (significant) number else international number Screening indicator=Network Provided Presentation restriction=allowed Address signal derived from the P-Asserted-Identity if NOA is " <i>national (significant) number</i> " then set to "NDC" + "SN" If NOA is ' <i>international number</i> ' then set to "CC"+" NDC"+"SN"																		
SIP Parameter values	INVITE: P-Asserted-Identity: present From: does not contain a URI that encodes an E.164 address Privacy: none																		
Comments																			
Message flows	<table style="width:100%; border:none;"> <tr> <td style="width:33%;"></td> <td style="width:33%; text-align:center;">Mg</td> <td style="width:33%; text-align:center;">MGCF</td> <td style="width:33%; text-align:center;">ISUP</td> </tr> <tr> <td>INVITE</td> <td style="text-align:center;">→</td> <td></td> <td style="text-align:center;">→ IAM</td> </tr> <tr> <td>100 Trying</td> <td style="text-align:center;">←</td> <td></td> <td></td> </tr> <tr> <td></td> <td colspan="3" style="text-align:center;">Apply post test routine</td> </tr> </table>				Mg	MGCF	ISUP	INVITE	→		→ IAM	100 Trying	←				Apply post test routine		
	Mg	MGCF	ISUP																
INVITE	→		→ IAM																
100 Trying	←																		
	Apply post test routine																		

TP number	TP_401_011	Reference	7.5.1, 7.2.3.1.2.6												
TSS reference	IMS-SS/OIP-OIR/														
Selection criteria	PICS 6.3.2/1														
Test Purpose name	INVITE received. From header not present, P-Asserted-Identity present, Privacy value 'id'														
Test Purpose	Ensure that on receipt of an INVITE request the P-Asserted-Identity is present and the From header does not contain a URI that encodes an E.164 Address and a Privacy header is present set to 'id', an IAM is sent. A Calling party number parameter is present and the address digits are derived from the P-Asserted-Identity header. The Presentation restriction is set to 'presentation 'restricted'														
ISUP Parameter values	IAM: Calling party Number Number incomplete indicator= <i>Complete</i> Numbering Plan Indicator= <i>ISDN/Telephony (Recommendation E.164 [i.1])</i> Nature of Address Indicator If CC encoded in the URI is equal to the CC of the country where MGCF is located AND the next BICC/ISUP node is located in the same country then national (significant) number else international number Screening indicator=Network Provided Presentation restriction=restricted Address signal derived from the P-Asserted-Identity if NOA is " <i>national (significant) number</i> " then set to "NDC" + "SN" If NOA is " <i>international number</i> " then set to "CC"+" NDC"+"SN"														
SIP Parameter values	INVITE: P-Asserted-Identity: present From: does not contain a URI that encodes an E.164 address Privacy: id														
Comments															
Message flows	<table style="width: 100%; border: none;"> <tr> <td style="text-align: center;">Mg</td> <td style="text-align: center;">MGCF</td> <td style="text-align: center;">ISUP</td> </tr> <tr> <td>INVITE</td> <td style="text-align: center;">→</td> <td style="text-align: center;">IAM</td> </tr> <tr> <td>100 Trying</td> <td style="text-align: center;">←</td> <td></td> </tr> <tr> <td colspan="3" style="text-align: center;">Apply post test routine</td> </tr> </table>			Mg	MGCF	ISUP	INVITE	→	IAM	100 Trying	←		Apply post test routine		
Mg	MGCF	ISUP													
INVITE	→	IAM													
100 Trying	←														
Apply post test routine															

TP number	TP_401_012	Reference	7.5.1, 7.2.3.1.2.6												
TSS reference	IMS-SS/OIP-OIR/														
Selection criteria	PICS 6.3.2/1														
Test Purpose name	INVITE received. From header not present, P-Asserted-Identity present, Privacy value 'user'														
Test Purpose	Ensure that on receipt of an INVITE request the P-Asserted-Identity is present and the From header does not contain a URI that encodes an E.164 Address and a Privacy header is present set to 'user', an IAM is sent. A Calling party number parameter is present and the address digits are derived from the P-Asserted-Identity header. The Presentation restriction is set to 'presentation 'restricted'														
ISUP Parameter values	IAM: Calling party Number Number incomplete indicator= <i>Complete</i> Numbering Plan Indicator= <i>ISDN/Telephony (Recommendation E.164 [i.1])</i> Nature of Address Indicator If CC encoded in the URI is equal to the CC of the country where MGCF is located AND the next BICC/ISUP node is located in the same country then national (significant) number else international number Screening indicator=Network Provided Presentation restriction=restricted Address signal derived from the P-Asserted-Identity if NOA is " <i>national (significant) number</i> " then set to "NDC" + "SN" If NOA is " <i>international number</i> " then set to "CC"+" NDC"+"SN"														
SIP Parameter values	INVITE: P-Asserted-Identity: present From: does not contain a URI that encodes an E.164 address Privacy: user														
Comments															
Message flows	<table style="width: 100%; border: none;"> <tr> <td style="text-align: center;">Mg</td> <td style="text-align: center;">MGCF</td> <td style="text-align: center;">ISUP</td> </tr> <tr> <td>INVITE</td> <td style="text-align: center;">→</td> <td style="text-align: center;">IAM</td> </tr> <tr> <td>100 Trying</td> <td style="text-align: center;">←</td> <td></td> </tr> <tr> <td colspan="3" style="text-align: center;">Apply post test routine</td> </tr> </table>			Mg	MGCF	ISUP	INVITE	→	IAM	100 Trying	←		Apply post test routine		
Mg	MGCF	ISUP													
INVITE	→	IAM													
100 Trying	←														
Apply post test routine															

TP number	TP_401_013	Reference	7.5.1, 7.2.3.1.2.6																								
TSS reference	IMS-SS/OIP-OIR/																										
Selection criteria	PICS 6.3.2/1																										
Test Purpose name	INVITE received. From header not present, P-Asserted-Identity present, Privacy value 'header'																										
Test Purpose	Ensure that on receipt of an INVITE request the P-Asserted-Identity is present and the From header does not contain a URI that encodes an E.164 Address and a Privacy header is present set to 'header', an IAM is sent. A Calling party number parameter is present and the address digits are derived from the P-Asserted-Identity header. The Presentation restriction is set to 'presentation 'restricted'																										
ISUP Parameter values	IAM: Calling party Number Number incomplete indicator= <i>Complete</i> Numbering Plan Indicator= <i>ISDN/Telephony (Recommendation E.164 [i.1])</i> Nature of Address Indicator If CC encoded in the URI is equal to the CC of the country where MGCF is located AND the next BICC/ISUP node is located in the same country then national (significant) number else international number Screening indicator= <i>Network Provided</i> Presentation restriction= <i>restricted</i> Address signal derived from the P-Asserted-Identity if NOA is " <i>national (significant) number</i> " then set to "NDC" + "SN" If NOA is " <i>international number</i> " then set to "CC"+"NDC"+"SN"																										
SIP Parameter values	INVITE: P-Asserted-Identity: present From: does not contain a URI that encodes an E.164 address Privacy: header																										
Comments																											
Message flows	<table style="width: 100%; border: none;"> <tr> <td style="width: 30%;"></td> <td style="text-align: center;">Mg</td> <td style="width: 30%;"></td> <td style="text-align: center;">MGCF</td> <td style="width: 30%;"></td> <td style="text-align: center;">ISUP</td> </tr> <tr> <td>INVITE</td> <td></td> <td style="text-align: center;">→</td> <td></td> <td style="text-align: center;">→</td> <td>IAM</td> </tr> <tr> <td>100 Trying</td> <td></td> <td style="text-align: center;">←</td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> <td colspan="3" style="text-align: center;">Apply post test routine</td> </tr> </table>				Mg		MGCF		ISUP	INVITE		→		→	IAM	100 Trying		←							Apply post test routine		
	Mg		MGCF		ISUP																						
INVITE		→		→	IAM																						
100 Trying		←																									
			Apply post test routine																								

TP number	TP_401_014	Reference	7.5.1, 7.2.3.1.2.6									
TSS reference	IMS-SS/OIP-OIR/											
Selection criteria	NOT PICS 6.3.3/6 AND PICS 6.3.2/1											
Test Purpose name	INVITE received. From header present, P-Asserted-Identity present. Privacy header not present, additional calling party number not omitted											
Test Purpose	<p>Ensure that on receipt of an INVITE request the P-Asserted-Identity is present and the From header contains an URI that encodes an E.164 Address a Privacy header is not present, an IAM is sent.</p> <p>A Calling party number parameter is present and the address digits are derived from the P-Asserted-Identity header the Presentation restriction indicator is set to 'presentation allowed'. An Additional calling Party number is sent in a Generic number parameter and the Address signals are derived from the Userpart of the From header the Presentation restriction indicator is set to 'presentation allowed'.</p>											
ISUP Parameter values	<p>IAM: Calling party Number Number incomplete indicator=<i>Complete</i> Numbering Plan Indicator=<i>ISDN/Telephony (Recommendation E.164 [i.1])</i> Nature of Address Indicator If CC encoded in the URI is equal to the CC of the country where MGCF is located AND the next BICC/ISUP node is located in the same country then national (significant) number else international number Screening indicator=<i>Network Provided</i> Presentation restriction=<i>allowed</i> Address signal derived from the P-Asserted-Identity if NOA is "<i>national (significant) number</i>" then set to "NDC" + "SN" If NOA is "<i>international number</i>" then set to "CC"+" NDC"+"SN"</p> <p>Additional calling party number Nature of Address Indicator If CC encoded in the URI is equal to the CC of the country where MGCF is located AND the next BICC/ISUP node is located in the same country then <i>national (significant) number</i> else <i>international number</i> Number incomplete indicator=<i>Complete</i> Numbering Plan Indicator=<i>ISDN/Telephony (Recommendation E.164 [i.1])</i> Presentation restriction=<i>allowed</i> Screening indicator=<i>user provided not verified</i> Address digits derived from the 'From' header if NOA is "<i>national (significant) number</i>" then set to "NDC" + "SN" If NOA is "<i>international number</i>" set to "CC"+" NDC"+"SN"</p>											
SIP Parameter values	<p>INVITE: P-Asserted-Identity: present From: contains a URI that encodes an E.164 address Privacy not present</p>											
Comments												
Message flows	<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="text-align: center;">Mg</td> <td style="text-align: center;">MGCF</td> <td style="text-align: center;">ISUP</td> </tr> <tr> <td style="vertical-align: top;">INVITE 100 Trying</td> <td style="text-align: center; vertical-align: middle;"> → ← </td> <td style="vertical-align: middle;">→ IAM</td> </tr> <tr> <td colspan="3" style="text-align: center;">Apply post test routine</td> </tr> </table>			Mg	MGCF	ISUP	INVITE 100 Trying	→ ←	→ IAM	Apply post test routine		
Mg	MGCF	ISUP										
INVITE 100 Trying	→ ←	→ IAM										
Apply post test routine												

TP number	TP_401_015	Reference	7.5.1, 7.2.3.1.2.6												
TSS reference	IMS-SS/OIP-OIR/														
Selection criteria	NOT PICS 6.3.3/6 AND PICS 6.3.2/1														
Test Purpose name	INVITE received. From header present, P-Asserted-Identity present. Privacy header 'none', additional calling party number not omitted														
Test Purpose	<p>Ensure that on receipt of an INVITE request the P-Asserted-Identity is present and the From header contains an URI that encodes an E.164 Address, an IAM is sent Privacy header is present set to 'none'.</p> <p>A Calling party number parameter is present and the address digits are derived from the P-Asserted-Identity header the Presentation restriction indicator is set to 'presentation allowed'. An Additional calling Party number is sent in a Generic number parameter and the Address signals are derived from the Userpart of the From header the Presentation restriction indicator is set to 'presentation allowed'.</p>														
ISUP Parameter values	<p>IAM: Calling party Number Number incomplete indicator=<i>Complete</i> Numbering Plan Indicator=<i>ISDN/Telephony (Recommendation E.164 [i.1])</i> Nature of Address Indicator If CC encoded in the URI is equal to the CC of the country where MGCF is located AND the next BICC/ISUP node is located in the same country then national (significant) number else international number Screening indicator=<i>Network Provided</i> Presentation restriction=<i>allowed</i> Address signal derived from the P-Asserted-Identity if NOA is "<i>national (significant) number</i>" then set to "NDC" + "SN" If NOA is "<i>international number</i>" then set to "CC"+" NDC"+"SN"</p> <p>Additional calling party number Nature of Address Indicator If CC encoded in the URI is equal to the CC of the country where MGCF is located AND the next BICC/ISUP node is located in the same country then <i>national (significant) number</i> else <i>international number</i> Number incomplete indicator=<i>Complete</i> Numbering Plan Indicator=<i>ISDN/Telephony (Recommendation E.164 [i.1])</i> Presentation restriction=<i>allowed</i> Screening indicator=<i>user provided not verified</i> Address digits derived from the 'From' header if NOA is <i>national (significant) number</i> then set to "NDC" + "SN" If NOA is "<i>international number</i>" set to "CC"+" NDC"+"SN"</p>														
SIP Parameter values	<p>INVITE: P-Asserted-Identity: present From: contains a URI that encodes an E.164 address Privacy: none</p>														
Comments															
Message flows	<table style="width: 100%; border: none;"> <tr> <td style="text-align: center;">Mg</td> <td style="text-align: center;">MGCF</td> <td style="text-align: center;">ISUP</td> </tr> <tr> <td>INVITE</td> <td style="text-align: center;">→</td> <td style="text-align: center;">→ IAM</td> </tr> <tr> <td>100 Trying</td> <td style="text-align: center;">←</td> <td></td> </tr> <tr> <td colspan="3" style="text-align: center;">Apply post test routine</td> </tr> </table>			Mg	MGCF	ISUP	INVITE	→	→ IAM	100 Trying	←		Apply post test routine		
Mg	MGCF	ISUP													
INVITE	→	→ IAM													
100 Trying	←														
Apply post test routine															

TP number	TP_401_016	Reference	7.5.1, 7.2.3.1.2.6												
TSS reference	IMS-SS/OIP-OIR/														
Selection criteria	NOT PICS 6.3.3/6 AND PICS 6.3.2/1														
Test Purpose name	INVITE received. From header present, P-Asserted-Identity present. Privacy header 'id', additional calling party number not omitted														
Test Purpose	<p>Ensure that on receipt of an INVITE request the P-Asserted-Identity is present and the From header contains an URI that encodes an E.164 Address, an IAM is sent Privacy header is present set to 'id'.</p> <p>A Calling party number parameter is present and the address digits are derived from the P-Asserted-Identity header the Presentation restriction indicator is set to 'presentation restricted'. An Additional calling Party number is sent in a Generic number parameter and the Address signals are derived from the Userpart of the From header the Presentation restriction indicator is set to 'presentation restricted'.</p>														
ISUP Parameter values	<p>IAM: Calling party Number Number incomplete indicator=<i>Complete</i> Numbering Plan Indicator=<i>ISDN/Telephony (Recommendation E.164 [i.1])</i> Nature of Address Indicator If CC encoded in the URI is equal to the CC of the country where MGCF is located AND the next BICC/ISUP node is located in the same country then national (significant) number else international number Screening indicator=<i>Network Provided</i> Presentation restriction=<i>restricted</i> Address signal derived from the P-Asserted-Identity if NOA is "<i>national (significant) number</i>" then set to "NDC" + "SN" If NOA is "<i>international number</i>" then set to "CC"+" NDC"+"SN"</p> <p>Additional calling party number Nature of Address Indicator If CC encoded in the URI is equal to the CC of the country where MGCF is located AND the next BICC/ISUP node is located in the same country then <i>national (significant) number</i> else <i>international number</i> Number incomplete indicator=<i>Complete</i> Numbering Plan Indicator=<i>ISDN/Telephony (Recommendation E.164 [i.1])</i> Presentation restriction=<i>restricted</i> Screening indicator=<i>user provided not verified</i> Address digits derived from the 'From' header if NOA is <i>national (significant) number</i> then set to "NDC" + "SN" If NOA is "<i>international number</i>" set to "CC"+" NDC"+"SN"</p>														
SIP Parameter values	<p>INVITE: P-Asserted-Identity: present From: contains a URI that encodes an E.164 address Privacy: id</p>														
Comments															
Message flows	<table style="width: 100%; border: none;"> <tr> <td style="text-align: center;">Mg</td> <td style="text-align: center;">MGCF</td> <td style="text-align: center;">ISUP</td> </tr> <tr> <td>INVITE</td> <td style="text-align: center;">→</td> <td style="text-align: center;">→ IAM</td> </tr> <tr> <td>100 Trying</td> <td style="text-align: center;">←</td> <td></td> </tr> <tr> <td colspan="3" style="text-align: center;">Apply post test routine</td> </tr> </table>			Mg	MGCF	ISUP	INVITE	→	→ IAM	100 Trying	←		Apply post test routine		
Mg	MGCF	ISUP													
INVITE	→	→ IAM													
100 Trying	←														
Apply post test routine															

TP number	TP_401_017	Reference	7.5.1, 7.2.3.1.2.6												
TSS reference	IMS-SS/OIP-OIR/														
Selection criteria	NOT PICS 6.3.3/6 AND PICS 6.3.2/1														
Test Purpose name	INVITE received. From header present, P-Asserted-Identity present. Privacy header 'user', additional calling party number not omitted														
Test Purpose	<p>Ensure that on receipt of an INVITE request the P-Asserted-Identity is present and the From header contains an URI that encodes an E.164 Address, an IAM is sent Privacy header is present set to 'user'.</p> <p>A Calling party number parameter is present and the address digits are derived from the P-Asserted-Identity header the Presentation restriction indicator is set to 'presentation restricted'. An Additional calling Party number is sent in a Generic number parameter and the Address signals are derived from the Userpart of the From header the Presentation restriction indicator is set to 'presentation restricted'</p>														
ISUP Parameter values	<p>IAM: Calling party Number Number incomplete indicator=<i>Complete</i> Numbering Plan Indicator=<i>ISDN/Telephony (Recommendation E.164 [i.1])</i> Nature of Address Indicator If CC encoded in the URI is equal to the CC of the country where MGCF is located AND the next BICC/ISUP node is located in the same country then national (significant) number else international number Screening indicator=<i>Network Provided</i> Presentation restriction=<i>restricted</i> Address signal derived from the P-Asserted-Identity if NOA is "<i>national (significant) number</i>" then set to "NDC" + "SN" If NOA is "<i>international number</i>" then set to "CC"+" NDC"+"SN"</p> <p>Additional calling party number Nature of Address Indicator If CC encoded in the URI is equal to the CC of the country where MGCF is located AND the next BICC/ISUP node is located in the same country then <i>national (significant) number</i> else <i>international number</i> Number incomplete indicator=<i>Complete</i> Numbering Plan Indicator=<i>ISDN/Telephony (Recommendation E.164 [i.1])</i> Presentation restriction=<i>restricted</i> Screening indicator=<i>user provided not verified</i> Address digits derived from the 'From' header if NOA is <i>national (significant) number</i> then set to "NDC" + "SN" If NOA is "<i>international number</i>" set to "CC"+" NDC"+"SN"</p>														
SIP Parameter values	<p>INVITE: P-Asserted-Identity: present From: contains a URI that encodes an E.164 address Privacy: user</p>														
Comments															
Message flows	<table style="width: 100%; border: none;"> <tr> <td style="text-align: center;">Mg</td> <td style="text-align: center;">MGCF</td> <td style="text-align: center;">ISUP</td> </tr> <tr> <td>INVITE</td> <td style="text-align: center;">→</td> <td style="text-align: center;">→ IAM</td> </tr> <tr> <td>100 Trying</td> <td style="text-align: center;">←</td> <td></td> </tr> <tr> <td colspan="3" style="text-align: center;">Apply post test routine</td> </tr> </table>			Mg	MGCF	ISUP	INVITE	→	→ IAM	100 Trying	←		Apply post test routine		
Mg	MGCF	ISUP													
INVITE	→	→ IAM													
100 Trying	←														
Apply post test routine															

TP number	TP_401_018	Reference	7.5.1, 7.2.3.1.2.6									
TSS reference	IMS-SS/OIP-OIR/											
Selection criteria	NOT PICS 6.3.3/6 AND PICS 6.3.2/1											
Test Purpose name	INVITE received. From header present, P-Asserted-Identity present. Privacy header 'header', additional calling party number not omitted											
Test Purpose	<p>Ensure that on receipt of an INVITE request the P-Asserted-Identity is present and the From header contains a URI that encodes an E.164 Address, an IAM is sent Privacy header is present set to 'header'.</p> <p>A Calling party number parameter is present and the address digits are derived from the P-Asserted-Identity header the Presentation restriction indicator is set to 'presentation restricted'. An Additional calling Party number is sent in a Generic number parameter and the Address signals are derived from the Userpart of the From header the Presentation restriction indicator is set to 'presentation restricted'</p>											
ISUP Parameter values	<p>IAM: Calling party Number</p> <p>Number incomplete indicator=<i>Complete</i></p> <p>Numbering Plan Indicator=<i>ISDN/Telephony (Recommendation E.164 [i.1])</i></p> <p>Nature of Address Indicator</p> <p style="padding-left: 2em;">If CC encoded in the URI is equal to the CC of the country where MGCF is located AND the next BICC/ISUP node is located in the same country then national (<i>significant</i>) number</p> <p style="padding-left: 2em;">else</p> <p style="padding-left: 2em;"><i>international</i> number</p> <p>Screening indicator=<i>Network Provided</i></p> <p>Presentation restriction=<i>restricted</i></p> <p>Address signal derived from the P-Asserted-Identity</p> <p style="padding-left: 2em;">if NOA is "<i>national (significant) number</i>" then set to "NDC" + "SN"</p> <p style="padding-left: 2em;">If NOA is "<i>international number</i>" then set to "CC"+" NDC"+"SN"</p> <p>Additional calling party number</p> <p>Nature of Address Indicator</p> <p style="padding-left: 2em;">If CC encoded in the URI is equal to the CC of the country where MGCF is located AND the next BICC/ISUP node is located in the same country then <i>national (significant) number</i></p> <p style="padding-left: 2em;">else</p> <p style="padding-left: 2em;"><i>international number</i></p> <p>Number incomplete indicator=<i>Complete</i></p> <p>Numbering Plan Indicator=<i>ISDN/Telephony (Recommendation E.164 [i.1])</i></p> <p>Presentation restriction=<i>restricted</i></p> <p>Screening indicator=<i>user provided not verified</i></p> <p>Address digits derived from the 'From' header</p> <p style="padding-left: 2em;">if NOA is <i>national (significant) number</i> then set to "NDC" + "SN"</p> <p style="padding-left: 2em;">If NOA is "<i>international number</i>" set to "CC"+" NDC"+"SN"</p>											
SIP Parameter values	<p>INVITE: P-Asserted-Identity: present</p> <p>From: contains a URI that encodes an E.164 address</p> <p>Privacy: header</p>											
Comments												
Message flows	<table style="width: 100%; border: none;"> <tr> <td style="text-align: center;">Mg</td> <td style="text-align: center;">MGCF</td> <td style="text-align: center;">ISUP</td> </tr> <tr> <td style="text-align: center;">INVITE</td> <td style="text-align: center;">→</td> <td style="text-align: center;">→ IAM</td> </tr> <tr> <td style="text-align: center;">100 Trying</td> <td style="text-align: center;">←</td> <td></td> </tr> </table> <p style="text-align: center;">Apply post test routine</p>			Mg	MGCF	ISUP	INVITE	→	→ IAM	100 Trying	←	
Mg	MGCF	ISUP										
INVITE	→	→ IAM										
100 Trying	←											

TP number	TP_401_019	Reference	7.5.1, 7.2.3.1.2.6
TSS reference	IMS-SS/OIP-OIR/		
Selection criteria	PICS 6.3.3/6 AND PICS 6.3.2/1		
Test Purpose name	INVITE received. From header present, P-Asserted-Identity present. Privacy header not present, additional calling party number omitted		
Test Purpose	<p>Ensure that on receipt of an INVITE request the P-Asserted-Identity is present and the From header contains a URI that encodes an E.164 Address a Privacy header is not present, an IAM is sent.</p> <p>A Calling party number parameter is present and the address digits are derived from the P-Asserted-Identity header the Presentation restriction indicator is set to 'presentation allowed'. An Additional calling Party number parameter is not present</p>		
ISUP Parameter values	<p>IAM: Calling party Number</p> <p>Number incomplete indicator=<i>Complete</i> Numbering Plan Indicator=<i>ISDN/Telephony (Recommendation E.164 [i.1])</i> Nature of Address Indicator If CC encoded in the URI is equal to the CC of the country where MGCF is located AND the next BICC/ISUP node is located in the same country then national (significant) number else international number Screening indicator=<i>Network Provided</i> Presentation restriction=<i>allowed</i> Address signal derived from the P-Asserted-Identity if NOA is "<i>national (significant) number</i>" then set to "NDC" + "SN" If NOA is "<i>international number</i>" then set to "CC"+" NDC"+"SN"</p>		
SIP Parameter values	<p>INVITE: P-Asserted-Identity: present From: contains a URI that encodes an E.164 address Privacy not present</p>		
Comments			
Message flows	<p style="text-align: center;">Mg MGCF ISUP</p> <p>INVITE → → IAM 100 Trying ← ←</p> <p style="text-align: center;">Apply post test routine</p>		

TP number	TP_401_020	Reference	7.5.1, 7.2.3.1.2.6
TSS reference	IMS-SS/OIP-OIR/		
Selection criteria	PICS 6.3.3/6 AND PICS 6.3.2/1		
Test Purpose name	INVITE received. From header present, P-Asserted-Identity present. Privacy header 'none', additional calling party number omitted		
Test Purpose	<p>Ensure that on receipt of an INVITE request the P-Asserted-Identity is present and the From header contains an URI that encodes an E.164 Address a Privacy header is set to 'none', an IAM is sent.</p> <p>A Calling party number parameter is present and the address digits are derived from the P-Asserted-Identity header the Presentation restriction indicator is set to 'presentation allowed'. An Additional calling Party number parameter is not present</p>		
ISUP Parameter values	<p>IAM: Calling party Number</p> <p>Number incomplete indicator=<i>Complete</i> Numbering Plan Indicator=<i>ISDN/Telephony (Recommendation E.164 [i.1])</i> Nature of Address Indicator If CC encoded in the URI is equal to the CC of the country where MGCF is located AND the next BICC/ISUP node is located in the same country then national (significant) number else international number Screening indicator=<i>Network Provided</i> Presentation restriction=<i>allowed</i> Address signal derived from the P-Asserted-Identity if NOA is "<i>national (significant) number</i>" then set to "NDC" + "SN" If NOA is "<i>international number</i>" then set to "CC"+"NDC"+"SN"</p>		
SIP Parameter values	<p>INVITE: P-Asserted-Identity: present From: contains a URI that encodes an E.164 address Privacy: none</p>		
Comments			
Message flows	<p style="text-align: center;">Mg MGCF ISUP</p> <p>INVITE → → IAM</p> <p>100 Trying ←</p> <p style="text-align: center;">Apply post test routine</p>		

TP number	TP_401_021	Reference	7.5.1, 7.2.3.1.2.6																		
TSS reference	IMS-SS/OIP-OIR/																				
Selection criteria	PICS 6.3.3/6 AND PICS 6.3.2/1																				
Test Purpose name	INVITE received. From header present, P-Asserted-Identity present. Privacy header 'id', additional calling party number omitted																				
Test Purpose	<p>Ensure that on receipt of an INVITE request the P-Asserted-Identity is present and the From header contains a URI that encodes an E.164 Address a Privacy header is set to 'id', an IAM is sent.</p> <p>A Calling party number parameter is present and the address digits are derived from the P-Asserted-Identity header the Presentation restriction indicator is set to 'presentation restricted'. An Additional calling Party number parameter is not present</p>																				
ISUP Parameter values	<p>IAM: Calling party Number</p> <p>Number incomplete indicator=<i>Complete</i></p> <p>Numbering Plan Indicator=<i>ISDN/Telephony (Recommendation E.164 [i.1])</i></p> <p>Nature of Address Indicator</p> <p style="padding-left: 20px;">If CC encoded in the URI is equal to the CC of the country where MGCF is located AND the next BICC/ISUP node is located in the same country then</p> <p style="padding-left: 40px;">national (significant) number</p> <p style="padding-left: 40px;">else</p> <p style="padding-left: 40px;">international number</p> <p>Screening indicator=<i>Network Provided</i></p> <p>Presentation restriction=<i>restricted</i></p> <p>Address signal derived from the P-Asserted-Identity</p> <p style="padding-left: 20px;">if NOA is "<i>national (significant) number</i>" then set to "NDC" + "SN"</p> <p style="padding-left: 20px;">If NOA is "<i>international number</i>" then set to "CC"+" NDC"+"SN"</p>																				
SIP Parameter values	<p>INVITE: P-Asserted-Identity: present</p> <p>From: contains a URI that encodes an E.164 address</p> <p>Privacy: id</p>																				
Comments																					
Message flows	<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 30%;"></td> <td style="text-align: center; font-weight: bold;">Mg</td> <td style="width: 40%;"></td> <td style="text-align: center; font-weight: bold;">MGCF</td> <td style="width: 30%;"></td> <td style="text-align: center; font-weight: bold;">ISUP</td> </tr> <tr> <td>INVITE</td> <td style="text-align: center;">→</td> <td></td> <td style="text-align: center;">→</td> <td></td> <td>IAM</td> </tr> <tr> <td>100 Trying</td> <td style="text-align: center;">←</td> <td></td> <td></td> <td></td> <td></td> </tr> </table> <p style="text-align: center; font-weight: bold;">Apply post test routine</p>				Mg		MGCF		ISUP	INVITE	→		→		IAM	100 Trying	←				
	Mg		MGCF		ISUP																
INVITE	→		→		IAM																
100 Trying	←																				

TP number	TP_401_022	Reference	7.5.1, 7.2.3.1.2.6																								
TSS reference	IMS-SS/OIP-OIR/																										
Selection criteria	PICS 6.3.3/6 AND PICS 6.3.2/1																										
Test Purpose name	INVITE received. From header present, P-Asserted-Identity present. Privacy header 'user', additional calling party number omitted																										
Test Purpose	<p>Ensure that on receipt of an INVITE request the P-Asserted-Identity is present and the From header contains an URI that encodes an E.164 Address a Privacy header is set to 'user', an IAM is sent.</p> <p>A Calling party number parameter is present and the address digits are derived from the P-Asserted-Identity header the Presentation restriction indicator is set to 'presentation restricted'. An Additional calling Party number parameter is not present</p>																										
ISUP Parameter values	<p>IAM: Calling party Number</p> <p>Number incomplete indicator=<i>Complete</i></p> <p>Numbering Plan Indicator=<i>ISDN/Telephony (Recommendation E.164 [i.1])</i></p> <p>Nature of Address Indicator</p> <p style="padding-left: 20px;">If CC encoded in the URI is equal to the CC of the country where MGCF is located AND the next BICC/ISUP node is located in the same country then national (significant) number</p> <p style="padding-left: 20px;">else international number</p> <p>Screening indicator=<i>Network Provided</i></p> <p>Presentation restriction=<i>restricted</i></p> <p>Address signal derived from the P-Asserted-Identity</p> <p style="padding-left: 20px;">if NOA is "<i>national (significant) number</i>" then set to "NDC" + "SN"</p> <p style="padding-left: 20px;">If NOA is "<i>international number</i>" then set to "CC"+" NDC"+"SN"</p>																										
SIP Parameter values	<p>INVITE: P-Asserted-Identity: present</p> <p>From: contains a URI that encodes an E.164 address</p> <p>Privacy: user</p>																										
Comments																											
Message flows	<table style="width: 100%; border: none;"> <tr> <td style="width: 33%;"></td> <td style="text-align: center;">Mg</td> <td style="width: 33%;"></td> <td style="text-align: center;">MGCF</td> <td style="width: 33%;"></td> <td style="text-align: center;">ISUP</td> </tr> <tr> <td>INVITE</td> <td style="text-align: center;">→</td> <td></td> <td style="text-align: center;">→</td> <td></td> <td>IAM</td> </tr> <tr> <td>100 Trying</td> <td style="text-align: center;">←</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td colspan="6" style="text-align: center;">Apply post test routine</td> </tr> </table>				Mg		MGCF		ISUP	INVITE	→		→		IAM	100 Trying	←					Apply post test routine					
	Mg		MGCF		ISUP																						
INVITE	→		→		IAM																						
100 Trying	←																										
Apply post test routine																											

TP number	TP_401_023	Reference	7.5.1, 7.2.3.1.2.6									
TSS reference	IMS-SS/OIP-OIR/											
Selection criteria	PICS 6.3.3/6 AND PICS 6.3.2/1											
Test Purpose name	INVITE received. From header present, P-Asserted-Identity present. Privacy header 'header', additional calling party number omitted											
Test Purpose	Ensure that on receipt of an INVITE request the P-Asserted-Identity is present and the From header contains an URI that encodes an E.164 Address a Privacy header is set to 'header', an IAM is sent. A Calling party number parameter is present and the address digits are derived from the P-Asserted-Identity header the Presentation restriction indicator is set to 'presentation restricted'. An Additional calling Party number parameter is not present											
ISUP Parameter values	IAM: Calling party Number Number incomplete indicator= <i>Complete</i> Numbering Plan Indicator= <i>ISDN/Telephony (Recommendation E.164 [i.1])</i> Nature of Address Indicator If CC encoded in the URI is equal to the CC of the country where MGCF is located AND the next BICC/ISUP node is located in the same country then national (significant) number else international number Screening indicator= <i>Network Provided</i> Presentation restriction= <i>restricted</i> Address signal derived from the P-Asserted-Identity if NOA is " <i>national (significant) number</i> " then set to "NDC" + "SN" If NOA is " <i>international number</i> " then set to "CC"+" NDC"+"SN"											
SIP Parameter values	INVITE: P-Asserted-Identity: present From: contains a URI that encodes an E.164 address Privacy: header											
Comments												
Message flows	<table style="width: 100%; border: none;"> <tr> <td style="text-align: center;">Mg</td> <td style="text-align: center;">MGCF</td> <td style="text-align: center;">ISUP</td> </tr> <tr> <td>INVITE</td> <td style="text-align: center;">→</td> <td>IAM</td> </tr> <tr> <td>100 Trying</td> <td style="text-align: center;">←</td> <td></td> </tr> </table> <p style="text-align: center;">Apply post test routine</p>			Mg	MGCF	ISUP	INVITE	→	IAM	100 Trying	←	
Mg	MGCF	ISUP										
INVITE	→	IAM										
100 Trying	←											

TP number	TP_401_024	Reference	7.5.1, 7.2.3.2.2.3												
TSS reference	IMS-SS/OIP-OIR/														
Selection criteria	PICS 6.3.2/1														
Test Purpose name	Calling party number not received, Additional calling party number not received, unavailable From header is sent														
Test Purpose	Ensure that on receipt of an IAM and no Calling party number and no Additional calling party number is present, an INVITE is sent. A P-Asserted-Identity is not present and the URI of the From header is set to 'sip:unavailable@unknown.invalid'														
ISUP Parameter values	IAM: Calling party number not present Generic number (Additional calling party number) not present														
SIP Parameter values	INVITE: From: sip:unavailable@unknown.invalid P-Asserted-Identity not present														
Comments															
Message flows	<table style="width: 100%; border: none;"> <tr> <td style="text-align: center;">ISUP</td> <td style="text-align: center;">MGCF</td> <td style="text-align: center;">Mg</td> </tr> <tr> <td>IAM</td> <td style="text-align: center;">→</td> <td>INVITE</td> </tr> <tr> <td></td> <td></td> <td style="text-align: center;">←</td> </tr> <tr> <td></td> <td></td> <td>100 Trying</td> </tr> </table> <p style="text-align: center;">Apply post test routine</p>			ISUP	MGCF	Mg	IAM	→	INVITE			←			100 Trying
ISUP	MGCF	Mg													
IAM	→	INVITE													
		←													
		100 Trying													

TP number	TP_401_025	Reference	7.5.1, 7.2.3.2.2.3																								
TSS reference	IMS-SS/OIP-OIR/																										
Selection criteria	PICS 6.3.2/1																										
Test Purpose name	Calling party number not received, Additional calling party number received presentation allowed, From header containing a E.164 URI is sent																										
Test Purpose	Ensure that on receipt of an IAM and no Calling party number is present and an Additional calling party number is present, an INVITE is sent. A P-Asserted-Identity is not present and the URI of the From header is derived from the additional calling party number or is network provided																										
ISUP Parameter values	IAM: Calling party number not present Generic number (Additional calling party number) present presentation allowed																										
SIP Parameter values	INVITE: From: derived from the additional calling party number or network provided P-Asserted-Identity not present																										
Comments																											
Message flows	<table style="width: 100%; border: none;"> <tr> <td style="text-align: left;">IAM</td> <td style="text-align: center;">ISUP</td> <td style="text-align: center;">→</td> <td style="text-align: center;">MGCF</td> <td style="text-align: center;">→</td> <td style="text-align: right;">Mg</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td style="text-align: center;">→</td> <td style="text-align: right;">INVITE</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td style="text-align: center;">←</td> <td style="text-align: right;">100 Trying</td> </tr> <tr> <td colspan="6" style="text-align: center;">Apply post test routine</td> </tr> </table>			IAM	ISUP	→	MGCF	→	Mg					→	INVITE					←	100 Trying	Apply post test routine					
IAM	ISUP	→	MGCF	→	Mg																						
				→	INVITE																						
				←	100 Trying																						
Apply post test routine																											

TP number	TP_401_026	Reference	7.5.1, 7.2.3.2.2.3																								
TSS reference	IMS-SS/OIP-OIR/																										
Selection criteria	PICS 6.3.2/1																										
Test Purpose name	Calling party number not received, Additional calling party number received presentation restricted, unavailable From header is sent																										
Test Purpose	Ensure that on receipt of an IAM and no Calling party number and an Additional calling party number is present the Presentation restriction indicator is set to 'presentation restricted', an INVITE is sent. A P-Asserted-Identity is not present and the URI of the From header is set to 'sip:unavailable@unknown.invalid'																										
ISUP Parameter values	IAM: Calling party number not present Generic number (Additional calling party number) present presentation restricted																										
SIP Parameter values	INVITE: From: sip:unavailable@unknown.invalid P-Asserted-Identity not present																										
Comments																											
Message flows	<table style="width: 100%; border: none;"> <tr> <td style="text-align: left;">IAM</td> <td style="text-align: center;">ISUP</td> <td style="text-align: center;">→</td> <td style="text-align: center;">MGCF</td> <td style="text-align: center;">→</td> <td style="text-align: right;">Mg</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td style="text-align: center;">→</td> <td style="text-align: right;">INVITE</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td style="text-align: center;">←</td> <td style="text-align: right;">100 Trying</td> </tr> <tr> <td colspan="6" style="text-align: center;">Apply post test routine</td> </tr> </table>			IAM	ISUP	→	MGCF	→	Mg					→	INVITE					←	100 Trying	Apply post test routine					
IAM	ISUP	→	MGCF	→	Mg																						
				→	INVITE																						
				←	100 Trying																						
Apply post test routine																											

TP number	TP_401_027	Reference	7.5.1, 7.2.3.2.2.3																								
TSS reference	IMS-SS/OIP-OIR/																										
Selection criteria	PICS 6.3.2/1																										
Test Purpose name	Calling party number received presentation allowed, Additional calling party number not received, P-Asserted-Identity header and From header are sent																										
Test Purpose	Ensure that on receipt of an IAM and a Calling party number Presentation restriction indicator is set to 'presentation allowed' and an Additional calling party number is not present, an INVITE is sent. A P-Asserted-Identity is present the URI is derived from the address signals of the calling party number and the URI of the From header is derived from the address signals of the calling party number. A Privacy header is not present or if present the value is not equal to 'id'																										
ISUP Parameter values	IAM: Calling party number present presentation allowed Generic number (Additional calling party number) not present																										
SIP Parameter values	INVITE: From derived from the calling party number P-Asserted-Identity derived from the calling party number Privacy not 'id' or Privacy header not present																										
Comments																											
Message flows	<table style="width: 100%; border: none;"> <tr> <td style="text-align: left;">IAM</td> <td style="text-align: center;">ISUP</td> <td style="text-align: center;">→</td> <td style="text-align: center;">MGCF</td> <td style="text-align: center;">→</td> <td style="text-align: right;">Mg</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td style="text-align: center;">→</td> <td style="text-align: right;">INVITE</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td style="text-align: center;">←</td> <td style="text-align: right;">100 Trying</td> </tr> <tr> <td colspan="6" style="text-align: center;">Apply post test routine</td> </tr> </table>			IAM	ISUP	→	MGCF	→	Mg					→	INVITE					←	100 Trying	Apply post test routine					
IAM	ISUP	→	MGCF	→	Mg																						
				→	INVITE																						
				←	100 Trying																						
Apply post test routine																											

TP number	TP_401_028	Reference	7.5.1, 7.2.3.2.2.3																
TSS reference	IMS-SS/OIP-OIR/																		
Selection criteria	PICS 6.3.2/1																		
Test Purpose name	Calling party number received presentation allowed, Additional calling party number received presentation allowed, P-Asserted-Identity header and From header are sent																		
Test Purpose	Ensure that on receipt of an IAM and a Calling party number Presentation restriction indicator is set to 'presentation allowed' and an Additional calling party number is present the Presentation restriction indicator is set to 'presentation allowed', an INVITE is sent. A P-Asserted-Identity is present the URI is derived from the address signals of the calling party number and the URI of the From header is derived from the address signals of the additional calling party number. A Privacy header is not present or if present the value is not equal to 'id'																		
ISUP Parameter values	IAM: Calling party number present presentation allowed Generic number (Additional calling party number) present presentation allowed																		
SIP Parameter values	INVITE: From derived from the additional calling party number P-Asserted-Identity derived from the calling party number Privacy not 'id' or Privacy header not present																		
Comments																			
Message flows	<table style="width: 100%; border: none;"> <tr> <td style="width: 25%;"></td> <td style="width: 25%; text-align: center;">ISUP</td> <td style="width: 25%; text-align: center;">MGCF</td> <td style="width: 25%; text-align: right;">Mg</td> </tr> <tr> <td style="vertical-align: middle;">IAM</td> <td style="text-align: center;">→</td> <td></td> <td style="vertical-align: middle;">→ INVITE</td> </tr> <tr> <td></td> <td></td> <td></td> <td style="vertical-align: middle;">← 100 Trying</td> </tr> <tr> <td colspan="4" style="text-align: center;">Apply post test routine</td> </tr> </table>				ISUP	MGCF	Mg	IAM	→		→ INVITE				← 100 Trying	Apply post test routine			
	ISUP	MGCF	Mg																
IAM	→		→ INVITE																
			← 100 Trying																
Apply post test routine																			

TP number	TP_401_029	Reference	7.5.1, 7.2.3.2.2.3																
TSS reference	IMS-SS/OIP-OIR/																		
Selection criteria	PICS 6.3.2/1																		
Test Purpose name	Calling party number received presentation allowed, Additional calling party number received presentation restricted, P-Asserted-Identity header and From header are sent																		
Test Purpose	Ensure that on receipt of an IAM and a Calling party number Presentation restriction indicator is set to 'presentation allowed' and an Additional calling party number is present the Presentation restriction indicator is set to 'presentation restricted', an INVITE is sent. A P-Asserted-Identity is present the URI is derived from the address signals of the calling party number and the URI of the From header is derived from the address signals of the calling party number. A Privacy header is not present or if present the value is not equal to 'id'																		
ISUP Parameter values	IAM: Calling party number present presentation allowed Generic number (Additional calling party number) present presentation restricted																		
SIP Parameter values	INVITE: From derived from the calling party number P-Asserted-Identity derived from the calling party number Privacy not 'id' or Privacy header not present																		
Comments																			
Message flows	<table style="width: 100%; border: none;"> <tr> <td style="width: 25%;"></td> <td style="width: 25%; text-align: center;">ISUP</td> <td style="width: 25%; text-align: center;">MGCF</td> <td style="width: 25%; text-align: right;">Mg</td> </tr> <tr> <td style="vertical-align: middle;">IAM</td> <td style="text-align: center;">→</td> <td></td> <td style="vertical-align: middle;">→ INVITE</td> </tr> <tr> <td></td> <td></td> <td></td> <td style="vertical-align: middle;">← 100 Trying</td> </tr> <tr> <td colspan="4" style="text-align: center;">Apply post test routine</td> </tr> </table>				ISUP	MGCF	Mg	IAM	→		→ INVITE				← 100 Trying	Apply post test routine			
	ISUP	MGCF	Mg																
IAM	→		→ INVITE																
			← 100 Trying																
Apply post test routine																			

TP number	TP_401_030	Reference	7.5.1, 7.2.3.2.2.3												
TSS reference	IMS-SS/OIP-OIR/														
Selection criteria	PICS 6.3.2/1														
Test Purpose name	Calling party number received presentation restricted, Additional calling party number not received, P-Asserted-Identity header and From header are sent														
Test Purpose	Ensure that on receipt of an IAM and a Calling party number Presentation restriction indicator is set to 'presentation restricted' and an Additional calling party number is not present, an INVITE is sent. A P-Asserted-Identity is present the URI is derived from the address signals of the calling party number and the URI of the From header is set to 'sip:anonymous@anonymous.invalid'. A Privacy header is present the value is equal to 'id'														
ISUP Parameter values	IAM: Calling party number present presentation restricted Generic number (Additional calling party number) not present														
SIP Parameter values	INVITE: From: sip:anonymous@anonymous.invalid P-Asserted-Identity derived from the calling party number Privacy: 'id'														
Comments															
Message flows	<table style="width: 100%; border: none;"> <tr> <td style="text-align: center;">ISUP</td> <td style="text-align: center;">MGCF</td> <td style="text-align: center;">Mg</td> </tr> <tr> <td style="text-align: center;">IAM</td> <td style="text-align: center;">→</td> <td style="text-align: center;">→ INVITE</td> </tr> <tr> <td></td> <td></td> <td style="text-align: center;">← 100 Trying</td> </tr> <tr> <td colspan="3" style="text-align: center;">Apply post test routine</td> </tr> </table>			ISUP	MGCF	Mg	IAM	→	→ INVITE			← 100 Trying	Apply post test routine		
ISUP	MGCF	Mg													
IAM	→	→ INVITE													
		← 100 Trying													
Apply post test routine															

TP number	TP_401_031	Reference	7.5.1, 7.2.3.2.2.3												
TSS reference	IMS-SS/OIP-OIR/														
Selection criteria	PICS 6.3.2/1														
Test Purpose name	Calling party number received presentation restricted, Additional calling party number received presentation allowed, P-Asserted-Identity header and From header are sent														
Test Purpose	Ensure that on receipt of an IAM and a Calling party number Presentation restriction indicator is set to 'presentation restricted' and an Additional calling party number is present the Presentation restriction indicator is set to 'presentation allowed', an INVITE is sent. A P-Asserted-Identity is present the URI is derived from the address signals of the calling party number and the URI of the From header is derived from the address signals of the additional calling party number. A Privacy header is present the value is equal to 'id'														
ISUP Parameter values	IAM: Calling party number present presentation restricted Generic number (Additional calling party number) present presentation allowed														
SIP Parameter values	INVITE: From derived from the additional calling party number P-Asserted-Identity derived from the calling party number Privacy: 'id'														
Comments															
Message flows	<table style="width: 100%; border: none;"> <tr> <td style="text-align: center;">ISUP</td> <td style="text-align: center;">MGCF</td> <td style="text-align: center;">Mg</td> </tr> <tr> <td style="text-align: center;">IAM</td> <td style="text-align: center;">→</td> <td style="text-align: center;">→ INVITE</td> </tr> <tr> <td></td> <td></td> <td style="text-align: center;">← 100 Trying</td> </tr> <tr> <td colspan="3" style="text-align: center;">Apply post test routine</td> </tr> </table>			ISUP	MGCF	Mg	IAM	→	→ INVITE			← 100 Trying	Apply post test routine		
ISUP	MGCF	Mg													
IAM	→	→ INVITE													
		← 100 Trying													
Apply post test routine															

TP number	TP_401_032	Reference	7.5.1, 7.2.3.2.2.3												
TSS reference	IMS-SS/OIP-OIR/														
Selection criteria	PICS 6.3.2/1														
Test Purpose name	Calling party number received presentation restricted, Additional calling party number received presentation restricted, P-Asserted-Identity header and From header are sent														
Test Purpose	Ensure that on receipt of an IAM and a Calling party number Presentation restriction indicator is set to 'presentation restricted' and an Additional calling party number is present the Presentation restriction indicator is set to 'presentation restricted', an INVITE is sent. A P-Asserted-Identity is present the URI is derived from the address signals of the calling party number and the URI of the From header is set to the value 'sip:anonymous@anonymous.invalid'. A Privacy header is present the value is equal to 'id'														
ISUP Parameter values	IAM: Calling party number present presentation restricted Generic number (Additional calling party number) present presentation restricted														
SIP Parameter values	INVITE: From: sip:anonymous@anonymous.invalid P-Asserted-Identity derived from the calling party number Privacy: 'id'														
Comments															
Message flows	<table style="width: 100%; border: none;"> <tr> <td style="text-align: center;">ISUP</td> <td style="text-align: center;">MGCF</td> <td style="text-align: center;">Mg</td> </tr> <tr> <td style="text-align: center;">IAM</td> <td style="text-align: center;">→</td> <td style="text-align: center;">→ INVITE</td> </tr> <tr> <td></td> <td></td> <td style="text-align: center;">← 100 Trying</td> </tr> <tr> <td colspan="3" style="text-align: center;">Apply post test routine</td> </tr> </table>			ISUP	MGCF	Mg	IAM	→	→ INVITE			← 100 Trying	Apply post test routine		
ISUP	MGCF	Mg													
IAM	→	→ INVITE													
		← 100 Trying													
Apply post test routine															

TP number	TP_401_033	Reference	7.5.1, 7.2.3.2.2.3									
TSS reference	IMS-SS/OIP-OIR/											
Selection criteria	PICS 6.3.2/1											
Test Purpose name	Calling party number received presentation restricted by the network, Additional calling party number not received, From header is sent											
Test Purpose	Ensure that on receipt of an IAM and a Calling party number Presentation restriction indicator is set to 'presentation restricted by the network' and an Additional calling party number is not present, an INVITE is sent. A P-Asserted-Identity is not present and the URI of the From header is set to the value 'sip: unavailable @hostportion'. A Privacy header is not present or if present the value is not equal to 'id'											
ISUP Parameter values	IAM: Calling party number present presentation restricted by the network Generic number (Additional calling party number) not present											
SIP Parameter values	INVITE: From: sip:unavailable@hostportion P-Asserted-Identity not present Privacy not 'id' or Privacy header not present											
Comments	The 'hostportion' is implementation dependent											
Message flows	<table style="width: 100%; border: none;"> <tr> <td style="text-align: center;">ISUP</td> <td style="text-align: center;">MGCF</td> <td style="text-align: center;">Mg</td> </tr> <tr> <td>IAM</td> <td style="text-align: center;">→</td> <td style="text-align: center;">→ INVITE</td> </tr> <tr> <td></td> <td></td> <td style="text-align: center;">← 100 Trying</td> </tr> </table> <p style="text-align: center;">Apply post test routine</p>			ISUP	MGCF	Mg	IAM	→	→ INVITE			← 100 Trying
ISUP	MGCF	Mg										
IAM	→	→ INVITE										
		← 100 Trying										

TP number	TP_401_034	Reference	7.5.1, 7.2.3.2.2.3									
TSS reference	IMS-SS/OIP-OIR/											
Selection criteria	PICS 6.3.2/1											
Test Purpose name	Calling party number received presentation restricted by the network, Additional calling party number received presentation allowed, From header is sent											
Test Purpose	Ensure that on receipt of an IAM and a Calling party number Presentation restriction indicator is set to 'presentation restricted by the network' and an Additional calling party number is present the Presentation restriction indicator is set to 'presentation allowed', an INVITE is sent. A P-Asserted-Identity is not present and the URI of the From header is derived from the address signals of the additional calling party number. A Privacy header is not present or if present the value is not equal to 'id'											
ISUP Parameter values	IAM: Calling party number present presentation restricted by the network Generic number (Additional calling party number) present presentation allowed											
SIP Parameter values	INVITE: From: derived from the additional calling party number P-Asserted-Identity not present Privacy not 'id' or Privacy header not present											
Comments												
Message flows	<table style="width: 100%; border: none;"> <tr> <td style="text-align: center;">ISUP</td> <td style="text-align: center;">MGCF</td> <td style="text-align: center;">Mg</td> </tr> <tr> <td>IAM</td> <td style="text-align: center;">→</td> <td style="text-align: center;">→ INVITE</td> </tr> <tr> <td></td> <td></td> <td style="text-align: center;">← 100 Trying</td> </tr> </table> <p style="text-align: center;">Apply post test routine</p>			ISUP	MGCF	Mg	IAM	→	→ INVITE			← 100 Trying
ISUP	MGCF	Mg										
IAM	→	→ INVITE										
		← 100 Trying										

TP number	TP_401_035	Reference	7.5.1, 7.2.3.2.2.3									
TSS reference	IMS-SS/OIP-OIR/											
Selection criteria	PICS 6.3.2/1											
Test Purpose name	Calling party number received presentation restricted by the network, Additional calling party number received presentation restricted, From header is sent											
Test Purpose	Ensure that on receipt of an IAM and a Calling party number Presentation restriction indicator is set to 'presentation restricted by the network' and an Additional calling party number is present the Presentation restriction indicator is set to 'presentation restricted', an INVITE is sent. A P-Asserted-Identity is not present and the URI of the From header is set to the value 'sip: unavailable @hostportion'. A Privacy header is not present or if present the value is not equal to 'id'											
ISUP Parameter values	IAM: Calling party number present presentation restricted by the network Generic number (Additional calling party number) present presentation restricted											
SIP Parameter values	INVITE: From: sip:unavailable@hostportion P-Asserted-Identity not present Privacy not 'id' or Privacy header not present											
Comments	The 'hostportion' is implementation dependent											
Message flows	<table style="width: 100%; border: none;"> <tr> <td style="text-align: center;">ISUP</td> <td style="text-align: center;">MGCF</td> <td style="text-align: center;">Mg</td> </tr> <tr> <td>IAM</td> <td style="text-align: center;">→</td> <td style="text-align: center;">→ INVITE</td> </tr> <tr> <td></td> <td></td> <td style="text-align: center;">← 100 Trying</td> </tr> </table> <p style="text-align: center;">Apply post test routine</p>			ISUP	MGCF	Mg	IAM	→	→ INVITE			← 100 Trying
ISUP	MGCF	Mg										
IAM	→	→ INVITE										
		← 100 Trying										

6.3.2 Terminating Identification Presentation (TIP) and Terminating Identification Restriction (TIR)

TP number	TP_402_001	Reference	7.5.2																		
TSS reference	IMS-SS/TIP-TIR/																				
Selection criteria	PICS 6.3.1/2 AND PICS 6.3.2/2																				
Test Purpose name	INVITE is sent the supported header contains the option tag 'from-change'																				
Test Purpose	Ensure that on receipt of an IAM and the Connected Line Identity Request indicator in the Optional Forward Call Indicators parameter is set to 'requested', an INVITE is sent and the Supported header contains the option tag 'from-change'																				
ISUP Parameter values	IAM: Optional Forward Call Indicators Connected Line Identity Request = requested																				
SIP Parameter values	INVITE: Supported: from-change																				
Comments																					
Message flows	<table style="width: 100%; border: none;"> <tr> <td style="width: 30%;"></td> <td style="text-align: center;">Mg</td> <td style="width: 30%;"></td> <td style="text-align: center;">MGCF</td> <td style="width: 30%;"></td> <td style="text-align: center;">ISUP</td> </tr> <tr> <td>IAM</td> <td style="text-align: center;">→</td> <td></td> <td></td> <td style="text-align: center;">→</td> <td>INVITE</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td style="text-align: center;">←</td> <td>100 Trying</td> </tr> </table> <p style="text-align: center;">Apply post test routine</p>				Mg		MGCF		ISUP	IAM	→			→	INVITE					←	100 Trying
	Mg		MGCF		ISUP																
IAM	→			→	INVITE																
				←	100 Trying																

TP number	TP_402_002	Reference	7.5.2																														
TSS reference	IMS-SS/TIP-TIR/																																
Selection criteria	PICS 6.3.1/2 AND PICS 6.3.2/2																																
Test Purpose name	'from-change' tag not included in a received provisional response																																
Test Purpose	Ensure that on receipt of a provisional response and the 'from-change' tag is not included the ANM is sent as soon as the 200 OK (INVITE) is received																																
ISUP Parameter values	IAM: Optional Forward Call Indicators Connected Line Identity Request = requested																																
SIP Parameter values	INVITE: Supported: from-change 180: from-change tag not included in the Supported header																																
Comments																																	
Message flows	<table style="width: 100%; border: none;"> <tr> <td style="width: 30%;"></td> <td style="text-align: center;">Mg</td> <td style="width: 30%;"></td> <td style="text-align: center;">MGCF</td> <td style="width: 30%;"></td> <td style="text-align: center;">ISUP</td> </tr> <tr> <td>IAM</td> <td style="text-align: center;">→</td> <td></td> <td></td> <td style="text-align: center;">→</td> <td>INVITE</td> </tr> <tr> <td>ACM</td> <td style="text-align: center;">←</td> <td></td> <td></td> <td style="text-align: center;">←</td> <td>180 Ringing</td> </tr> <tr> <td>ANM</td> <td style="text-align: center;">←</td> <td></td> <td></td> <td style="text-align: center;">←</td> <td>200 OK (INVITE)</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td style="text-align: center;">→</td> <td>ACK</td> </tr> </table> <p style="text-align: center;">Apply post test routine</p>				Mg		MGCF		ISUP	IAM	→			→	INVITE	ACM	←			←	180 Ringing	ANM	←			←	200 OK (INVITE)					→	ACK
	Mg		MGCF		ISUP																												
IAM	→			→	INVITE																												
ACM	←			←	180 Ringing																												
ANM	←			←	200 OK (INVITE)																												
				→	ACK																												

TP number	TP_402_003	Reference	7.5.2																														
TSS reference	IMS-SS/TIP-TIR/																																
Selection criteria	PICS 6.3.1/2 AND PICS 6.3.2/2																																
Test Purpose name	'from-change' tag not included in a received final response																																
Test Purpose	Ensure that on receipt of a final successful response and the 'from-change' tag is not included the ANM is sent																																
ISUP Parameter values	IAM: Optional Forward Call Indicators Connected Line Identity Request = requested																																
SIP Parameter values	INVITE: Supported: from-change 200: from-change tag not included in the Supported header																																
Comments																																	
Message flows	<table style="width: 100%; border: none;"> <tr> <td style="width: 30%;"></td> <td style="text-align: center;">Mg</td> <td style="width: 30%;"></td> <td style="text-align: center;">MGCF</td> <td style="width: 30%;"></td> <td style="text-align: center;">ISUP</td> </tr> <tr> <td>IAM</td> <td style="text-align: center;">→</td> <td></td> <td></td> <td style="text-align: center;">→</td> <td>INVITE</td> </tr> <tr> <td>ACM</td> <td style="text-align: center;">←</td> <td></td> <td></td> <td style="text-align: center;">←</td> <td>180 Ringing</td> </tr> <tr> <td>ANM</td> <td style="text-align: center;">←</td> <td></td> <td></td> <td style="text-align: center;">←</td> <td>200 OK (INVITE)</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td style="text-align: center;">→</td> <td>ACK</td> </tr> </table> <p style="text-align: center;">Apply post test routine</p>				Mg		MGCF		ISUP	IAM	→			→	INVITE	ACM	←			←	180 Ringing	ANM	←			←	200 OK (INVITE)					→	ACK
	Mg		MGCF		ISUP																												
IAM	→			→	INVITE																												
ACM	←			←	180 Ringing																												
ANM	←			←	200 OK (INVITE)																												
				→	ACK																												

TP number	TP_402_004	Reference	7.5.2	
TSS reference	IMS-SS/TIP-TIR/			
Selection criteria	PICS 6.3.1/2 AND PICS 6.3.2/2			
Test Purpose name	'from-change' tag included in a received provisional response			
Test Purpose	<p>Ensure that on receipt of a provisional response and the 'from-change' tag is included the timer T_{TIR1} is started. The ANM is sent as soon as the UPDATE request is received and a Generic number with a Number qualifier indicator set to 'additional connected number' is present. The additional connected number is coded as follows:</p> <p>Nature of Address Indicator If CC is equal to the country code of the country where SUT is located AND the next ISUP node is located in the same country, then set to <i>"national (significant) number"</i> else set to <i>"international number"</i> Number Incomplete Indicator = complete Numbering Plan Indicator = <i>ISDN (Telephony) numbering plan (Recommendation E.164 [1.1])</i> Address Presentation Restricted Indicator = Privacy_VA as indicate in table 6.3.2-1 Screening Indicator = user provided, not verified Address Signals If NOA is <i>"national (significant) number"</i> then set to NDC + SN. If NOA is <i>"international number"</i> then set to CC + NDC + SN</p> <p>In addition a Connected number is present the address signal are derived from the P-Asserted-Identity in UPDATE request</p>			
ISUP Parameter values	IAM: Optional Forward Call Indicators Connected Line Identity Request = requested ANM: Connected number Generic number - additional connected number			
SIP Parameter values	INVITE: Supported: from-change 180: from-change tag included in the Supported header			
Comments				
Message flows	Mg IAM ACM ANM	→ ← ←	MGCF 	ISUP → INVITE ← 180 Ringing ← 200 OK (INVITE) → ACK ← UPDATE → 200 OK (UPDATE)
	Apply post test routine			

TP number	TP_402_005	Reference	7.5.2																												
TSS reference	IMS-SS/TIP-TIR/																														
Selection criteria	PICS 6.3.1/2 AND PICS 6.3.2/2																														
Test Purpose name	'from-change' tag included in a received final response																														
Test Purpose	<p>Ensure that on receipt of a final successful response and the 'from-change' tag is included the timer T_{TIR1} is started. The ANM is sent as soon as the UPDATE request is received and a Generic number with a Number qualifier indicator set to 'additional connected number' is present. The additional connected number is coded as follows:</p> <p>Nature of Address Indicator If CC is equal to the country code of the country where SUT is located AND the next ISUP node is located in the same country, then set to <i>"national (significant) number"</i> else set to <i>"international number"</i></p> <p>Number Incomplete Indicator = complete Numbering Plan Indicator = <i>ISDN (Telephony) numbering plan (Recommendation E.164 [1.1])</i> Address Presentation Restricted Indicator = Privacy_VA as indicate in table 6.3.2-1 Screening Indicator = user provided, not verified Address Signals If NOA is <i>"national (significant) number"</i> then set to NDC + SN. If NOA is <i>"international number"</i> then set to CC + NDC + SN</p> <p>In addition a Connected number is present the address signal are derived from the P-Asserted-Identity in UPDATE request</p>																														
ISUP Parameter values	IAM: Optional Forward Call Indicators Connected Line Identity Request = requested ANM: Connected number Generic number - additional connected number																														
SIP Parameter values	INVITE: Supported: from-change 200: from-change tag included in the Supported header																														
Comments																															
Message flows	<table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 25%;"></th> <th style="width: 25%; text-align: center;">Mg</th> <th style="width: 25%; text-align: center;">MGCF</th> <th style="width: 25%; text-align: center;">ISUP</th> </tr> </thead> <tbody> <tr> <td>IAM</td> <td style="text-align: center;">→</td> <td></td> <td>→ INVITE</td> </tr> <tr> <td>ACM</td> <td style="text-align: center;">←</td> <td></td> <td>← 180 Ringing</td> </tr> <tr> <td></td> <td></td> <td style="text-align: center;">T_{TIR1} started</td> <td>← 200 OK (INVITE)</td> </tr> <tr> <td></td> <td></td> <td></td> <td>→ ACK</td> </tr> <tr> <td>ANM</td> <td style="text-align: center;">←</td> <td></td> <td>← UPDATE</td> </tr> <tr> <td></td> <td></td> <td></td> <td>→ 200 OK (UPDATE)</td> </tr> </tbody> </table> <p style="text-align: center;">Apply post test routine</p>				Mg	MGCF	ISUP	IAM	→		→ INVITE	ACM	←		← 180 Ringing			T_{TIR1} started	← 200 OK (INVITE)				→ ACK	ANM	←		← UPDATE				→ 200 OK (UPDATE)
	Mg	MGCF	ISUP																												
IAM	→		→ INVITE																												
ACM	←		← 180 Ringing																												
		T_{TIR1} started	← 200 OK (INVITE)																												
			→ ACK																												
ANM	←		← UPDATE																												
			→ 200 OK (UPDATE)																												

Table 6.3.2-1: Mapping of Privacy value into Address presentation restriction indicator

Privacy_VA	Privacy value	Address Presentation Restricted Indicator
Privacy_VA_01	Header	Presentation restricted
Privacy_VA_02	User	Presentation restricted
Privacy_VA_03	None	Presentation allowed
Privacy_VA_04	Id	Presentation restricted
Privacy_VA_05	Privacy header not present	Presentation allowed

TP number	TP_402_006	Reference	7.5.2																																				
TSS reference	IMS-SS/TIP-TIR/																																						
Selection criteria	PICS 6.3.1/2 AND PICS 6.3.2/2																																						
Test Purpose name	Timer T _{TIR1} expires																																						
Test Purpose	Ensure that on receipt of a 200 OK (INVITE) and the 'from-change' tag is present in the Supported header the timer T _{TIR1} is started. After expiry of T _{TIR1} the ANM is sent																																						
ISUP Parameter values	IAM: Optional Forward Call Indicators Connected Line Identity Request = requested ANM: Connected number																																						
SIP Parameter values	INVITE: Supported: from-change 200: from-change tag included in the Supported header																																						
Comments																																							
Message flows	<table style="width: 100%; border: none;"> <tr> <td style="width: 30%;"></td> <td style="text-align: center;">Mg</td> <td style="width: 30%;"></td> <td style="text-align: center;">MGCF</td> <td style="width: 30%;"></td> <td style="text-align: center;">ISUP</td> </tr> <tr> <td>IAM</td> <td style="text-align: center;">→</td> <td></td> <td></td> <td style="text-align: center;">→</td> <td>INVITE</td> </tr> <tr> <td>ACM</td> <td style="text-align: center;">←</td> <td></td> <td></td> <td style="text-align: center;">←</td> <td>180 Ringing</td> </tr> <tr> <td></td> <td></td> <td style="text-align: center;">T_{TIR1} started</td> <td></td> <td style="text-align: center;">←</td> <td>200 OK (INVITE)</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td style="text-align: center;">→</td> <td>ACK</td> </tr> <tr> <td>ANM</td> <td style="text-align: center;">←</td> <td></td> <td style="text-align: center;">T_{TIR1} expired</td> <td></td> <td></td> </tr> </table> <p style="text-align: center;">Apply post test routine</p>				Mg		MGCF		ISUP	IAM	→			→	INVITE	ACM	←			←	180 Ringing			T _{TIR1} started		←	200 OK (INVITE)					→	ACK	ANM	←		T _{TIR1} expired		
	Mg		MGCF		ISUP																																		
IAM	→			→	INVITE																																		
ACM	←			←	180 Ringing																																		
		T _{TIR1} started		←	200 OK (INVITE)																																		
				→	ACK																																		
ANM	←		T _{TIR1} expired																																				

TP number	TP_402_007	Reference	7.5.2																		
TSS reference	IMS-SS/TIP-TIR/																				
Selection criteria	PICS 6.3.1/2 AND PICS 6.3.2/2																				
Test Purpose name	Interworking of SIP Supported header into Optional forward call indicator																				
Test Purpose	Ensure that on receipt of an INVITE request and the Supported header contains the 'from-change' tag, an IAM is sent. The Connected Line Identity Request indicator in the Optional Forward Call Indicators parameter is set to 'requested'																				
ISUP Parameter values	IAM: Optional Forward Call Indicators Connected Line Identity Request = requested																				
SIP Parameter values	INVITE: Supported: from-change																				
Comments																					
Message flows	<table style="width: 100%; border: none;"> <tr> <td style="width: 30%;"></td> <td style="text-align: center;">Mg</td> <td style="width: 30%;"></td> <td style="text-align: center;">MGCF</td> <td style="width: 30%;"></td> <td style="text-align: center;">ISUP</td> </tr> <tr> <td>INVITE</td> <td style="text-align: center;">→</td> <td></td> <td></td> <td style="text-align: center;">→</td> <td>IAM</td> </tr> <tr> <td>100 Trying</td> <td style="text-align: center;">←</td> <td></td> <td></td> <td></td> <td></td> </tr> </table> <p style="text-align: center;">Apply post test routine</p>				Mg		MGCF		ISUP	INVITE	→			→	IAM	100 Trying	←				
	Mg		MGCF		ISUP																
INVITE	→			→	IAM																
100 Trying	←																				

TP number	TP_402_008	Reference	7.5.2																																										
TSS reference	IMS-SS/TIP-TIR/																																												
Selection criteria	PICS 6.3.1/2 AND PICS 6.3.2/2																																												
Test Purpose name	Mapping of Additional connected number presentation allowed into the From header in an UPDATE request.																																												
Test Purpose	<p>Ensure that on receipt of an ANM and a Generic number additional connected number is present, a 200 OK (INVITE) is sent and the P-Asserted-Identity copied from the P-Called-Party-ID header and the 'from-change' tag in the Supported header is present. The 200 OK (INVITE) is followed by an UPDATE request, containing the 'additional connected number' received in the ANM copied into the From header as described below</p> <p>Generic number Nature of Address Indicator <i>"national (significant) number"</i> Add "+" CC (of the country where the IWU is located) to Generic Number Address Signals then map to user portion of URI scheme used <i>"international number"</i> Map complete Generic Number Address Signals used prefixed with a "+" to user portion of URI scheme used Address Presentation restriction indicator presentation allowed then no Privacy header present or not <i>"header"</i> or not <i>"user"</i> Address Signals: "+" CC NDC SN mapped to user portion of URI scheme used</p> <p>The P-Asserted-Identity is derived from the Connected number as follows Connected number Nature of Address Indicator <i>"national (significant) number"</i> Add "+" CC (of the country where the IWU is located) to Connected Number Address Signals then map to user portion of URI scheme used <i>"international number"</i> Map complete Connected Number Address Signals used prefixed with a "+" to user portion of URI scheme used Address Presentation restriction indicator presentation allowed then no Privacy header present or not <i>"header"</i> or not <i>"user"</i> Address Signals: "+" CC NDC SN mapped to user portion of URI scheme used</p>																																												
ISUP Parameter values	IAM: Optional forward call indicator Connected Line Identity Request = requested ANM: Generic number additional connected number Address Presentation restriction indicator = presentation allowed																																												
SIP Parameter values	INVITE: Supported: from-change 200 OK: P-Asserted-Identity Supported: from-change UPDATE: From: <derived from the additional connected number>																																												
Comments																																													
Message flows	<table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left; width: 30%;"></th> <th style="text-align: center; width: 10%;">Mg</th> <th style="width: 50%;"></th> <th style="text-align: center; width: 10%;">MGCF</th> <th style="width: 10%;"></th> <th style="text-align: center; width: 10%;">ISUP</th> </tr> </thead> <tbody> <tr> <td>INVITE</td> <td style="text-align: center;">→</td> <td></td> <td style="text-align: center;">→</td> <td></td> <td>IAM</td> </tr> <tr> <td>180 Ringing</td> <td style="text-align: center;">←</td> <td></td> <td style="text-align: center;">←</td> <td></td> <td>ACM</td> </tr> <tr> <td>200 OK (INVITE)</td> <td style="text-align: center;">←</td> <td></td> <td style="text-align: center;">←</td> <td></td> <td>ANM</td> </tr> <tr> <td>UPDATE</td> <td style="text-align: center;">←</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>200 OK (UPDATE)</td> <td style="text-align: center;">→</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td colspan="6" style="text-align: center;">Apply post test routine</td> </tr> </tbody> </table>				Mg		MGCF		ISUP	INVITE	→		→		IAM	180 Ringing	←		←		ACM	200 OK (INVITE)	←		←		ANM	UPDATE	←					200 OK (UPDATE)	→					Apply post test routine					
	Mg		MGCF		ISUP																																								
INVITE	→		→		IAM																																								
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200 OK (INVITE)	←		←		ANM																																								
UPDATE	←																																												
200 OK (UPDATE)	→																																												
Apply post test routine																																													

TP number	TP_402_009	Reference	7.5.2
TSS reference	IMS-SS/TIP-TIR/		
Selection criteria	PICS 6.3.1/2 AND PICS 6.3.2/2		
Test Purpose name	Mapping of Additional connected number presentation restricted into the From header in an UPDATE request		
Test Purpose	<p>Ensure that on receipt of an ANM and a Generic number additional connected number is present, a 200 OK (INVITE) is sent and the P-Asserted-Identity copied from the P-Called-Party-ID header and the 'from-change' tag in the Supported header is present. The 200 OK (INVITE) is followed by an UPDATE request, containing the 'additional connected number' received in the ANM copied into the From header as described below</p> <p>Generic number Nature of Address Indicator <i>"national (significant) number"</i> Add "+" CC (of the country where the IWU is located) to Generic Number Address Signals then map to user portion of URI scheme used <i>"international number"</i> Map complete Generic Number Address Signals used prefixed with a "+" to user portion of URI scheme used Address Presentation restriction indicator presentation restricted then Privacy: header Address Signals: "+" CC NDC SN mapped to user portion of URI scheme used</p> <p>The P-Asserted-Identity is derived from the Connected number as follows Connected number Nature of Address Indicator <i>"national (significant) number"</i> Add "+" CC (of the country where the IWU is located) to Connected Number Address Signals then map to user portion of URI scheme used <i>"international number"</i> Map complete Connected Number Address Signals used prefixed with a "+" to user portion of URI scheme used Address Presentation restriction indicator presentation restricted then Privacy: header Address Signals: "+" CC NDC SN mapped to user portion of URI scheme used</p>		
ISUP Parameter values	IAM: Optional forward call indicator Connected Line Identity Request = requested ANM: Generic number additional connected number Address Presentation restriction indicator = presentation restricted		
SIP Parameter values	INVITE: Supported: from-change 200 OK: P-Asserted-Identity Supported: from-change UPDATE: From: <derived from the additional connected number> P-Asserted-Identity: <derived from the connected number>		
Comments			
Message flows	Mg	MGCF	ISUP
INVITE	→		→ IAM
180 Ringing	←		← ACM
200 OK (INVITE)	←		← ANM
UPDATE	←		
200 OK (UPDATE)	→		
	Apply post test routine		

6.3.3 Communication Diversion (CDIV)

TP number	TP_403_001	Reference	7.5.4.2.1 table 7.5.4.2.1.2									
TSS reference	IMS-SS/CDIV/											
Selection criteria	PICS 6.3.1/2 AND PICS 6.3.2/5											
Test Purpose name	Mapping of 181 hi-targeted-to-uri into ACM Redirection number											
Test Purpose	<p>Ensure that on receipt of 181 (Call Is Being Forwarded) an ACM is sent. The History-Info entry containing a cause parameter is mapped into the Redirection number:</p> <ul style="list-style-type: none"> • If CC of the hi-targeted-to-uri is equal the country code where the SUT is located: Nature of address indicator is set to 'national (significant) number', '+' and the country code is removed from the digit string and sent in the Address signal of the Redirection number. • If the country code of the hi-targeted-to-uri is not equal the country code where the SUT is located: Nature of address indicator is set to 'international number' '+' is removed from the digit string and sent in the Address signal of the Redirection number 											
ISUP Parameter values	ACM: Redirection number Nature of address indicator Address signal Derived from the last History-Info entry											
SIP Parameter values	181: History-Info: <sip:any proper URI>; index=1, <sip:any proper URI;cause=any>; index=1.1											
Comments												
Message flows	<table style="width:100%; border:none;"> <tr> <td style="text-align:center;">ISUP</td> <td style="text-align:center;">MGCF</td> <td style="text-align:center;">Mg</td> </tr> <tr> <td>IAM</td> <td style="text-align:center;">→</td> <td>→ INVITE</td> </tr> <tr> <td>ACM</td> <td style="text-align:center;">←</td> <td>← 181 Call Is Being Forwarded</td> </tr> </table> <p style="text-align:center;">Apply post test routine</p>			ISUP	MGCF	Mg	IAM	→	→ INVITE	ACM	←	← 181 Call Is Being Forwarded
ISUP	MGCF	Mg										
IAM	→	→ INVITE										
ACM	←	← 181 Call Is Being Forwarded										

TP number	TP_403_001A	Reference	7.5.4.2.1 table 7.5.4.2.1.2									
TSS reference	IMS-SS/CDIV/											
Selection criteria	PICS 6.3.1/2 AND PICS 6.3.2/5											
Test Purpose name	Sending of Generic notification 'Call is diverting'											
Test Purpose	Ensure that on receipt of 181 (Call Is Being Forwarded) an ACM is sent. The Generic notification indicator present in the ACM is set to 'Call is diverting'											
ISUP Parameter values	ACM: Generic Notification call is diverting											
SIP Parameter values	181: History-Info: <sip:any proper URI>; index=1, <sip:any proper URI;cause=any>; index=1.1											
Comments												
Message flows	<table style="width:100%; border:none;"> <tr> <td style="text-align:center;">ISUP</td> <td style="text-align:center;">MGCF</td> <td style="text-align:center;">Mg</td> </tr> <tr> <td>IAM</td> <td style="text-align:center;">→</td> <td>→ INVITE</td> </tr> <tr> <td>ACM</td> <td style="text-align:center;">←</td> <td>← 181 Call Is Being Forwarded</td> </tr> </table> <p style="text-align:center;">Apply post test routine</p>			ISUP	MGCF	Mg	IAM	→	→ INVITE	ACM	←	← 181 Call Is Being Forwarded
ISUP	MGCF	Mg										
IAM	→	→ INVITE										
ACM	←	← 181 Call Is Being Forwarded										

TP number	TP_403_002	Reference	7.5.4.2.1 table 7.5.4.2.1.3																				
TSS reference	IMS-SS/CDIV/																						
Selection criteria	PICS 6.3.1/2 AND PICS 6.3.2/5																						
Test Purpose name	Mapping of 181 escaped Privacy header into ACM Redirection number restriction																						
Test Purpose	Ensure that on receipt of 181 (Call Is Being Forwarded), an ACM is sent. The Redirection number restriction is set according the escaped Privacy header in the last History entry as indicated in table 6.3.3-1																						
ISUP Parameter values	ACM: Redirection number restriction= PRES_restr																						
SIP Parameter values	181: History-Info: <sip:any proper URI>; index=1, <sip:any proper URI;cause=any value?Privacy= Priv-value >; index=1.1																						
Comments																							
Message flows	<table style="width:100%; border:none;"> <tr> <td style="text-align:center;">ISUP</td> <td style="text-align:center;">→</td> <td style="text-align:center;">MGCF</td> <td style="text-align:center;">→</td> <td style="text-align:center;">Mg</td> </tr> <tr> <td>IAM</td> <td></td> <td></td> <td></td> <td>INVITE</td> </tr> <tr> <td>ACM</td> <td></td> <td></td> <td></td> <td>181 Call Is Being Forwarded</td> </tr> <tr> <td></td> <td style="text-align:center;">←</td> <td></td> <td style="text-align:center;">←</td> <td></td> </tr> </table> <p style="text-align:center;">Apply post test routine</p>			ISUP	→	MGCF	→	Mg	IAM				INVITE	ACM				181 Call Is Being Forwarded		←		←	
ISUP	→	MGCF	→	Mg																			
IAM				INVITE																			
ACM				181 Call Is Being Forwarded																			
	←		←																				

TP number	TP_403_003	Reference	7.5.4.2.1 table 7.5.4.2.1.3																				
TSS reference	IMS-SS/CDIV/																						
Selection criteria	PICS 6.3.1/2 AND PICS 6.3.2/5																						
Test Purpose name	Mapping of 181 Privacy header into ACM Redirection number restriction																						
Test Purpose	Ensure that on receipt of 181 (Call Is Being Forwarded), an ACM is sent. The Redirection number restriction is set according the Privacy header as indicated in table 6.3.3-1																						
ISUP Parameter values	ACM: Redirection number restriction= PRES_restr																						
SIP Parameter values	181: <i>Privacy=Priv-value</i> History-Info: <sip:any proper URI>; index=1, <sip:any proper URI;cause=any value>; index=1.1																						
Comments																							
Message flows	<table style="width:100%; border:none;"> <tr> <td style="text-align:center;">ISUP</td> <td style="text-align:center;">→</td> <td style="text-align:center;">MGCF</td> <td style="text-align:center;">→</td> <td style="text-align:center;">Mg</td> </tr> <tr> <td>IAM</td> <td></td> <td></td> <td></td> <td>INVITE</td> </tr> <tr> <td>ACM</td> <td></td> <td></td> <td></td> <td>181 Call Is Being Forwarded</td> </tr> <tr> <td></td> <td style="text-align:center;">←</td> <td></td> <td style="text-align:center;">←</td> <td></td> </tr> </table> <p style="text-align:center;">Apply post test routine</p>			ISUP	→	MGCF	→	Mg	IAM				INVITE	ACM				181 Call Is Being Forwarded		←		←	
ISUP	→	MGCF	→	Mg																			
IAM				INVITE																			
ACM				181 Call Is Being Forwarded																			
	←		←																				

Table 6.3.3-1: Mapping of Privacy value into Redirection number restriction

CAUSE	Priv-value	PRES_restr
VA_01	history	Presentation restricted
VA_02	session	Presentation restricted
VA_03	header	Presentation restricted
VA_04	none or <i>absent</i>	Presentation allowed <i>or absent</i>

TP number	TP_403_004	Reference	7.5.4.2.1 table 7.5.4.2.1.4												
TSS reference	IMS-SS/CDIV/														
Selection criteria	PICS 6.3.1/2 AND PICS 6.3.2/5														
Test Purpose name	Mapping of 181 Privacy header into ACM Notification subscription options														
Test Purpose	Ensure that on receipt of 181 (Call Is Being Forwarded) containing a Privacy header, an ACM is sent. The Notification subscription options in the Call Diversion Information parameter is set according the Privacy header in the message body as indicated in table 6.3.3-2														
ISUP Parameter values	ACM: Call Diversion Information Notification subscription options= SUBS_options														
SIP Parameter values	181: Privacy: Priv-value History-Info: <sip:any proper URI;cause=any value>; index=1, <sip:any proper URI>; index=1.1														
Comments															
Message flows	<table style="width:100%; border:none;"> <tr> <td style="text-align:center;">ISUP</td> <td style="text-align:center;">MGCF</td> <td style="text-align:center;">Mg</td> </tr> <tr> <td>IAM</td> <td style="text-align:center;">→</td> <td>INVITE</td> </tr> <tr> <td>ACM</td> <td style="text-align:center;">←</td> <td>181 Call Is Being Forwarded</td> </tr> <tr> <td colspan="3" style="text-align:center;">Apply post test routine</td> </tr> </table>			ISUP	MGCF	Mg	IAM	→	INVITE	ACM	←	181 Call Is Being Forwarded	Apply post test routine		
ISUP	MGCF	Mg													
IAM	→	INVITE													
ACM	←	181 Call Is Being Forwarded													
Apply post test routine															

Table 6.3.3-2: Mapping of Privacy value into Notification subscription options

CAUSE	Priv-value	SUBS_options
VA_01	history	presentation not allowed
VA_02	session	presentation not allowed
VA_03	header	presentation not allowed
VA_04	None or <i>absent</i>	Presentation allowed with redirection number

TP number	TP_403_005	Reference	7.5.4.2.1 table 7.5.4.2.1.4												
TSS reference	IMS-SS/CDIV/														
Selection criteria	PICS 6.3.1/2 AND PICS 6.3.2/5														
Test Purpose name	Mapping of 181 escaped Privacy header into ACM Notification subscription options														
Test Purpose	Ensure that on receipt of 181 (Call Is Being Forwarded) containing an escaped Privacy header field in the last hi-targeted-to-uri, an ACM is sent. The Notification subscription options in the Call Diversion Information parameter is set according the escaped Privacy header in the last History entry as indicated in table 6.3.3-3														
ISUP Parameter values	ACM: Call Diversion Information Notification subscription options= SUBS_options														
SIP Parameter values	181: History-Info: <sip:any proper URI >; index=1, <sip:any proper URI;cause=any value?Privacy= Priv-value >; index=1.1														
Comments															
Message flows	<table style="width:100%; border:none;"> <tr> <td style="text-align:center;">ISUP</td> <td style="text-align:center;">MGCF</td> <td style="text-align:center;">Mg</td> </tr> <tr> <td>IAM</td> <td style="text-align:center;">→</td> <td>INVITE</td> </tr> <tr> <td>ACM</td> <td style="text-align:center;">←</td> <td>181 Call Is Being Forwarded</td> </tr> <tr> <td colspan="3" style="text-align:center;">Apply post test routine</td> </tr> </table>			ISUP	MGCF	Mg	IAM	→	INVITE	ACM	←	181 Call Is Being Forwarded	Apply post test routine		
ISUP	MGCF	Mg													
IAM	→	INVITE													
ACM	←	181 Call Is Being Forwarded													
Apply post test routine															

Table 6.3.3-3: Mapping of Privacy value into Notification subscription options

CAUSE	Priv-value	SUBS_options
VA_01	history	presentation allowed without redirection number
VA_02	session	presentation allowed without redirection number
VA_03	header	presentation allowed without redirection number
VA_04	None or <i>absent</i>	Presentation allowed with redirection number

TP number	TP_403_006	Reference	7.5.4.2.1 table 7.5.4.2.1.4
TSS reference	IMS-SS/CDIV/		
Selection criteria	PICS 6.3.1/2 AND PICS 6.3.2/5		
Test Purpose name	Mapping of 181 hi-targeted-to-uri into ACM Redirecting Reason		
Test Purpose	Ensure that on receipt of 181 (Call Is Being Forwarded) an ACM is sent. The cause parameter of the last hi-entry is mapped into the Redirecting reason in the Call Diversion Information parameter is set as indicated in table 6.3.3-4		
ISUP Parameter values	ACM: Generic Notification call is diverting Redirection number Call Diversion Information Redirecting reason = Redirecting_Reason		
SIP Parameter values	181: History-Info: <sip:any proper URI>; index=1, <sip:any proper URI;cause= CAUSE_value >; index=1.1		
Comments			
Message flows	ISUP IAM ACM	→ ← ←	MGCF → INVITE ← 181 Call Is Being Forwarded Apply post test routine

Table 6.3.3-4: Mapping of cause parameter into Redirecting reason

CAUSE	CAUSE_value	Redirecting_Reason
VA_01	404	Unknown
VA_02	302	Unconditional
VA_03	486	User busy
VA_04	408	No reply
VA_05	480	Deflection immediate
VA_06	503	Mobile subscriber not reachable
VA_07	487	Deflection during alerting

TP number	TP_403_007	Reference	7.5.4.2.1 table 7.5.4.2.1.7
TSS reference	IMS-SS/CDIV/		
Selection criteria	PICS 6.3.5/3 AND PICS 6.3.1/2 AND PICS 6.3.2/5		
Test Purpose name	Mapping of 181 hi-targeted-to-uri cause parameter into CPG Event indicator		
Test Purpose	Ensure that on receipt of 181 (Call Is Being Forwarded) a CPG is sent. The Event indicator is set to ' Redirecting_Reason ' as indicated in table 6.3.3-5		
ISUP Parameter values	CPG: Event= Redirecting_Reason Generic Notification call is diverting Redirection number Call Diversion Information		
SIP Parameter values	181: History-Info: <sip:any proper URI>; index=1, <sip:any proper URI;cause= CAUSE_value >; index=1.1		
Comments			
Message flows	ISUP IAM ACM CPG	→ ← ←	MGCF → INVITE ← 180 Ringing ← 181 Call Is Being Forwarded Apply post test routine

Table 6.3.3-5: Mapping of cause parameter into Event indicator

	CAUSE_value	Redirecting_Reason
VA_01	486	CFB (national use)
VA_02	408	CFNR (national use)
VA_03	302	CFU (national use)

TP number	TP_403_008	Reference	7.5.4.2.1 table 7.5.4.2.1.2	
TSS reference	IMS-SS/CDIV/			
Selection criteria	PICS 6.3.1/2 AND PICS 6.3.2/5			
Test Purpose name	Mapping of 181 hi-targeted-to-uri into CPG Redirection number			
Test Purpose	<p>Ensure that on receipt of 181 (Call Is Being Forwarded) a CPG is sent. The History-Info entry containing a cause parameter is mapped into the Redirection number:</p> <ul style="list-style-type: none"> • If CC of the hi-targeted-to-uri is equal the country code where the SUT is located: Nature of address indicator is set to 'national (significant) number', '+' and the country code is removed from the digit string and sent in the Address signal of the Redirection number. • If the country code of the hi-targeted-to-uri is not equal the country code where the SUT is located: Nature of address indicator is set to 'international number' '+' is removed from the digit string and sent in the Address signal of the Redirection number 			
ISUP Parameter values	CPG: Redirection number Nature of address indicator Address signal Derived from the last History-Info entry			
SIP Parameter values	181: History-Info: <sip:any proper URI>; index=1, <sip: any proper URI ;cause=any>; index=1.1			
Comments				
Message flows	ISUP IAM ACM CPG	→ ← ←	MGCF → ← ←	Mg INVITE 180 Ringing 181 Call Is Being Forwarded
	Apply post test routine			

TP number	TP_403_008A	Reference	7.5.4.2.1 table 7.5.4.2.1.2	
TSS reference	IMS-SS/CDIV/			
Selection criteria	PICS 6.3.1/2 AND PICS 6.3.2/5			
Test Purpose name	Sending of Generic notification 'Call is diverting'			
Test Purpose	<p>Ensure that on receipt of 181 (Call Is Being Forwarded) a CPG is sent. The History-Info entry contains a cause parameter. A Generic notification parameter is present in the CPG message set to 'Call is diverting'</p>			
ISUP Parameter values	CPG: Generic Notification call is diverting			
SIP Parameter values	181: History-Info: <sip:any proper URI>; index=1, <sip:any proper URI;cause=any>; index=1.1			
Comments				
Message flows	ISUP IAM ACM CPG	→ ← ←	MGCF → ← ←	Mg INVITE 180 Ringing 181 Call Is Being Forwarded
	Apply post test routine			

TP number	TP_403_008B	Reference	7.5.4.2.1 table 7.5.4.2.1.2
TSS reference	IMS-SS/CDIV/		
Selection criteria	PICS 6.3.1/2 AND PICS 6.3.2/5		
Test Purpose name	Sending of CPG Event indicator 'Progress'		
Test Purpose	Ensure that on receipt of 181 (Call Is Being Forwarded) a CPG is sent. The History-Info entry contains a cause parameter. The Event indicator in the CPG is set to 'Progress'		
ISUP Parameter values	CPG: Event indicator Progress		
SIP Parameter values	181: History-Info: <sip:any proper URI>; index=1, <sip:any proper URI;cause=any>; index=1.1		
Comments			
Message flows	ISUP	MGCF	Mg
	IAM →		INVITE
	ACM ←		180 Ringing
	CPG ←		181 Call Is Being Forwarded
	Apply post test routine		

TP number	TP_403_009	Reference	7.5.4.2.1 table 7.5.4.2.1.3
TSS reference	IMS-SS/CDIV/		
Selection criteria	PICS 6.3.1/2 AND PICS 6.3.2/5		
Test Purpose name	Mapping of 181 escaped Privacy header into CPG Redirection number restriction		
Test Purpose	Ensure that on receipt of 181 (Call Is Being Forwarded), a CPG is sent. The Redirection number restriction is set according the escaped Privacy header in the last History entry as indicated in table 6.3.3-1		
ISUP Parameter values	CPG: Redirection number restriction = PRES_restr		
SIP Parameter values	181: History-Info: <sip:any proper URI>; index=1, <sip:any proper URI;cause=any value?Privacy=Priv-value>; index=1.1		
Comments			
Message flows	ISUP	MGCF	Mg
	IAM →		INVITE
	ACM ←		180 Ringing
	CPG ←		181 Call Is Being Forwarded
	Apply post test routine		

TP number	TP_403_010	Reference	7.5.4.2.1 table 7.5.4.2.1.3
TSS reference	IMS-SS/CDIV/		
Selection criteria	PICS 6.3.1/2 AND PICS 6.3.2/5		
Test Purpose name	Mapping of 181 Privacy header into early CPG Redirection number restriction		
Test Purpose	Ensure that on receipt of 181 (Call Is Being Forwarded), a CPG is sent. The Redirection number restriction is set according the Privacy header as indicated in table 6.3.3-1.		
ISUP Parameter values	CPG: Redirection number restriction = PRES_restr		
SIP Parameter values	181: <i>Privacy=Priv-value</i> History-Info: <sip:any proper URI>; index=1, <sip:any proper URI;cause=any value>; index=1.1		
Comments			
Message flows	ISUP	MGCF	Mg
	IAM →		INVITE
	ACM ←		180 Ringing
	CPG ←		181 Call Is Being Forwarded
	Apply post test routine		

TP number	TP_403_011	Reference	7.5.4.2.1 table 7.5.4.2.1.4
TSS reference	IMS-SS/CDIV/		
Selection criteria	PICS 6.3.1/2 AND PICS 6.3.2/5		
Test Purpose name	Mapping of 181 Privacy header into CPG Notification subscription options		
Test Purpose	Ensure that on receipt of 181 (Call Is Being Forwarded) containing a Privacy header, a CPG is sent. The Notification subscription options in the Call Diversion Information parameter is set according the Privacy header in the message body as indicated in table 6.3.3-2		
ISUP Parameter values	CPG: Call Diversion Information Notification subscription options= SUBS_options		
SIP Parameter values	181: <i>Privacy: Priv-value</i> History-Info: <sip:any proper URI>; index=1, <sip:any proper URI;cause=any value>; index=1.1		
Comments			
Message flows	ISUP	MGCF	Mg
	IAM →		INVITE
	ACM ←		180 Ringing
	CPG ←		181 Call Is Being Forwarded
	Apply post test routine		

TP number	TP_403_012	Reference	7.5.4.2.1 table 7.5.4.2.1.4
TSS reference	IMS-SS/CDIV/		
Selection criteria	PICS 6.3.1/2 AND PICS 6.3.2/5		
Test Purpose name	Mapping of 181 escaped Privacy header into CPG Notification subscription options		
Test Purpose	Ensure that on receipt of 181 (Call Is Being Forwarded) containing an escaped Privacy header field in the last hi-targeted-to-uri, a CPG is sent. The Notification subscription options in the Call Diversion Information parameter is set according the escaped Privacy header in the last History entry as indicated in table 6.3.3-3		
ISUP Parameter values	CPG: Call Diversion Information Notification subscription options= SUBS_options		
SIP Parameter values	181: History-Info: <sip:any proper URI>; index=1, <sip:any proper URI;cause=any value?Privacy= <i>Priv-value</i> >; index=1.1		
Comments			
Message flows	ISUP	MGCF	Mg
	IAM →		INVITE
	ACM ←		180 Ringing
	CPG ←		181 Call Is Being Forwarded
	Apply post test routine		

TP number	TP_403_013	Reference	7.5.4.2.1 table 7.5.4.2.1.4																									
TSS reference	IMS-SS/CDIV/																											
Selection criteria	PICS 6.3.1/2 AND PICS 6.3.2/5																											
Test Purpose name	Mapping of 181 hi-targeted-to-uri into CPG Redirecting Reason																											
Test Purpose	Ensure that on receipt of 181 (Call Is Being Forwarded) a CPG is sent. The History-Info entry containing a cause parameter is mapped into the Redirecting reason in the Call Diversion Information parameter is set as indicated in table 6.3.3-4																											
ISUP Parameter values	CPG: Generic Notification call is diverting Redirection number Call Diversion Information Redirecting reason= Redirecting Reason																											
SIP Parameter values	181: History-Info: <sip:any proper URI>; index=1, <sip:any proper URI;cause= CAUSE_value >; index=1.1																											
Comments																												
Message flows	<table style="width:100%; border:none;"> <tr> <td style="text-align:center;">ISUP</td> <td style="width:20%;"></td> <td style="text-align:center;">MGCF</td> <td style="width:20%;"></td> <td style="text-align:center;">Mg</td> </tr> <tr> <td>IAM</td> <td style="text-align:center;">→</td> <td></td> <td style="text-align:center;">→</td> <td>INVITE</td> </tr> <tr> <td>ACM</td> <td style="text-align:center;">←</td> <td></td> <td style="text-align:center;">←</td> <td>180 Ringing</td> </tr> <tr> <td>CPG</td> <td style="text-align:center;">←</td> <td></td> <td style="text-align:center;">←</td> <td>181 Call Is Being Forwarded</td> </tr> <tr> <td colspan="5" style="text-align:center;">Apply post test routine</td> </tr> </table>			ISUP		MGCF		Mg	IAM	→		→	INVITE	ACM	←		←	180 Ringing	CPG	←		←	181 Call Is Being Forwarded	Apply post test routine				
ISUP		MGCF		Mg																								
IAM	→		→	INVITE																								
ACM	←		←	180 Ringing																								
CPG	←		←	181 Call Is Being Forwarded																								
Apply post test routine																												

TP number	TP_403_014	Reference	7.5.4.2.1 table 7.5.4.2.1.2																				
TSS reference	IMS-SS/CDIV/																						
Selection criteria	PICS 6.3.1/2 AND PICS 6.3.2/5																						
Test Purpose name	Mapping of 180 hi-targeted-to-uri into ACM Redirection number																						
Test Purpose	Ensure that on receipt of 180 (Ringing) an ACM (subscriber free) is sent. The last History-Info entry containing a cause parameter is mapped into the Redirection number: <ul style="list-style-type: none"> • If CC of the hi-targeted-to-uri is equal the country code where the SUT is located: Nature of address indicator is set to 'national (significant) number', '+' and the country code is removed from the digit string and sent in the Address signal of the Redirection number. • If the country code of the hi-targeted-to-uri is not equal the country code where the SUT is located: Nature of address indicator is set to 'international number' '+' is removed from the digit string and sent in the Address signal of the Redirection number 																						
ISUP Parameter values	ACM: Backward call indicator Called party status=subscriber free Redirection number Nature of address indicator Address signal Derived from the last History-Info entry																						
SIP Parameter values	180: History-Info: <sip:any proper URI>; index=1, <sip: any proper URI ;cause=any>; index=1.1																						
Comments																							
Message flows	<table style="width:100%; border:none;"> <tr> <td style="text-align:center;">ISUP</td> <td style="width:20%;"></td> <td style="text-align:center;">MGCF</td> <td style="width:20%;"></td> <td style="text-align:center;">Mg</td> </tr> <tr> <td>IAM</td> <td style="text-align:center;">→</td> <td></td> <td style="text-align:center;">→</td> <td>INVITE</td> </tr> <tr> <td>ACM</td> <td style="text-align:center;">←</td> <td></td> <td style="text-align:center;">←</td> <td>180 Ringing</td> </tr> <tr> <td colspan="5" style="text-align:center;">Apply post test routine</td> </tr> </table>			ISUP		MGCF		Mg	IAM	→		→	INVITE	ACM	←		←	180 Ringing	Apply post test routine				
ISUP		MGCF		Mg																			
IAM	→		→	INVITE																			
ACM	←		←	180 Ringing																			
Apply post test routine																							

TP number	TP_403_014A	Reference	7.5.4.2.1 table 7.5.4.2.1.2												
TSS reference	IMS-SS/CDIV/														
Selection criteria	PICS 6.3.1/2 AND PICS 6.3.2/5														
Test Purpose name	Sending of Generic notification 'Call is diverting'														
Test Purpose	Ensure that on receipt of 180 (Ringing) an ACM (subscriber free) is sent. The last History-Info entry contains a cause parameter. A Generic notification parameter is present in the sent ACM set to 'Call is diverting'.														
ISUP Parameter values	ACM: Generic Notification call is diverting														
SIP Parameter values	180: History-Info: <sip:any proper URI>; index=1, <sip:any proper URI;cause=any>; index=1.1														
Comments															
Message flows	<table style="width:100%; border:none;"> <tr> <td style="text-align:center;">ISUP</td> <td style="text-align:center;">MGCF</td> <td style="text-align:right;">Mg</td> </tr> <tr> <td>IAM</td> <td style="text-align:center;">→</td> <td>→ INVITE</td> </tr> <tr> <td>ACM</td> <td style="text-align:center;">←</td> <td>← 180 Ringing</td> </tr> <tr> <td colspan="3" style="text-align:center;">Apply post test routine</td> </tr> </table>			ISUP	MGCF	Mg	IAM	→	→ INVITE	ACM	←	← 180 Ringing	Apply post test routine		
ISUP	MGCF	Mg													
IAM	→	→ INVITE													
ACM	←	← 180 Ringing													
Apply post test routine															

TP number	TP_403_015	Reference	7.5.4.2.1 table 7.5.4.2.1.3												
TSS reference	IMS-SS/CDIV/														
Selection criteria	PICS 6.3.1/2 AND PICS 6.3.2/5														
Test Purpose name	Mapping of 180 escaped Privacy header into ACM Redirection number restriction														
Test Purpose	Ensure that on receipt of 180 (Ringing), an ACM (subscriber free) is sent. The Redirection number restriction is set according the escaped Privacy header in the last History entry as indicated in table 6.3.3-1														
ISUP Parameter values	ACM: Backward call indicator Called party status=subscriber free Redirection number restriction= PRES_restr														
SIP Parameter values	180: History-Info: <sip:any proper URI>; index=1, <sip:any proper URI;cause=any?Privacy= Priv-value >; index=1.1														
Comments															
Message flows	<table style="width:100%; border:none;"> <tr> <td style="text-align:center;">ISUP</td> <td style="text-align:center;">MGCF</td> <td style="text-align:right;">Mg</td> </tr> <tr> <td>IAM</td> <td style="text-align:center;">→</td> <td>→ INVITE</td> </tr> <tr> <td>ACM</td> <td style="text-align:center;">←</td> <td>← 180 Ringing</td> </tr> <tr> <td colspan="3" style="text-align:center;">Apply post test routine</td> </tr> </table>			ISUP	MGCF	Mg	IAM	→	→ INVITE	ACM	←	← 180 Ringing	Apply post test routine		
ISUP	MGCF	Mg													
IAM	→	→ INVITE													
ACM	←	← 180 Ringing													
Apply post test routine															

TP number	TP_403_016	Reference	7.5.4.2.1 table 7.5.4.2.1.3												
TSS reference	IMS-SS/CDIV/														
Selection criteria	PICS 6.3.1/2 AND PICS 6.3.2/5														
Test Purpose name	Mapping of 180 Privacy header into ACM Redirection number restriction														
Test Purpose	Ensure that on receipt of 180 (Ringing), an ACM (subscriber free) is sent. The Redirection number restriction is set according the Privacy header as indicated in table 6.3.3-1														
ISUP Parameter values	ACM: Backward call indicator Called party status=subscriber free Redirection number restriction= PRES_restr														
SIP Parameter values	180: <i>Privacy=Priv-value</i> History-Info: <sip:any proper URI>; index=1, <sip:any proper URI;cause=any value>; index=1.1														
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Message flows	<table style="width:100%; border:none;"> <tr> <td style="text-align:center;">ISUP</td> <td style="text-align:center;">MGCF</td> <td style="text-align:right;">Mg</td> </tr> <tr> <td>IAM</td> <td style="text-align:center;">→</td> <td>→ INVITE</td> </tr> <tr> <td>ACM</td> <td style="text-align:center;">←</td> <td>← 180 Ringing</td> </tr> <tr> <td colspan="3" style="text-align:center;">Apply post test routine</td> </tr> </table>			ISUP	MGCF	Mg	IAM	→	→ INVITE	ACM	←	← 180 Ringing	Apply post test routine		
ISUP	MGCF	Mg													
IAM	→	→ INVITE													
ACM	←	← 180 Ringing													
Apply post test routine															

TP number	TP_403_017	Reference	7.5.4.2.1 table 7.5.4.2.1.4												
TSS reference	IMS-SS/CDIV/														
Selection criteria	PICS 6.3.1/2 AND PICS 6.3.2/5														
Test Purpose name	Mapping of 180 Privacy header into ACM Notification subscription options														
Test Purpose	Ensure that on receipt of 180 (Ringing) containing a Privacy header, an ACM (subscriber free) is sent. The Notification subscription options in the Call Diversion Information parameter is set according the Privacy header in the message body as indicated in table 6.3.3-2														
ISUP Parameter values	ACM: Backward call indicator Called party status=subscriber free Call Diversion Information Notification subscription options= SUBS_options														
SIP Parameter values	180: <i>Privacy: Priv-value</i> History-Info: <sip:any proper URI>; index=1, <sip:any proper URI;cause=any value>; index=1.1														
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ISUP	MGCF	Mg													
IAM	→	→ INVITE													
ACM	←	← 180 Ringing													
Apply post test routine															

TP number	TP_403_018	Reference	7.5.4.2.1 table 7.5.4.2.1.4												
TSS reference	IMS-SS/CDIV/														
Selection criteria	PICS 6.3.1/2 AND PICS 6.3.2/5														
Test Purpose name	Mapping of 181 escaped Privacy header into ACM Notification subscription options														
Test Purpose	Ensure that on receipt of 180 (Ringing) containing an escaped Privacy header field in the last hi-targeted-to-uri, an ACM (subscriber free) is sent. The Notification subscription options in the Call Diversion Information parameter is set according the escaped Privacy header in the last History entry as indicated in table 6.3.3-3														
ISUP Parameter values	ACM: Backward call indicator Called party status=subscriber free Call Diversion Information Notification subscription options= SUBS_options														
SIP Parameter values	180: History-Info: <sip:any proper URI>; index=1, <sip:any proper URI;cause=any value?Privacy= <i>Priv-value</i> >; index=1.1														
Comments															
Message flows	<table style="width:100%; border:none;"> <tr> <td style="text-align:center;">ISUP</td> <td style="text-align:center;">MGCF</td> <td style="text-align:center;">Mg</td> </tr> <tr> <td>IAM</td> <td style="text-align:center;">→</td> <td>→ INVITE</td> </tr> <tr> <td>ACM</td> <td style="text-align:center;">←</td> <td>← 180 Ringing</td> </tr> <tr> <td colspan="3" style="text-align:center;">Apply post test routine</td> </tr> </table>			ISUP	MGCF	Mg	IAM	→	→ INVITE	ACM	←	← 180 Ringing	Apply post test routine		
ISUP	MGCF	Mg													
IAM	→	→ INVITE													
ACM	←	← 180 Ringing													
Apply post test routine															

TP number	TP_403_019	Reference	7.5.4.2.1 table 7.5.4.2.1.4
TSS reference	IMS-SS/CDIV/		
Selection criteria	PICS 6.3.1/2 AND PICS 6.3.2/5		
Test Purpose name	Mapping of 180 hi-targeted-to-uri into ACM Redirecting Reason		
Test Purpose	Ensure that on receipt of 180 (Ringing) an ACM (subscriber free) is sent. The last History-Info entry containing a cause parameter is mapped into the Redirecting reason in the Call Diversion Information parameter is set as indicated in table 6.3.3-4		
ISUP Parameter values	ACM: Backward call indicator Called party status=subscriber free Redirection number Call Diversion Information Redirecting reason= Redirecting Reason		
SIP Parameter values	180: History-Info: <sip:any proper URI;cause= CAUSE_value >; index=1, <sip:any proper URI>; index=1.1		
Comments			
Message flows	ISUP	MGCF	Mg
	IAM →		INVITE
	ACM ←		180 Ringing
	Apply post test routine		

TP number	TP_403_020	Reference	7.5.4.2.1 table 7.5.4.2.1.2
TSS reference	IMS-SS/CDIV/		
Selection criteria	PICS 6.3.1/2 AND PICS 6.3.2/5		
Test Purpose name	Mapping of 180 hi-targeted-to-uri into CPG Redirection number		
Test Purpose	Ensure that on receipt of 180 (Ringing) a CPG Alerting is sent. The last History-Info entry containing a cause parameter is mapped into the Redirection number: <ul style="list-style-type: none"> • If CC of the hi-targeted-to-uri is equal the country code where the SUT is located: Nature of address indicator is set to 'national (significant) number', '+' and the country code is removed from the digit string and sent in the Address signal of the Redirection number. • If the country code of the hi-targeted-to-uri is not equal the country code where the SUT is located: Nature of address indicator is set to 'international number' '+' is removed from the digit string and sent in the Address signal of the Redirection number 		
ISUP Parameter values	CPG: Redirection number Nature of address indicator Address signal Derived from the last History-Info entry		
SIP Parameter values	180: History-Info: <sip:any proper URI>; index=1, <sip: any proper URI ;cause=any>; index=1.1		
Comments			
Message flows	ISUP	MGCF	Mg
	IAM →		INVITE
	ACM ←		181 Call Is Being Forwarded
	CPG ←		180 Ringing
	Apply post test routine		

TP number	TP_403_020A	Reference	7.5.4.2.1 table 7.5.4.2.1.2
TSS reference	IMS-SS/CDIV/		
Selection criteria	PICS 6.3.1/2 AND PICS 6.3.2/5		
Test Purpose name	Sending of Generic notification 'Call is diverting'		
Test Purpose	<ul style="list-style-type: none"> Ensure that on receipt of 180 (Ringing) a CPG Alerting is sent. The last History-Info entry contains a cause parameter. A Generic notification parameter is present in the sent CPG set to 'Call is diverting'. 		
ISUP Parameter values	CPG: Generic Notification call is diverting		
SIP Parameter values	180: History-Info: <sip:any proper URI>; index=1, <sip:any proper URI;cause=any>; index=1.1		
Comments			
Message flows	ISUP	MGCF	Mg
	IAM →		INVITE
	ACM ←		181 Call Is Being Forwarded
	CPG ←		180 Ringing
	Apply post test routine		

TP number	TP_403_020B	Reference	7.5.4.2.1 table 7.5.4.2.1.2
TSS reference	IMS-SS/CDIV/		
Selection criteria	PICS 6.3.1/2 AND PICS 6.3.2/5		
Test Purpose name	Sending of Event indicator 'Alerting'		
Test Purpose	Ensure that on receipt of 180 (Ringing) a CPG Alerting is sent. The last History-Info entry contains a cause parameter. The Event indicator in the sent CPG is set to 'Alerting'.		
ISUP Parameter values	CPG: Event=Alerting		
SIP Parameter values	180: History-Info: <sip:any proper URI>; index=1, <sip:any proper URI;cause=any>; index=1.1		
Comments			
Message flows	ISUP	MGCF	Mg
	IAM →		INVITE
	ACM ←		181 Call Is Being Forwarded
	CPG ←		180 Ringing
	Apply post test routine		

TP number	TP_403_021	Reference	7.5.4.2.1 table 7.5.4.2.1.3
TSS reference	IMS-SS/CDIV/		
Selection criteria	PICS 6.3.1/2 AND PICS 6.3.2/5		
Test Purpose name	Mapping of 180 escaped Privacy header into CPG Redirection number restriction		
Test Purpose	Ensure that on receipt of 180 (Ringing), a CPG Alerting is sent. The Redirection number restriction is set according the escaped Privacy header in the last History entry as indicated in table 6.3.3-1		
ISUP Parameter values	CPG: Event=Alerting Redirection number restriction= PRES_restr		
SIP Parameter values	180: History-Info: <sip:any proper URI>; index=1, <sip:any proper URI;cause=any?Privacy= Priv-value >; index=1.1		
Comments			
Message flows	ISUP	MGCF	Mg
	IAM →		INVITE
	ACM ←		181 Call Is Being Forwarded
	CPG ←		180 Ringing
	Apply post test routine		

TP number	TP_403_022	Reference	7.5.4.2.1 table 7.5.4.2.1.3
TSS reference	IMS-SS/CDIV/		
Selection criteria	PICS 6.3.1/2 AND PICS 6.3.2/5		
Test Purpose name	Mapping of 180 Privacy header into CPG Redirection number restriction		
Test Purpose	Ensure that on receipt of 180 (Ringing), a CPG Alerting is sent. The Redirection number restriction is set according the Privacy header as indicated in table 6.3.3-1		
ISUP Parameter values	CPG: Event=Alerting Redirection number restriction= PRES_restr		
SIP Parameter values	180: <i>Privacy=Priv-value</i> History-Info: <sip:any proper URI>; index=1, <sip:any proper URI;cause=any value>; index=1.1		
Comments			
Message flows	ISUP	MGCF	Mg
	IAM →		→ INVITE
	ACM ←		← 181 Call Is Being Forwarded
	CPG ←		← 180 Ringing
	Apply post test routine		

TP number	TP_403_023	Reference	7.5.4.2.1 table 7.5.4.2.1.4
TSS reference	IMS-SS/CDIV/		
Selection criteria	PICS 6.3.1/2 AND PICS 6.3.2/5		
Test Purpose name	Mapping of 180 Privacy header into CPG Notification subscription options		
Test Purpose	Ensure that on receipt of 180 (Ringing) containing a Privacy header, a CPG Alerting is sent. The Notification subscription options in the Call Diversion Information parameter is set according the Privacy header in the message body as indicated in table 6.3.3-2		
ISUP Parameter values	CPG: Event=Alerting Call Diversion Information Notification subscription options= SUBS_options		
SIP Parameter values	180: <i>Privacy: Priv-value</i> History-Info: <sip:any proper URI>; index=1, <sip:any proper URI;cause=any value>; index=1.1		
Comments			
Message flows	ISUP	MGCF	Mg
	IAM →		→ INVITE
	ACM ←		← 181 Call Is Being Forwarded
	CPG ←		← 180 Ringing
	Apply post test routine		

TP number	TP_403_024	Reference	7.5.4.2.1 table 7.5.4.2.1.4
TSS reference	IMS-SS/CDIV/		
Selection criteria	PICS 6.3.1/2 AND PICS 6.3.2/5		
Test Purpose name	Mapping of 181 escaped Privacy header into CPG Notification subscription options		
Test Purpose	Ensure that on receipt of 180 (Ringing) containing an escaped Privacy header field in the last hi-targeted-to-uri, a CPG Alerting is sent. The Notification subscription options in the Call Diversion Information parameter is set according the escaped Privacy header in the last History entry as indicated in table 6.3.3-3		
ISUP Parameter values	CPG: Event=Alerting Call Diversion Information Notification subscription options= SUBS_options		
SIP Parameter values	180: History-Info: <sip:any proper URI>; index=1, <sip:any proper URI;cause=any value?Privacy= Priv-value >; index=1.1		
Comments			
Message flows	ISUP	MGCF	Mg
	IAM →		→ INVITE
	ACM ←		← 181 Call Is Being Forwarded
	CPG ←		← 180 Ringing
	Apply post test routine		

TP number	TP_403_025	Reference	7.5.4.2.1 table 7.5.4.2.1.4
TSS reference	IMS-SS/CDIV/		
Selection criteria	PICS 6.3.1/2 AND PICS 6.3.2/5		
Test Purpose name	Mapping of 180 hi-targeted-to-uri into CPG Redirecting Reason		
Test Purpose	Ensure that on receipt of 180 (Ringing) a CPG Alerting is sent. The last History-Info entry containing a cause parameter is mapped into the Redirecting reason in the Call Diversion Information parameter is set as indicated in table 6.3.3-4		
ISUP Parameter values	CPG: Event=Alerting Redirection number Call Diversion Information Redirecting reason= Redirecting_Reason		
SIP Parameter values	180: History-Info: <sip:any proper URI >; index=1, <sip:any proper URI;cause= CAUSE_value >; index=1.1		
Comments			
Message flows	ISUP	MGCF	Mg
	IAM →		→ INVITE
	ACM ←		← 181 Call Is Being Forwarded
	CPG ←		← 180 Ringing
	Apply post test routine		

TP number	TP_403_026	Reference	7.5.4.2.1 table 7.5.4.2.1.2																								
TSS reference	IMS-SS/CDIV/																										
Selection criteria	PICS 6.3.1/2 AND PICS 6.3.2/5																										
Test Purpose name	Mapping of 200 OK hi-targeted-to-uri into ANM Redirection number																										
Test Purpose	<p>Ensure that on receipt of 200 OK (INVITE) an ANM is sent. The last History-Info entry containing a cause parameter is mapped into the Redirection number:</p> <ul style="list-style-type: none"> • If CC of the hi-targeted-to-uri is equal the country code where the SUT is located: Nature of address indicator is set to 'national (significant) number', '+' and the country code is removed from the digit string and sent in the Address signal of the Redirection number. • If the country code of the hi-targeted-to-uri is not equal the country code where the SUT is located: Nature of address indicator is set to 'international number' '+' is removed from the digit string and sent in the Address signal of the Redirection number 																										
ISUP Parameter values	ANM: Redirection number Nature of address indicator Address signal Derived from the last History-Info entry																										
SIP Parameter values	200: History-Info: <sip:any proper URI>; index=1, <sip: any proper URI ;cause=any value>; index=1.1																										
Comments																											
Message flows	<table style="width:100%; border:none;"> <thead> <tr> <th style="width:30%;"></th> <th style="width:20%; text-align:center;">ISUP</th> <th style="width:20%; text-align:center;">MGCF</th> <th style="width:30%; text-align:right;">Mg</th> </tr> </thead> <tbody> <tr> <td>IAM</td> <td style="text-align:center;">→</td> <td></td> <td style="text-align:right;">→ INVITE</td> </tr> <tr> <td>ACM</td> <td style="text-align:center;">←</td> <td></td> <td style="text-align:right;">← 181 Call Is Being Forwarded</td> </tr> <tr> <td>CPG</td> <td style="text-align:center;">←</td> <td></td> <td style="text-align:right;">← 180 Ringing</td> </tr> <tr> <td>ANM</td> <td style="text-align:center;">←</td> <td></td> <td style="text-align:right;">← 200 OK INVITE</td> </tr> <tr> <td></td> <td></td> <td></td> <td style="text-align:right;">→ ACK</td> </tr> </tbody> </table> <p style="text-align:right;">Apply post test routine</p>				ISUP	MGCF	Mg	IAM	→		→ INVITE	ACM	←		← 181 Call Is Being Forwarded	CPG	←		← 180 Ringing	ANM	←		← 200 OK INVITE				→ ACK
	ISUP	MGCF	Mg																								
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CPG	←		← 180 Ringing																								
ANM	←		← 200 OK INVITE																								
			→ ACK																								

TP number	TP_403_027	Reference	7.5.4.2.1 table 7.5.4.2.1.3																								
TSS reference	IMS-SS/CDIV/																										
Selection criteria	PICS 6.3.1/2 AND PICS 6.3.2/5																										
Test Purpose name	Mapping of 200 escaped Privacy header into ANM Redirection number restriction																										
Test Purpose	<p>Ensure that on receipt of 200 (INVITE), an ANM is sent. The Redirection number restriction is set according the escaped Privacy header in the last History entry as indicated in table 6.3.3-1</p>																										
ISUP Parameter values	ANM: Redirection number restriction= PRES_restr																										
SIP Parameter values	200 OK: History-Info: <sip:any proper URI>; index=1, <sip:any proper URI;cause=any value?Privacy= Priv-value >; index=1.1																										
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Message flows	<table style="width:100%; border:none;"> <thead> <tr> <th style="width:30%;"></th> <th style="width:20%; text-align:center;">ISUP</th> <th style="width:20%; text-align:center;">MGCF</th> <th style="width:30%; text-align:right;">Mg</th> </tr> </thead> <tbody> <tr> <td>IAM</td> <td style="text-align:center;">→</td> <td></td> <td style="text-align:right;">→ INVITE</td> </tr> <tr> <td>ACM</td> <td style="text-align:center;">←</td> <td></td> <td style="text-align:right;">← 181 Call Is Being Forwarded</td> </tr> <tr> <td>CPG</td> <td style="text-align:center;">←</td> <td></td> <td style="text-align:right;">← 180 Ringing</td> </tr> <tr> <td>ANM</td> <td style="text-align:center;">←</td> <td></td> <td style="text-align:right;">← 200 OK INVITE</td> </tr> <tr> <td></td> <td></td> <td></td> <td style="text-align:right;">→ ACK</td> </tr> </tbody> </table> <p style="text-align:right;">Apply post test routine</p>				ISUP	MGCF	Mg	IAM	→		→ INVITE	ACM	←		← 181 Call Is Being Forwarded	CPG	←		← 180 Ringing	ANM	←		← 200 OK INVITE				→ ACK
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ACM	←		← 181 Call Is Being Forwarded																								
CPG	←		← 180 Ringing																								
ANM	←		← 200 OK INVITE																								
			→ ACK																								

TP number	TP_403_028	Reference	7.5.4.2.1 table 7.5.4.2.1.3																														
TSS reference	IMS-SS/CDIV/																																
Selection criteria	PICS 6.3.1/2 AND PICS 6.3.2/5																																
Test Purpose name	Mapping of 200 Privacy header into ANM Redirection number restriction																																
Test Purpose	Ensure that on receipt of 200 OK (INVITE), an ANM is sent. The Redirection number restriction is set according the Privacy header as indicated in table 6.3.3-1																																
ISUP Parameter values	ANM: Redirection number restriction= PRES_restr																																
SIP Parameter values	200 OK: <i>Privacy=Priv-value</i> History-Info: <sip:any proper URI>; index=1, <sip:any proper URI;cause=any value>; index=1.1																																
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ISUP	→	MGCF	→	Mg																													
IAM	→		→	INVITE																													
ACM	←		←	181 Call Is Being Forwarded																													
CPG	←		←	180 Ringing																													
ANM	←		←	200 OK INVITE																													
			→	ACK																													

TP number	TP_403_029	Reference	7.5.4.2.1 table 7.5.4.2.1.2																				
TSS reference	IMS-SS/CDIV/																						
Selection criteria	PICS 6.3.1/2 AND PICS 6.3.2/5																						
Test Purpose name	Mapping of 200 OK hi-targeted-to-uri into CON Redirection number																						
Test Purpose	Ensure that on receipt of 200 OK (INVITE) a CON is sent. The History-Info entry containing a cause parameter is mapped into the Redirection number: <ul style="list-style-type: none"> • If CC of the hi-targeted-to-uri is equal the country code where the SUT is located: Nature of address indicator is set to 'national (significant) number', '+' and the country code is removed from the digit string and sent in the Address signal of the Redirection number. • If the country code of the hi-targeted-to-uri is not equal the country code where the SUT is located: Nature of address indicator is set to 'international number' '+' is removed from the digit string and sent in the Address signal of the Redirection number 																						
ISUP Parameter values	CON: Redirection number Nature of address indicator Address signal Derived from the last History-Info entry																						
SIP Parameter values	200 OK: History-Info: <sip:any proper URI>; index=1, <sip: any proper URI ;cause=any value ; index=1.1																						
Comments																							
Message flows	<table style="width:100%; border:none;"> <thead> <tr> <th style="text-align:left;">ISUP</th> <th style="text-align:center;">→</th> <th style="text-align:center;">MGCF</th> <th style="text-align:center;">→</th> <th style="text-align:right;">Mg</th> </tr> </thead> <tbody> <tr> <td>IAM</td> <td style="text-align:center;">→</td> <td></td> <td style="text-align:center;">→</td> <td>INVITE</td> </tr> <tr> <td>CON</td> <td style="text-align:center;">←</td> <td></td> <td style="text-align:center;">←</td> <td>200 OK INVITE</td> </tr> <tr> <td></td> <td></td> <td></td> <td style="text-align:center;">→</td> <td>ACK</td> </tr> </tbody> </table> <p style="text-align:center;">Apply post test routine</p>			ISUP	→	MGCF	→	Mg	IAM	→		→	INVITE	CON	←		←	200 OK INVITE				→	ACK
ISUP	→	MGCF	→	Mg																			
IAM	→		→	INVITE																			
CON	←		←	200 OK INVITE																			
			→	ACK																			

TP number	TP_403_030	Reference	7.5.4.2.1 table 7.5.4.2.1.3																				
TSS reference	IMS-SS/CDIV/																						
Selection criteria	PICS 6.3.1/2 AND PICS 6.3.2/5																						
Test Purpose name	Mapping of 200 escaped Privacy header into CON Redirection number restriction																						
Test Purpose	Ensure that on receipt of 200 (INVITE), a CON is sent. The Redirection number restriction is set according the escaped Privacy header in the last History entry as indicated in table 6.3.3-1																						
ISUP Parameter values	CON: Redirection number restriction= PRES_restr																						
SIP Parameter values	200 OK: History-Info: <sip:any proper URI>; index=1, <sip:any proper URI;cause=any value?Privacy= Priv-value >; index=1.1																						
Comments																							
Message flows	<table style="width:100%; border:none;"> <tr> <td style="text-align:center;">ISUP</td> <td></td> <td style="text-align:center;">MGCF</td> <td></td> <td style="text-align:center;">Mg</td> </tr> <tr> <td>IAM</td> <td style="text-align:center;">→</td> <td></td> <td style="text-align:center;">→</td> <td>INVITE</td> </tr> <tr> <td>CON</td> <td style="text-align:center;">←</td> <td></td> <td style="text-align:center;">←</td> <td>200 OK INVITE</td> </tr> <tr> <td></td> <td></td> <td></td> <td style="text-align:center;">→</td> <td>ACK</td> </tr> </table> <p style="text-align:center;">Apply post test routine</p>			ISUP		MGCF		Mg	IAM	→		→	INVITE	CON	←		←	200 OK INVITE				→	ACK
ISUP		MGCF		Mg																			
IAM	→		→	INVITE																			
CON	←		←	200 OK INVITE																			
			→	ACK																			

TP number	TP_403_031	Reference	7.5.4.2.1 table 7.5.4.2.1.3																				
TSS reference	IMS-SS/CDIV/																						
Selection criteria	PICS 6.3.1/2 AND PICS 6.3.2/5																						
Test Purpose name	Mapping of 200 Privacy header into CON Redirection number restriction																						
Test Purpose	Ensure that on receipt of 200 OK (INVITE), a CON is sent. The Redirection number restriction is set according the Privacy header as indicated in table 6.3.3-1																						
ISUP Parameter values	CON: Redirection number restriction= PRES_restr																						
SIP Parameter values	200 OK: <i>Privacy=Priv-value</i> History-Info: <sip:any proper URI>; index=1, <sip:any proper URI;cause=any value>; index=1.1																						
Comments																							
Message flows	<table style="width:100%; border:none;"> <tr> <td style="text-align:center;">ISUP</td> <td></td> <td style="text-align:center;">MGCF</td> <td></td> <td style="text-align:center;">Mg</td> </tr> <tr> <td>IAM</td> <td style="text-align:center;">→</td> <td></td> <td style="text-align:center;">→</td> <td>INVITE</td> </tr> <tr> <td>CON</td> <td style="text-align:center;">←</td> <td></td> <td style="text-align:center;">←</td> <td>200 OK INVITE</td> </tr> <tr> <td></td> <td></td> <td></td> <td style="text-align:center;">→</td> <td>ACK</td> </tr> </table> <p style="text-align:center;">Apply post test routine</p>			ISUP		MGCF		Mg	IAM	→		→	INVITE	CON	←		←	200 OK INVITE				→	ACK
ISUP		MGCF		Mg																			
IAM	→		→	INVITE																			
CON	←		←	200 OK INVITE																			
			→	ACK																			

TP number	TP_403_032	Reference	7.5.4.2.2 table 7.5.4.2.2.1										
TSS reference	IMS-SS/CDIV/												
Selection criteria	PICS 6.3.1/2 AND PICS 6.3.2/5												
Test Purpose name	Mapping of Redirecting number Address signals into History-Info header URI												
Test Purpose	Ensure that on receipt of an IAM containing a Redirecting number parameter, an Original called number parameter and a Redirection Information parameter, an INVITE request is sent and a History-Info header is present. The value of the second last hi-targeted-to-uri Value of Redirecting number is mapped from the Redirecting number Address Signals as indicated in table 6.3.3-6												
ISUP Parameter values	IAM: Redirecting number Nature of Address: NoA_value Address Signals <any appropriate value> Redirection Information Redirection counter=2 Original called number												
SIP Parameter values	INVITE: History-Info: <sip:any proper URI>; index=1, <sip: Value of Redirecting number ;cause=any>; index=1.1 <sip: any proper URI;cause=any>; index=1.1.1												
Comments													
Message flows	<table style="width:100%; border:none;"> <tr> <td style="text-align:center;">ISUP</td> <td></td> <td style="text-align:center;">MGCF</td> <td></td> <td style="text-align:center;">Mg</td> </tr> <tr> <td>IAM</td> <td style="text-align:center;">→</td> <td></td> <td style="text-align:center;">→</td> <td>INVITE</td> </tr> </table> <p style="text-align:center;">Apply post test routine</p>			ISUP		MGCF		Mg	IAM	→		→	INVITE
ISUP		MGCF		Mg									
IAM	→		→	INVITE									

Table 6.3.3-6: Mapping of Redirecting number into second last Hist-entry

	NoA_value	Value of Redirecting number second last hi-targeted-to-uri
VA_01	<i>national (significant) number</i>	Add '+' and the country code where the SUT is located to the Address Signal digits of the Redirecting number
VA_02	<i>international number</i>	Add '+' to the Address Signal digits of the Redirecting number

TP number	TP_403_033	Reference	7.5.4.2.2 table 7.5.4.2.2.1
TSS reference	IMS-SS/CDIV/		
Selection criteria	PICS 6.3.1/2 AND PICS 6.3.2/5		
Test Purpose name	Mapping of Redirecting number Address presentation restricted into History-Info header Privacy value		
Test Purpose	Ensure that on receipt of an IAM containing a Redirecting, an Original called number parameter number parameter and a Redirection Information parameter, an INVITE request is sent and a History-Info header is present. A Privacy header is escaped in the second last hi-targeted-to-uri and the PRIV_value is mapped from the Address presentation restricted indicator of the Redirecting number as indicated in table 6.2.5-7		
ISUP Parameter values	IAM: Redirecting number Address presentation restricted indicator: APRI_value Redirection Information Redirection counter=2 Original called number		
SIP Parameter values	INVITE: History-Info: <sip:any proper URI>; index=1, <sip: any proper URI;cause=any?Privacy= PRIV_value >; index=1.1 <sip: any proper URI;cause=any>; index=1.1.1		
Comments			
Message flows	ISUP → MGCF → INVITE Mg IAM → Apply post test routine		

Table 6.3.3-7: Mapping of Redirecting number APRI into Privacy header in the second last Hist-entry

	APRI_value	PRIV_value second last hi-targeted-to-uri
VA_01	presentation restricted	history
VA_02	presentation allowed	Header absent or 'none'

TP number	TP_403_034	Reference	7.5.4.2.2 table 7.5.4.2.2.1																		
TSS reference	IMS-SS/CDIV/																				
Selection criteria	PICS 6.3.1/2 AND PICS 6.3.2/5																				
Test Purpose name	Mapping of Redirection Information Redirecting indicator																				
Test Purpose	Ensure that on receipt of an IAM containing a Redirecting number, an Original called number parameter and a Redirection Information parameter, an INVITE request is sent and a History-Info header is present. A Privacy header is escaped in the second last hi-targeted-to-uri and the PRIV_value is mapped from the Redirecting indicator of the Redirection Information as indicated in table 6.2.5-21																				
ISUP Parameter values	IAM: Redirection Information Redirection counter=2 Redirecting indicator= RDIND_value																				
SIP Parameter values	INVITE: History-Info: <sip:any proper URI>; index=1, <sip: any proper URI;cause=any?Privacy= PRIV_value >; index=1.1 <sip: any proper URI;cause=any>; index=1.1.1																				
Comments																					
Message flows	<table style="width:100%; border:none;"> <tr> <td style="text-align:center;">ISUP</td> <td style="text-align:center;">→</td> <td style="text-align:center;">MGCF</td> <td style="text-align:center;">→</td> <td style="text-align:center;">INVITE</td> <td style="text-align:center;">Mg</td> </tr> <tr> <td style="text-align:center;">IAM</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td colspan="4" style="text-align:center;">Apply post test routine</td> <td></td> </tr> </table>			ISUP	→	MGCF	→	INVITE	Mg	IAM							Apply post test routine				
ISUP	→	MGCF	→	INVITE	Mg																
IAM																					
	Apply post test routine																				

Table 6.3.3-8: Mapping of Redirecting indicator into Privacy header in the second last Hist-entry

	RDIND_value	PRIV_value second last hi-targeted-to-uri
VA_01	Call diverted, all redirection info presentation restricted	history
VA_02	Call diverted	none

TP number	TP_403_035	Reference	7.5.4.2.2 table 7.5.4.2.2.1																		
TSS reference	IMS-SS/CDIV/																				
Selection criteria	PICS 6.3.1/2 AND PICS 6.3.2/5																				
Test Purpose name	Mapping of Redirection Information Redirection counter																				
Test Purpose	Ensure that on receipt of an IAM containing a Redirecting number, an Original called number parameter and a Redirection Information parameter, an INVITE request is sent and a the hi-targeted-to-uri and the index parameter of the Redirection counter as indicated in table 6.3.3-9																				
ISUP Parameter values	IAM: Redirection Information Redirection counter= RDCONT_value																				
SIP Parameter values	INVITE: History-Info: HI-ENTRY_values																				
Comments																					
Message flows	<table style="width:100%; border:none;"> <tr> <td style="text-align:center;">ISUP</td> <td style="text-align:center;">→</td> <td style="text-align:center;">MGCF</td> <td style="text-align:center;">→</td> <td style="text-align:center;">INVITE</td> <td style="text-align:center;">Mg</td> </tr> <tr> <td style="text-align:center;">IAM</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td colspan="4" style="text-align:center;">Apply post test routine</td> <td></td> </tr> </table>			ISUP	→	MGCF	→	INVITE	Mg	IAM							Apply post test routine				
ISUP	→	MGCF	→	INVITE	Mg																
IAM																					
	Apply post test routine																				

Table 6.3.3-9: Mapping of Redirection counter into index parameter of History-Info header

	RDCONT_value	HI-ENTRY_values
VA_01	1	<sip:represents the Original called number>; index=1 , <sip: represents the Called party number;cause=any>; index=1.1
VA_02	2	<sip: represents the Original called number>; index=1 , <sip: represents the Redirecting number;cause=any>; index=1.1 , <sip: represents the Called party number;cause=any>; index=1.1.1
VA_03	3	<sip: represents the Original called number>; index=1 , <sip: represents any placeholder value;cause=any>; index=1.1 , <sip: represents the Redirecting number;cause=404>; index=1.1.1 , <sip: represents the Called party number;cause=any>; index=1.1.1.1
VA_04	4	<sip: represents the Original called number>; index=1 , <sip: represents any placeholder value;cause=any>; index=1.1 , <sip: represents any placeholder value;cause=404>; index=1.1.1 , <sip: represents the Redirecting number;cause=404>; index=1.1.1.1 , <sip: represents the Called party number;cause=any>; index=1.1.1.1.1
VA_05	5	<sip: represents the Original called number>; index=1 , <sip: represents any placeholder value;cause=any>; index=1.1 , <sip: represents any placeholder value;cause=404>; index=1.1.1 , <sip: represents any placeholder value;cause=404>; index=1.1.1.1 , <sip: represents the Redirecting number;cause=404>; index=1.1.1.1.1 , <sip: represents the Called party number;cause=any>; index=1.1.1.1.1.1

TP number	TP_403_036	Reference	7.5.4.2.2 table 7.5.4.2.2.1																		
TSS reference	IMS-SS/CDIV/																				
Selection criteria	PICS 6.3.1/2 AND PICS 6.3.2/5																				
Test Purpose name	Mapping of Redirection Information Original redirection reason																				
Test Purpose	Ensure that on receipt of an IAM containing a Redirecting number an Original called number and a Redirection Information parameter, an INVITE request is sent. The Original redirection reason indicator ' unknown ' of the Redirection Information is mapped into the cause parameter ' 404 ' of the second hi-targeted-to-uri of the History-Info header in the sent INVITE as indicated in table 6.3.3-10																				
ISUP Parameter values	IAM: Redirection Information Redirection counter=2 Original redirection reason=unknown																				
SIP Parameter values	INVITE: History-Info: <sip:any proper URI>; index=1, <sip:any proper URI;cause='404'>; index=1.1, <sip: any proper URI;cause=any>; index=1.1.1																				
Comments																					
Message flows	<table style="width:100%; border:none;"> <tr> <td style="text-align:center;">ISUP</td> <td style="text-align:center;">→</td> <td style="text-align:center;">MGCF</td> <td style="text-align:center;">→</td> <td style="text-align:center;">INVITE</td> <td style="text-align:center;">Mg</td> </tr> <tr> <td style="text-align:center;">IAM</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td colspan="4" style="text-align:center;">Apply post test routine</td> </tr> </table>			ISUP	→	MGCF	→	INVITE	Mg	IAM								Apply post test routine			
ISUP	→	MGCF	→	INVITE	Mg																
IAM																					
		Apply post test routine																			

Table 6.3.3-10: Void

TP number	TP_403_037	Reference	7.5.4.2.2 table 7.5.4.2.2.1																		
TSS reference	IMS-SS/CDIV/																				
Selection criteria	PICS 6.3.1/2 AND PICS 6.3.2/5																				
Test Purpose name	Mapping of Redirection Information Redirecting reason																				
Test Purpose	Ensure that on receipt of an IAM containing a Redirection number an Original called number and a Redirection Information parameter, an INVITE request is sent. The Redirecting reason indicator REAS_value of the Redirection Information is mapped into the cause parameter Cause_value of the last hi-targeted-to-uri of the History-Info header in the sent INVITE as indicated in table 6.3.3-11																				
ISUP Parameter values	IAM: Redirection Information Redirection counter=2 Redirecting reason = REAS_value																				
SIP Parameter values	INVITE: History-Info: <sip:any proper URI>; index=1, <sip:any proper URI;cause=any>; index=1.1, <sip: any proper URI;cause= Cause_value >; index=1.1.1																				
Comments																					
Message flows	<table style="width:100%; border:none;"> <tr> <td style="text-align:center;">ISUP</td> <td style="text-align:center;">→</td> <td style="text-align:center;">MGCF</td> <td style="text-align:center;">→</td> <td style="text-align:center;">INVITE</td> <td style="text-align:center;">Mg</td> </tr> <tr> <td style="text-align:center;">IAM</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td style="text-align:center;">Apply post test routine</td> <td></td> <td></td> <td></td> </tr> </table>			ISUP	→	MGCF	→	INVITE	Mg	IAM								Apply post test routine			
ISUP	→	MGCF	→	INVITE	Mg																
IAM																					
		Apply post test routine																			

Table 6.3.3-11: Mapping of Redirecting reason into Reason header in the last Hist-entry

	REAS_value	Cause_value Second last hi-targeted-to-uri
VA_01	unknown	404
VA_02	unconditional	302
VA_03	User Busy	486
VA_04	No reply	408
VA_05	Deflection during alerting	302
VA_06	Deflection immediate response	302
VA_07	Mobile subscriber not reachable	503

TP number	TP_403_038	Reference	7.5.4.2.2 table 7.5.4.2.2.1																		
TSS reference	IMS-SS/CDIV/																				
Selection criteria	PICS 6.3.1/2 AND PICS 6.3.2/5																				
Test Purpose name	Mapping of Called party number Address Signals																				
Test Purpose	Ensure that on receipt of an IAM containing a Redirecting number parameter and a Redirection Information parameter, an INVITE request is sent and a History-Info header is present. The Called party number is mapped into the last hi-targeted-to-uri of the History-Info header as indicated in table 6.3.3-12																				
ISUP Parameter values	IAM: Called party number Nature of Address: NoA_value Address Signals																				
SIP Parameter values	INVITE: History-Info: <sip:any proper URI>; index=1, <sip:any proper URI;cause=any>; index=1.1, <sip: Value of Called party number ;cause=any>; index=1.1.1																				
Comments																					
Message flows	<table style="width:100%; border:none;"> <tr> <td style="text-align:center;">ISUP</td> <td style="text-align:center;">→</td> <td style="text-align:center;">MGCF</td> <td style="text-align:center;">→</td> <td style="text-align:center;">INVITE</td> <td style="text-align:center;">Mg</td> </tr> <tr> <td style="text-align:center;">IAM</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td style="text-align:center;">Apply post test routine</td> <td></td> <td></td> <td></td> </tr> </table>			ISUP	→	MGCF	→	INVITE	Mg	IAM								Apply post test routine			
ISUP	→	MGCF	→	INVITE	Mg																
IAM																					
		Apply post test routine																			

Table 6.3.3-12: Mapping of Called party number into last Hist-entry

	NoA_value	Value of Called party number last hi-targeted-to-uri
VA_01	<i>national (significant) number</i>	Add '+' and the country code where the SUT is located to the Address Signal digits of the Called party number
VA_02	<i>international number</i>	Add '+' to the Address Signal digits of the Called party number

TP number	TP_403_039	Reference	7.5.4.2.2 table 7.5.4.2.2.1									
TSS reference	IMS-SS/CDIV/											
Selection criteria	PICS 6.3.1/2 AND PICS 6.3.2/5											
Test Purpose name	Mapping of Original called number Address Signals											
Test Purpose	Ensure that on receipt of an IAM containing an Original called number parameter and a Redirection Information parameter, an INVITE request is sent and a History-Info header is present. The value of the first hi-targeted-to-uri Value of Original called number is mapped from the Original called number Address Signals as indicated in table 6.3.3-13											
ISUP Parameter values	IAM: Original called number Nature of Address: NoA_value Address Signals <Digits>											
SIP Parameter values	INVITE: History-Info: <sip: Value of Original called number >; index=1, <sip:any proper URI;cause=any>; index=1.1											
Comments												
Message flows	<table style="width:100%; border:none;"> <tr> <td style="text-align:center;">ISUP</td> <td style="text-align:center;">MGCF</td> <td style="text-align:center;">Mg</td> </tr> <tr> <td style="text-align:center;">IAM</td> <td style="text-align:center;">→</td> <td style="text-align:center;">→ INVITE</td> </tr> <tr> <td colspan="3" style="text-align:center;">Apply post test routine</td> </tr> </table>			ISUP	MGCF	Mg	IAM	→	→ INVITE	Apply post test routine		
ISUP	MGCF	Mg										
IAM	→	→ INVITE										
Apply post test routine												

Table 6.3.3-13: Mapping of Original called number into first Hist-entry

	NoA_value	Value of Original called number First hi-targeted-to-uri
VA_01	<i>national (significant) number</i>	Add '+' and the country code where the SUT is located to the Address Signal digits of the Original called number
VA_02	<i>international number</i>	Add '+' to the Address Signal digits of the Original called number

TP number	TP_403_040	Reference	7.5.4.2.2 table 7.5.4.2.2.1									
TSS reference	IMS-SS/CDIV/											
Selection criteria	PICS 6.3.1/2 AND PICS 6.3.2/5											
Test Purpose name	Mapping of Original called number Address presentation restricted indicator											
Test Purpose	Ensure that on receipt of an IAM containing an Original called number parameter, an INVITE request is sent and a History-Info header is present. A Privacy header escaped in the first hi-targeted-to-uri and the PRIV_value is mapped from the Address presentation restricted indicator of the Original called number as indicated in table 6.3.3-14											
ISUP Parameter values	IAM: Original called number Address presentation restricted indicator: APRI_value Address Signals <any appropriate value>											
SIP Parameter values	INVITE: History-Info: <sip:any proper URI?Privacy= PRIV_value >; index=1, <sip:any proper URI;cause=any>; index=1.1											
Comments												
Message flows	<table style="width:100%; border:none;"> <tr> <td style="text-align:center;">ISUP</td> <td style="text-align:center;">MGCF</td> <td style="text-align:center;">Mg</td> </tr> <tr> <td style="text-align:center;">IAM</td> <td style="text-align:center;">→</td> <td style="text-align:center;">→ INVITE</td> </tr> <tr> <td colspan="3" style="text-align:center;">Apply post test routine</td> </tr> </table>			ISUP	MGCF	Mg	IAM	→	→ INVITE	Apply post test routine		
ISUP	MGCF	Mg										
IAM	→	→ INVITE										
Apply post test routine												

Table 6.3.3-14: Mapping of Original called number APRI into Privacy header in the first Hist-entry

	APRI_value	PRIV_value first hi-targeted-to-uri
VA_01	presentation restricted	history
VA_02	presentation allowed	none

TP number	TP_403_041	Reference	7.5.4.3 table 7.5.4.3.2																				
TSS reference	IMS-SS/CDIV/																						
Selection criteria	PICS 6.3.1/2 AND PICS 6.3.2/5																						
Test Purpose name	Second latest History-Info header field entry mapped into Redirecting number Nature of address indicator																						
Test Purpose	Ensure that on receipt of an INVITE request containing a History-Info header, an IAM is sent and a Redirecting number an Original called number and a Redirection information parameter is present. The Nature of address indicator of the Redirecting number is mapped from the hi-targeted-to-uri in hi-entry before last hi-entry containing a cause-param URI parameter as indicated in table 6.3.3-15																						
ISUP Parameter values	IAM: Redirecting number Nature of address indicator= NoA_value																						
SIP Parameter values	INVITE: History-Info: <sip:any proper URI>; index=1, <sip: Second last entry URI ;cause=any>; index=1.1, <sip:any proper URI;cause=any>; index=1.1.1																						
Comments																							
Message flows	<table style="width:100%; border:none;"> <tr> <td style="text-align:center;">Mg</td> <td></td> <td style="text-align:center;">MGCF</td> <td></td> <td style="text-align:center;">ISUP</td> </tr> <tr> <td>INVITE</td> <td style="text-align:center;">→</td> <td></td> <td style="text-align:center;">→</td> <td>IAM</td> </tr> <tr> <td>100 Trying</td> <td style="text-align:center;">←</td> <td></td> <td></td> <td></td> </tr> <tr> <td colspan="5" style="text-align:center;">Apply post test routine</td> </tr> </table>			Mg		MGCF		ISUP	INVITE	→		→	IAM	100 Trying	←				Apply post test routine				
Mg		MGCF		ISUP																			
INVITE	→		→	IAM																			
100 Trying	←																						
Apply post test routine																							

Table 6.3.3-15: Mapping of second last first Hist-entry into Redirecting number Nature of address indicator

	Second last entry URI	NoA_value
VA_01	CC is equal to the country code of the country where MGCF is located AND the next ISUP node is located in the same country	<i>national (significant) number</i>
VA_02	CC is not equal to the country code of the country where MGCF is located	<i>international number</i>

TP number	TP_403_042	Reference	7.5.4.3 table 7.5.4.3.2																				
TSS reference	IMS-SS/CDIV/																						
Selection criteria	PICS 6.3.1/2 AND PICS 6.3.2/5																						
Test Purpose name	Second latest History-Info header field entry is mapped into Redirecting number Address signal																						
Test Purpose	Ensure that on receipt of an INVITE request containing a History-Info header, an IAM is sent and a Redirecting number an Original called number and a Redirection information parameter is present. The Address signal of the Redirecting number is mapped from the hi-targeted-to-uri in hi-entry before last hi-entry containing a cause-param URI parameter in the format +CC+NDC+SN' as indicated in table 6.3.3-16																						
ISUP Parameter values	IAM: Redirecting number Address signal <i>derived from the second last Hist-entry</i>																						
SIP Parameter values	INVITE: History-Info: <sip:any proper URI>; index=1, <sip: Second last entry URI ;cause=any>; index=1.1, <sip:any proper URI;cause=any>; index=1.1.1																						
Comments																							
Message flows	<table style="width:100%; border:none;"> <tr> <td style="text-align:center;">Mg</td> <td></td> <td style="text-align:center;">MGCF</td> <td></td> <td style="text-align:center;">ISUP</td> </tr> <tr> <td>INVITE</td> <td style="text-align:center;">→</td> <td></td> <td style="text-align:center;">→</td> <td>IAM</td> </tr> <tr> <td>100 Trying</td> <td style="text-align:center;">←</td> <td></td> <td></td> <td></td> </tr> <tr> <td colspan="5" style="text-align:center;">Apply post test routine</td> </tr> </table>			Mg		MGCF		ISUP	INVITE	→		→	IAM	100 Trying	←				Apply post test routine				
Mg		MGCF		ISUP																			
INVITE	→		→	IAM																			
100 Trying	←																						
Apply post test routine																							

Table 6.3.3-16: Mapping of second last first Hist-entry into Redirecting number Address signal

	Second last entry URI	NoA_value
VA_01	CC is equal to the country code of the country where MGCF is located AND the next ISUP node is located in the same country	'+CC' is removed from the userpart digit string used in the Redirecting number Address signal
VA_02	CC is not equal to the country code of the country where MGCF is located	'+' is removed from the userpart digit string used in the Redirecting number Address signal

TP number	TP_403_043	Reference	7.5.4.3 table 7.5.4.3.2															
TSS reference	IMS-SS/CDIV/																	
Selection criteria	PICS 6.3.1/2 AND PICS 6.3.2/5																	
Test Purpose name	Second latest History-Info header escaped Privacy header is mapped into Redirecting number Address presentation restricted indicator																	
Test Purpose	Ensure that on receipt of an INVITE request containing a History-Info header, an IAM is sent and a Redirecting number an Original called number and a Redirection information parameter is present. The Address presentation restricted indicator of the Redirecting number is mapped from the escaped Privacy header of the second latest History-Info header field entry containing a cause parameter as indicated in table 6.3.3-17																	
ISUP Parameter values	IAM: Redirecting number Address presentation restricted indicator=APRI_value																	
SIP Parameter values	INVITE: History-Info: <sip:any proper URI>; index=1, <sip:any proper URI;cause=any?Privacy=PRIV_value>; index=1.1, <sip:any proper URI;cause=any>; index=1.1.1																	
Comments																		
Message flows	<table style="width:100%; border:none;"> <tr> <td style="text-align:center; width:10%;">Mg</td> <td style="width:40%;"></td> <td style="text-align:center; width:10%;">MGCF</td> <td style="width:40%;"></td> <td style="text-align:center; width:10%;">ISUP</td> </tr> <tr> <td>INVITE</td> <td style="text-align:center;">→</td> <td></td> <td style="text-align:center;">→</td> <td>IAM</td> </tr> <tr> <td>100 Trying</td> <td style="text-align:center;">←</td> <td></td> <td></td> <td></td> </tr> </table> <p style="text-align:center;">Apply post test routine</p>			Mg		MGCF		ISUP	INVITE	→		→	IAM	100 Trying	←			
Mg		MGCF		ISUP														
INVITE	→		→	IAM														
100 Trying	←																	

TP number	TP_403_044	Reference	7.5.4.3 table 7.5.4.3.2															
TSS reference	IMS-SS/CDIV/																	
Selection criteria	PICS 6.3.1/2 AND PICS 6.3.2/5																	
Test Purpose name	Privacy header is mapped into Redirecting number Address presentation restricted indicator																	
Test Purpose	Ensure that on receipt of an INVITE request containing a History-Info header, an IAM is sent and a Redirecting number an Original called number and a Redirection information parameter is present. The Address presentation restricted indicator of the Redirecting number is mapped from the Privacy header of the received INVITE request as indicated in table 6.3.3-17.																	
ISUP Parameter values	IAM: Redirecting number Address presentation restricted indicator=APRI_value																	
SIP Parameter values	INVITE: Privacy: PRIV_value History-Info: <sip:any proper URI>; index=1, <sip:any proper URI;cause=any>; index=1.1																	
Comments																		
Message flows	<table style="width:100%; border:none;"> <tr> <td style="text-align:center; width:10%;">Mg</td> <td style="width:40%;"></td> <td style="text-align:center; width:10%;">MGCF</td> <td style="width:40%;"></td> <td style="text-align:center; width:10%;">ISUP</td> </tr> <tr> <td>INVITE</td> <td style="text-align:center;">→</td> <td></td> <td style="text-align:center;">→</td> <td>IAM</td> </tr> <tr> <td>100 Trying</td> <td style="text-align:center;">←</td> <td></td> <td></td> <td></td> </tr> </table> <p style="text-align:center;">Apply post test routine</p>			Mg		MGCF		ISUP	INVITE	→		→	IAM	100 Trying	←			
Mg		MGCF		ISUP														
INVITE	→		→	IAM														
100 Trying	←																	

**Table 6.3.3-17: Mapping of Privacy header into Redirecting number
Address presentation restricted indicator**

	PRIV_value	APRI_value
VA_01	history	presentation restricted
VA_02	session	presentation restricted
VA_03	header	presentation restricted
VA_04	none	presentation allowed
VA_05	Header absent	presentation allowed

TP number	TP_403_045	Reference	7.5.4.3 table 7.5.4.3.3												
TSS reference	IMS-SS/CDIV/														
Selection criteria	PICS 6.3.1/2 AND PICS 6.3.2/5														
Test Purpose name	Escaped Privacy header is mapped into Redirection information Redirecting indicator														
Test Purpose	Ensure that on receipt of an INVITE request containing a History-Info header, an IAM is sent and a Redirecting number an Original called number and a Redirection information parameter is present. The Redirecting indicator of the Redirection information is mapped from the escaped Privacy header of the second last History-Info header field entry and last History-Info header field in the received INVITE request as indicated in table 6.3.3-18														
ISUP Parameter values	IAM: Redirection information Redirecting indicator= RDIND_value														
SIP Parameter values	INVITE: History-Info: <sip:any proper URI>; index=1, <sip:any proper URI;cause=any?Privacy= PRIV_value >; index=1.1, <sip:any proper URI;cause=any?Privacy= PRIV_value >; index=1.1.1														
Comments															
Message flows	<table style="width:100%; border:none;"> <tr> <td style="text-align:center;">Mg</td> <td style="text-align:center;">MGCF</td> <td style="text-align:center;">IAM</td> <td style="text-align:center;">ISUP</td> </tr> <tr> <td>INVITE</td> <td style="text-align:center;">→</td> <td></td> <td></td> </tr> <tr> <td>100 Trying</td> <td style="text-align:center;">←</td> <td></td> <td></td> </tr> </table> <p style="text-align:center;">Apply post test routine</p>			Mg	MGCF	IAM	ISUP	INVITE	→			100 Trying	←		
Mg	MGCF	IAM	ISUP												
INVITE	→														
100 Trying	←														

TP number	TP_403_046	Reference	7.5.4.3 table 7.5.4.3.3												
TSS reference	IMS-SS/CDIV/														
Selection criteria	PICS 6.3.1/2 AND PICS 6.3.2/5														
Test Purpose name	Privacy header is mapped into Redirection information Redirecting indicator														
Test Purpose	Ensure that on receipt of an INVITE request containing a History-Info header, an IAM is sent and a Redirecting number an Original called number and a Redirection information parameter is present. The Redirecting indicator of the Redirection information is mapped from the Privacy header in the received INVITE request as indicated in table 6.3.3-18														
ISUP Parameter values	IAM: Redirection information Redirecting indicator= RDIND_value														
SIP Parameter values	INVITE: Privacy: PRIV_value History-Info: <sip:any proper URI>; index=1, <sip:any proper URI;cause=any>; index=1.1, <sip:any proper URI;cause=any>; index=1.1.1														
Comments															
Message flows	<table style="width:100%; border:none;"> <tr> <td style="text-align:center;">Mg</td> <td style="text-align:center;">MGCF</td> <td style="text-align:center;">IAM</td> <td style="text-align:center;">ISUP</td> </tr> <tr> <td>INVITE</td> <td style="text-align:center;">→</td> <td></td> <td></td> </tr> <tr> <td>100 Trying</td> <td style="text-align:center;">←</td> <td></td> <td></td> </tr> </table> <p style="text-align:center;">Apply post test routine</p>			Mg	MGCF	IAM	ISUP	INVITE	→			100 Trying	←		
Mg	MGCF	IAM	ISUP												
INVITE	→														
100 Trying	←														

Table 6.3.3-18: Mapping of Privacy header into Redirecting indicator

	PRIV_value	RDIND_value
VA_01	history	Call diverted, all redirection info presentation restricted
VA_02	session	Call diverted, all redirection info presentation restricted
VA_03	header	Call diverted, all redirection info presentation restricted
VA_04	none	Call diverted
VA_05	Privacy header field absent	Call diverted

TP number	TP_403_047	Reference	7.5.4.3 table 7.5.4.3.3																
TSS reference	IMS-SS/CDIV/																		
Selection criteria	PICS 6.3.1/2 AND PICS 6.3.2/5																		
Test Purpose name	'cause' parameter is mapped into Redirection information Redirecting reason																		
Test Purpose	Ensure that on receipt of an INVITE request containing a History-Info header, an IAM is sent and a Redirecting number an Original called number and a Redirection information parameter is present. The Redirecting reason of the Redirection information is mapped from the cause parameter of the latest History-Info header field entry containing a cause parameter in the received INVITE request as indicated in table 6.3.3-19																		
ISUP Parameter values	IAM: Redirection information Original redirection reason=unknown/not available Redirecting reason= REAS_value																		
SIP Parameter values	INVITE: History-Info: <sip:any proper URI>; index=1, <sip:any proper URI;cause=any>; index=1.1, <sip:any proper URI; cause= Cause_value >; index=1.1.1																		
Comments																			
Message flows	<table style="width:100%; border:none;"> <tr> <td style="text-align:center;">Mg</td> <td style="text-align:center;">MGCF</td> <td style="text-align:center;">IAM</td> <td style="text-align:center;">ISUP</td> </tr> <tr> <td>INVITE</td> <td style="text-align:center;">→</td> <td></td> <td></td> </tr> <tr> <td>100 Trying</td> <td style="text-align:center;">←</td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td style="text-align:center;">→</td> <td></td> </tr> </table> <p style="text-align:center;">Apply post test routine</p>			Mg	MGCF	IAM	ISUP	INVITE	→			100 Trying	←					→	
Mg	MGCF	IAM	ISUP																
INVITE	→																		
100 Trying	←																		
		→																	

Table 6.3.3-19: Mapping of cause parameter in the last Hist-entry into Redirecting reason

	Cause_value Last hi-targeted-to-uri	REAS_value
VA_01	404	Unknown/not available
VA_02	302	Unconditional
VA_03	486	User busy
VA_04	408	No reply
VA_05	480	Deflection immediate response
VA_06	487	Deflection during alerting
VA_07	503	Mobile subscriber not reachable

TP number	TP_403_048	Reference	7.5.4.3 table 7.5.4.3.3												
TSS reference	IMS-SS/CDIV/														
Selection criteria	PICS 6.3.1/2 AND PICS 6.3.2/5														
Test Purpose name	Hi-index is mapped into Redirection information Redirection counter														
Test Purpose	Ensure that on receipt of an INVITE request containing a History-Info header, an IAM is sent and a Redirecting number an Original called number and a Redirection information parameter is present. The Redirection counter of the Redirection information is mapped from the hi-index of the last History-Info header field entry in the received INVITE request as indicated in table 6.3.3-20. The number of dots in the hi-index value is equal to the value of the Redirection counter														
ISUP Parameter values	IAM: Redirection information Redirection counter= RDCONT_value														
SIP Parameter values	INVITE: History-Info: ENTRY_values														
Comments															
Message flows	<table style="width: 100%; border: none;"> <tr> <td style="text-align: center;">Mg</td> <td style="text-align: center;">MGCF</td> <td style="text-align: center;">ISUP</td> </tr> <tr> <td style="text-align: center;">INVITE</td> <td style="text-align: center;">→</td> <td style="text-align: center;">→ IAM</td> </tr> <tr> <td style="text-align: center;">100 Trying</td> <td style="text-align: center;">←</td> <td></td> </tr> <tr> <td colspan="3" style="text-align: center;">Apply post test routine</td> </tr> </table>			Mg	MGCF	ISUP	INVITE	→	→ IAM	100 Trying	←		Apply post test routine		
Mg	MGCF	ISUP													
INVITE	→	→ IAM													
100 Trying	←														
Apply post test routine															

Table 6.3.3-20: Mapping of Redirection counter into index parameters of History-Info header

	ENTRY_values	RDCONT_value
VA_01	<sip:represents the Original called number>; index=1 , <sip:represents the Called party number;cause=any>; index=1.1	1
VA_02	<sip:represents the Original called number>; index=1 , <sip:represents the Redirecting number;cause=any>; index=1.1 , <sip:represents the Called party number;cause=any>; index=1.1.1	2
VA_03	<sip:represents the Original called number>; index=1 , <sip:any proper URI;cause=any>; index=1.1 , <sip:represents the Redirecting number;cause=any>; index=1.1.1 , <sip:represents the Called party number;cause=any>; index=1.1.1.1	3
VA_04	<sip:represents the Original called number>; index=1 , <sip:any proper URI;cause=any>; index=1.1 , <sip:any proper URI;cause=any>; index=1.1.1 , <sip:represents the Redirecting number;cause=any>; index=1.1.1.1 , <sip:represents the Called party number;cause=any>; index=1.1.1.1.1	4
VA_05	<sip:represents the Original called number>; index=1 , <sip:any proper URI;cause=any>; index=1.1 , <sip:any proper URI;cause=any>; index=1.1.1 , <sip:any proper URI;cause=any>; index=1.1.1.1 , <sip:represents the Redirecting number;cause=any>; index=1.1.1.1.1 , <sip:represents the Called party number;cause=any>; index=1.1.1.1.1.1	5

TP number	TP_403_049	Reference	7.5.4.3 table 7.5.4.3.4
TSS reference	IMS-SS/CDIV/		
Selection criteria	PICS 6.3.1/2 AND PICS 6.3.2/5		
Test Purpose name	First History-Info header field entry is mapped into Original called number Nature of address indicator		
Test Purpose	Ensure that on receipt of an INVITE request containing a History-Info header, an IAM is sent and a Redirecting number an Original called number and a Redirection information parameter is present. The Nature of address indicator of the Original called is mapped from the first History-Info header field entry in the format +‘CC+NDC+SN’ as indicated in table 6.3.3-21		
ISUP Parameter values	IAM: Original called number Numbering Plan Indicator= <i>ISDN (Telephony) numbering plan (Recommendation E.164 [1.1])</i> Nature of address indicator= NoA_value		
SIP Parameter values	INVITE: History-Info: <sip: First entry URI >; index=1, <sip:any proper URI;cause=any>; index=1.1		
Comments			
Message flows	Mg INVITE 100 Trying	MGCF → ←	ISUP → IAM Apply post test routine

Table 6.3.3-21: Mapping of first Hist-entry into Original called number Nature of address indicator

	First entry URI	NoA_value
VA_01	CC is equal to the country code of the country where MGCF is located AND the next ISUP node is located in the same country	<i>national (significant) number</i>
VA_02	CC is not equal to the country code of the country where MGCF is located	<i>international number</i>

TP number	TP_403_050	Reference	7.5.4.3 table 7.5.4.3.4
TSS reference	IMS-SS/CDIV/		
Selection criteria	PICS 6.3.1/2 AND PICS 6.3.2/5		
Test Purpose name	First History-Info header field entry is mapped into Original called Address signal		
Test Purpose	Ensure that on receipt of an INVITE request containing a History-Info header, an IAM is sent and a Redirecting number an Original called number and a Redirection information parameter is present. The Address signal of the Original called number is mapped from the first History-Info header field entry in the format +‘CC+NDC+SN’ as indicated in table 6.3.3-22		
ISUP Parameter values	IAM: Original called Numbering Plan Indicator= <i>ISDN (Telephony) numbering plan (Recommendation E.164 [1.1])</i> Address signal <i>derived from the first Hist-entry</i>		
SIP Parameter values	INVITE: History-Info: <sip: First entry URI >; index=1, <sip:any proper URI;cause=any>; index=1.1		
Comments			
Message flows	Mg INVITE 100 Trying	MGCF → ←	ISUP → IAM Apply post test routine

Table 6.3.3-22: Mapping of first Hist-entry into Original called number Address signal

	First entry URI	NoA_value
VA_01	CC is equal to the country code of the country where MGCF is located AND the next ISUP node is located in the same country	'+CC' is removed from the userpart digit string used in the Original called number Address signal
VA_02	CC is not equal to the country code of the country where MGCF is located	'+' is removed from the userpart digit string used in the Original called number Address signal

TP number	TP_403_051	Reference	7.5.4.3 table 7.5.4.3.4																
TSS reference	IMS-SS/CDIV/																		
Selection criteria	PICS 6.3.1/2 AND PICS 6.3.2/5																		
Test Purpose name	First History-Info header field entry escaped Privacy header is mapped into Original called number Address presentation restricted indicator																		
Test Purpose	Ensure that on receipt of an INVITE request containing a History-Info header, an IAM is sent and a Redirecting number an Original called number and a Redirection information parameter is present. The Address presentation restricted indicator of the Original called number is mapped from the escaped Privacy header of the first History-Info header field entry as indicated in table 6.3.3-23																		
ISUP Parameter values	IAM: Original called Address presentation restricted indicator=APRI_value																		
SIP Parameter values	INVITE: History-Info: <sip:First entry URI?Privacy=PRIV_value>; index=1, <sip:any proper URI;cause=any>; index=1.1																		
Comments																			
Message flows	<table style="width:100%; border:none;"> <tr> <td style="text-align:center; width:25%;">Mg</td> <td style="text-align:center; width:25%;">MGCF</td> <td style="text-align:center; width:25%;">IAM</td> <td style="text-align:center; width:25%;">ISUP</td> </tr> <tr> <td>INVITE</td> <td style="text-align:center;">→</td> <td></td> <td></td> </tr> <tr> <td>100 Trying</td> <td style="text-align:center;">←</td> <td></td> <td></td> </tr> <tr> <td colspan="4" style="text-align:center;">Apply post test routine</td> </tr> </table>			Mg	MGCF	IAM	ISUP	INVITE	→			100 Trying	←			Apply post test routine			
Mg	MGCF	IAM	ISUP																
INVITE	→																		
100 Trying	←																		
Apply post test routine																			

TP number	TP_403_052	Reference	7.5.4.3 table 7.5.4.3.4																
TSS reference	IMS-SS/CDIV/																		
Selection criteria	PICS 6.3.1/2 AND PICS 6.3.2/5																		
Test Purpose name	Privacy header is mapped into Original called number Address presentation restricted indicator																		
Test Purpose	Ensure that on receipt of an INVITE request containing a History-Info header, an IAM is sent and a Redirecting number an Original called number and a Redirection information parameter is present. The Address presentation restricted indicator of the Original called number is mapped from the Privacy header of the received INVITE request as indicated in table 6.3.3-23																		
ISUP Parameter values	IAM: Original called Address presentation restricted indicator=APRI_value																		
SIP Parameter values	INVITE: <i>Privacy: PRIV_value</i> History-Info: <sip:First entry URI>; index=1, <sip:any proper URI;cause=any>; index=1.1																		
Comments																			
Message flows	<table style="width:100%; border:none;"> <tr> <td style="text-align:center; width:25%;">Mg</td> <td style="text-align:center; width:25%;">MGCF</td> <td style="text-align:center; width:25%;">IAM</td> <td style="text-align:center; width:25%;">ISUP</td> </tr> <tr> <td>INVITE</td> <td style="text-align:center;">→</td> <td></td> <td></td> </tr> <tr> <td>100 Trying</td> <td style="text-align:center;">←</td> <td></td> <td></td> </tr> <tr> <td colspan="4" style="text-align:center;">Apply post test routine</td> </tr> </table>			Mg	MGCF	IAM	ISUP	INVITE	→			100 Trying	←			Apply post test routine			
Mg	MGCF	IAM	ISUP																
INVITE	→																		
100 Trying	←																		
Apply post test routine																			

**Table 6.3.3-23: Mapping of Privacy header into Redirecting number
Address presentation restricted indicator**

	PRIV_value	APRI_value
VA_01	history	presentation restricted
VA_02	session	presentation restricted
VA_03	header	presentation restricted
VA_04	none	presentation allowed
VA_05	Header absent	presentation allowed

TP number	TP_403_053	Reference	7.5.4.3 table 7.5.4.3.8									
TSS reference	IMS-SS/CDIV/											
Selection criteria	PICS 6.3.1/2 AND PICS 6.3.2/5											
Test Purpose name	Mapping of ACM Redirection number into 181 (Being forwarded) History-Info header											
Test Purpose	Ensure that on receipt of an ACM a Redirection number and the Call diversion parameter is present as an indication a call diversion occurred, a 181 (Being forwarded) is sent. The Redirection number is mapped into the hi-targeted-to-uri in a History-Info header containing one hi-entry in the sent 181 as indicated in table 6.3.3-24											
ISUP Parameter values	ACM: Backward call indicator Called party statue='no indication' Generic notification=call is diverting Call diversion information Redirection number Nature of address indicator= NOA_value Address signal Digits											
SIP Parameter values	181: History-Info: sip: LAST_HIST_URI ;cause=any>; index=1											
Comments												
Message flows	<table style="width:100%; border:none;"> <tr> <td style="text-align:center;">Mg</td> <td style="text-align:center;">MGCF</td> <td style="text-align:center;">ISUP</td> </tr> <tr> <td>INVITE</td> <td style="text-align:center;">→</td> <td>→ IAM</td> </tr> <tr> <td>181 Being forwarded</td> <td style="text-align:center;">←</td> <td>← ACM</td> </tr> </table> <p style="text-align:center;">Apply post test routine</p>			Mg	MGCF	ISUP	INVITE	→	→ IAM	181 Being forwarded	←	← ACM
Mg	MGCF	ISUP										
INVITE	→	→ IAM										
181 Being forwarded	←	← ACM										

Table 6.3.3-24: Mapping Redirection number into History-Info header

	NOA_value	History-Info header: LAST_HIST_URI
VA_01	<i>national (significant) number</i>	Add '+' and CC (of the country where the MGCF is located) to Redirection number Address Signals then map to user portion of the last hi-targeted-to-uri in the format '+ CC NDC SN'.
VA_01	<i>international number</i>	Map complete Redirection number Address Signals and '+' to user portion of the last hi-targeted-to-uri in the format '+ CC NDC SN'

TP number	TP_403_054	Reference	7.5.4.3 table 7.5.4.3.8																				
TSS reference	IMS-SS/CDIV/																						
Selection criteria	PICS 6.3.1/2 AND PICS 6.3.2/5																						
Test Purpose name	Mapping of ACM Redirecting reason into 181 (Being forwarded) History-Info header cause parameter																						
Test Purpose	Ensure that on receipt of an ACM a Redirection number and the Call diversion parameter is present as an indication a call diversion occurred, a 181 (Being forwarded) is sent. The Call diversion information Redirecting reason is mapped into the cause parameter of the last hi-targeted-to-uri in a History-Info header in the sent 181 as indicated in table 6.3.3-25																						
ISUP Parameter values	ACM: Backward call indicator Called party statue='no indication' Generic notification=call is diverting Redirection number Call diversion information Redirecting reason = REAS_value																						
SIP Parameter values	181: History-Info: sip: LAST_HIST_URI ;cause= Cause_value >; index=1																						
Comments																							
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Mg		MGCF		ISUP																			
INVITE	→		→	IAM																			
181 Being forwarded	←		←	ACM																			
Apply post test routine																							

Table 6.3.3-25: Mapping of Redirecting reason into cause parameter

CAUSE	Redirecting_Reason REAS_value	Cause parameter, CAUSE_value
VA_01	unknown	404
VA_02	unconditional	302
VA_03	User Busy	486
VA_04	No reply	408
VA_05	Deflection during alerting	487
VA_06	Deflection immediate response	480
VA_07	Mobile subscriber not reachable	503

TP number	TP_403_055	Reference	7.5.4.3 table 7.5.4.3.8																				
TSS reference	IMS-SS/CDIV/																						
Selection criteria	PICS 6.3.1/2 AND PICS 6.3.2/5																						
Test Purpose name	Mapping of ACM Notification subscription options no 181 (Being forwarded) is sent																						
Test Purpose	Ensure that on receipt of an ACM a Redirection number and the Call diversion parameter is present as an indication a call diversion occurred, if the Call diversion information Notification subscription options is set to presentation not allowed no 181 (Being forwarded) is sent																						
ISUP Parameter values	ACM: Generic notification=call is diverting Redirection number Call diversion information Notification subscription options=presentation not allowed																						
SIP Parameter values																							
Comments																							
Message flows	<table style="width:100%; border:none;"> <tr> <td style="text-align:center;">Mg</td> <td></td> <td style="text-align:center;">MGCF</td> <td></td> <td style="text-align:center;">ISUP</td> </tr> <tr> <td>INVITE</td> <td style="text-align:center;">→</td> <td></td> <td style="text-align:center;">→</td> <td>IAM</td> </tr> <tr> <td>181 Being forwarded</td> <td style="text-align:center;">←</td> <td></td> <td style="text-align:center;">←</td> <td>ACM</td> </tr> <tr> <td colspan="5" style="text-align:center;">Apply post test routine</td> </tr> </table>			Mg		MGCF		ISUP	INVITE	→		→	IAM	181 Being forwarded	←		←	ACM	Apply post test routine				
Mg		MGCF		ISUP																			
INVITE	→		→	IAM																			
181 Being forwarded	←		←	ACM																			
Apply post test routine																							

TP number	TP_403_056	Reference	7.5.4.3 table 7.5.4.3.8																				
TSS reference	IMS-SS/CDIV/																						
Selection criteria	PICS 6.3.1/2 AND PICS 6.3.2/5																						
Test Purpose name	Mapping of ACM Notification subscription options into 181 (Being forwarded) escaped Privacy header																						
Test Purpose	Ensure that on receipt of an ACM a Redirection number and the Call diversion parameter is present as an indication a call diversion occurred, a 181 (Being forwarded) is sent. The Call diversion information Notification subscription options is mapped into the escaped Privacy header of the last hi-targeted-to-uri in a History-Info header in the sent 181 as indicated in table 6.3.3-26																						
ISUP Parameter values	ACM: Generic notification=call is diverting Redirection number Call diversion information Notification subscription options= NSO_value																						
SIP Parameter values	181: History-Info: sip: LAST_HIST_URI ;cause=any?Privacy= PRIV_value >; index=1																						
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Mg		MGCF		ISUP																			
INVITE	→		→	IAM																			
181 Being forwarded	←		←	ACM																			
Apply post test routine																							

Table 6.3.3-26: Mapping of Notification subscription options into Privacy header

CAUSE	NSO_value	PRIV_value
VA_01	Unknown	history
VA_02	presentation allowed with redirection number	Header not present
VA_03	presentation allowed without redirection number	history

TP number	TP_403_057	Reference	7.5.4.3 table 7.5.4.3.9																									
TSS reference	IMS-SS/CDIV/																											
Selection criteria	PICS 6.3.1/2 AND PICS 6.3.2/5																											
Test Purpose name	Mapping of CPG Redirection number into 181 (Being forwarded) History-Info header																											
Test Purpose	Ensure that on receipt of a CPG the Event indicator is set to 'Progress' a Redirection number and the Call diversion parameter is present as an indication a call diversion occurred, a 181 (Being forwarded) is sent. The Redirection number is mapped into the hi-targeted-to-uri in a History-Info header in the sent 181 as indicated in table 6.3.3-24																											
ISUP Parameter values	CPG: Event=Progress Generic notification=call is diverting Call diversion information Redirection number Nature of address indicator= NOA_value Address signal Digits																											
SIP Parameter values	181: History-Info: <sip: LAST_HIST_URI ;cause=any>; index=1																											
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TP number	TP_403_058	Reference	7.5.4.3 table 7.5.4.3.9																				
TSS reference	IMS-SS/CDIV/																						
Selection criteria	PICS 6.3.1/2 AND PICS 6.3.2/5																						
Test Purpose name	Mapping of CPG Redirecting reason into 181 (Being forwarded) History-Info header cause parameter																						
Test Purpose	Ensure that on receipt of a CPG the Event indicator is set to 'Progress' a Redirection number and the Call diversion parameter is present as an indication a call diversion occurred, a 181 (Being forwarded) is sent. The Call diversion information Redirecting reason is mapped into the cause parameter of the last hi-targeted-to-uri in a History-Info header in the sent 181 as indicated in table 6.3.3-25																						
ISUP Parameter values	CPG: Event=Progress Generic notification=call is diverting Redirection number Call diversion information Redirecting reason = REAS_value																						
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180 Ringing	←		ACM																				
181 Being forwarded	←		CPG																				
Apply post test routine																							

TP number	TP_403_059	Reference	7.5.4.3 table 7.5.4.3.9																				
TSS reference	IMS-SS/CDIV/																						
Selection criteria	PICS 6.3.1/2 AND PICS 6.3.2/5																						
Test Purpose name	Mapping of CPG Notification subscription option presentation not allowed no 181 (Being forwarded) is sent																						
Test Purpose	Ensure that on receipt of a CPG the Event indicator is set to 'Progress' a Redirection number and the Call diversion parameter is present as an indication a call diversion occurred, if the Call diversion information Notification subscription options is set to presentation not allowed no 181 (Being forwarded) is sent																						
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TP number	TP_403_060	Reference	7.5.4.3 table 7.5.4.3.9																									
TSS reference	IMS-SS/CDIV/																											
Selection criteria	PICS 6.3.1/2 AND PICS 6.3.2/5																											
Test Purpose name	Mapping of CPG Notification subscription options into 181 (Being forwarded) escaped Privacy header																											
Test Purpose	Ensure that on receipt of a CPG the Event indicator is set to 'Progress' a Redirection number and the Call diversion parameter is present as an indication a call diversion occurred, a 181 (Being forwarded) is sent. The Call diversion information Notification subscription options is mapped into the escaped Privacy header of the hi-targeted-to-uri in a History-Info header in the sent 181 as indicated in table 6.3.3-26																											
ISUP Parameter values	CPG: Event=Progress Generic notification=call is diverting Redirection number Call diversion information Notification subscription options= NSO_value																											
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INVITE	→		→	IAM																								
180 Ringing	←		←	ACM																								
181 Being forwarded	←		←	CPG																								
Apply post test routine																												

TP number	TP_403_061	Reference	7.5.4.3 table 7.5.4.3.8																									
TSS reference	IMS-SS/CDIV/																											
Selection criteria	PICS 6.3.1/2 AND PICS 6.3.2/5																											
Test Purpose name	Mapping of a CPG Alerting Redirection number into 180 (Ringing) History-Info header Redirecting reason is mapped into the cause parameter																											
Test Purpose	Ensure that on receipt of a CPG the Event indicator is set to 'Alerting' a Redirection number is present, a 180 (Ringing) is sent. The Redirection number Address signal digits are mapped into the hi-targeted-to-uri in a History-Info header in the sent 180 (Ringing) as indicated in table 6.3.3-24 and the cause parameter value is mapped from a previous received Redirecting reason as indicated in table 6.3.3-25																											
ISUP Parameter values	ACM: Call diversion information Redirecting reason = REAS_value Redirection number CPG: Event indicator=Alerting Redirection number Nature of address indicator= NOA_value Address signal Digits																											
SIP Parameter values	180: History-Info: <sip: derived from Redirection number in CPG ;cause= Cause_value >; index=1																											
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INVITE	→		→	IAM																								
181 Being forwarded	←		←	ACM																								
180 Ringing	←		←	CPG																								
Apply post test routine																												

TP number	TP_403_062	Reference	7.5.4.3 table 7.5.4.3.7															
TSS reference	IMS-SS/CDIV/																	
Selection criteria	PICS 6.3.1/2 AND PICS 6.3.2/5																	
Test Purpose name	Mapping of CPG Alerting Redirection Number Restriction into 180 (Ringing) Privacy header																	
Test Purpose	Ensure that on receipt of a CPG the Event indicator is set to 'Alerting' a Redirection Number Restriction parameter is present, a 180 (Ringing) is sent. The Redirection Number Restriction parameter value is mapped into the Privacy header in the sent 180 as indicated in table 6.3.3-27																	
ISUP Parameter values	ACM: Backward call indicator Called party status=no indication Generic notification=call is diverting Call diversion information Redirection number CPG: Event indicator=Alerting Redirection Number Restriction= PRES_restr																	
SIP Parameter values	180: <i>Privacy=PRIV_value</i>																	
Comments																		
Message flows	<table style="width:100%; border:none;"> <tr> <td style="text-align:center;">Mg</td> <td style="text-align:center;">MGCF</td> <td style="text-align:center;">ISUP</td> </tr> <tr> <td>INVITE</td> <td style="text-align:center;">→</td> <td>→ IAM</td> </tr> <tr> <td>181 Being forwarded</td> <td style="text-align:center;">←</td> <td>← ACM</td> </tr> <tr> <td>180 Ringing</td> <td style="text-align:center;">←</td> <td>← CPG</td> </tr> <tr> <td colspan="3" style="text-align:center;">Apply post test routine</td> </tr> </table>			Mg	MGCF	ISUP	INVITE	→	→ IAM	181 Being forwarded	←	← ACM	180 Ringing	←	← CPG	Apply post test routine		
Mg	MGCF	ISUP																
INVITE	→	→ IAM																
181 Being forwarded	←	← ACM																
180 Ringing	←	← CPG																
Apply post test routine																		

Table 6.3.3-27: Mapping of Redirection Number Restriction parameter into Privacy header

CAUSE	Redirection Number Restriction PRES_restr	Privacy PRIV_value
VA_01	Presentation allowed	'none' OR Header not present
VA_02	Presentation restricted	'History'

TP number	TP_403_063	Reference	7.5.4.3 table 7.5.4.3.8																														
TSS reference	IMS-SS/CDIV/																																
Selection criteria	PICS 6.3.1/2 AND PICS 6.3.2/5																																
Test Purpose name	Mapping of ANM Redirection number into 200 OK History-Info header Redirecting reason is mapped into the cause parameter																																
Test Purpose	Ensure that on receipt of an ANM a Redirection number is present, a 200 OK (INVITE) is sent. The Redirection number Address signal digits are mapped into the last hi-targeted-to-uri in a History-Info header in the sent 200 OK as indicated in table 6.3.3-24 and the cause parameter value is mapped from a previous received Redirecting reason as indicated in table 6.3.3-25																																
ISUP Parameter values	ACM: Backward call indicator Called party status=no indication Generic notification=call is diverting Call diversion information Redirecting reason = REAS_value Redirection number ANM: Redirection number Nature of address indicator= NOA_value Address signal Digits																																
SIP Parameter values	200 OK: History-Info: <sip:unknown@unknown.invalid>; index=1, <sip: LAST_HIST_URI ;cause= Cause_value >; index=1.1																																
Comments																																	
Message flows	<table style="width:100%; border:none;"> <thead> <tr> <th style="text-align:center;">Mg</th> <th style="text-align:center;">→</th> <th style="text-align:center;">MGCF</th> <th style="text-align:center;">→</th> <th style="text-align:center;">ISUP</th> </tr> </thead> <tbody> <tr> <td>INVITE</td> <td style="text-align:center;">→</td> <td></td> <td style="text-align:center;">→</td> <td>IAM</td> </tr> <tr> <td>181 Being forwarded</td> <td style="text-align:center;">←</td> <td></td> <td style="text-align:center;">←</td> <td>ACM</td> </tr> <tr> <td>180 Ringing</td> <td style="text-align:center;">←</td> <td></td> <td style="text-align:center;">←</td> <td>CPG</td> </tr> <tr> <td>200 OK INVITE</td> <td style="text-align:center;">←</td> <td></td> <td style="text-align:center;">←</td> <td>ANM</td> </tr> <tr> <td>ACK</td> <td style="text-align:center;">→</td> <td></td> <td></td> <td></td> </tr> </tbody> </table> <p style="text-align:center;">Apply post test routine</p>			Mg	→	MGCF	→	ISUP	INVITE	→		→	IAM	181 Being forwarded	←		←	ACM	180 Ringing	←		←	CPG	200 OK INVITE	←		←	ANM	ACK	→			
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ACK	→																																

TP number	TP_403_064	Reference	7.5.4.3 table 7.5.4.3.7																														
TSS reference	IMS-SS/CDIV/																																
Selection criteria	PICS 6.3.1/2 AND PICS 6.3.2/5																																
Test Purpose name	Mapping of ANM Redirection Number Restriction into 200 OK INVITE Privacy header																																
Test Purpose	Ensure that on receipt of an ANM a Redirection Number Restriction parameter is present as an indication a call diversion occurred, a 200 OK INVITE is sent. The Redirection Number Restriction parameter value is mapped into the Privacy header in the sent 200 OK INVITE as indicated in table 6.3.3-27																																
ISUP Parameter values	ACM: Generic notification=call is diverting Call diversion information Redirection number ANM: Event indicator=Alerting Redirection Number Restriction= PRES_restr																																
SIP Parameter values	200 OK INVITE: Privacy= PRIV_value																																
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200 OK INVITE	←		←	ANM																													
ACK	→																																

6.3.4 Conference call (CONF)

TP number	TP_404_001	Reference	7.5.6.2
TSS reference	PSTN-SS/CONF/		
Selection criteria	PICS 6.3.1/2 AND PICS 6.3.2/20 AND PICS 6.3.9/1		
Test Purpose name	'isfocus' parameter and conference URI in Contact header in ACK received, a SUBSCRIBE is sent		
Test Purpose	Ensure that on receipt of an INVITE request and a Contact header field is present containing the conference URI and the 'isfocus' parameter, a SUBSCRIBE request is sent after the ACK was received. The Request URI contains the value received in the Contact header in the ACK, the To header is set to the value sent in the 180 Ringing, the P-Asserted-Identity is set to the value of the P-Asserted-Identity sent in the 180 Ringing or the 200 OK INVITE the Privacy header is sent as in the 180 Ringing or 200 OK INVITE		
ISUP Parameter values			
SIP Parameter values	INVITE: Contact: <conference URI>; isfocus SUBSCRIBE: Request URI derived from the Contact header To: <URI equal to the value in the 180> P-Asserted-Identity: < URI equal to the value in the 180 or 200>		
Comments			
Message flows	Mg	MGCF	ISUP
	INVITE	→	→ IAM
	100 Trying	←	
	180 Ringing	←	← ACM
	200 OK (INVITE)	←	← ANM
	ACK	→	
	SUBSCRIBE	←	
	202 Accepted	→	
	Apply post test routine		

TP number	TP_404_002	Reference	7.5.6.2
TSS reference	PSTN-SS/CONF/		
Selection criteria	PICS 6.3.1/2 AND PICS 6.3.2/20 AND PICS 6.3.9/1		
Test Purpose name	'isfocus' parameter and conference URI in Contact header in 200 OK received, a SUBSCRIBE is sent		
Test Purpose	Ensure that on receipt of a 200 OK INVITE successful final response and a Contact header field is present containing the conference URI and the 'isfocus' parameter, a SUBSCRIBE request is sent. The Request URI contains the value received in the Contact header in the 200 OK, the From header is set to the value sent in the initial INVITE request, the P-Asserted-Identity is set to the value of the P-Asserted-Identity sent in the initial INVITE request the Privacy header is sent as in the initial INVITE		
ISUP Parameter values			
SIP Parameter values	200: Contact: <conference URI>; isfocus SUBSCRIBE: From: <URI equal to the value in the INVITE> P-Asserted-Identity: < URI equal to the value in the INVITE>		
Comments			
Message flows	Mg	MGCF	ISUP
	IAM	→	→ INVITE
			← 100 Trying
	ACM	←	← 180 Ringing
			← 200 OK (INVITE)
			→ ACK
			→ SUBSCRIBE
			← 202 Accepted
	Apply post test routine		

TP number	TP_404_003	Reference	7.5.6.3
TSS reference	PSTN-SS/CONF/		
Selection criteria	PICS 6.3.1/2 AND PICS 6.3.2/20 AND PICS 6.3.9/1		
Test Purpose name	Interworking of notification of 'Conference established' at the I-MGCF		
Test Purpose	Ensure that on receipt of an initial INVITE request and the Contact header contains the isfocus parameter, a SUBSCRIBE request is sent. Ensure that on receipt of a NOTIFY request as a response to the SUBSCRIBE request and a XML conference-info instance is present, the 'conference-state' 'active' element is set to 'true' an ISUP CPG message is set and the Generic notification parameter is set to 'Conference established'		
ISUP Parameter values	CPG: Generic notification Conference established		
SIP Parameter values	INVITE: Contact: <conference URI>; isfocus NOTIFY: Subscription-State: active Event: conference Content-Type: application/conference-info+xml <?xml version="1.0" conference-info conference-state active>true<		
Comments			
Message flows	Mg	MGCF	ISUP
INVITE	→		→ IAM
100 Trying	←		
180 Ringing	←		← ACM
200 OK (INVITE)	←		← ANM
ACK	→		
SUBSCRIBE	←		
202 Accepted	→		
NOTIFY	→		→ CPG
200 OK (NOTIFY)	←		
	Apply post test routine		

TP number	TP_404_004	Reference	7.5.6.3
TSS reference	PSTN-SS/CONF/		
Selection criteria	PICS 6.3.1/2 AND PICS 6.3.2/20 AND PICS 6.3.9/1		
Test Purpose name	Interworking of notification of 'Conference established' at the O-MGCF		
Test Purpose	Ensure that on receipt of an INVITE request after a session was established and the Contact header contains the isfocus parameter, a SUBSCRIBE request is sent. Ensure that on receipt of a NOTIFY request as a response to the SUBSCRIBE request and a XML conference-info instance is present, the 'active' sub element of the 'conference-state' element is set to 'true' an ISUP CPG message is set and the Generic notification parameter is set to ' Conference established '. The INVITE request contains also a Replaces header to terminate the originally session by sending a BYE request		
ISUP Parameter values	CPG: Generic notification Conference established		
SIP Parameter values	INVITE 1: CallID: xxx INVITE 2: CallID: yyy Contact: <conference URI>; isfocus Replaces: xxx; to-tag=<>;from-tag=<> NOTIFY: Subscription-State: active Event: conference Content-Type: application/conference-info+xml <?xml version="1.0" conference-info conference-state active>true< BYE: CallID: xxx		
Comments	Note that the INVITE received in the confirmed dialogue is originated by the conference focus. The originally dialogue have to terminated.		
Message flows	Mg	MGCF	ISUP
	IAM	→	→ INVITE 1 ← 100 Trying ← 180 Ringing
	ACM	←	
	ANM	←	← 200 OK (INVITE) → ACK ← INVITE 2 → 200 OK (INVITE) ← ACK → SUBSCRIBE ← 202 Accepted
	CPG	←	← NOTIFY → 200 OK (NOTIFY) ← BYE → 200 OK (BYE)
			Apply post test routine

TP number	TP_404_005	Reference	7.5.6.3															
TSS reference	PSTN-SS/CONF/																	
Selection criteria	PICS 6.3.1/2 AND PICS 6.3.2/20 AND PICS 6.3.9/1																	
Test Purpose name	Interworking of notification of 'other party added' at the I-MGCF																	
Test Purpose	An established conference is already indicated by receipt of an adequate NOTIFY request at the I-MGCF. Ensure that on receipt of a NOTIFY request and the 'entity' attribute of the 'endpoint' element does not contain the ISUP address as received in the To header and the 'status' sub element of the 'endpoint' element is set to connected , an ISUP CPG message is sent the Generic notification indicator is set to ' other party added '																	
ISUP Parameter values	CPG: Generic notification other party added																	
SIP Parameter values	NOTIFY: To: <ISUP address> Subscription-State: active Event: conference Content-Type: application/conference-info+xml <?xml version="1.0" conference-info users user endpoint entity="<not URI of ISUP>" status>connected<																	
Comments																		
Message flows	<table style="width: 100%; border: none;"> <tr> <td style="text-align: center;">Mg</td> <td style="text-align: center;">MGCF</td> <td style="text-align: center;">ISUP</td> </tr> <tr> <td></td> <td colspan="2" style="text-align: center;">Session is established and joined in a conference</td> </tr> <tr> <td>NOTIFY</td> <td style="text-align: center;">→</td> <td style="text-align: center;">→ CPG</td> </tr> <tr> <td>200 OK (NOTIFY)</td> <td style="text-align: center;">←</td> <td></td> </tr> <tr> <td></td> <td colspan="2" style="text-align: center;">Apply post test routine</td> </tr> </table>			Mg	MGCF	ISUP		Session is established and joined in a conference		NOTIFY	→	→ CPG	200 OK (NOTIFY)	←			Apply post test routine	
Mg	MGCF	ISUP																
	Session is established and joined in a conference																	
NOTIFY	→	→ CPG																
200 OK (NOTIFY)	←																	
	Apply post test routine																	

TP number	TP_404_006	Reference	7.5.6.3															
TSS reference	PSTN-SS/CONF/																	
Selection criteria	PICS 6.3.1/2 AND PICS 6.3.2/20 AND PICS 6.3.9/1																	
Test Purpose name	Interworking of notification of 'other party added' at the O-MGCF																	
Test Purpose	An established conference is already indicated by receipt of an adequate NOTIFY request at the O-MGCF. Ensure that on receipt of a NOTIFY request and the 'entity' attribute of the 'endpoint' element does not contain the ISUP address as received in the To header and the 'status' sub element of the 'endpoint' element is set to connected , an ISUP CPG message is sent the Generic notification indicator is set to ' other party added '																	
ISUP Parameter values	CPG: Generic notification other party added																	
SIP Parameter values	NOTIFY: To: <ISUP address> Subscription-State: active Event: conference Content-Type: application/conference-info+xml <?xml version="1.0" conference-info users user endpoint entity="<not URI of ISUP>" status>connected<																	
Comments																		
Message flows	<table style="width: 100%; border: none;"> <tr> <td style="text-align: center;">Mg</td> <td style="text-align: center;">MGCF</td> <td style="text-align: center;">ISUP</td> </tr> <tr> <td></td> <td colspan="2" style="text-align: center;">Session is established and joined in a conference</td> </tr> <tr> <td>CPG</td> <td style="text-align: center;">←</td> <td style="text-align: center;">← NOTIFY</td> </tr> <tr> <td></td> <td></td> <td style="text-align: center;">→ 200 OK (NOTIFY)</td> </tr> <tr> <td></td> <td colspan="2" style="text-align: center;">Apply post test routine</td> </tr> </table>			Mg	MGCF	ISUP		Session is established and joined in a conference		CPG	←	← NOTIFY			→ 200 OK (NOTIFY)		Apply post test routine	
Mg	MGCF	ISUP																
	Session is established and joined in a conference																	
CPG	←	← NOTIFY																
		→ 200 OK (NOTIFY)																
	Apply post test routine																	

TP number	TP_404_007	Reference	7.5.6.3
TSS reference	PSTN-SS/CONF/		
Selection criteria	PICS 6.3.1/2 AND PICS 6.3.2/20 AND PICS 6.3.9/1		
Test Purpose name	Interworking of notification of 'isolated' at the I-MGCF		
Test Purpose	An established conference is already indicated by receipt of an adequate NOTIFY request at the I-MGCF. Ensure that on receipt of a NOTIFY request and the 'entity' attribute of the 'endpoint' element contains the ISUP address as received in the To header and the 'status' sub element of the 'endpoint' element is set to on-hold , an ISUP CPG message is sent the Generic notification indicator is set to 'isolated'		
ISUP Parameter values	CPG: Generic notification Isolated		
SIP Parameter values	NOTIFY: To: <ISUP address> Subscription-State: active Event: conference Content-Type: application/conference-info+xml <?xml version="1.0" conference-info users user endpoint entity="<URI of ISUP>" status>on-hold<		
Comments			
Message flows	Mg	MGCF	ISUP
	Session is established and joined in a conference		
CASE A			
NOTIFY	→		→ CPG
200 OK (NOTIFY)	←		
CASE B			
NOTIFY	→		→ CPG
200 OK (NOTIFY)	←		
INVITE(sendonly)	→		
200 OK (INVITE)	←		
ACK	→		
	Apply post test routine		

TP number	TP_404_008	Reference	7.5.6.3
TSS reference	PSTN-SS/CONF/		
Selection criteria	PICS 6.3.1/2 AND PICS 6.3.2/20 AND PICS 6.3.9/1		
Test Purpose name	Interworking of notification of 'isolated' at the O-MGCF		
Test Purpose	An established conference is already indicated by receipt of an adequate NOTIFY request at the O-MGCF. Ensure that on receipt of a NOTIFY request and the 'entity' attribute of the 'endpoint' element contains the ISUP address as received in the To header and the 'status' sub element of the 'endpoint' element is set to on-hold , an ISUP CPG message is sent the Generic notification indicator is set to ' isolated '		
ISUP Parameter values	CPG: Generic notification isolated		
SIP Parameter values	NOTIFY: To: <ISUP address> Subscription-State: active Event: conference Content-Type: application/conference-info+xml <?xml version="1.0" conference-info users user endpoint entity="<URI of ISUP>" status>on-hold<		
Comments			
Message flows	Mg	MGCF	ISUP
	Session is established and joined in a conference		
CASE A			
CPG	←		← NOTIFY → 200 OK (NOTIFY)
CASE B			
CPG	←		← NOTIFY → 200 OK (NOTIFY) ← INVITE(sendonly) → 200 OK (INVITE) ← ACK
	Apply post test routine		

TP number	TP_404_009	Reference	7.5.6.3
TSS reference	PSTN-SS/CONF/		
Selection criteria	PICS 6.3.1/2 AND PICS 6.3.2/20 AND PICS 6.3.9/1		
Test Purpose name	Interworking of notification of 'other party isolated' at the I-MGCF		
Test Purpose	An established conference is already indicated by receipt of an adequate NOTIFY request at the I-MGCF. Ensure that on receipt of a NOTIFY request and the 'entity' attribute of the 'endpoint' element does not contain the ISUP address as received in the To header and the 'status' sub element of the 'endpoint' element is set to on-hold , an ISUP CPG message is sent the Generic notification indicator is set to ' other party isolated '		
ISUP Parameter values	CPG: Generic notification other party isolated		
SIP Parameter values	NOTIFY: To: <ISUP address> Subscription-State: active Event: conference Content-Type: application/conference-info+xml <?xml version="1.0" conference-info users user endpoint entity="<not URI of ISUP>" status>on-hold<		
Comments			
Message flows	Mg	MGCF	ISUP
	Session is established and joined in a conference		
NOTIFY			→ CPG
200 OK (NOTIFY)	→		←
	Apply post test routine		

TP number	TP_404_010	Reference	7.5.6.3															
TSS reference	PSTN-SS/CONF/																	
Selection criteria	PICS 6.3.1/2 AND PICS 6.3.2/20 AND PICS 6.3.9/1																	
Test Purpose name	Interworking of notification of 'other party isolated' at the O-MGCF																	
Test Purpose	An established conference is already indicated by receipt of an adequate NOTIFY request at the O-MGCF. Ensure that on receipt of a NOTIFY request and the 'entity' attribute of the 'endpoint' element does not contain the ISUP address as received in the To header and the 'status' sub element of the 'endpoint' element is set to on-hold , an ISUP CPG message is sent the Generic notification indicator is set to 'other party isolated'																	
ISUP Parameter values	CPG: Generic notification other party isolated																	
SIP Parameter values	NOTIFY: To: <ISUP address> Subscription-State: active Event: conference Content-Type: application/conference-info+xml <?xml version="1.0" conference-info users user endpoint entity="<not URI of ISUP>" status>on-hold<																	
Comments																		
Message flows	<table style="width: 100%; border: none;"> <tr> <td style="text-align: center;">Mg</td> <td style="text-align: center;">MGCF</td> <td style="text-align: center;">ISUP</td> </tr> <tr> <td colspan="3" style="text-align: center;">Session is established and joined in a conference</td> </tr> <tr> <td style="text-align: center;">CPG</td> <td style="text-align: center;">←</td> <td style="text-align: center;">← NOTIFY</td> </tr> <tr> <td></td> <td></td> <td style="text-align: center;">→ 200 OK (NOTIFY)</td> </tr> <tr> <td colspan="3" style="text-align: center;">Apply post test routine</td> </tr> </table>			Mg	MGCF	ISUP	Session is established and joined in a conference			CPG	←	← NOTIFY			→ 200 OK (NOTIFY)	Apply post test routine		
Mg	MGCF	ISUP																
Session is established and joined in a conference																		
CPG	←	← NOTIFY																
		→ 200 OK (NOTIFY)																
Apply post test routine																		

TP number	TP_404_011	Reference	7.5.6.3																																				
TSS reference	PSTN-SS/CONF/																																						
Selection criteria	PICS 6.3.1/2 AND PICS 6.3.2/20 AND PICS 6.3.9/1																																						
Test Purpose name	Interworking of notification of 'reattached' at the I-MGCF																																						
Test Purpose	An established conference is already indicated by receipt of an adequate NOTIFY request and isolated at the I-MGCF. Ensure that on receipt of a NOTIFY request and the 'entity' attribute of the 'endpoint' element contains the ISUP address as received in the To header and the 'status' sub element of the 'endpoint' element is set to connected , an ISUP CPG message is sent the Generic notification indicator is set to 'reattached'																																						
ISUP Parameter values	CPG: Generic notification reattached																																						
SIP Parameter values	NOTIFY: To: <ISUP address> Subscription-State: active Event: conference Content-Type: application/conference-info+xml <?xml version="1.0" conference-info users user endpoint entity="<URI of ISUP>" status>connected<																																						
Comments																																							
Message flows	<table style="width: 100%; border: none;"> <tr> <td style="text-align: center;">Mg</td> <td style="text-align: center;">MGCF</td> <td style="text-align: center;">ISUP</td> </tr> <tr> <td colspan="3" style="text-align: center;">Session is established joined in a conference and isolated</td> </tr> <tr> <td colspan="3">CASE A</td> </tr> <tr> <td style="text-align: center;">NOTIFY</td> <td style="text-align: center;">→</td> <td style="text-align: center;">→ CPG</td> </tr> <tr> <td style="text-align: center;">200 OK (NOTIFY)</td> <td style="text-align: center;">←</td> <td></td> </tr> <tr> <td colspan="3">CASE B</td> </tr> <tr> <td style="text-align: center;">NOTIFY</td> <td style="text-align: center;">→</td> <td style="text-align: center;">→ CPG</td> </tr> <tr> <td style="text-align: center;">200 OK (NOTIFY)</td> <td style="text-align: center;">←</td> <td></td> </tr> <tr> <td style="text-align: center;">INVITE(sendrecv)</td> <td style="text-align: center;">→</td> <td></td> </tr> <tr> <td style="text-align: center;">200 OK (INVITE)</td> <td style="text-align: center;">←</td> <td></td> </tr> <tr> <td style="text-align: center;">ACK</td> <td style="text-align: center;">→</td> <td></td> </tr> <tr> <td colspan="3" style="text-align: center;">Apply post test routine</td> </tr> </table>			Mg	MGCF	ISUP	Session is established joined in a conference and isolated			CASE A			NOTIFY	→	→ CPG	200 OK (NOTIFY)	←		CASE B			NOTIFY	→	→ CPG	200 OK (NOTIFY)	←		INVITE(sendrecv)	→		200 OK (INVITE)	←		ACK	→		Apply post test routine		
Mg	MGCF	ISUP																																					
Session is established joined in a conference and isolated																																							
CASE A																																							
NOTIFY	→	→ CPG																																					
200 OK (NOTIFY)	←																																						
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NOTIFY	→	→ CPG																																					
200 OK (NOTIFY)	←																																						
INVITE(sendrecv)	→																																						
200 OK (INVITE)	←																																						
ACK	→																																						
Apply post test routine																																							

TP number	TP_404_012	Reference	7.5.6.3																					
TSS reference	PSTN-SS/CONF/																							
Selection criteria	PICS 6.3.1/2 AND PICS 6.3.2/20 AND PICS 6.3.9/1																							
Test Purpose name	Interworking of notification of 'reattached' at the O-MGCF																							
Test Purpose	An established conference is already indicated by receipt of an adequate NOTIFY request and isolated at the I-MGCF. Ensure that on receipt of a NOTIFY request and the 'entity' attribute of the 'endpoint' element contains the ISUP address as received in the To header and the 'status' sub element of the 'endpoint' element is set to connected , an ISUP CPG message is sent the Generic notification indicator is set to 'reattached'																							
ISUP Parameter values	CPG: Generic notification Reattached																							
SIP Parameter values	NOTIFY: To: <ISUP address> Subscription-State: active Event: conference Content-Type: application/conference-info+xml <?xml version="1.0" conference-info users user endpoint entity="<URI of ISUP>" status>connected<																							
Comments																								
Message flows	<table style="width:100%; border:none;"> <thead> <tr> <th style="text-align:left;">Mg</th> <th style="text-align:center;">MGCF</th> <th style="text-align:right;">ISUP</th> </tr> </thead> <tbody> <tr> <td colspan="3" style="text-align:center;">Session is established joined in a conference and isolated</td> </tr> <tr> <td>CASE A</td> <td></td> <td></td> </tr> <tr> <td>CPG</td> <td style="text-align:center;">←</td> <td style="text-align:right;">← NOTIFY → 200 OK (NOTIFY)</td> </tr> <tr> <td>CASE B</td> <td></td> <td></td> </tr> <tr> <td>CPG</td> <td style="text-align:center;">←</td> <td style="text-align:right;">← NOTIFY → 200 OK (NOTIFY) ← INVITE(sendrecv) → 200 OK (INVITE) ← ACK</td> </tr> <tr> <td colspan="3" style="text-align:right;">Apply post test routine</td> </tr> </tbody> </table>			Mg	MGCF	ISUP	Session is established joined in a conference and isolated			CASE A			CPG	←	← NOTIFY → 200 OK (NOTIFY)	CASE B			CPG	←	← NOTIFY → 200 OK (NOTIFY) ← INVITE(sendrecv) → 200 OK (INVITE) ← ACK	Apply post test routine		
Mg	MGCF	ISUP																						
Session is established joined in a conference and isolated																								
CASE A																								
CPG	←	← NOTIFY → 200 OK (NOTIFY)																						
CASE B																								
CPG	←	← NOTIFY → 200 OK (NOTIFY) ← INVITE(sendrecv) → 200 OK (INVITE) ← ACK																						
Apply post test routine																								

TP number	TP_404_013	Reference	7.5.6.3															
TSS reference	PSTN-SS/CONF/																	
Selection criteria	PICS 6.3.1/2 AND PICS 6.3.2/20 AND PICS 6.3.9/1																	
Test Purpose name	Interworking of notification of 'other party reattached' at the I-MGCF																	
Test Purpose	An established conference is already indicated by receipt of an adequate NOTIFY request and another party is isolated at the I-MGCF. Ensure that on receipt of a NOTIFY request and the 'entity' attribute of the 'endpoint' element does not contain the ISUP address as received in the To header and the 'status' sub element of the 'endpoint' element is set to connected , an ISUP CPG message is sent the Generic notification indicator is set to 'other party reattached'																	
ISUP Parameter values	CPG: Generic notification other party reattached																	
SIP Parameter values	NOTIFY: To: <ISUP address> Subscription-State: active Event: conference Content-Type: application/conference-info+xml <?xml version="1.0" conference-info users user endpoint entity="<not URI of ISUP>" status>connected<																	
Comments																		
Message flows	<table style="width:100%; border:none;"> <thead> <tr> <th style="text-align:left;">Mg</th> <th style="text-align:center;">MGCF</th> <th style="text-align:right;">ISUP</th> </tr> </thead> <tbody> <tr> <td colspan="3" style="text-align:center;">Session is established joined in a conference and another party was isolated</td> </tr> <tr> <td>NOTIFY</td> <td style="text-align:center;">→</td> <td style="text-align:right;">→ CPG</td> </tr> <tr> <td>200 OK (NOTIFY)</td> <td style="text-align:center;">←</td> <td></td> </tr> <tr> <td colspan="3" style="text-align:right;">Apply post test routine</td> </tr> </tbody> </table>			Mg	MGCF	ISUP	Session is established joined in a conference and another party was isolated			NOTIFY	→	→ CPG	200 OK (NOTIFY)	←		Apply post test routine		
Mg	MGCF	ISUP																
Session is established joined in a conference and another party was isolated																		
NOTIFY	→	→ CPG																
200 OK (NOTIFY)	←																	
Apply post test routine																		

TP number	TP_404_014	Reference	7.5.6.3												
TSS reference	PSTN-SS/CONF/														
Selection criteria	PICS 6.3.1/2 AND PICS 6.3.2/20 AND PICS 6.3.9/1														
Test Purpose name	Interworking of notification of 'other party reattached' at the O-MGCF														
Test Purpose	An established conference is already indicated by receipt of an adequate NOTIFY request and another party is isolated at the O-MGCF. Ensure that on receipt of a NOTIFY request and the 'entity' attribute of the 'endpoint' element does not contain the ISUP address as received in the To header and the 'status' sub element of the 'endpoint' element is set to connected , an ISUP CPG message is sent the Generic notification indicator is set to 'other party reattached'														
ISUP Parameter values	CPG: Generic notification other party reattached														
SIP Parameter values	NOTIFY: To: <ISUP address> Subscription-State: active Event: conference Content-Type: application/conference-info+xml <?xml version="1.0" conference-info users user endpoint entity="<not URI of ISUP>" status>connected<														
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Message flows	<table style="width: 100%; border: none;"> <tr> <td style="text-align: center;">Mg</td> <td style="text-align: center;">MGCF</td> <td style="text-align: center;">ISUP</td> </tr> <tr> <td colspan="3" style="text-align: center;">Session is established joined in a conference and another party was isolated</td> </tr> <tr> <td style="text-align: center;">CPG</td> <td style="text-align: center;">←</td> <td style="text-align: center;">← NOTIFY → 200 OK (NOTIFY)</td> </tr> <tr> <td colspan="3" style="text-align: center;">Apply post test routine</td> </tr> </table>			Mg	MGCF	ISUP	Session is established joined in a conference and another party was isolated			CPG	←	← NOTIFY → 200 OK (NOTIFY)	Apply post test routine		
Mg	MGCF	ISUP													
Session is established joined in a conference and another party was isolated															
CPG	←	← NOTIFY → 200 OK (NOTIFY)													
Apply post test routine															

TP number	TP_404_015	Reference	7.5.6.3												
TSS reference	PSTN-SS/CONF/														
Selection criteria	PICS 6.3.1/2 AND PICS 6.3.2/20 AND PICS 6.3.9/1														
Test Purpose name	Interworking of notification of 'other party disconnected' at the I-MGCF														
Test Purpose	An established conference is already indicated by receipt of an adequate NOTIFY request at the I-MGCF. Ensure that on receipt of a NOTIFY request and the 'entity' attribute of the 'endpoint' element does not the ISUP address as received in the To header and the 'status' sub element of the 'endpoint' element is set to dialled-out , an ISUP CPG message is sent the Generic notification indicator is set to 'other party disconnected'														
ISUP Parameter values	CPG: Generic notification other party disconnected														
SIP Parameter values	NOTIFY: To: <ISUP address> Subscription-State: active Event: conference Content-Type: application/conference-info+xml <?xml version="1.0" conference-info users user endpoint entity="<not URI of ISUP>" status>disconnected< joining-method>dialled-in< or joining-method>dialled-out<														
Comments															
Message flows	<table style="width: 100%; border: none;"> <tr> <td style="text-align: center;">Mg</td> <td style="text-align: center;">MGCF</td> <td style="text-align: center;">ISUP</td> </tr> <tr> <td colspan="3" style="text-align: center;">Session is established and joined in a conference</td> </tr> <tr> <td style="text-align: center;">NOTIFY 200 OK (NOTIFY)</td> <td style="text-align: center;">→ ←</td> <td style="text-align: center;">→ CPG</td> </tr> <tr> <td colspan="3" style="text-align: center;">Apply post test routine</td> </tr> </table>			Mg	MGCF	ISUP	Session is established and joined in a conference			NOTIFY 200 OK (NOTIFY)	→ ←	→ CPG	Apply post test routine		
Mg	MGCF	ISUP													
Session is established and joined in a conference															
NOTIFY 200 OK (NOTIFY)	→ ←	→ CPG													
Apply post test routine															

TP number	TP_404_016	Reference	7.5.6.3
TSS reference	PSTN-SS/CONF/		
Selection criteria	PICS 6.3.1/2 AND PICS 6.3.2/20 AND PICS 6.3.9/1		
Test Purpose name	Interworking of notification of 'other party disconnected' at the O-MGCF		
Test Purpose	An established conference is already indicated by receipt of an adequate NOTIFY request at the O-MGCF. Ensure that on receipt of a NOTIFY request and the 'entity' attribute of the 'endpoint' element does not contain the ISUP address as received in the To header and the 'status' sub element of the 'endpoint' element is set to dialled-out , an ISUP CPG message is sent the Generic notification indicator is set to ' other party disconnected '		
ISUP Parameter values	CPG: Generic notification other party disconnected		
SIP Parameter values	NOTIFY: To: <ISUP address> Subscription-State: active Event: conference Content-Type: application/conference-info+xml <?xml version="1.0" conference-info users user endpoint entity="<not URI of ISUP>" status>disconnected< or joining-method>dialled-out<		
Comments			
Message flows	Mg	MGCF	ISUP
		Session is established and joined in a conference	
	CPG	←	← NOTIFY
			→ 200 OK (NOTIFY)
			Apply post test routine

6.3.5 Message Waiting Indication (MWI)

Void.

6.3.6 Malicious Communication Identification (MCID)

TP number	TP_406_001	Reference	7.5.9.1
TSS reference	IMS-SS/MCID/		
Selection criteria	PICS 6.3.1/2 AND PICS 6.3.2/3		
Test Purpose name	Receipt of INFO request an IDR is sent		
Test Purpose	Ensure that on receipt of an INFO request containing a 'mcid' XML element and the 'McidRequestIndicator' subelement is set to XML_McidReq , an ISUP IDR message is sent and the MCID request indicators is set to MCID_req as indicated in table 6.3.6-1		
ISUP Parameter values	IDR: MCID request indicators MCID_req		
SIP Parameter values	INFO: <?xml version="1.0" mcid request> McidRequestIndicator> XML_McidReq </ HoldingIndicator>1</		
Comments			
Message flows	Mg	MGCF	ISUP
	IAM	→	→ INVITE
			← 100 Trying
	IDR	←	← INFO
			→ 200 OK INFO
			Apply post test routine

Table 6.3.6-1: Mapping of XML McidRequestIndicator into ISUP MCID request indicator

	XML_McidReq	MCID_req
VA_01	0	MCID not requested
VA_02	1	MCID requested

TP number	TP_406_002	Reference	7.5.9.1
TSS reference	IMS-SS/MCID/		
Selection criteria	PICS 6.3.1/2 AND PICS 6.3.2/3		
Test Purpose name	Receipt of IRS an INFO request is sent		
Test Purpose	Ensure that on receipt of an IRS message containing a MCID response indicator set to MCID_rsp , an INFO is sent and a MCID XML response element is present. The McidResponseIndicator is set to XML_McidRsp as indicated in table 6.3.6-2		
ISUP Parameter values	IRS: MCID response indicator MCID_rsp		
SIP Parameter values	INFO: <?xml version="1.0" mcid response> McidResponseIndicator> XML_McidRsp </		
Comments			
Message flows	Mg	MGCF	ISUP
	IAM	→	→ INVITE
	ACM	←	← 100 Trying
	IDR		← INFO
			→ 200 OK INFO
	IRS	→	→ INFO
			← 200 OK INFO
	Apply post test routine		

Table 6.3.6-2: Mapping of ISUP MCID response indicator into XML McidResponseIndicator

	MCID_rsp	XML_McidRsp
VA_01	MCID not included	0
VA_02	MCID included	1

TP number	TP_406_003	Reference	7.5.9.1.3
TSS reference	IMS-SS/MCID/		
Selection criteria	PICS 6.3.1/2 AND PICS 6.3.2/3		
Test Purpose name	Receipt of IRS an INFO request is sent, a Calling party number is interworked		
Test Purpose	<p>Ensure that on receipt of an IRS message containing a 'mcid' response indicator is set to MCID included, an INFO request is sent and a MCID XML response element is present the McidResponseIndicator is set to 1</p> <p>A Calling party number 'user provided' or 'network provided' is contained in the IRS a XML mcid OrigPartyIdentity element is present in the INFO request and the URI is derived from the address signals of the calling party number.</p> <p>Nature of address indicator:</p> <ul style="list-style-type: none"> • National (significant) number: add '+' and 'CC' the county code where the SUT is located to the Address signal of the Calling party number and sent in the 'mcid' XML OrigPartyIdentity element. • International number: add '+' to the Address signal of the Calling party number and sent in the 'mcid' XML OrigPartyIdentity element. <p>The Calling party number Address Presentation restriction indicator value APRI_value is mapped into the XML mcid OrigPartyPresentationRestriction is set to XML_orig_restr as indicated in table 6.3.6-3</p>		
ISUP Parameter values	IRS: MCID response indicator MCID included Calling Party number Address presentation restriction indicator= APRI_value Address signal		
SIP Parameter values	INFO: <?xml version="1.0" mcid response> McidResponseIndicator>1</ OrigPartyIdentity> <i>derived from the Calling Party number Address signal</i> </ OrigPartyPresentationRestriction> XML_orig_restr </		
Comments			
Message flows	Mg IAM → ACM ← IDR IRS → Apply post test routine	MGCF	ISUP → INVITE ← 180 Ringing ← INFO → 200 OK INFO → INFO ← 200 OK INFO

Table 6.3.6-3: Mapping of ISUP Calling party number APRI into XML OrigPartyPresentationRestriction

	APRI_value	XML_orig_restr
VA_01	Presentation restricted	true
VA_02	Presentation allowed	false

TP number	TP_406_004	Reference	7.5.9.1.4
TSS reference	IMS-SS/MCID/		
Selection criteria	PICS 6.3.1/2 AND PICS 6.3.2/3		
Test Purpose name	Receipt of IRS an INFO request is sent, an Additional calling party number is interworked		
Test Purpose	<p>Ensure that on receipt of an IRS message containing a 'mcid' response indicator is set to MCID included, an INFO request is sent and a MCID XML response element is present the McidResponseIndicator is set to 1</p> <p>An Additional calling party number 'user provided' or '<i>user provided, not verified</i>' or 'network provided' is contained in the IRS a XML mcid GenericNumber element is present in the INFO request and the URI is derived from the address signals of the Additional calling party number.</p> <p>Nature of address indicator</p> <ul style="list-style-type: none"> • National (significant) number: add '+' and 'CC' the county code where the SUT is located to the Address signal of the Additional calling party number and sent in the 'mcid' XML GenericNumber element. • International number: add '+' to the Address signal of the Additional calling party number and sent in the 'mcid' XML GenericNumber element. <p>The Additional calling party number Address Presentation restriction indicator value APRI_value is mapped into the XML mcid GenericNumberPresentationRestriction is set to XML_gen_restr as indicated in table 6.3.6-4</p>		
ISUP Parameter values	IRS: MCID response indicator MCID included Generic number Additional calling Party number Address presentation restriction indicator= APRI_value Address signal		
SIP Parameter values	INFO: <?xml version="1.0" mcid response> McidResponseIndicator>1</ GenericNumber> <i>derived from the Generic number Address signal</i> </ GenericNumberPresentationRestriction> XML_gen_restr </		
Comments			
Message flows	Mg IAM → ACM ← IDR IRS → Apply post test routine	MGCF	ISUP → INVITE ← 180 Ringing ← INFO → 200 OK INFO → INFO ← 200 OK INFO

Table 6.3.6-4: Mapping of ISUP Additional calling party number APRI into XML GenericNumberPresentationRestriction

	APRI_value	XML_gen_restr
VA_01	Presentation restricted	true
VA_02	Presentation allowed	false

TP number	TP_406_005	Reference	7.5.9.2.2
TSS reference	IMS-SS/MCID/		
Selection criteria	PICS 6.3.1/2 AND PICS 6.3.2/3		
Test Purpose name	ISUP IDR is mapped into INFO request		
Test Purpose	Ensure that on receipt of an ISUP IDR containing a MCID request indicators indicator set to MCID_req , an INFO request is sent. A XML 'mcid' McidRequestIndicator is included set to XML_McidReq as indicated in table 6.3.6-5		
ISUP Parameter values	IDR: MCID request indicators MCID_req		
SIP Parameter values	INFO: <?xml version="1.0" mcid request> McidRequestIndicator> XML_McidReq </ HoldingIndicator>1</		
Comments			
Message flows	Mg	MGCF	ISUP
	INVITE	→	IAM
	100 Trying	←	
	INFO	←	IDR
	200 OK INFO	→	
	Apply post test routine		

Table 6.3.6-5: Mapping of ISUP MCID request indicator into XML McidRequestIndicator

	MCID_req	XML_McidReq
VA_01	MCID not requested	0
VA_02	MCID requested	1

TP number	TP_406_006	Reference	7.5.9.2.3
TSS reference	IMS-SS/MCID/		
Selection criteria	PICS 6.3.1/2 AND PICS 6.3.2/3		
Test Purpose name	INFO request is mapped into ISUP IRS		
Test Purpose	Ensure that on receipt of an INFO request the XML 'mcid' McidResponseIndicator is set to MCID_rsp , an ISUP IRS is sent. The MCID response indicator is set to MCID_rsp as indicated in table 6.3.6-6		
ISUP Parameter values	IRS: MCID response indicator MCID_rsp		
SIP Parameter values	INFO: <?xml version="1.0" mcid response> McidResponseIndicator> XML_McidRsp </		
Comments			
Message flows	Mg	MGCF	ISUP
	INVITE	→	IAM
	100 Trying	←	
	INFO	←	IDR
	200 OK INFO	→	
	INFO	→	IRS
	200 OK INFO	←	
	Apply post test routine		

Table 6.3.6-6: Mapping of XML McidResponseIndicator into ISUP MCID response indicator

	XML_McidRsp	MCID_rsp
VA_01	0	MCID not included
VA_02	1	MCID included

TP number	TP_406_007	Reference	7.5.9.2.3
TSS reference	IMS-SS/MCID/		
Selection criteria	PICS 6.3.1/2 AND PICS 6.3.2/3		
Test Purpose name	XML OrigPartyIdentity is mapped into ISUP IRS Calling Party number		
Test Purpose	<p>Ensure that on receipt of an INFO request the XML 'mcid' McidResponseIndicator is set to MCID_rsp, an ISUP IRS is sent.</p> <p>The XML OrigPartyIdentity is mapped into the Calling party:</p> <ul style="list-style-type: none"> • If the country code of the OrigPartyIdentity URI is equal to the country code where the SUT is located the Nature of address is set to 'National (significant) number', the '+' and the country code is removed from the user part of the XML OrigPartyIdentity URI and send in the Address signals of the Calling party number. • If the country code of the OrigPartyIdentity URI is not equal to the country code where the SUT is located the Nature of address is set to 'International number', the '+' is removed from the user part of the XML OrigPartyIdentity URI and send in the Address signals of the Calling party number. <p>The XML OrigPartyPresentationRestriction value XML_orig_restr is mapped into the Address presentation restriction indicator APRI_value of the Calling party number as indicated in table 6.3.6-7</p>		
ISUP Parameter values	IRS: MCID response indicator MCID included Calling Party number Address presentation restriction indicator= APRI_value Address signal= <i>derived from the OrigPartyIdentity</i>		
SIP Parameter values	INFO: <?xml version="1.0" mcid response> McidResponseIndicator>1</ OrigPartyIdentity> <i>any valid URI</i> </ OrigPartyPresentationRestriction> XML_orig_restr </		
Comments			
Message flows	Mg INVITE → 100 Trying ← INFO ← 200 OK INFO → INFO → 200 OK INFO ←	MGCF 	ISUP → IAM ← IDR → IRS
	Apply post test routine		

Table 6.3.6-7: Mapping of XML OrigPartyPresentationRestriction into ISUP Calling party number APRI

	XML_orig_restr	APRI_value
VA_01	true	Presentation restricted
VA_02	false	Presentation allowed

TP number	TP_406_008	Reference	7.5.9.2.3
TSS reference	IMS-SS/MCID/		
Selection criteria	PICS 6.3.1/2 AND PICS 6.3.2/3		
Test Purpose name	XML GenericNumber is mapped into ISUP IRS Additional calling Party number		
Test Purpose	<p>Ensure that on receipt of an INFO request the XML 'mcid' McidResponseIndicator is set to MCID_rsp, an ISUP IRS is sent.</p> <p>The XML GenericNumber is mapped into the Additional calling party:</p> <ul style="list-style-type: none"> • If the country code of the GenericNumber URI is equal to the country code where the SUT is located the Nature of address is set to 'National (significant) number', the '+' and the country code is removed from the user part of the XML GenericNumber URI and send in the Address signals of the Additional calling party number. • If the country code of the GenericNumber URI is not equal to the country code where the SUT is located the Nature of address is set to 'International number', the '+' is removed from the user part of the XML GenericNumber URI and send in the Address signals of the Additional calling party number. <p>The XML GenericNumberPresentationRestriction value XML_gen_restr is mapped into the Address presentation restriction indicator APRI_value of the Additional calling party number as indicated in table 6.3.6-8</p>		
ISUP Parameter values	IRS: MCID response indicator MCID included Generic number Additional calling Party number Address presentation restriction indicator= APRI_value Address signal		
SIP Parameter values	INFO: <?xml version="1.0" mcid response> McidResponseIndicator>1</ GenericNumber> <i>derived from the Generic number Address signal</i> </ GenericNumberPresentationRestriction> XML_gen_restr </		
Comments			
Message flows	Mg INVITE → 100 Trying ← INFO ← 200 OK INFO → INFO → 200 OK INFO ←	MGCF 	ISUP → IAM ← IDR → IRS
	Apply post test routine		

Table 6.3.6-8: Mapping of XML GenericNumberPresentationRestriction into ISUP Additional calling party number APRI

	XML_gen_restr	APRI_value
VA_01	true	Presentation restricted
VA_02	false	Presentation allowed

6.3.7 Closed User Group (CUG)

TP number	TP_407_001	Reference	7.5.10.1 table 7.5.10.1.1, table 7.5.10.1.2												
TSS reference	IMS-SS/CUG/														
Selection criteria	PICS 6.3.1/2 AND PICS 6.3.2/23														
Test Purpose name	Mapping of the SIP XML CUG Element to the ISUP closed usergroup interlock code parameter														
Test Purpose	Ensure that on receipt of an INVITE request containing the Content-Type application/vnd.etsi.cug+xml and the 'cug' XML body, an IAM is sent. The XML 'networkIndicator' is mapped into the ISUP Closed user group interlock code Network Identity indicator and the XML 'cugInterlockBinaryCode' is mapped into the ISUP Closed user group interlock code Binary code indicator														
ISUP Parameter values	IAM: Optional forward call indicator Closed user group call indicator Closed user group interlock code Network Identity mapped from XML networkIndicator Binary code mapped from XML cugInterlockBinaryCode														
SIP Parameter values	INVITE: Content-Type: application/vnd.etsi.cug+xml <?xml version="1.0" cug networkIndicator=any proper value cugInterlockBinaryCode=any proper value cugCommunicationIndicator														
Comments															
Message flows	<table style="width:100%; border:none;"> <tr> <td style="text-align:center;">Mg</td> <td style="text-align:center;">MGCF</td> <td style="text-align:center;">ISUP</td> </tr> <tr> <td>INVITE</td> <td style="text-align:center;">→</td> <td>IAM</td> </tr> <tr> <td>100 Trying</td> <td style="text-align:center;">←</td> <td></td> </tr> <tr> <td colspan="3" style="text-align:center;">Apply post test routine</td> </tr> </table>			Mg	MGCF	ISUP	INVITE	→	IAM	100 Trying	←		Apply post test routine		
Mg	MGCF	ISUP													
INVITE	→	IAM													
100 Trying	←														
Apply post test routine															

TP number	TP_407_002	Reference	7.5.10.1 table 7.5.10.1.1, table 7.5.10.1.3												
TSS reference	IMS-SS/CUG/														
Selection criteria	PICS 6.3.1/2 AND PICS 6.3.2/23														
Test Purpose name	Mapping of the SIP XML CUG Element to the ISUP <i>closed user group call indicator</i> included in the optional Forward Call Indicator Parameter														
Test Purpose	Ensure that on receipt of an INVITE request containing the Content-Type application/vnd.etsi.cug+xml and the 'cug' XML body, an IAM is sent. The XML 'cugCommunicationIndicator' is mapped into the ISUP Optional forward call indicator Closed user group call indicator as indicated in table 6.3.7-1														
ISUP Parameter values	IAM: Optional forward call indicator Closed user group call indicator= CUG_ind Closed user group interlock code Network Identity Binary code														
SIP Parameter values	INVITE: Content-Type: application/vnd.etsi.cug+xml <?xml version="1.0" cug networkIndicator cugInterlockBinaryCode cugCommunicationIndicator= CUG_COM_ind														
Comments															
Message flows	<table style="width:100%; border:none;"> <tr> <td style="text-align:center;">Mg</td> <td style="text-align:center;">MGCF</td> <td style="text-align:center;">ISUP</td> </tr> <tr> <td>INVITE</td> <td style="text-align:center;">→</td> <td>IAM</td> </tr> <tr> <td>100 Trying</td> <td style="text-align:center;">←</td> <td></td> </tr> <tr> <td colspan="3" style="text-align:center;">Apply post test routine</td> </tr> </table>			Mg	MGCF	ISUP	INVITE	→	IAM	100 Trying	←		Apply post test routine		
Mg	MGCF	ISUP													
INVITE	→	IAM													
100 Trying	←														
Apply post test routine															

Table 6.3.7-1: Mapping of XML `cugCommunicationIndicator` into ISUP Optional forward call indicator Closed user group call indicator

	CUG_COM_ind	CUG_ind
VA_01	00	non-CUG call
VA_02	01	spare
VA_03	10	closed user group call, outgoing access allowed
VA_04	11	closed user group call, outgoing access not allowed

TP number	TP_407_003	Reference	7.5.10.1 table 7.5.10.1.4
TSS reference	IMS-SS/CUG/		
Selection criteria	PICS 6.3.1/2 AND PICS 6.3.2/23		
Test Purpose name	Communication is released if the PSTN/ISDN network does not support CUG, CUG without outgoing access		
Test Purpose	Ensure that on receipt of an INVITE request containing the Content-Type <code>application/vnd.etsi.cug+xml</code> and the 'cug' XML body the <code>cugCommunicationIndicator</code> set to '11', the communication is released with 403 (Forbidden) final response if the PSTN/ISDN network does not support CUG		
ISUP Parameter values			
SIP Parameter values	INVITE: Content-Type: <code>application/vnd.etsi.cug+xml</code> <code><?xml version="1.0"</code> <code> cug</code> <code> networkIndicator</code> <code> cugInterlockBinaryCode</code> <code> cugCommunicationIndicator='11'</code>		
Comments			
Message flows	Mg INVITE 403 Forbidden ACK	MGCF → ← →	ISUP Apply post test routine

TP number	TP_407_004	Reference	7.5.10.1 table 7.5.10.1.4
TSS reference	IMS-SS/CUG/		
Selection criteria	PICS 6.3.1/2 AND PICS 6.3.2/23		
Test Purpose name	Communication is treated as an ordinary call if the PSTN/ISDN network does not support CUG, CUG with outgoing access		
Test Purpose	Ensure that on receipt of an INVITE request containing the Content-Type <code>application/vnd.etsi.cug+xml</code> and the 'cug' XML body the <code>cugCommunicationIndicator</code> set to '10', the communication is treated as an ordinary call if the PSTN/ISDN network does not support CUG. A Closed user group interlock code is not present in the sent IAM		
ISUP Parameter values			
SIP Parameter values	INVITE: Content-Type: <code>application/vnd.etsi.cug+xml</code> <code><?xml version="1.0"</code> <code> cug</code> <code> networkIndicator</code> <code> cugInterlockBinaryCode</code> <code> cugCommunicationIndicator='10'</code>		
Comments			
Message flows	Mg INVITE 100 Trying	MGCF → ←	ISUP → IAM Apply post test routine

TP number	TP_407_005	Reference	7.5.10.1 table 7.5.10.1.4												
TSS reference	IMS-SS/CUG/														
Selection criteria	PICS 6.3.1/2 AND PICS 6.3.2/23														
Test Purpose name	Communication is treated as an ordinary call if the PSTN/ISDN network does not support CUG, Non-CUG call														
Test Purpose	Ensure that on receipt of an INVITE request containing the Content-Type application/vnd.etsi.cug+xml and the 'cug' XML body the cugCommunicationIndicator set to '00', the communication is treated as an ordinary call if the PSTN/ISDN network does not support CUG. A Closed user group interlock code is not present in the sent IAM														
ISUP Parameter values															
SIP Parameter values	INVITE: Content-Type: application/vnd.etsi.cug+xml <?xml version="1.0" cug networkIndicator cugInterlockBinaryCode cugCommunicationIndicator='00'														
Comments															
Message flows	<table style="width: 100%; border: none;"> <tr> <td style="text-align: center;">Mg</td> <td style="text-align: center;">MGCF</td> <td style="text-align: center;">ISUP</td> </tr> <tr> <td>INVITE</td> <td style="text-align: center;">→</td> <td>IAM</td> </tr> <tr> <td>100 Trying</td> <td style="text-align: center;">←</td> <td></td> </tr> <tr> <td colspan="3" style="text-align: center;">Apply post test routine</td> </tr> </table>			Mg	MGCF	ISUP	INVITE	→	IAM	100 Trying	←		Apply post test routine		
Mg	MGCF	ISUP													
INVITE	→	IAM													
100 Trying	←														
Apply post test routine															

TP number	TP_407_006	Reference	7.5.10.2 table 7.5.10.2.2												
TSS reference	IMS-SS/CUG/														
Selection criteria	PICS 6.3.1/2 AND PICS 6.3.2/23														
Test Purpose name	Mapping of the ISUP closed usergroup interlockcode to SIP XML CUG element														
Test Purpose	Ensure that on receipt of an IAM and a Closed user group interlock code parameter is present, an INVITE request is sent. The Network Identity indicator is mapped into the XML networkIndicator element, the Binary code is mapped into the XML cugInterlockBinaryCode														
ISUP Parameter values	IAM: Optional forward call indicator Closed user group call indicator Closed user group interlock code Network Identity=any proper value Binary code=any proper value														
SIP Parameter values	INVITE: Content-Type: application/vnd.etsi.cug+xml <?xml version="1.0" cug networkIndicator= mapped from Network Identity cugInterlockBinaryCode= mapped from Binary code cugCommunicationIndicator														
Comments															
Message flows	<table style="width: 100%; border: none;"> <tr> <td style="text-align: center;">Mg</td> <td style="text-align: center;">MGCF</td> <td style="text-align: center;">ISUP</td> </tr> <tr> <td>IAM</td> <td style="text-align: center;">→</td> <td>INVITE</td> </tr> <tr> <td></td> <td style="text-align: center;">←</td> <td>100 Trying</td> </tr> <tr> <td colspan="3" style="text-align: center;">Apply post test routine</td> </tr> </table>			Mg	MGCF	ISUP	IAM	→	INVITE		←	100 Trying	Apply post test routine		
Mg	MGCF	ISUP													
IAM	→	INVITE													
	←	100 Trying													
Apply post test routine															

TP number	TP_407_007	Reference	7.5.10.2 table 7.5.10.2.3																
TSS reference	IMS-SS/CUG/																		
Selection criteria	PICS 6.3.1/2 AND PICS 6.3.2/23																		
Test Purpose name	Mapping of the ISUP closed usergroup interlockcode to SIP XML CUG element																		
Test Purpose	Ensure that on receipt of an IAM and an Optional forward call indicator is present set to CUG_ind , an INVITE request is sent. The XML cugCommunicationIndicator is mapped from the ISUP Closed user group call indicator set to CUG_ind as indicated in table 6.3.7-2																		
ISUP Parameter values	IAM: Optional forward call indicator Closed user group call indicator= CUG_ind Closed user group interlock code Network Identity Binary code																		
SIP Parameter values	INVITE: Content-Type: application/vnd.etsi.cug+xml <?xml version="1.0" cug networkIndicator cugInterlockBinaryCode cugCommunicationIndicator= CUG_COM_ind																		
Comments																			
Message flows	<table style="width:100%; border:none;"> <tr> <td style="width:25%;"></td> <td style="width:25%; text-align:center;">Mg</td> <td style="width:25%; text-align:center;">MGCF</td> <td style="width:25%; text-align:right;">ISUP</td> </tr> <tr> <td>IAM</td> <td style="text-align:center;">→</td> <td></td> <td style="text-align:right;">→ INVITE</td> </tr> <tr> <td></td> <td></td> <td></td> <td style="text-align:right;">← 100 Trying</td> </tr> <tr> <td colspan="4" style="text-align:center;">Apply post test routine</td> </tr> </table>				Mg	MGCF	ISUP	IAM	→		→ INVITE				← 100 Trying	Apply post test routine			
	Mg	MGCF	ISUP																
IAM	→		→ INVITE																
			← 100 Trying																
Apply post test routine																			

Table 6.3.7-2: Mapping of ISUP Optional forward call indicator Closed user group call indicator into XML cugCommunicationIndicator

	CUG_ind	CUG_COM_ind
VA_01	non-CUG call	00
VA_02	spare	01
VA_03	closed user group call, outgoing access allowed	10
VA_04	closed user group call, outgoing access not allowed	11

TP number	TP_407_008	Reference	7.5.10.2, 1.5.2.4.2/Q.735.1																				
TSS reference	IMS-SS/CUG/																						
Selection criteria	PICS 6.3.1/2 AND PICS 6.3.2/23 AND PICS 6.3.10/1																						
Test Purpose name	Communication is released if the IMS network does not support CUG, CUG without outgoing access																						
Test Purpose	Ensure that on receipt of an IAM and the Optional forward call indicator Closed user group call indicator is set to closed user group call, outgoing access not allowed and the IMS network does not support the CUG supplementary service, a REL is sent and the Cause value is set to #29 Facility rejected the diagnostics indicating CUG without access																						
ISUP Parameter values	IAM: Optional forward call indicator Closed user group call indicator=C UG call, outgoing access not allowed Closed user group interlock code Network Identity Binary code REL: Cause indicator Cause value=29 Diagnostics=3																						
SIP Parameter values																							
Comments																							
Message flows	<table style="width:100%; border:none;"> <tr> <td style="width:25%;"></td> <td style="width:25%; text-align:center;">Mg</td> <td style="width:25%; text-align:center;">MGCF</td> <td style="width:25%; text-align:right;">ISUP</td> </tr> <tr> <td>IAM</td> <td style="text-align:center;">→</td> <td></td> <td></td> </tr> <tr> <td>REL</td> <td style="text-align:center;">←</td> <td></td> <td></td> </tr> <tr> <td>RLC</td> <td style="text-align:center;">→</td> <td></td> <td></td> </tr> <tr> <td colspan="4" style="text-align:center;">Apply post test routine</td> </tr> </table>				Mg	MGCF	ISUP	IAM	→			REL	←			RLC	→			Apply post test routine			
	Mg	MGCF	ISUP																				
IAM	→																						
REL	←																						
RLC	→																						
Apply post test routine																							

TP number	TP_407_009	Reference	7.5.10.2, 1.5.2.4.2/Q.735.1																								
TSS reference	IMS-SS/CUG/																										
Selection criteria	PICS 6.3.1/2 AND PICS 6.3.2/23 AND PICS 6.3.10/1																										
Test Purpose name	Communication is treated as an ordinary call if the IMS network does not support CUG, CUG with outgoing access																										
Test Purpose	Ensure that on receipt of an IAM and the Optional forward call indicator Closed user group call indicator is set to closed user group call, outgoing access allowed and the IMS network does not support the CUG supplementary service, the communication is treated as an ordinary call																										
ISUP Parameter values	IAM: Optional forward call indicator Closed user group call indicator=C UG call, outgoing access allowed Closed user group interlock code Network Identity Binary code																										
SIP Parameter values																											
Comments																											
Message flows	<table style="width: 100%; border: none;"> <tr> <td style="width: 25%;"></td> <td style="text-align: center;">Mg</td> <td style="width: 50%;"></td> <td style="text-align: center;">MGCF</td> <td style="width: 25%;"></td> <td style="text-align: center;">ISUP</td> </tr> <tr> <td>IAM</td> <td style="text-align: center;">→</td> <td></td> <td></td> <td style="text-align: center;">→</td> <td>INVITE</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td style="text-align: center;">←</td> <td>100 Trying</td> </tr> <tr> <td colspan="6" style="text-align: center;">Apply post test routine</td> </tr> </table>				Mg		MGCF		ISUP	IAM	→			→	INVITE					←	100 Trying	Apply post test routine					
	Mg		MGCF		ISUP																						
IAM	→			→	INVITE																						
				←	100 Trying																						
Apply post test routine																											

6.3.8 CCBS/CCNR

TP number	TP_408_001	Reference	7.5.11.1, table 7.5.11.1.1																								
TSS reference	IMS-SS/CC/																										
Selection criteria	PICS 6.3.1/2 AND PICS 6.3.2/24																										
Test Purpose name	Mapping of CCNR possible indication in the ACM																										
Test Purpose	Ensure that on receipt of an ACM and a CCNR possible indicator is present set to 'CCNR possible' a 180 Ringing is sent. A Call-Info header is present, the URI is derived from the Called party number, the purpose parameter is set to 'call-completion', the m parameter is set to 'NR'																										
ISUP Parameter values	IAM: Called party number Number digits ACM: Called party status Subscriber free CCNR possible indicator CCNR possible																										
SIP Parameter values	180: Call-Info: <sip:Called party number digits>;purpose=call-completion;m=NR																										
Comments																											
Message flows	<table style="width: 100%; border: none;"> <tr> <td style="width: 25%;"></td> <td style="text-align: center;">Mg</td> <td style="width: 50%;"></td> <td style="text-align: center;">MGCF</td> <td style="width: 25%;"></td> <td style="text-align: center;">ISUP</td> </tr> <tr> <td>INVITE</td> <td style="text-align: center;">→</td> <td></td> <td></td> <td style="text-align: center;">→</td> <td>IAM</td> </tr> <tr> <td>180 Ringing</td> <td style="text-align: center;">←</td> <td></td> <td></td> <td style="text-align: center;">←</td> <td>ACM</td> </tr> <tr> <td colspan="6" style="text-align: center;">Apply post test routine</td> </tr> </table>				Mg		MGCF		ISUP	INVITE	→			→	IAM	180 Ringing	←			←	ACM	Apply post test routine					
	Mg		MGCF		ISUP																						
INVITE	→			→	IAM																						
180 Ringing	←			←	ACM																						
Apply post test routine																											

TP number	TP_408_002	Reference	7.5.11.1, table 7.5.11.1.1
TSS reference	IMS-SS/CC/		
Selection criteria	PICS 6.3.1/2 AND PICS 6.3.2/24		
Test Purpose name	Mapping of CCNR possible indication in the CPG		
Test Purpose	Ensure that on receipt of an CPG Event indicator set to 'Alerting' and a CCNR possible indicator is present set to 'CCNR possible' a 180 Ringing is sent. A Call-Info header is present, the URI is derived from the Called party number, the purpose parameter is set to 'call-completion', the m parameter is set to 'NR'		
ISUP Parameter values	IAM: Called party number Number digits ACM: Called party status No indication CPG: Event indicator Alerting CCNR possible indicator CCNR possible		
SIP Parameter values	180: Call-Info: <sip:Called party number digits>;purpose=call-completion;m=NR		
Comments			
Message flows	Mg INVITE → 180 Ringing ←	MGCF → ← Apply post test routine	ISUP → IAM ← ACM(no indication) ← CPG(Alerting)

TP number	TP_408_003	Reference	7.5.11.1, table 7.5.11.1.1
TSS reference	IMS-SS/CC/		
Selection criteria	PICS 6.3.1/2 AND PICS 6.3.2/24		
Test Purpose name	Mapping of CCBS possible indication in the REL		
Test Purpose	Ensure that on receipt of an REL message Cause #17 and a CCBS possible indicator in the Diagnostic field is set to 'CCBS possible' a 486 Busy here is sent. A Call-Info header is present, the URI is derived from the Called party number, the purpose parameter is set to 'call-completion', the m parameter is set to 'BS'		
ISUP Parameter values	IAM: Called party number Number digits REL: Cause indicator Cause = 17 Diagnostic CCBS possible		
SIP Parameter values	486: Call-Info: <sip:Called party number digits>;purpose=call-completion;m=BS		
Comments			
Message flows	Mg INVITE → 486 Busy here ← ACK →	MGCF → ← Apply post test routine	ISUP → IAM ← REL ← RLC

TP number	TP_408_004	Reference	7.5.11.1, table 7.5.11.1.1
TSS reference	IMS-SS/CC/		
Selection criteria	PICS 6.3.1/2 AND PICS 6.3.2/24		
Test Purpose name	Mapping of m parameter in the INVITE request URI into CCSS parameter in the IAM		
Test Purpose	Ensure that on receipt of an INVITE request and a m parameter set to 'BS' or 'NR' an IAM is sent and the CCSS call indicator parameter is present and the value is set to 'CCSS call'		
ISUP Parameter values	IAM: CCSS call indicator CCSS call		
SIP Parameter values	INVITE: <Request URI>;m=NR or ;m=BS		
Comments			
Message flows	Mg INVITE → 100 Trying ←	MGCF → ← Apply post test routine	ISUP → IAM

TP number	TP_408_005	Reference	7.5.11.1, table 7.5.11.1.1									
TSS reference	IMS-SS/CC/											
Selection criteria	PICS 6.3.1/2 AND PICS 6.3.2/24											
Test Purpose name	Mapping of Call-Info header in the INVITE into CCSS parameter in the IAM											
Test Purpose	Ensure that on receipt of an INVITE request and a Call-Info header is present the purpose parameter is set to 'call-completion' and the m parameter set to 'BS' or 'NR' an IAM is sent and the CCSS call indicator parameter is present and the value is set to 'CCSS call'											
ISUP Parameter values	IAM: CCSS call indicator CCSS call											
SIP Parameter values	INVITE: <Request URI> Call-Info: <sip:Called party number digits>;purpose=call-completion; m=BS or NR											
Comments												
Message flows	<table style="width: 100%; border: none;"> <tr> <td style="text-align: center;">Mg</td> <td style="text-align: center;">MGCF</td> <td style="text-align: center;">ISUP</td> </tr> <tr> <td>INVITE</td> <td style="text-align: center;">→</td> <td>→ IAM</td> </tr> <tr> <td>100 Trying</td> <td style="text-align: center;">←</td> <td></td> </tr> </table> <p style="text-align: center;">Apply post test routine</p>			Mg	MGCF	ISUP	INVITE	→	→ IAM	100 Trying	←	
Mg	MGCF	ISUP										
INVITE	→	→ IAM										
100 Trying	←											

TP number	TP_408_006	Reference	7.5.11.1, table 7.5.11.1.2									
TSS reference	IMS-SS/CC/											
Selection criteria	PICS 6.3.1/2 AND PICS 6.3.2/24											
Test Purpose name	Invocation of CCBS in the I-MGCF											
Test Purpose	Ensure that on receipt of a SUBSCRIBE request the Request URI contains the m parameter set to 'BS' and Event header field contains the value 'call-completion', a SCCP UDT or XUDT is sent containing a TC-Begin REQUEST invoke Data field. The TC-Begin REQUEST invoke CalledPartyNumber is derived from the To header, the CallingPartyNumber is derived from the From header and the RetainSupported is set to 'TRUE'											
TCAP Parameter values	TC Begin CCBS REQUEST invoke CalledPartyNumber derived from the To header CallingPartyNumber derived from the P-Asserted-Identity header RetainSupported TRUE											
SIP Parameter values	SUBSCRIBE: <Request URI>, m=BS Event: call-completion											
Comments												
Message flows	<table style="width: 100%; border: none;"> <tr> <td style="text-align: center;">Mg</td> <td style="text-align: center;">MGCF</td> <td style="text-align: center;">SCCP</td> </tr> <tr> <td>SUBSCRIBE</td> <td style="text-align: center;">→</td> <td>→ (X)UDT (TC-Begin)</td> </tr> <tr> <td>202 Accepted</td> <td style="text-align: center;">←</td> <td></td> </tr> </table> <p style="text-align: center;">Apply post test routine</p>			Mg	MGCF	SCCP	SUBSCRIBE	→	→ (X)UDT (TC-Begin)	202 Accepted	←	
Mg	MGCF	SCCP										
SUBSCRIBE	→	→ (X)UDT (TC-Begin)										
202 Accepted	←											

TP number	TP_408_007	Reference	7.5.11.1, table 7.5.11.1.2									
TSS reference	IMS-SS/CC/											
Selection criteria	PICS 6.3.1/2 AND PICS 6.3.2/24											
Test Purpose name	Invocation of CCBS in the I-MGCF											
Test Purpose	Ensure that on receipt of a SUBSCRIBE and the Event header field contains the value 'call-completion' and a Call-Info header with purpose parameter set to call-completion and m parameter set to 'BS', a SCCP UDT or XU DT is sent containing a TC-Begin REQUEST invoke Data field. The TC-Begin REQUEST invoke CalledPartyNumber is derived from the To header, the CallingPartyNumber is derived from the From header and the RetainSupported is set to 'TRUE'											
TCAP Parameter values	TC Begin CCBS REQUEST invoke CalledPartyNumber derived from the To header CallingPartyNumber derived from the P-Asserted-Identity header RetainSupported TRUE											
SIP Parameter values	SUBSCRIBE: <Request URI> Event: call-completion Call-Info: <sip:Calling party number digits>;purpose=call-completion; m=BS											
Comments												
Message flows	<table style="width: 100%; border: none;"> <tr> <td style="text-align: center;">Mg</td> <td style="text-align: center;">MGCF</td> <td style="text-align: center;">SCCP</td> </tr> <tr> <td>SUBSCRIBE</td> <td style="text-align: center;">→</td> <td style="text-align: center;">→ (X)UDT (TC-Begin)</td> </tr> <tr> <td>202 Accepted</td> <td style="text-align: center;">←</td> <td></td> </tr> </table> <p style="text-align: center;">Apply post test routine</p>			Mg	MGCF	SCCP	SUBSCRIBE	→	→ (X)UDT (TC-Begin)	202 Accepted	←	
Mg	MGCF	SCCP										
SUBSCRIBE	→	→ (X)UDT (TC-Begin)										
202 Accepted	←											

TP number	TP_408_008	Reference	7.5.11.1, table 7.5.11.1.2									
TSS reference	IMS-SS/CC/											
Selection criteria	PICS 6.3.1/2 AND PICS 6.3.2/24											
Test Purpose name	Invocation of CCNR in the I-MGCF											
Test Purpose	Ensure that on receipt of a SUBSCRIBE request the Request URI contains the m parameter set to 'NR' and Event header field contains the value 'call-completion', a SCCP UDT or XU DT is sent containing a TC-Begin REQUEST invoke Data field. The TC-Begin REQUEST invoke CalledPartyNumber is derived from the To header, the CallingPartyNumber is derived from the From header and the RetainSupported is set to 'TRUE'											
TCAP Parameter values	TC Begin CCBS REQUEST invoke CalledPartyNumber derived from the To header CallingPartyNumber derived from the P-Asserted-Identity header RetainSupported TRUE											
SIP Parameter values	SUBSCRIBE: <Request URI>, m=NR Event: call-completion											
Comments												
Message flows	<table style="width: 100%; border: none;"> <tr> <td style="text-align: center;">Mg</td> <td style="text-align: center;">MGCF</td> <td style="text-align: center;">SCCP</td> </tr> <tr> <td>SUBSCRIBE</td> <td style="text-align: center;">→</td> <td style="text-align: center;">→ (X)UDT (TC-Begin)</td> </tr> <tr> <td>202 Accepted</td> <td style="text-align: center;">←</td> <td></td> </tr> </table> <p style="text-align: center;">Apply post test routine</p>			Mg	MGCF	SCCP	SUBSCRIBE	→	→ (X)UDT (TC-Begin)	202 Accepted	←	
Mg	MGCF	SCCP										
SUBSCRIBE	→	→ (X)UDT (TC-Begin)										
202 Accepted	←											

TP number	TP_408_009	Reference	7.5.11.1, table 7.5.11.1.2												
TSS reference	IMS-SS/CC/														
Selection criteria	PICS 6.3.1/2 AND PICS 6.3.2/24														
Test Purpose name	Invocation of CCNR in the I-MGCF														
Test Purpose	Ensure that on receipt of a SUBSCRIBE and the Event header field contains the value 'call-completion' and a Call-Info header with purpose parameter set to call-completion and m parameter set to 'NR', a SCCP UDT or XUDDT is sent containing a TC-Begin REQUEST invoke Data field. The TC-Begin REQUEST invoke CalledPartyNumber is derived from the To header, the CallingPartyNumber is derived from the From header and the RetainSupported is set to 'TRUE'														
TCAP Parameter values	TC Begin CCBS REQUEST invoke CalledPartyNumber derived from the To header CallingPartyNumber derived from the P-Asserted-Identity header RetainSupported TRUE														
SIP Parameter values	SUBSCRIBE: <Request URI> Event: call-completion Call-Info: <sip:Calling party number digits>;purpose=call-completion; m=BS														
Comments															
Message flows	<table style="width: 100%; border: none;"> <tr> <td style="text-align: center;">Mg</td> <td style="text-align: center;">MGCF</td> <td style="text-align: center;">SCCP</td> </tr> <tr> <td>SUBSCRIBE</td> <td style="text-align: center;">→</td> <td style="text-align: center;">→ (X)UDT (TC-Begin)</td> </tr> <tr> <td>202 Accepted</td> <td style="text-align: center;">←</td> <td></td> </tr> <tr> <td colspan="3" style="text-align: center;">Apply post test routine</td> </tr> </table>			Mg	MGCF	SCCP	SUBSCRIBE	→	→ (X)UDT (TC-Begin)	202 Accepted	←		Apply post test routine		
Mg	MGCF	SCCP													
SUBSCRIBE	→	→ (X)UDT (TC-Begin)													
202 Accepted	←														
Apply post test routine															

TP number	TP_408_010	Reference	7.5.11.1, table 7.5.11.1.2															
TSS reference	IMS-SS/CC/																	
Selection criteria	PICS 6.3.1/2 AND PICS 6.3.2/24																	
Test Purpose name	PUBLISH with m=BS and PIDF basic status "closed" is interworked into CCBS SUSPEND																	
Test Purpose	Ensure that on receipt of a PUBLISH request and a m parameter is present in the Request line is set to 'BS' the Event header field contains the value 'presence', and a PIDF XML MIME body is present the presence status set to 'closed', a SCCP UDT or XUDDT is sent containing a TC-Cont CCBS SUSPEND Data field																	
TCAP Parameter values	TC-Cont: CCBS SUSPEND																	
SIP Parameter values	PUBLISH: <Request URI>; m=BS Event: presence Content-Type: application/pidf+xml <?xml version="1.0" encoding="UTF-8"?> <presence <status> <basic>closed</basic>																	
Comments	Note the XML semantic is schematically the alias is not considered																	
Message flows	<table style="width: 100%; border: none;"> <tr> <td style="text-align: center;">Mg</td> <td style="text-align: center;">MGCF</td> <td style="text-align: center;">SCCP</td> </tr> <tr> <td colspan="3" style="text-align: center;">Invoke a successful CCBS request and remote user is now free</td> </tr> <tr> <td>PUBLISH</td> <td style="text-align: center;">→</td> <td style="text-align: center;">→ (X)UDT (TC-Cont)</td> </tr> <tr> <td>200 OK (PUBLISH)</td> <td style="text-align: center;">←</td> <td></td> </tr> <tr> <td colspan="3" style="text-align: center;">Apply post test routine</td> </tr> </table>			Mg	MGCF	SCCP	Invoke a successful CCBS request and remote user is now free			PUBLISH	→	→ (X)UDT (TC-Cont)	200 OK (PUBLISH)	←		Apply post test routine		
Mg	MGCF	SCCP																
Invoke a successful CCBS request and remote user is now free																		
PUBLISH	→	→ (X)UDT (TC-Cont)																
200 OK (PUBLISH)	←																	
Apply post test routine																		

TP number	TP_408_011	Reference	7.5.11.1, table 7.5.11.1.2															
TSS reference	IMS-SS/CC/																	
Selection criteria	PICS 6.3.1/2 AND PICS 6.3.2/24																	
Test Purpose name	PUBLISH with m=BS and PIDF basic status "closed" is interworked into CCBS SUSPEND																	
Test Purpose	Ensure that on receipt of a PUBLISH request the Event header field contains the value 'presence' and a Call-Info header with purpose parameter ser to call-completion and m parameter set to 'BS' and a PIDF XML MIME body is present the presence status set to 'closed', a SCCP UDT or XUdT is sent containing a TC-Cont CCBS SUSPEND Data field																	
TCAP Parameter values	TC-Cont: CCBS SUSPEND																	
SIP Parameter values	PUBLISH: <Request URI> Event: presence Call-Info: <sip:Calling party number digits>;purpose=call-completion; m=BS Content-Type: application/pidf+xml <?xml version="1.0" encoding="UTF-8"?> <presence <status> <basic>closed</basic>																	
Comments	Note the XML semantic is schematically the alias is not considered																	
Message flows	<table style="width:100%; border:none;"> <tr> <td style="text-align:center;">Mg</td> <td style="text-align:center;">MGCF</td> <td style="text-align:center;">SCCP</td> </tr> <tr> <td colspan="3" style="text-align:center;">Invoke a successful CCBS request and remote user is now free</td> </tr> <tr> <td>PUBLISH</td> <td style="text-align:center;">→</td> <td style="text-align:center;">→ (X)UDT (TC-Cont)</td> </tr> <tr> <td>200 OK (PUBLISH)</td> <td style="text-align:center;">←</td> <td></td> </tr> <tr> <td colspan="3" style="text-align:center;">Apply post test routine</td> </tr> </table>			Mg	MGCF	SCCP	Invoke a successful CCBS request and remote user is now free			PUBLISH	→	→ (X)UDT (TC-Cont)	200 OK (PUBLISH)	←		Apply post test routine		
Mg	MGCF	SCCP																
Invoke a successful CCBS request and remote user is now free																		
PUBLISH	→	→ (X)UDT (TC-Cont)																
200 OK (PUBLISH)	←																	
Apply post test routine																		

TP number	TP_408_012	Reference	7.5.11.1, table 7.5.11.1.2															
TSS reference	IMS-SS/CC/																	
Selection criteria	PICS 6.3.1/2 AND PICS 6.3.2/24																	
Test Purpose name	PUBLISH with m=BS and PIDF basic status "open" is interworked into CCBS RESUME																	
Test Purpose	Ensure that on receipt of a PUBLISH request and a m parameter is present in the Request line is set to 'BS' the Event header field contains the value 'presence' and a PIDF XML MIME body is present the presence status set to 'open', a SCCP UDT or XUdT is sent containing a TC-Cont CCBS RESUME Data field																	
TCAP Parameter values	TC-Cont: CCBS RESUME																	
SIP Parameter values	PUBLISH: <Request URI>; m=BS Event: presence Content-Type: application/pidf+xml <?xml version="1.0" encoding="UTF-8"?> <presence <status> <basic>open</basic>																	
Comments	Note the XML semantic is schematically the alias is not considered																	
Message flows	<table style="width:100%; border:none;"> <tr> <td style="text-align:center;">Mg</td> <td style="text-align:center;">MGCF</td> <td style="text-align:center;">SCCP</td> </tr> <tr> <td colspan="3" style="text-align:center;">Successful CCBS request and remote user is free originating user suspended</td> </tr> <tr> <td>PUBLISH</td> <td style="text-align:center;">→</td> <td style="text-align:center;">→ (X)UDT (TC-Cont)</td> </tr> <tr> <td>200 OK (PUBLISH)</td> <td style="text-align:center;">←</td> <td></td> </tr> <tr> <td colspan="3" style="text-align:center;">Apply post test routine</td> </tr> </table>			Mg	MGCF	SCCP	Successful CCBS request and remote user is free originating user suspended			PUBLISH	→	→ (X)UDT (TC-Cont)	200 OK (PUBLISH)	←		Apply post test routine		
Mg	MGCF	SCCP																
Successful CCBS request and remote user is free originating user suspended																		
PUBLISH	→	→ (X)UDT (TC-Cont)																
200 OK (PUBLISH)	←																	
Apply post test routine																		

TP number	TP_408_013	Reference	7.5.11.1, table 7.5.11.1.2															
TSS reference	IMS-SS/CC/																	
Selection criteria	PICS 6.3.1/2 AND PICS 6.3.2/24																	
Test Purpose name	PUBLISH with m=BS and PIDF basic status "open" is interworked into CCBS RESUME																	
Test Purpose	Ensure that on receipt of a PUBLISH request and the Event header field contains the value 'presence', a Call-Info header with purpose parameter set to call-completion and m parameter set to 'BS' and a PIDF XML MIME body is present the presence status set to 'open', a SCCP UDT or XUDDT is sent containing a TC-Cont CCBS RESUME Data field																	
TCAP Parameter values	TC-Cont: CCBS RESUME																	
SIP Parameter values	PUBLISH: <Request URI> Event: presence Call-Info: <sip:Calling party number digits>;purpose=call-completion; m=BS Content-Type: application/pidf+xml <?xml version="1.0" encoding="UTF-8"?> <presence <status> <basic>open</basic>																	
Comments	Note the XML semantic is schematically the alias is not considered																	
Message flows	<table style="width:100%; border:none;"> <tr> <td style="text-align:center;">Mg</td> <td style="text-align:center;">MGCF</td> <td style="text-align:center;">SCCP</td> </tr> <tr> <td colspan="3" style="text-align:center;">Successful CCBS request and remote user is free originating user suspended</td> </tr> <tr> <td>PUBLISH</td> <td style="text-align:center;">→</td> <td style="text-align:center;">→ (X)UDT (TC-Cont)</td> </tr> <tr> <td>200 OK (PUBLISH)</td> <td style="text-align:center;">←</td> <td></td> </tr> <tr> <td colspan="3" style="text-align:center;">Apply post test routine</td> </tr> </table>			Mg	MGCF	SCCP	Successful CCBS request and remote user is free originating user suspended			PUBLISH	→	→ (X)UDT (TC-Cont)	200 OK (PUBLISH)	←		Apply post test routine		
Mg	MGCF	SCCP																
Successful CCBS request and remote user is free originating user suspended																		
PUBLISH	→	→ (X)UDT (TC-Cont)																
200 OK (PUBLISH)	←																	
Apply post test routine																		

TP number	TP_408_014	Reference	7.5.11.1, table 7.5.11.1.2															
TSS reference	IMS-SS/CC/																	
Selection criteria	PICS 6.3.1/2 AND PICS 6.3.2/24																	
Test Purpose name	PUBLISH with m=NR and PIDF basic status "closed" is interworked into CCBS SUSPEND																	
Test Purpose	Ensure that on receipt of a PUBLISH request and a m parameter is present in the Request line is set to 'NR' the Event header field contains the value 'presence' and a PIDF XML MIME body is present the presence status set to 'closed', a SCCP UDT or XUDDT is sent containing a TC-Cont CCBS SUSPEND Data field																	
TCAP Parameter values	TC-Cont: CCBS SUSPEND																	
SIP Parameter values	PUBLISH: <Request URI>; m=NR Event: presence Content-Type: application/pidf+xml <?xml version="1.0" encoding="UTF-8"?> <presence <status> <basic>closed</basic>																	
Comments	Note the XML semantic is schematically the alias is not considered																	
Message flows	<table style="width:100%; border:none;"> <tr> <td style="text-align:center;">Mg</td> <td style="text-align:center;">MGCF</td> <td style="text-align:center;">SCCP</td> </tr> <tr> <td colspan="3" style="text-align:center;">Invoke a successful CCNR request and remote user is now free</td> </tr> <tr> <td>PUBLISH</td> <td style="text-align:center;">→</td> <td style="text-align:center;">→ (X)UDT (TC-Cont)</td> </tr> <tr> <td>200 OK (PUBLISH)</td> <td style="text-align:center;">←</td> <td></td> </tr> <tr> <td colspan="3" style="text-align:center;">Apply post test routine</td> </tr> </table>			Mg	MGCF	SCCP	Invoke a successful CCNR request and remote user is now free			PUBLISH	→	→ (X)UDT (TC-Cont)	200 OK (PUBLISH)	←		Apply post test routine		
Mg	MGCF	SCCP																
Invoke a successful CCNR request and remote user is now free																		
PUBLISH	→	→ (X)UDT (TC-Cont)																
200 OK (PUBLISH)	←																	
Apply post test routine																		

TP number	TP_408_015	Reference	7.5.11.1, table 7.5.11.1.2															
TSS reference	IMS-SS/CC/																	
Selection criteria	PICS 6.3.1/2 AND PICS 6.3.2/24																	
Test Purpose name	PUBLISH with m=NR and PIDF basic status "closed" is interworked into CCBS SUSPEND																	
Test Purpose	Ensure that on receipt of a PUBLISH request the Event header field contains the value 'presence', a Call-Info header with purpose parameter set to call-completion and m parameter set to 'NR' and a PIDF XML MIME body is present the presence status set to 'closed', a SCCP UDT or XUDT is sent containing a TC-Cont CCBS SUSPEND Data field																	
TCAP Parameter values	TC-Cont: CCBS SUSPEND																	
SIP Parameter values	PUBLISH: <Request URI> Event: presence Call-Info: <sip:Calling party number digits>;purpose=call-completion; m=BS Content-Type: application/pidf+xml <?xml version="1.0" encoding="UTF-8"?> <presence <status> <basic>closed</basic>																	
Comments	Note the XML semantic is schematically the alias is not considered																	
Message flows	<table style="width: 100%; border: none;"> <tr> <td style="text-align: center;">Mg</td> <td style="text-align: center;">MGCF</td> <td style="text-align: center;">SCCP</td> </tr> <tr> <td colspan="3" style="text-align: center;">Invoke a successful CCNR request and remote user is now free</td> </tr> <tr> <td>PUBLISH</td> <td style="text-align: center;">→</td> <td style="text-align: center;">→ (X)UDT (TC-Cont)</td> </tr> <tr> <td>200 OK (PUBLISH)</td> <td style="text-align: center;">←</td> <td></td> </tr> <tr> <td colspan="3" style="text-align: center;">Apply post test routine</td> </tr> </table>			Mg	MGCF	SCCP	Invoke a successful CCNR request and remote user is now free			PUBLISH	→	→ (X)UDT (TC-Cont)	200 OK (PUBLISH)	←		Apply post test routine		
Mg	MGCF	SCCP																
Invoke a successful CCNR request and remote user is now free																		
PUBLISH	→	→ (X)UDT (TC-Cont)																
200 OK (PUBLISH)	←																	
Apply post test routine																		

TP number	TP_408_016	Reference	7.5.11.1, table 7.5.11.1.2															
TSS reference	IMS-SS/CC/																	
Selection criteria	PICS 6.3.1/2 AND PICS 6.3.2/24																	
Test Purpose name	PUBLISH with m=NR and PIDF basic status "open" is interworked into CCBS RESUME																	
Test Purpose	Ensure that on receipt of a PUBLISH request and a m parameter is present in the Request line is set to 'NR' the Event header field contains the value 'presence' and a PIDF XML MIME body is present the presence status set to 'open', a SCCP UDT or XUDT is sent containing a TC-Cont CCBS RESUME Data field																	
TCAP Parameter values	TC-Cont: CCBS RESUME																	
SIP Parameter values	PUBLISH: <Request URI>; m=NR Event: presence Content-Type: application/pidf+xml <?xml version="1.0" encoding="UTF-8"?> <presence <status> <basic>open</basic>																	
Comments	Note the XML semantic is schematically the alias is not considered																	
Message flows	<table style="width: 100%; border: none;"> <tr> <td style="text-align: center;">Mg</td> <td style="text-align: center;">MGCF</td> <td style="text-align: center;">SCCP</td> </tr> <tr> <td colspan="3" style="text-align: center;">Successful CCNR request and remote user is free originating user suspended</td> </tr> <tr> <td>PUBLISH</td> <td style="text-align: center;">→</td> <td style="text-align: center;">→ (X)UDT (TC-Cont)</td> </tr> <tr> <td>200 OK (PUBLISH)</td> <td style="text-align: center;">←</td> <td></td> </tr> <tr> <td colspan="3" style="text-align: center;">Apply post test routine</td> </tr> </table>			Mg	MGCF	SCCP	Successful CCNR request and remote user is free originating user suspended			PUBLISH	→	→ (X)UDT (TC-Cont)	200 OK (PUBLISH)	←		Apply post test routine		
Mg	MGCF	SCCP																
Successful CCNR request and remote user is free originating user suspended																		
PUBLISH	→	→ (X)UDT (TC-Cont)																
200 OK (PUBLISH)	←																	
Apply post test routine																		

TP number	TP_408_017	Reference	7.5.11.1, table 7.5.11.1.2															
TSS reference	IMS-SS/CC/																	
Selection criteria	PICS 6.3.1/2 AND PICS 6.3.2/24																	
Test Purpose name	PUBLISH with m=NR and PIDF basic status "open" is interworked into CCBS RESUME																	
Test Purpose	Ensure that on receipt of a PUBLISH request and Event header field contains the value 'presence' a Call-Info header with purpose parameter ser to call-completion and m parameter set to 'NR' and a PIDF XML MIME body is present the presence status set to 'open', a SCCP UDT or XUDDT is sent containing a TC-Cont CCBS RESUME Data field																	
TCAP Parameter values	TC-Cont: CCBS RESUME																	
SIP Parameter values	PUBLISH: <Request URI> Event: presence Call-Info: <sip:Calling party number digits>;purpose=call-completion; m=BS Content-Type: application/pidf+xml <?xml version="1.0" encoding="UTF-8"?> <presence <status> <basic>open</basic>																	
Comments	Note the XML semantic is schematically the alias is not considered																	
Message flows	<table style="width:100%; border:none;"> <tr> <td style="text-align:center;">Mg</td> <td style="text-align:center;">MGCF</td> <td style="text-align:center;">SCCP</td> </tr> <tr> <td colspan="3" style="text-align:center;">Successful CCNR request and remote user is free originating user suspended</td> </tr> <tr> <td>PUBLISH</td> <td style="text-align:center;">→</td> <td style="text-align:center;">→ (X)UDT (TC-Cont)</td> </tr> <tr> <td>200 OK (PUBLISH)</td> <td style="text-align:center;">←</td> <td></td> </tr> <tr> <td colspan="3" style="text-align:center;">Apply post test routine</td> </tr> </table>			Mg	MGCF	SCCP	Successful CCNR request and remote user is free originating user suspended			PUBLISH	→	→ (X)UDT (TC-Cont)	200 OK (PUBLISH)	←		Apply post test routine		
Mg	MGCF	SCCP																
Successful CCNR request and remote user is free originating user suspended																		
PUBLISH	→	→ (X)UDT (TC-Cont)																
200 OK (PUBLISH)	←																	
Apply post test routine																		

TP number	TP_408_018	Reference	7.5.11.1, table 7.5.11.1.2															
TSS reference	IMS-SS/CC/																	
Selection criteria	PICS 6.3.1/2 AND PICS 6.3.2/24																	
Test Purpose name	SUBSCRIBE with m=BS and Expires header set to '0' is interworked into CCBS CANCEL																	
Test Purpose	Ensure that on receipt of a SUBSCRIBE request and a m parameter is present in the Request line is set to 'BS' and Event header field contains the value 'call-completion' and a Call-Info header with purpose parameter ser to call-completion and m parameter set to 'BS' and a Expires header set to '0', a SCCP UDT or XUDDT is sent containing a TC-End CCBS CANCEL Data field																	
TCAP Parameter values	TC-End: CCBS CANCEL																	
SIP Parameter values	SUBSCRIBE: <Request URI>; m=BS Event:call-completion Call-Info: <sip:Calling party number digits>;purpose=call-completion; m=BS Expires: 0																	
Comments																		
Message flows	<table style="width:100%; border:none;"> <tr> <td style="text-align:center;">Mg</td> <td style="text-align:center;">MGCF</td> <td style="text-align:center;">SCCP</td> </tr> <tr> <td colspan="3" style="text-align:center;">A CCBS is successfully invoked</td> </tr> <tr> <td>SUBSCRIBE</td> <td style="text-align:center;">→</td> <td style="text-align:center;">→ (X)UDT (TC-End)</td> </tr> <tr> <td>202 Accepted</td> <td style="text-align:center;">←</td> <td></td> </tr> <tr> <td colspan="3" style="text-align:center;">Apply post test routine</td> </tr> </table>			Mg	MGCF	SCCP	A CCBS is successfully invoked			SUBSCRIBE	→	→ (X)UDT (TC-End)	202 Accepted	←		Apply post test routine		
Mg	MGCF	SCCP																
A CCBS is successfully invoked																		
SUBSCRIBE	→	→ (X)UDT (TC-End)																
202 Accepted	←																	
Apply post test routine																		

TP number	TP_408_019	Reference	7.5.11.1, table 7.5.11.1.2
TSS reference	IMS-SS/CC/		
Selection criteria	PICS 6.3.1/2 AND PICS 6.3.2/24		
Test Purpose name	SUBSCRIBE with m=NR and Expires header set to '0' is interworked into CCBS CANCEL		
Test Purpose	Ensure that on receipt of a SUBSCRIBE request and a m parameter is present in the Request line is set to 'NR' and Event header field contains the value 'call-completion' and a Call-Info header with purpose parameter set to call-completion and m parameter set to 'BS' and a Expires header set to '0', a SCCP UDT or XUDT is sent containing a TC-End CCBS CANCEL Data field		
TCAP Parameter values	TC-End: CCBS CANCEL		
SIP Parameter values	SUBSCRIBE: <Request URI>; m=NR Event:call-completion Call-Info: <sip:Calling party number digits>;purpose=call-completion; m=NR Expires: 0		
Comments			
Message flows	Mg	MGCF	SCCP
		A CCNR is successfully invoked	
	SUBSCRIBE 202 Accepted	→ ←	→ (X)UDT (TC-End)
		Apply post test routine	

TP number	TP_408_020	Reference	7.5.11.1, table 7.5.11.1.3
TSS reference	IMS-SS/CC/		
Selection criteria	PICS 6.3.1/2 AND PICS 6.3.2/24		
Test Purpose name	TC-Cont CCBS REQUEST (return result) is interworked into NOTIFY cc-service-retention present		
Test Purpose	Ensure that on receipt of a UDT or XUDT containing a TC-Cont CCBS REQUEST (return result) Data field and the RetainSupported element is set to TRUE, a NOTIFY request is sent and the cc-state body is set to 'queued' the cc-service-retention body is set to 'true'		
TCAP Parameter values	TC-Cont: CCBS REQUEST (return result) RetainSupported=TRUE		
SIP Parameter values	NOTIFY: Event: call-completion Content-Type: application/call-completion cc-state: queued cc-service-retention: true		
Comments			
Message flows	Mg	MGCF	SCCP
	SUBSCRIBE 202 Accepted	→ ←	→ (X)UDT (TC-Begin)
	NOTIFY 200 OK (NOTIFY)	← →	← (X)UDT (TC-Cont)
		Apply post test routine	

TP number	TP_408_021	Reference	7.5.11.1, table 7.5.11.1.3																								
TSS reference	IMS-SS/CC/																										
Selection criteria	PICS 6.3.1/2 AND PICS 6.3.2/24																										
Test Purpose name	TC-Cont CCBS REQUEST (return result) is interworked into NOTIFY cc-service-retention not present																										
Test Purpose	Ensure that on receipt of a UDT or XUDT containing a TC-Cont CCBS REQUEST (return result) Data field and the RetainSupported element is set to FALSE, a NOTIFY request is sent and the cc-state body is set to 'queued' a cc-service-retention body is not present																										
TCAP Parameter values	TC-Cont: CCBS REQUEST (return result) RetainSupported=FALSE																										
SIP Parameter values	NOTIFY: Event: call-completion Content-Type: application/call-completion cc-state: queued																										
Comments																											
Message flows	<table style="width: 100%; border: none;"> <thead> <tr> <th style="text-align: left; width: 33%;"></th> <th style="text-align: center; width: 33%;">Mg</th> <th style="text-align: center; width: 33%;">MGCF</th> <th style="text-align: right; width: 33%;">SCCP</th> </tr> </thead> <tbody> <tr> <td>SUBSCRIBE</td> <td style="text-align: center;">→</td> <td></td> <td style="text-align: right;">→ (X)UDT (TC-Begin)</td> </tr> <tr> <td>202 Accepted</td> <td style="text-align: center;">←</td> <td></td> <td></td> </tr> <tr> <td>NOTIFY</td> <td style="text-align: center;">←</td> <td></td> <td style="text-align: right;">← (X)UDT (TC-Cont)</td> </tr> <tr> <td>200 OK (NOTIFY)</td> <td style="text-align: center;">→</td> <td></td> <td></td> </tr> <tr> <td colspan="4" style="text-align: center;">Apply post test routine</td> </tr> </tbody> </table>				Mg	MGCF	SCCP	SUBSCRIBE	→		→ (X)UDT (TC-Begin)	202 Accepted	←			NOTIFY	←		← (X)UDT (TC-Cont)	200 OK (NOTIFY)	→			Apply post test routine			
	Mg	MGCF	SCCP																								
SUBSCRIBE	→		→ (X)UDT (TC-Begin)																								
202 Accepted	←																										
NOTIFY	←		← (X)UDT (TC-Cont)																								
200 OK (NOTIFY)	→																										
Apply post test routine																											

TP number	TP_408_022	Reference	7.5.11.1, table 7.5.11.1.3																
TSS reference	IMS-SS/CC/																		
Selection criteria	PICS 6.3.1/2 AND PICS 6.3.2/24																		
Test Purpose name	CCBS Return error TC-End ShortTermDenial received, 480 Temporarily Unavailable response to SUBSCRIBE																		
Test Purpose	Ensure that on receipt of a UDT or XUDT containing a TC-End CCBS REQUEST (Return error) component in the Data field set to 'ShortTermDenial', a 480 Temporarily Unavailable final response to the SUBSCRIBE CCBS request is sent																		
TCAP Parameter values	TC Begin CCBS REQUEST invoke TC-End CCBS REQUEST (Return error) ShortTermDenial																		
SIP Parameter values	SUBSCRIBE: <Request URI>, m=BS Event: call-completion																		
Comments																			
Message flows	<table style="width: 100%; border: none;"> <thead> <tr> <th style="text-align: left; width: 33%;"></th> <th style="text-align: center; width: 33%;">Mg</th> <th style="text-align: center; width: 33%;">MGCF</th> <th style="text-align: right; width: 33%;">SCCP</th> </tr> </thead> <tbody> <tr> <td>SUBSCRIBE</td> <td style="text-align: center;">→</td> <td></td> <td style="text-align: right;">→ (X)UDT (TC-Begin)</td> </tr> <tr> <td>480 Temporarily Unavailable</td> <td style="text-align: center;">←</td> <td></td> <td style="text-align: right;">← (X)UDT (TC-End)</td> </tr> <tr> <td colspan="4" style="text-align: center;">Apply post test routine</td> </tr> </tbody> </table>				Mg	MGCF	SCCP	SUBSCRIBE	→		→ (X)UDT (TC-Begin)	480 Temporarily Unavailable	←		← (X)UDT (TC-End)	Apply post test routine			
	Mg	MGCF	SCCP																
SUBSCRIBE	→		→ (X)UDT (TC-Begin)																
480 Temporarily Unavailable	←		← (X)UDT (TC-End)																
Apply post test routine																			

TP number	TP_408_023	Reference	7.5.11.1, table 7.5.11.1.3												
TSS reference	IMS-SS/CC/														
Selection criteria	PICS 6.3.1/2 AND PICS 6.3.2/24														
Test Purpose name	CCBS Return error TC-End LongTermDenial received, 403 Forbidden unavailable response to SUBSCRIBE														
Test Purpose	Ensure that on receipt of a UDT or XUDDT containing a TC-End CCBS REQUEST (Return error) component in the Data field set to 'LongTermDenial', a 403 Forbidden final response to the SUBSCRIBE CCBS request is sent														
TCAP Parameter values	TC Begin CCBS REQUEST invoke TC-End CCBS REQUEST (Return error) LongTermDenial														
SIP Parameter values	SUBSCRIBE: <Request URI>, m=BS Event: call-completion														
Comments															
Message flows	<table style="width: 100%; border: none;"> <tr> <td style="text-align: center;">Mg</td> <td style="text-align: center;">MGCF</td> <td style="text-align: center;">SCCP</td> </tr> <tr> <td>SUBSCRIBE</td> <td style="text-align: center;">→</td> <td>→ (X)UDT (TC-Begin)</td> </tr> <tr> <td>403 Forbidden</td> <td style="text-align: center;">←</td> <td>← (X)UDT (TC-End)</td> </tr> <tr> <td colspan="3" style="text-align: center;">Apply post test routine</td> </tr> </table>			Mg	MGCF	SCCP	SUBSCRIBE	→	→ (X)UDT (TC-Begin)	403 Forbidden	←	← (X)UDT (TC-End)	Apply post test routine		
Mg	MGCF	SCCP													
SUBSCRIBE	→	→ (X)UDT (TC-Begin)													
403 Forbidden	←	← (X)UDT (TC-End)													
Apply post test routine															

TP number	TP_408_024	Reference	7.5.11.1, table 7.5.11.1.3												
TSS reference	IMS-SS/CC/														
Selection criteria	PICS 6.3.1/2 AND PICS 6.3.2/24														
Test Purpose name	CCNR Return error TC-End ShortTermDenial received, 480 Temporarily Unavailable response to SUBSCRIBE														
Test Purpose	Ensure that on receipt of a UDT or XUDDT containing a TC-End CCNR REQUEST (Return error) component in the Data field set to 'ShortTermDenial', a 480 Temporarily Unavailable final response to the SUBSCRIBE CCNR request is sent														
TCAP Parameter values	TC Begin CCNR REQUEST invoke TC-End CCNR REQUEST (Return error) ShortTermDenial														
SIP Parameter values	SUBSCRIBE: <Request URI>, m=NR Event: call-completion														
Comments															
Message flows	<table style="width: 100%; border: none;"> <tr> <td style="text-align: center;">Mg</td> <td style="text-align: center;">MGCF</td> <td style="text-align: center;">SCCP</td> </tr> <tr> <td>SUBSCRIBE</td> <td style="text-align: center;">→</td> <td>→ (X)UDT (TC-Begin)</td> </tr> <tr> <td>480 Temporarily Unavailable</td> <td style="text-align: center;">←</td> <td>← (X)UDT (TC-End)</td> </tr> <tr> <td colspan="3" style="text-align: center;">Apply post test routine</td> </tr> </table>			Mg	MGCF	SCCP	SUBSCRIBE	→	→ (X)UDT (TC-Begin)	480 Temporarily Unavailable	←	← (X)UDT (TC-End)	Apply post test routine		
Mg	MGCF	SCCP													
SUBSCRIBE	→	→ (X)UDT (TC-Begin)													
480 Temporarily Unavailable	←	← (X)UDT (TC-End)													
Apply post test routine															

TP number	TP_408_025	Reference	7.5.11.1, table 7.5.11.1.3												
TSS reference	IMS-SS/CC/														
Selection criteria	PICS 6.3.1/2 AND PICS 6.3.2/24														
Test Purpose name	CCNR Return error TC-End LongTermDenial received, 403 Forbidden unavailable response to SUBSCRIBE														
Test Purpose	Ensure that on receipt of a UDT or XUDDT containing a TC-End CCNR REQUEST (Return error) component in the Data field set to 'LongTermDenial', a 403 Forbidden final response to the SUBSCRIBE CCNR request is sent														
TCAP Parameter values	TC Begin CCNR REQUEST invoke TC-End CCNR REQUEST (Return error) LongTermDenial														
SIP Parameter values	SUBSCRIBE: <Request URI>, m=NR Event: call-completion														
Comments															
Message flows	<table style="width: 100%; border: none;"> <tr> <td style="text-align: center;">Mg</td> <td style="text-align: center;">MGCF</td> <td style="text-align: center;">SCCP</td> </tr> <tr> <td>SUBSCRIBE</td> <td style="text-align: center;">→</td> <td>→ (X)UDT (TC-Begin)</td> </tr> <tr> <td>403 Forbidden</td> <td style="text-align: center;">←</td> <td>← (X)UDT (TC-End)</td> </tr> <tr> <td colspan="3" style="text-align: center;">Apply post test routine</td> </tr> </table>			Mg	MGCF	SCCP	SUBSCRIBE	→	→ (X)UDT (TC-Begin)	403 Forbidden	←	← (X)UDT (TC-End)	Apply post test routine		
Mg	MGCF	SCCP													
SUBSCRIBE	→	→ (X)UDT (TC-Begin)													
403 Forbidden	←	← (X)UDT (TC-End)													
Apply post test routine															

TP number	TP_408_026	Reference	7.5.11.1, table 7.5.11.1.3																				
TSS reference	IMS-SS/CC/																						
Selection criteria	PICS 6.3.1/2 AND PICS 6.3.2/24																						
Test Purpose name	TC-End CCBS CANCEL received after CCBS was successfully invoked																						
Test Purpose	Ensure that on receipt of an UDT or XUDT containing a TC-End CCBS CANCEL after a CCBS was successfully invoked, a NOTIFY request is sent containing a m parameter set to 'BS' in the Request line and a Subscription-State header set to 'terminated ' and the subexp-params reason set to 'noresource'																						
TCAP Parameter values	TC-End CCBS CANCEL																						
SIP Parameter values	NOTIFY : <Request URI> Event:call-completion Subscription-State: terminated; reason=noresource																						
Comments																							
Message flows	<table style="width:100%; border:none;"> <tr> <td style="width:33%;"></td> <td style="width:33%; text-align:center;">Mg</td> <td style="width:33%; text-align:center;">MGCF</td> <td style="width:33%; text-align:center;">SCCP</td> </tr> <tr> <td></td> <td></td> <td style="text-align:center;">CCBS request successfully invoked</td> <td></td> </tr> <tr> <td>NOTIFY</td> <td style="text-align:center;">←</td> <td></td> <td style="text-align:center;">← (X)UDT (TC-End)</td> </tr> <tr> <td>200 OK NOTIFY</td> <td style="text-align:center;">→</td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td style="text-align:center;">Apply post test routine</td> <td></td> </tr> </table>				Mg	MGCF	SCCP			CCBS request successfully invoked		NOTIFY	←		← (X)UDT (TC-End)	200 OK NOTIFY	→					Apply post test routine	
	Mg	MGCF	SCCP																				
		CCBS request successfully invoked																					
NOTIFY	←		← (X)UDT (TC-End)																				
200 OK NOTIFY	→																						
		Apply post test routine																					

TP number	TP_408_027	Reference	7.5.11.1, table 7.5.11.1.3																				
TSS reference	IMS-SS/CC/																						
Selection criteria	PICS 6.3.1/2 AND PICS 6.3.2/24																						
Test Purpose name	TC-End CCBS CANCEL received after CCNR was successfully invoked																						
Test Purpose	Ensure that on receipt of an UDT or XUDT containing a TC-End CCBS CANCEL after a CCNR was successfully invoked, a NOTIFY request is sent containing a m parameter set to 'NR' in the Request line and a Subscription-State header set to 'terminated ' and the subexp-params reason set to 'noresource'																						
TCAP Parameter values	TC-End CCBS CANCEL																						
SIP Parameter values	NOTIFY : <Request URI> Event:call-completion Subscription-State: terminated; reason=noresource																						
Comments																							
Message flows	<table style="width:100%; border:none;"> <tr> <td style="width:33%;"></td> <td style="width:33%; text-align:center;">Mg</td> <td style="width:33%; text-align:center;">MGCF</td> <td style="width:33%; text-align:center;">SCCP</td> </tr> <tr> <td></td> <td></td> <td style="text-align:center;">CCNR request successfully invoked</td> <td></td> </tr> <tr> <td>NOTIFY</td> <td style="text-align:center;">←</td> <td></td> <td style="text-align:center;">← (X)UDT (TC-End)</td> </tr> <tr> <td>200 OK NOTIFY</td> <td style="text-align:center;">→</td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td style="text-align:center;">Apply post test routine</td> <td></td> </tr> </table>				Mg	MGCF	SCCP			CCNR request successfully invoked		NOTIFY	←		← (X)UDT (TC-End)	200 OK NOTIFY	→					Apply post test routine	
	Mg	MGCF	SCCP																				
		CCNR request successfully invoked																					
NOTIFY	←		← (X)UDT (TC-End)																				
200 OK NOTIFY	→																						
		Apply post test routine																					

TP number	TP_408_028	Reference	7.5.11.1, table 7.5.11.1.3																				
TSS reference	IMS-SS/CC/																						
Selection criteria	PICS 6.3.1/2 AND PICS 6.3.2/24																						
Test Purpose name	Interworking of Remote user free indication at the I-MGCF																						
Test Purpose	Ensure that on receipt of a UDT or XUDT containing a TC-Cont REMOTE USER FREE invoke component in the Data field, a NOTIFY request is sent and a cc-state body is present set to 'ready'																						
TCAP Parameter values	TC-Cont CCBS REMOTE USER FREE																						
SIP Parameter values	NOTIFY: Event: call-completion Content-Type: application/call-completion cc-state: ready																						
Comments																							
Message flows	<table style="width:100%; border:none;"> <tr> <td style="width:33%;"></td> <td style="width:33%; text-align:center;">Mg</td> <td style="width:33%; text-align:center;">MGCF</td> <td style="width:33%; text-align:center;">SCCP</td> </tr> <tr> <td></td> <td></td> <td style="text-align:center;">CCNR request successfully invoked</td> <td></td> </tr> <tr> <td>NOTIFY</td> <td style="text-align:center;">←</td> <td></td> <td style="text-align:center;">← (X)UDT (TC-Cont)</td> </tr> <tr> <td>200 OK (NOTIFY)</td> <td style="text-align:center;">→</td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td style="text-align:center;">Apply post test routine</td> <td></td> </tr> </table>				Mg	MGCF	SCCP			CCNR request successfully invoked		NOTIFY	←		← (X)UDT (TC-Cont)	200 OK (NOTIFY)	→					Apply post test routine	
	Mg	MGCF	SCCP																				
		CCNR request successfully invoked																					
NOTIFY	←		← (X)UDT (TC-Cont)																				
200 OK (NOTIFY)	→																						
		Apply post test routine																					

TP number	TP_408_029	Reference	7.5.11.2, table 7.5.11.2.1												
TSS reference	IMS-SS/CC/														
Selection criteria	PICS 6.3.1/2 AND PICS 6.3.2/24														
Test Purpose name	Mapping of CCNR possible indication in a 180 into the CCNR possible indicator in the ACM														
Test Purpose	Ensure that on receipt of a 180 Ringing provisional response and a Call-Info header is present set to the URI of the terminating user and a purpose parameter set to 'call-completion' and m parameter set to 'NR', an ACM is sent and a CCNR possible indicator Parameter is present set to 'CCNR possible'														
ISUP Parameter values	IAM: Called party number Number digits ACM: Called party status Subscriber free CCNR possible indicator CCNR possible														
SIP Parameter values	180: Call-Info: <sip:Called party number digits>;purpose=call-completion														
Comments															
Message flows	<table style="width:100%; border:none;"> <tr> <td style="text-align:center;">ISUP</td> <td style="text-align:center;">MGCF</td> <td style="text-align:center;">Mg</td> </tr> <tr> <td>IAM</td> <td style="text-align:center;">→</td> <td>INVITE</td> </tr> <tr> <td>ACM</td> <td style="text-align:center;">←</td> <td>180 Ringing</td> </tr> <tr> <td colspan="3" style="text-align:center;">Apply post test routine</td> </tr> </table>			ISUP	MGCF	Mg	IAM	→	INVITE	ACM	←	180 Ringing	Apply post test routine		
ISUP	MGCF	Mg													
IAM	→	INVITE													
ACM	←	180 Ringing													
Apply post test routine															

TP number	TP_408_030	Reference	7.5.11.2, table 7.5.11.2.1																		
TSS reference	IMS-SS/CC/																				
Selection criteria	PICS 6.3.1/2 AND PICS 6.3.2/24																				
Test Purpose name	Mapping of CCNR possible indication in a 180 into the CCNR possible indicator in the CPG																				
Test Purpose	Ensure that on receipt of a 180 Ringing provisional response and a Call-Info header is present set to the URI of the terminating user and a purpose parameter set to 'call-completion' and m parameter set to 'NR', a CPG is sent if an ACM was sent before and a CCNR possible indicator Parameter is present set to 'CCNR possible'																				
ISUP Parameter values	IAM: Called party number Number digits ACM: Called party status No indication CPG: Event indication Alerting CCNR possible indicator CCNR possible																				
SIP Parameter values	180: Call-Info: <sip:Called party number digits>;purpose=call-completion																				
Comments																					
Message flows	<table style="width:100%; border:none;"> <tr> <td style="text-align:center;">ISUP</td> <td style="text-align:center;">MGCF</td> <td style="text-align:center;">Mg</td> </tr> <tr> <td>IAM</td> <td style="text-align:center;">→</td> <td>Start Ti/w2</td> </tr> <tr> <td>ACM(no indication)</td> <td style="text-align:center;">←</td> <td>Timeout Ti/w2</td> </tr> <tr> <td>CPG(Alerting)</td> <td style="text-align:center;">←</td> <td>INVITE</td> </tr> <tr> <td></td> <td></td> <td>180 Ringing</td> </tr> <tr> <td colspan="3" style="text-align:center;">Apply post test routine</td> </tr> </table>			ISUP	MGCF	Mg	IAM	→	Start Ti/w2	ACM(no indication)	←	Timeout Ti/w2	CPG(Alerting)	←	INVITE			180 Ringing	Apply post test routine		
ISUP	MGCF	Mg																			
IAM	→	Start Ti/w2																			
ACM(no indication)	←	Timeout Ti/w2																			
CPG(Alerting)	←	INVITE																			
		180 Ringing																			
Apply post test routine																					

TP number	TP_408_031	Reference	7.5.11.2, table 7.5.11.2.1
TSS reference	IMS-SS/CC/		
Selection criteria	PICS 6.3.1/2 AND PICS 6.3.2/24		
Test Purpose name	486 with Call-Info header is mapped into REL cause 17 and CCBS possible		
Test Purpose	Ensure that on receipt of a 486 Busy Here and a Call-Info header is present set to the URI of the terminating user and a purpose parameter set to 'call-completion' and m parameter set to 'BS', a REL message is sent and the Cause value is set to 17 or 34 the Diagnostics is set to 'CCBS possible'		
ISUP Parameter values	REL: Cause indicator Cause=17 or 34 Diagnostics= CCBS possible		
SIP Parameter values	486: Call-Info: <sip:Called party number digits>;purpose=call-completion		
Comments			
Message flows	ISUP	MGCF	Mg
	IAM	→	→ INVITE
	REL	←	← 486 Busy Here
	RLC	→	→ ACK
	Apply post test routine		

TP number	TP_408_032	Reference	7.5.11.2, table 7.5.11.2.1
TSS reference	IMS-SS/CC/		
Selection criteria	PICS 6.3.1/2 AND PICS 6.3.2/24		
Test Purpose name	CCSS call indicator in IAM is mapped into the m parameter in the Request line in the sent INVITE		
Test Purpose	Ensure that on receipt of an IAM and a CCSS call indicator parameter is present set to 'CCSS call', an INVITE request is sent and the Request line contains a m parameter set to 'NR' or 'BS'		
ISUP Parameter values	IAM: CCSS call indicator CCSS call		
SIP Parameter values	INVITE: <Request URI>;m=NR or ;m=BS Call-Info: <sip:Called party number digits>;purpose=call-completion; m=BS or NR		
Comments			
Message flows	ISUP	MGCF	Mg
	IAM	→	→ INVITE
			← 100 Trying
	Apply post test routine		

TP number	TP_408_035	Reference	7.5.11.2, table 7.5.11.2.2												
TSS reference	IMS-SS/CC/														
Selection criteria	PICS 6.3.1/2 AND PICS 6.3.2/24														
Test Purpose name	TC-Cont CCBS SUSPEND is interworked into PUBLISH with m=BS and PIDF basic status "closed"														
Test Purpose	CCBS or CCNR is invoked and the remote user is free. Ensure that on receipt of a TC-Cont CCBS SUSPEND invoke component, a PUBLISH request is sent containing the m parameter in the Request URI set to 'BS' or 'NR' the Event header set to 'presence' and a PIDF XML MIME body is present the presence status set to 'closed'														
TCAP Parameter values	TC-Cont CCBS SUSPEND														
SIP Parameter values	PUBLISH: <Request URI>; m=BS or ;m=NR Event: presence Content-Type: application/pidf+xml <?xml version="1.0" encoding="UTF-8"?> <presence <status> <basic>closed</basic>														
Comments	Note the XML semantic is schematically the alias is not considered														
Message flows	<table style="width: 100%; border: none;"> <tr> <td style="text-align: center;">SCCP</td> <td style="text-align: center;">MGCF</td> <td style="text-align: center;">Mg</td> </tr> <tr> <td colspan="3" style="text-align: center;">Invoke a successful CCBS/CCNR request and remote user is now free</td> </tr> <tr> <td>(X)UDT(TC-Cont)</td> <td style="text-align: center;">→</td> <td style="text-align: center;">→ PUBLISH</td> </tr> <tr> <td></td> <td></td> <td style="text-align: center;">← 200 OK (PUBLISH)</td> </tr> </table> <p style="text-align: center;">Apply post test routine</p>			SCCP	MGCF	Mg	Invoke a successful CCBS/CCNR request and remote user is now free			(X)UDT(TC-Cont)	→	→ PUBLISH			← 200 OK (PUBLISH)
SCCP	MGCF	Mg													
Invoke a successful CCBS/CCNR request and remote user is now free															
(X)UDT(TC-Cont)	→	→ PUBLISH													
		← 200 OK (PUBLISH)													

TP number	TP_408_036	Reference	7.5.11.2, table 7.5.11.2.2												
TSS reference	IMS-SS/CC/														
Selection criteria	PICS 6.3.1/2 AND PICS 6.3.2/24														
Test Purpose name	TC-Cont CCBS RESUME is interworked into PUBLISH with m=NR and PIDF basic status "open"														
Test Purpose	CCBS or CCNR is invoked and the remote user is free the originating user is suspended. Ensure that on receipt of a TC-Cont CCBS SUSPEND invoke component, a PUBLISH request is sent containing the m parameter in the Request URI set to 'BS' or 'NR' the Event header set to 'presence' and a PIDF XML MIME body is present the presence status set to 'open'														
TCAP Parameter values	TC-Cont CCBS RESUME														
SIP Parameter values	PUBLISH: <Request URI>;m='BS' or ;m=NR Event: presence Content-Type: application/pidf+xml <?xml version="1.0" encoding="UTF-8"?> <presence <status> <basic>open</basic>														
Comments	Note the XML semantic is schematically the alias is not considered														
Message flows	<table style="width: 100%; border: none;"> <tr> <td style="text-align: center;">SCCP</td> <td style="text-align: center;">MGCF</td> <td style="text-align: center;">Mg</td> </tr> <tr> <td colspan="3" style="text-align: center;">Successful CCBS/CCNR request and originating user suspended</td> </tr> <tr> <td>(X)UDT(TC-Cont)</td> <td style="text-align: center;">→</td> <td style="text-align: center;">→ PUBLISH</td> </tr> <tr> <td></td> <td></td> <td style="text-align: center;">← 200 OK (PUBLISH)</td> </tr> </table> <p style="text-align: center;">Apply post test routine</p>			SCCP	MGCF	Mg	Successful CCBS/CCNR request and originating user suspended			(X)UDT(TC-Cont)	→	→ PUBLISH			← 200 OK (PUBLISH)
SCCP	MGCF	Mg													
Successful CCBS/CCNR request and originating user suspended															
(X)UDT(TC-Cont)	→	→ PUBLISH													
		← 200 OK (PUBLISH)													

TP number	TP_408_037	Reference	7.5.11.2, table 7.5.11.2.2															
TSS reference	IMS-SS/CC/																	
Selection criteria	PICS 6.3.1/2 AND PICS 6.3.2/24																	
Test Purpose name	TC-End CCBS CANCEL is interworked into SUBSCRIBE with m=BS or NR and Expires header set to '0'																	
Test Purpose	A CCBS or CCNR is successfully invoked. Ensure that on receipt of a UDT or XUDT containing a TC-End CCBS CANCEL Data field, a SUBSCRIBE request is sent and a m parameter is present in the Request URI set to 'BS' or 'NR' the Event header field is set to 'call-completion' and the Expires header is set to '0'																	
TCAP Parameter values	TC-End: CCBS CANCEL																	
SIP Parameter values	SUBSCRIBE: <Request URI>; m=BS or ;m='NR' Event:call-completion Expires: 0																	
Comments																		
Message flows	<table style="width:100%; border:none;"> <tr> <td style="text-align:center;">SCCP</td> <td style="text-align:center;">MGCF</td> <td style="text-align:center;">Mg</td> </tr> <tr> <td></td> <td style="text-align:center;">A CCBS is successfully invoked</td> <td></td> </tr> <tr> <td>(X)UDT (TC-End)</td> <td style="text-align:center;">→</td> <td style="text-align:right;">→ SUBSCRIBE</td> </tr> <tr> <td></td> <td></td> <td style="text-align:right;">← 202 Accepted</td> </tr> <tr> <td></td> <td colspan="2" style="text-align:center;">Apply post test routine</td> </tr> </table>			SCCP	MGCF	Mg		A CCBS is successfully invoked		(X)UDT (TC-End)	→	→ SUBSCRIBE			← 202 Accepted		Apply post test routine	
SCCP	MGCF	Mg																
	A CCBS is successfully invoked																	
(X)UDT (TC-End)	→	→ SUBSCRIBE																
		← 202 Accepted																
	Apply post test routine																	

TP number	TP_408_038	Reference	7.5.11.2, table 7.5.11.2.3															
TSS reference	IMS-SS/CC/																	
Selection criteria	PICS 6.3.1/2 AND PICS 6.3.2/24																	
Test Purpose name	A NOTIFY cc-state 'queued' and cc-service-retention 'true' is mapped into a TC-Cont CCBS REQUEST (return result) retain supported																	
Test Purpose	Ensure that on receipt of a NOTIFY request the Event header field is set to 'call-completion' the cc-state body is set to 'queued' and the cc-service-retention body is set to 'true', a TC-Cont is sent and the CCBS REQUEST (return result) component is present the RetainSupported element is set to 'TRUE'																	
TCAP Parameter values	TC-Cont: CCBS REQUEST (return result) RetainSupported=TRUE																	
SIP Parameter values	NOTIFY: Event: call-completion Content-Type: application/call-completion cc-state: queued cc-service-retention: true																	
Comments																		
Message flows	<table style="width:100%; border:none;"> <tr> <td style="text-align:center;">SCCP</td> <td style="text-align:center;">MGCF</td> <td style="text-align:center;">Mg</td> </tr> <tr> <td></td> <td style="text-align:center;">CCBS request already invoked</td> <td></td> </tr> <tr> <td>(X)UDT (TC-Cont)</td> <td style="text-align:center;">←</td> <td style="text-align:right;">← NOTIFY</td> </tr> <tr> <td></td> <td></td> <td style="text-align:right;">→ 200 OK (NOTIFY)</td> </tr> <tr> <td></td> <td colspan="2" style="text-align:center;">Apply post test routine</td> </tr> </table>			SCCP	MGCF	Mg		CCBS request already invoked		(X)UDT (TC-Cont)	←	← NOTIFY			→ 200 OK (NOTIFY)		Apply post test routine	
SCCP	MGCF	Mg																
	CCBS request already invoked																	
(X)UDT (TC-Cont)	←	← NOTIFY																
		→ 200 OK (NOTIFY)																
	Apply post test routine																	

TP number	TP_408_039	Reference	7.5.11.2, table 7.5.11.2.3															
TSS reference	IMS-SS/CC/																	
Selection criteria	PICS 6.3.1/2 AND PICS 6.3.2/24																	
Test Purpose name	A NOTIFY cc-state 'queued' and no cc-service-retention body present is mapped into a TC-Cont CCBS REQUEST (return result) retain not supported																	
Test Purpose	Ensure that on receipt of a NOTIFY request the Event header field is set to 'call-completion' the cc-state body is set to 'queued' and the cc-service-retention body is not present, a TC-Cont is sent and the CCBS REQUEST (return result) component is present the RetainSupported element is set to 'FALSE'																	
TCAP Parameter values	TC-Cont: CCBS REQUEST (return result) RetainSupported=FALSE																	
SIP Parameter values	NOTIFY: Event: call-completion Content-Type: application/call-completion cc-state: queued																	
Comments																		
Message flows	<table style="width: 100%; border: none;"> <tr> <td style="text-align: center;">SCCP</td> <td style="text-align: center;">MGCF</td> <td style="text-align: center;">Mg</td> </tr> <tr> <td></td> <td style="text-align: center;">CCBS request already invoked</td> <td></td> </tr> <tr> <td>(X)UDT (TC-Cont)</td> <td style="text-align: center;">←</td> <td style="text-align: center;">← NOTIFY</td> </tr> <tr> <td></td> <td></td> <td style="text-align: center;">→ 200 OK (NOTIFY)</td> </tr> <tr> <td></td> <td colspan="2" style="text-align: center;">Apply post test routine</td> </tr> </table>			SCCP	MGCF	Mg		CCBS request already invoked		(X)UDT (TC-Cont)	←	← NOTIFY			→ 200 OK (NOTIFY)		Apply post test routine	
SCCP	MGCF	Mg																
	CCBS request already invoked																	
(X)UDT (TC-Cont)	←	← NOTIFY																
		→ 200 OK (NOTIFY)																
	Apply post test routine																	

TP number	TP_408_040	Reference	7.5.11.2, table 7.5.11.2.3															
TSS reference	IMS-SS/CC/																	
Selection criteria	PICS 6.3.1/2 AND PICS 6.3.2/24																	
Test Purpose name	A NOTIFY cc-state 'queued' and cc-service-retention 'true' is mapped into a TC-Cont CCNR REQUEST (return result) retain supported																	
Test Purpose	Ensure that on receipt of a NOTIFY request the Event header field is set to 'call-completion' the cc-state body is set to 'queued' and the cc-service-retention body is set to 'true', a TC-Cont is sent and the CCNR REQUEST (return result) component is present the RetainSupported element is set to 'TRUE'																	
TCAP Parameter values	TC-Cont: CCNR REQUEST (return result) RetainSupported=TRUE																	
SIP Parameter values	NOTIFY: Event: call-completion Content-Type: application/call-completion cc-state: queued cc-service-retention: true																	
Comments																		
Message flows	<table style="width: 100%; border: none;"> <tr> <td style="text-align: center;">SCCP</td> <td style="text-align: center;">MGCF</td> <td style="text-align: center;">Mg</td> </tr> <tr> <td></td> <td style="text-align: center;">CCNR request already invoked</td> <td></td> </tr> <tr> <td>(X)UDT (TC-Cont)</td> <td style="text-align: center;">←</td> <td style="text-align: center;">← NOTIFY</td> </tr> <tr> <td></td> <td></td> <td style="text-align: center;">→ 200 OK (NOTIFY)</td> </tr> <tr> <td></td> <td colspan="2" style="text-align: center;">Apply post test routine</td> </tr> </table>			SCCP	MGCF	Mg		CCNR request already invoked		(X)UDT (TC-Cont)	←	← NOTIFY			→ 200 OK (NOTIFY)		Apply post test routine	
SCCP	MGCF	Mg																
	CCNR request already invoked																	
(X)UDT (TC-Cont)	←	← NOTIFY																
		→ 200 OK (NOTIFY)																
	Apply post test routine																	

TP number	TP_408_041	Reference	7.5.11.2, table 7.5.11.2.3															
TSS reference	IMS-SS/CC/																	
Selection criteria	PICS 6.3.1/2 AND PICS 6.3.2/24																	
Test Purpose name	A NOTIFY cc-state 'queued' and cc-service-retention 'true' is mapped into a TC-Cont CCNR REQUEST (return result) retain not supported																	
Test Purpose	Ensure that on receipt of a NOTIFY request the Event header field is set to 'call-completion' the cc-state body is set to 'queued' and the cc-service-retention body is not present, a TC-Cont is sent and the CCNR REQUEST (return result) component is present the RetainSupported element is set to 'FALSE'																	
TCAP Parameter values	TC-Cont: CCNR REQUEST (return result) RetainSupported=FALSE																	
SIP Parameter values	NOTIFY: Event: call-completion Content-Type: application/call-completion cc-state: queued																	
Comments																		
Message flows	<table style="width: 100%; border: none;"> <tr> <td style="text-align: center;">SCCP</td> <td style="text-align: center;">MGCF</td> <td style="text-align: center;">Mg</td> </tr> <tr> <td colspan="3" style="text-align: center;">CCNR request already invoked</td> </tr> <tr> <td>(X)UDT (TC-Cont)</td> <td style="text-align: center;">←</td> <td style="text-align: center;">← NOTIFY</td> </tr> <tr> <td></td> <td></td> <td style="text-align: center;">→ 200 OK (NOTIFY)</td> </tr> <tr> <td colspan="3" style="text-align: center;">Apply post test routine</td> </tr> </table>			SCCP	MGCF	Mg	CCNR request already invoked			(X)UDT (TC-Cont)	←	← NOTIFY			→ 200 OK (NOTIFY)	Apply post test routine		
SCCP	MGCF	Mg																
CCNR request already invoked																		
(X)UDT (TC-Cont)	←	← NOTIFY																
		→ 200 OK (NOTIFY)																
Apply post test routine																		

TP number	TP_408_042	Reference	7.5.11.2, table 7.5.11.2.3												
TSS reference	IMS-SS/CC/														
Selection criteria	PICS 6.3.1/2 AND PICS 6.3.2/24														
Test Purpose name	CCBS request unsuccessful 480 Temporarily Unavailable is received														
Test Purpose	Ensure that on receipt of a 480 Temporarily Unavailable final response upon CCBS was requested, a TC-End CCBS REQUEST (Return error) component containing the ShortTermDenial Element is sent														
TCAP Parameter values	TC-End CCBS REQUEST (Return error) ShortTermDenial														
SIP Parameter values	SUBSCRIBE: <Request URI>, m=BS Event: call-completion														
Comments															
Message flows	<table style="width: 100%; border: none;"> <tr> <td style="text-align: center;">SCCP</td> <td style="text-align: center;">MGCF</td> <td style="text-align: center;">Mg</td> </tr> <tr> <td>(X)UDT (TC-Begin)</td> <td style="text-align: center;">→</td> <td style="text-align: center;">→ SUBSCRIBE</td> </tr> <tr> <td>(X)UDT (TC-End)</td> <td style="text-align: center;">←</td> <td style="text-align: center;">← 480 Temporarily Unavailable</td> </tr> <tr> <td colspan="3" style="text-align: center;">Apply post test routine</td> </tr> </table>			SCCP	MGCF	Mg	(X)UDT (TC-Begin)	→	→ SUBSCRIBE	(X)UDT (TC-End)	←	← 480 Temporarily Unavailable	Apply post test routine		
SCCP	MGCF	Mg													
(X)UDT (TC-Begin)	→	→ SUBSCRIBE													
(X)UDT (TC-End)	←	← 480 Temporarily Unavailable													
Apply post test routine															

TP number	TP_408_043	Reference	7.5.11.2, table 7.5.11.2.3												
TSS reference	IMS-SS/CC/														
Selection criteria	PICS 6.3.1/2 AND PICS 6.3.2/24														
Test Purpose name	CCNR request unsuccessful 480 Temporarily Unavailable is received														
Test Purpose	Ensure that on receipt of a 480 Temporarily Unavailable final response upon CCNR was requested, a TC-End CCNR REQUEST (Return error) component containing the ShortTermDenial Element is sent														
TCAP Parameter values	TC-End CCNR REQUEST (Return error) ShortTermDenial														
SIP Parameter values	SUBSCRIBE: <Request URI>, m=NR Event: call-completion														
Comments															
Message flows	<table style="width: 100%; border: none;"> <tr> <td style="text-align: center;">SCCP</td> <td style="text-align: center;">MGCF</td> <td style="text-align: center;">Mg</td> </tr> <tr> <td>(X)UDT (TC-Begin)</td> <td style="text-align: center;">→</td> <td style="text-align: center;">→ SUBSCRIBE</td> </tr> <tr> <td>(X)UDT (TC-End)</td> <td style="text-align: center;">←</td> <td style="text-align: center;">← 480 Temporarily Unavailable</td> </tr> <tr> <td colspan="3" style="text-align: center;">Apply post test routine</td> </tr> </table>			SCCP	MGCF	Mg	(X)UDT (TC-Begin)	→	→ SUBSCRIBE	(X)UDT (TC-End)	←	← 480 Temporarily Unavailable	Apply post test routine		
SCCP	MGCF	Mg													
(X)UDT (TC-Begin)	→	→ SUBSCRIBE													
(X)UDT (TC-End)	←	← 480 Temporarily Unavailable													
Apply post test routine															

TP number	TP_408_044	Reference	7.5.11.2, table 7.5.11.2.3												
TSS reference	IMS-SS/CC/														
Selection criteria	PICS 6.3.1/2 AND PICS 6.3.2/24														
Test Purpose name	CCBS request unsuccessful 403 Forbidden is received														
Test Purpose	Ensure that on receipt of a 403 Forbidden final response upon CCBS was requested, a TC-End CCBS REQUEST (Return error) component containing the LongTermDenial Element is sent														
TCAP Parameter values	TC-End CCBS REQUEST (Return error) LongTermDenial														
SIP Parameter values	SUBSCRIBE: <Request URI>, m=BS Event: call-completion														
Comments															
Message flows	<table style="width:100%; border:none;"> <tr> <td style="text-align:center;">SCCP</td> <td style="text-align:center;">MGCF</td> <td style="text-align:right;">Mg</td> </tr> <tr> <td>(X)UDT (TC-Begin) →</td> <td></td> <td>→ SUBSCRIBE</td> </tr> <tr> <td>(X)UDT (TC-End) ←</td> <td></td> <td>← 403 Forbidden</td> </tr> <tr> <td colspan="3" style="text-align:center;">Apply post test routine</td> </tr> </table>			SCCP	MGCF	Mg	(X)UDT (TC-Begin) →		→ SUBSCRIBE	(X)UDT (TC-End) ←		← 403 Forbidden	Apply post test routine		
SCCP	MGCF	Mg													
(X)UDT (TC-Begin) →		→ SUBSCRIBE													
(X)UDT (TC-End) ←		← 403 Forbidden													
Apply post test routine															

TP number	TP_408_045	Reference	7.5.11.2, table 7.5.11.2.3												
TSS reference	IMS-SS/CC/														
Selection criteria	PICS 6.3.1/2 AND PICS 6.3.2/24														
Test Purpose name	CCNR request unsuccessful 403 Forbidden is sent														
Test Purpose	Ensure that on receipt of a 403 Forbidden final response upon CCNR was requested, a TC-End CCNR REQUEST (Return error) component containing the LongTermDenial Element is sent														
TCAP Parameter values	TC-End CCNR REQUEST (Return error) LongTermDenial														
SIP Parameter values	SUBSCRIBE: <Request URI>, m=NR Event: call-completion														
Comments															
Message flows	<table style="width:100%; border:none;"> <tr> <td style="text-align:center;">SCCP</td> <td style="text-align:center;">MGCF</td> <td style="text-align:right;">Mg</td> </tr> <tr> <td>(X)UDT (TC-Begin) →</td> <td></td> <td>→ SUBSCRIBE</td> </tr> <tr> <td>(X)UDT (TC-End) ←</td> <td></td> <td>← 403 Forbidden</td> </tr> <tr> <td colspan="3" style="text-align:center;">Apply post test routine</td> </tr> </table>			SCCP	MGCF	Mg	(X)UDT (TC-Begin) →		→ SUBSCRIBE	(X)UDT (TC-End) ←		← 403 Forbidden	Apply post test routine		
SCCP	MGCF	Mg													
(X)UDT (TC-Begin) →		→ SUBSCRIBE													
(X)UDT (TC-End) ←		← 403 Forbidden													
Apply post test routine															

TP number	TP_408_046	Reference	7.5.11.2, table 7.5.11.2.3															
TSS reference	IMS-SS/CC/																	
Selection criteria	PICS 6.3.1/2 AND PICS 6.3.2/24																	
Test Purpose name	CCBS invoked. SUBSCRIBE Expires 0 received TC-End is sent																	
Test Purpose	Ensure that on receipt of a NOTIFY request the Subscription-State header is set to 'terminated' and the subexp-params reason set to 'noresource' upon CCBS was successfully invoked, a TC-End message is sent containing the CCBS CANCEL component																	
TCAP Parameter values	TC-End CCBS CANCEL																	
SIP Parameter values	NOTIFY: <Request URI> Event:call-completion Subscription-State: terminated; reason=noresource																	
Comments																		
Message flows	<table style="width:100%; border:none;"> <tr> <td style="text-align:center;">SCCP</td> <td style="text-align:center;">MGCF</td> <td style="text-align:right;">Mg</td> </tr> <tr> <td></td> <td style="text-align:center;">CCBS request successfully invoked</td> <td></td> </tr> <tr> <td>(X)UDT (TC-End) ←</td> <td></td> <td>← NOTIFY</td> </tr> <tr> <td></td> <td></td> <td>→ 200 OK NOTIFY</td> </tr> <tr> <td colspan="3" style="text-align:center;">Apply post test routine</td> </tr> </table>			SCCP	MGCF	Mg		CCBS request successfully invoked		(X)UDT (TC-End) ←		← NOTIFY			→ 200 OK NOTIFY	Apply post test routine		
SCCP	MGCF	Mg																
	CCBS request successfully invoked																	
(X)UDT (TC-End) ←		← NOTIFY																
		→ 200 OK NOTIFY																
Apply post test routine																		

TP number	TP_408_047	Reference	7.5.11.2, table 7.5.11.2.3															
TSS reference	IMS-SS/CC/																	
Selection criteria	PICS 6.3.1/2 AND PICS 6.3.2/24																	
Test Purpose name	CCNR invoked at the O-MGCF SUBSCRIBE Expires 0 received TC-End is sent																	
Test Purpose	Ensure that on receipt of a NOTIFY request the Subscription-State header is set to 'terminated' and the subexp-params reason set to 'noresource' upon CCNR was successfully invoked, a TC-End message is sent containing the CCBS CANCEL component																	
TCAP Parameter values	TC-End CCBS CANCEL																	
SIP Parameter values	NOTIFY: <Request URI> Event:call-completion Subscription-State: terminated; reason=noresource																	
Comments																		
Message flows	<table style="width: 100%; border: none;"> <tr> <td style="text-align: center;">SCCP</td> <td style="text-align: center;">MGCF</td> <td style="text-align: center;">Mg</td> </tr> <tr> <td></td> <td style="text-align: center;">CCNR request successfully invoked</td> <td></td> </tr> <tr> <td>(X)UDT (TC-End)</td> <td style="text-align: center;">←</td> <td style="text-align: center;">← NOTIFY</td> </tr> <tr> <td></td> <td></td> <td style="text-align: center;">→ 200 OK NOTIFY</td> </tr> <tr> <td colspan="3" style="text-align: center;">Apply post test routine</td> </tr> </table>			SCCP	MGCF	Mg		CCNR request successfully invoked		(X)UDT (TC-End)	←	← NOTIFY			→ 200 OK NOTIFY	Apply post test routine		
SCCP	MGCF	Mg																
	CCNR request successfully invoked																	
(X)UDT (TC-End)	←	← NOTIFY																
		→ 200 OK NOTIFY																
Apply post test routine																		

TP number	TP_408_048	Reference	7.5.11.2, table 7.5.11.2.3															
TSS reference	IMS-SS/CC/																	
Selection criteria	PICS 6.3.1/2 AND PICS 6.3.2/24																	
Test Purpose name	Interworking of Remote user free indication at the O-MGCF																	
Test Purpose	Ensure that on receipt of a NOTIFY request the cc-state body is set to 'ready' upon Call completion was successfully invoked, a TC-Cont message is sent containing the CCBS REMOTE USER FREE component																	
TCAP Parameter values	TC-Cont CCBS REMOTE USER FREE																	
SIP Parameter values	NOTIFY: Event: call-completion Content-Type: application/call-completion cc-state: ready																	
Comments																		
Message flows	<table style="width: 100%; border: none;"> <tr> <td style="text-align: center;">SCCP</td> <td style="text-align: center;">MGCF</td> <td style="text-align: center;">Mg</td> </tr> <tr> <td></td> <td style="text-align: center;">CCBS or CCNR request successfully invoked</td> <td></td> </tr> <tr> <td>(X)UDT (TC-Cont)</td> <td style="text-align: center;">←</td> <td style="text-align: center;">← NOTIFY</td> </tr> <tr> <td></td> <td></td> <td style="text-align: center;">→ 200 OK (NOTIFY)</td> </tr> <tr> <td colspan="3" style="text-align: center;">Apply post test routine</td> </tr> </table>			SCCP	MGCF	Mg		CCBS or CCNR request successfully invoked		(X)UDT (TC-Cont)	←	← NOTIFY			→ 200 OK (NOTIFY)	Apply post test routine		
SCCP	MGCF	Mg																
	CCBS or CCNR request successfully invoked																	
(X)UDT (TC-Cont)	←	← NOTIFY																
		→ 200 OK (NOTIFY)																
Apply post test routine																		

6.3.9 Communication Waiting (CW)

TP number	TP_409_001	Reference	7.5.12												
TSS reference	IMS-SS/CW/														
Selection criteria	PICS 6.3.1/2 AND PICS 6.3.2/8														
Test Purpose name	Mapping of Generic notification 'call waiting' in an ACM into Alert-Info header														
Test Purpose	Ensure that on receipt of an ACM the Called party status indicator is set to 'subscriber free' and a Generic notification indicator parameter is present set to "Call is a waiting call", a 180 Ringing is sent. An Alert-Info header is present and the urn is set to 'urn:alert:service:call-waiting'														
ISUP Parameter values	ACM: Backward call indicator Called party status indicator Subscriber free Generic notification Call is a waiting call														
SIP Parameter values	180: Alert-Info urn:alert:service:call-waiting														
Comments															
Message flows	<table style="width: 100%; border: none;"> <tr> <td style="text-align: center;">Mg</td> <td style="text-align: center;">MGCF</td> <td style="text-align: center;">ISUP</td> </tr> <tr> <td>INVITE</td> <td style="text-align: center;">→</td> <td>→ IAM</td> </tr> <tr> <td>180 Ringing</td> <td style="text-align: center;">←</td> <td>← ACM</td> </tr> <tr> <td colspan="3" style="text-align: center;">Apply post test routine</td> </tr> </table>			Mg	MGCF	ISUP	INVITE	→	→ IAM	180 Ringing	←	← ACM	Apply post test routine		
Mg	MGCF	ISUP													
INVITE	→	→ IAM													
180 Ringing	←	← ACM													
Apply post test routine															

TP number	TP_409_002	Reference	7.5.12												
TSS reference	IMS-SS/CW/														
Selection criteria	PICS 6.3.1/2 AND PICS 6.3.2/8														
Test Purpose name	Mapping of Generic notification 'call waiting' in a CPG into Alert-Info header														
Test Purpose	Ensure that on receipt of a CPG the Event indicator is set to 'Alerting' and a Generic notification indicator parameter is present set to "Call is a waiting call", a 180 Ringing is sent. An Alert-Info header is present and the urn is set to 'urn:alert:service:call-waiting'														
ISUP Parameter values	CPG: Event indicator Alerting Generic notification Call is a waiting call														
SIP Parameter values	180: Alert-Info urn:alert:service:call-waiting														
Comments															
Message flows	<table style="width: 100%; border: none;"> <tr> <td style="text-align: center;">Mg</td> <td style="text-align: center;">MGCF</td> <td style="text-align: center;">ISUP</td> </tr> <tr> <td>INVITE</td> <td style="text-align: center;">→</td> <td>→ IAM</td> </tr> <tr> <td>180 Ringing</td> <td style="text-align: center;">←</td> <td>← ACM ← CPG</td> </tr> <tr> <td colspan="3" style="text-align: center;">Apply post test routine</td> </tr> </table>			Mg	MGCF	ISUP	INVITE	→	→ IAM	180 Ringing	←	← ACM ← CPG	Apply post test routine		
Mg	MGCF	ISUP													
INVITE	→	→ IAM													
180 Ringing	←	← ACM ← CPG													
Apply post test routine															

TP number	TP_409_003	Reference	7.5.12
TSS reference	IMS-SS/CW/		
Selection criteria	PICS 6.3.1/2 AND PICS 6.3.2/8		
Test Purpose name	Interworking of the Alert-Info header in a 180 into Generic notification 'Call waiting' in an ACM		
Test Purpose	Ensure that on receipt of a 180 Ringing and an Alert Info header is present the value is set to 'urn:alert:service:call-waiting', an ACM is sent containing a Generic notification indication parameter set to 'Call is a waiting call'		
ISUP Parameter values	ACM: Backward call indicator Called party status indicator Subscriber free Generic notification Call is a waiting call		
SIP Parameter values	180: Alert-Info urn:alert:service:call-waiting		
Comments			
Message flows	Mg IAM → ACM ← Apply post test routine	MGCF T i/w2 expired	ISUP → INVITE ← 100 Trying ← 180 Ringing

TP number	TP_409_004	Reference	7.5.12
TSS reference	IMS-SS/CW/		
Selection criteria	PICS 6.3.1/2 AND PICS 6.3.2/8		
Test Purpose name	Interworking of the Alert-Info header in a 180 into Generic notification 'Call waiting' in a CPG		
Test Purpose	Ensure that on receipt of a 180 Ringing and an Alert Info header is present the value is set to 'urn:alert:service:call-waiting', a CPG is sent containing a Generic notification indication parameter set to 'Call is a waiting call'. The Event indicator is set to 'Alerting'		
ISUP Parameter values	CPG: Event indicator Alerting Generic notification Call is a waiting call		
SIP Parameter values	180: Alert-Info urn:alert:service:call-waiting		
Comments			
Message flows	Mg IAM → ACM CPG ← Apply post test routine	MGCF T i/w2 expired	ISUP → INVITE ← 100 Trying ← 180 Ringing

Annex A (informative): Bibliography

ISO/IEC 9646-3: "Information technology - Open Systems Interconnection - Conformance testing methodology and framework - Part 3: The Tree and Tabular Combined Notation (TTCN)".

History

Document history		
V3.1.1	May 2011	Publication
V3.2.1	July 2012	Publication
V3.3.1	August 2013	Publication