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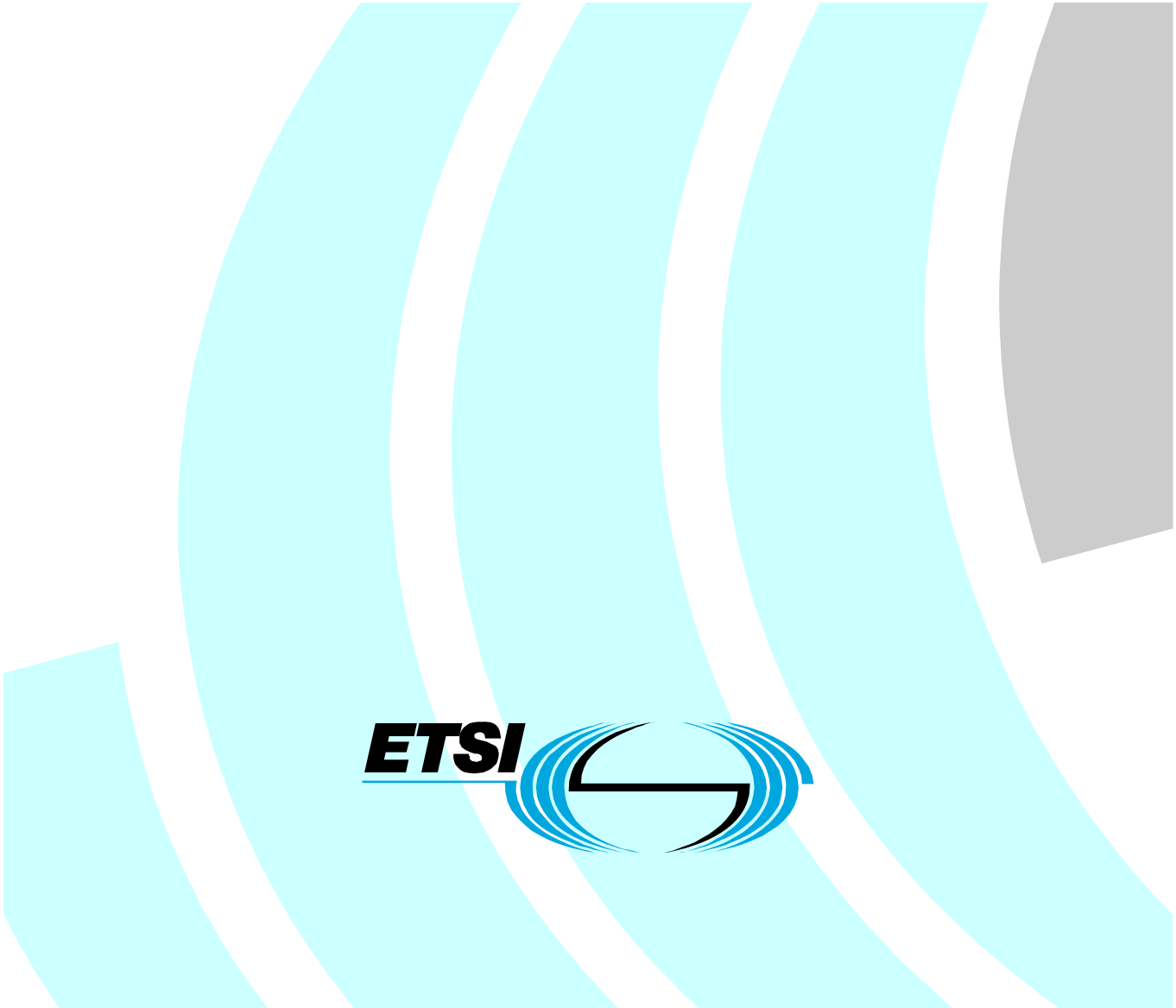
Technical Specification

Technical Committee for IMS Network Testing (INT);
Conference (CONF)
using IP Multimedia (IM) Core Network (CN) subsystem;
Conformance Testing;
Part 2: Test Suite Structure and Test Purposes (TSS&TP)



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Contents

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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 Conference (CONF) using IP Multimedia (IM) Core Network (CN) subsystem; Conformance Testing as identified below:

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

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

Part 3: "Abstract Test Suite (ATS) and partial Protocol Implementation eXtra Information for Testing (PIXIT) proforma specification for the user".

1 Scope

The present document specifies the Test Suite Structure and Test Purposes of the Conference (CONF) service, based on stage 1 and stage 2 of the ISDN conference supplementary services. It provides the protocol details in the IP Multimedia (IM) Core Network (CN) subsystem based on the Session Initiation Protocol (SIP) and the Session Description Protocol (SDP).

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 reference document (including any amendments) applies.

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

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

2.1 Normative references

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

[1] ETSI TS 124 605 (V8.3.0): "Digital cellular telecommunications system (Phase 2+);Universal Mobile Telecommunications System (UMTS); Conference (CONF) using IP Multimedia (IM) Core Network (CN) subsystem; Protocol specification (3GPP TS 24.605 version 8.3.0 Release 8)".

[2] ETSI TS 186 010-1: "Telecommunications and Internet converged Services and Protocols for Advanced Networking (TISPAN); PSTN/ISDN simulation services; Conference (CONF); Part 1: Protocol implementation Conformance Statement (PICS)".

[3] ETSI TS 124 147 (V8.3.0): "Digital cellular telecommunications system (Phase 2+); Universal Mobile Telecommunications System (UMTS); LTE; Conferencing using the IP Multimedia (IM) Core Network (CN) subsystem; Stage 3 (3GPP TS 24.147 version 8.3.0 Release 8)".

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

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.

Not applicable.

3 Definitions and abbreviations

3.1 Definitions

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

Abstract Test Suite (ATS): Refer to ISO/IEC 9646-1 [4].

Implementation Under Test (IUT): Refer to ISO/IEC 9646-1 [4].

PICS proforma: Refer to ISO/IEC 9646-1 [4].

point of control and observation: Refer to ISO/IEC 9646-1 [4].

Protocol Implementation Conformance Statement (PICS): Refer to ISO/IEC 9646-1 [4].

System Under Test (SUT): Refer to ISO/IEC 9646-1 [4].

Test Purpose (TP): Refer to ISO/IEC 9646-1 [4].

3.2 Abbreviations

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

TSS Test Suite Structure

4 Test Suite Structure (TSS) and configuration

Table 1: Test suite structure

ConferenceFocus		
	CreateConf	CONF_N01_xxx
	JoinConf	CONF_N02_xxx
	InviteToConf	CONF_N03_xxx
	LeaveConf	CONF_N04_xxx
	RemoveFromConf	CONF_N05_xxx
	TerminateConf	CONF_N06_xxx
UserEquipment		
		CONF_U01_xxx
Interaction		
	TIR	CONF_N08_xxx
	OIR	CONF_N09_xxx
	ACR-CB	CONF_N10_xxx

4.1 Configuration

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

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

Testing of the Application Server. This entity is responsible to perform the service. Hence the ISC interface is the appropriate access point. Figure 1 points to this.

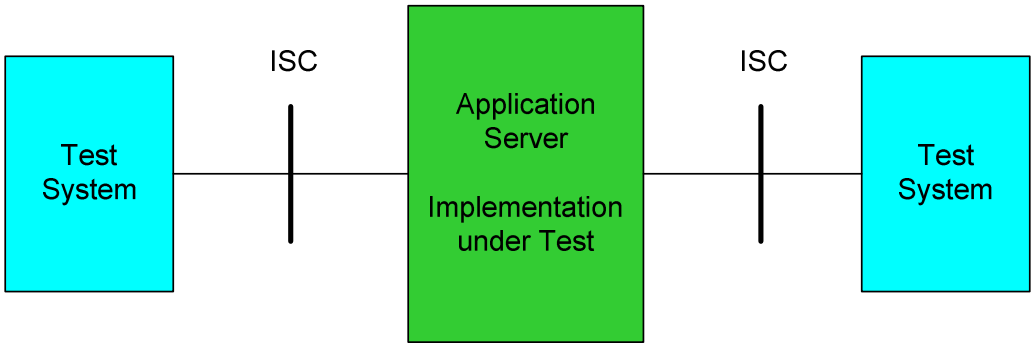

Figure 1: Applicable interface to test AS functionalities

If the ISC interface is not accessible it is also applicable to perform the test of the AS using any NNI (Mw, Mg, Mx) interface (consider figure 2). In case only the Gm interface is accessible this shall be used instead. In this case, be aware that the verification of several requirements is impeded.

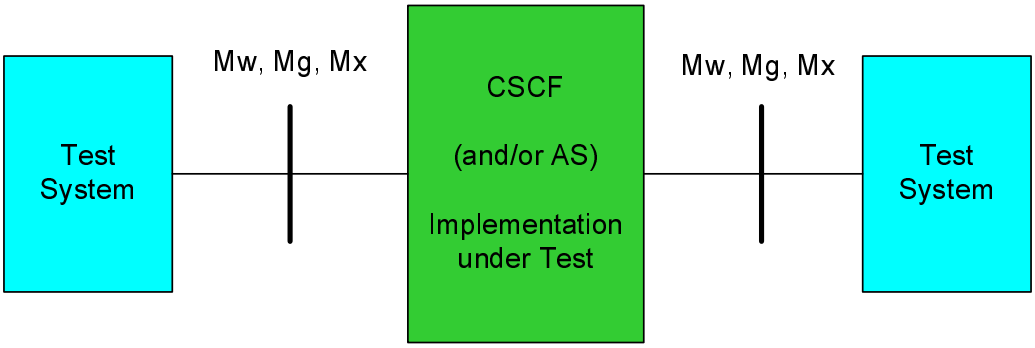

Figure 2: Applicable interfaces to test using the (generic) NNI interface

Figure 2 illustrates the usage of any NNI interface.

5 Test Purposes (TP)

5.1 Introduction

For each test requirement 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 2).

Table 2: TP identifier naming convention scheme

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

5.1.2 Test strategy

As the base standard TS 124 605 [1] contains no explicit requirements for testing, the TPs were generated as a result of an analysis of the base standard and the PICS specification TS 186 010-1 [2].

5.2 Signalling requirements

5.2.1 Conference Focus

5.2.1.1 Conference creation

TSS	**TP**	**Reference**	**Selection expression**
ConferenceFocus/CreateConf	CONF_N01_001	5.3.2.3.1, 5.3.3 [3]	

Test purpose

*Conference creation with a **conference factory URI**. Conference event package subscribed.*

Ensure that a conference can be created by a UE using the conference factory URI. The "isfocus" feature parameter indicated in Contact header is received in the 200 OK (INVITE). In addition the conference participant subscribes to the conference event package and receives a NOTIFY request describing the conference status.

SIP header values:
INVITE: Request URI indicating the conference factory URI
200 OK: conference URI and "isfocus" feature parameter included in Contact header field
SUBSCRIBE: Request URI indicating the conference URI
Event header contains "conference"
NOTIFY: Event contains **conference**; Subscription-State contains **active; expires=xxxx**

Comments:

ISC#1		**Focus**
INVITE	→	
200 OK (INVITE)	←	
ACK	→	
SUBSCRIBE	→	
200 OK (SUBSCRIBE)	←	
NOTIFY	←	
200 OK NOTIFY	→	

Apply post test routine

TSS	TP	Reference	Selection expression
ConferenceFocus/CreateConf	CONF_N01_002	5.3.2.3.1 [3]	

Test purpose

*Conference creation with a **conference factory URI**. Conference event package not subscribed.*

Ensure that a conference can be created by a UE using the conference factory URI. The "isfocus" feature parameter indicated in Contact header is received in the 200 OK (INVITE). The conference participant does not subscribe to the conference event package.

SIP header values:

INVITE: Request URI indicating the conference factory URI
200 OK: conference URI and "isfocus" feature parameter included in Contact header field

Comments:

ISC#1		**Focus**
INVITE	→	
200 OK (INVITE)	←	
ACK	→	

Apply post test routine

TSS	TP	Reference	Selection expression
ConferenceFocus/CreateConf	CONF_N01_003	5.3.2.3.2, 5.3.3 [3]	

Test purpose

*Conference creation with a **conference URI**. Conference event package subscribed.*

Ensure that a conference can be created by a UE using the conference URI. The "isfocus" feature parameter indicated in Contact header is received in the 200 OK (INVITE). In addition the conference participant subscribes to the conference event package and receives a NOTIFY request describing the conference status.

SIP header values:

INVITE: Request URI indicating the conference URI
200 OK: "isfocus" feature parameter included in Contact header field
conference URI contained in the Contact header field
SUBSCRIBE: Request URI indicating the conference URI
Event header contains "conference"
NOTIFY: Event contains **conference**; Subscription-State contains **active; expires=xxxx**

Comments:

ISC#1		**Focus**
INVITE	→	
200 OK (INVITE)	←	
ACK	→	
SUBSCRIBE	→	
200 OK (SUBSCRIBE)	←	
NOTIFY	←	
200 OK NOTIFY	→	

Apply post test routine

TSS	**TP**	**Reference**	**Selection expression**
ConferenceFocus/**CreateConf**	CONF_N01_004	5.3.2.3.2 [3]	

Test purpose

*Conference creation with a **conference URI**. Conference event package not subscribed.*

Ensure that a conference can be created by a UE using the conference URI. The "isfocus" feature parameter indicated in Contact header is received in the 200 OK (INVITE). The conference participant does not subscribe to the conference event package.

SIP header values:

INVITE: Request URI indicating the conference URI

200 OK: "isfocus" feature parameter indicated in Contact header field
conference URI contained in the Contact header field

Comments:

ISC#1		**Focus**
INVITE	→	
200 OK (INVITE)	←	
ACK	→	

Apply post test routine

TSS	TP	Reference	Selection expression
ConferenceFocus/CreateConf	CONF_N01_005	5.3.2.3.1 [3]	

Test purpose

Conference creation with a conference factory URI. Preconditions indicated a conference URI is sent in the first provisional response.

Ensure that a conference can be created by a UE using the conference factory URI. Preconditions are requested by the originating UE. The "isfocus" feature parameter indicated in Contact header is received in the 200 OK (INVITE).

SIP header values:

INVITE: Request URI indicating the conference factory URI
SDP a=curr:qos local none
a=curr:qos remote none
a=des:qos mandatory local sendrecv
a=des:qos none remote sendrecv

183 conference URI contained in the Contact header field
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

200 OK: "isfocus" feature parameter included in Contact header field
conference URI contained in the Contact header field

Comments:

ISC#1		Focus
INVITE	→	
183 Session Progress	←	
PRACK	→	
200 OK PRACK	←	
UPDATE	→	
200 OK UPDATE	←	
200 OK (INVITE)	←	
ACK	→	

Apply post test routine

TSS	TP	Reference	Selection expression
ConferenceFocus/CreateConf	CONF_N01_006	5.3.2.3.1 [3]	

Test purpose

Conference creation with a conference factory URI not allocated in the focus, unsuccessful.

Ensure that a conference cannot be created by a UE using a conference factory URI not allocated in the focus. The request is rejected by the focus with a **488 Not Acceptable Here** final response.

SIP header values:

INVITE: Request URI indicating a conference factory URI not allocated in the focus

Comments:

ISC#1		Focus
INVITE	→	
488 Not Acceptable Here	←	
ACK	→	

5.2.1.2 Joining a conference

TSS	TP	Reference	Selection expression
ConferenceFocus/JoinConf	CONF_N02_001	5.3.2.4.1 [3]	

Test purpose
*Participant **dial-in** the conference, the conference URI is used.*

UE1 (via ISC#1) established a conference. UE2 (via ISC#2) joins in that conference by sending an INVITE request to the conferencing AS (the conference URI is known at the UE2). The request is successful.

SIP header values:
INVITE 2: Request URI indicating the conference URI
18x "isfocus" feature parameter included in Contact header field
200 OK: "isfocus" feature parameter included in Contact header field
conference URI contained in the Contact header field

Comments:

ISC#1		Focus		ISC#2
		Conference creation		
INVITE	→	INVITE		
200 OK (INVITE)	←	200 OK (INVITE)		
ACK	→	ACK		
		UE#2 joining in the conference		
		INVITE	←	INVITE 2
		18x	→	18x
		200 OK INVITE	→	200 OK INVITE
		ACK	←	ACK
		Apply post test routine		

TSS	TP	Reference	Selection expression
ConferenceFocus/JoinConf	CONF_N02_002	5.3.2.4.1 [3]	

Test purpose
*Participant **dial-in** the conference, the conference URI is not allocated, the request is rejected.*

UE2 (via ISC#2) tries to join in a conference but the conference URI in the INVITE request is not allocated at the focus. The request is rejected with the final response 4xx.

SIP header values:
INVITE: Request URI contained the conference URI not allocated in the focus (PIXIT)

Comments:

ISC#1		Focus		ISC#2
		UE#2 joining in the conference		
		INVITE	←	INVITE 2
		4xx	→	4xx
		ACK	←	ACK

5.2.1.3 Inviting other users to a conference

TSS	TP	Reference	Selection expression
ConferenceFocus/InviteToConf	CONF_N03_001	5.3.2.5.2, 5.3.2.5.4 [3]	

Test purpose
Inviting participant by sending REFER to the focus.

UE1 (via ISC#1) established a conference and invites UE2 (connected via ISC#2) to join into the conference. UE1 sends a REFER to the focus; the focus sends an INVITE request to UE2 to invite it to the conference.

SIP header values:

REFER: Request URI indicating the **conference URI**
Refer-To contains the URI of **UE2**, method=INVITE
Referred-By contains SIP URI of **UE1**

INVITE 2: Request URI indicating the address of UE2
The P-Asserted-Identity contains the conference URI.
conference URI and "isfocus" feature parameter indicated in Contact header field
Referred-By contains SIP or tel URI of **UE1**

NOTIFY 1 Event contains **refer**; Subscription-State contains **active**
message/sipfrag contains **SIP/2.0 100 Trying**

NOTIFY 2 Event contains **refer**; Subscription-State contains **terminated**
message/sipfrag contains **SIP/2.0 200 OK**

Comments:

ISC#1		Focus		ISC#2
		Conference creation		
INVITE	→	INVITE		
200 OK (INVITE)	←	200 OK (INVITE)		
ACK	→	ACK		
		UE#1 invites UE#2 to the conference		
REFER	→	REFER		
202 Accepted	←	202 Accepted		
		Focus dials out to invite UE#2		
		INVITE 2	→	INVITE
NOTIFY	←	NOTIFY 1		
200 OK NOTIFY	→	200 OK NOTIFY		
		180 Ringing	←	180 Ringing
		200 OK INVITE	←	200 OK INVITE
		ACK	→	ACK
NOTIFY	←	NOTIFY 2		
200 OK NOTIFY	→	200 OK NOTIFY		
		Apply post test routine		

TSS	TP	Reference	Selection expression
ConferenceFocus/InviteToConf	CONF_N03_002	5.3.2.5.3, 5.3.2.5.4 [3]	

Test purpose
Inviting participant by sending a participant list to the focus.

UE1 (via ISC#1) established a conference. A participant list is contained in the INVITE to create the conference. The AS establishes a communication to the UE2 (via ISC#2) indicated in the participant list.

SIP header values:
INVITE 1: Request URI=Focus
<resource-lists
<entry uri="sip:UE#2 cp:copycontrol="to" />

INVITE 2: Request URI = UE#2
The P-Asserted-Identity contains the conference URI.
conference URI and "isfocus" feature parameter indicated in Contact header field

Comments:

ISC#1		Focus		ISC#2
		Conference creation		
INVITE 1	→	INVITE		
200 OK (INVITE)	←	200 OK (INVITE)		
ACK	→	ACK		
		Focus dials out to invite UE#2		
		INVITE 2	→	INVITE
		200 OK INVITE	←	200 OK INVITE
		ACK	→	ACK
		Apply post test routine		

TSS	TP	Reference	Selection expression
ConferenceFocus	CONF_N03_003	5.3.1.5.4 [3]	

Test purpose
Inviting participant by sending a participant list to the focus in an active session.

UE1 (via ISC#1) established a conference. A participant list is contained in the INVITE to create the conference. The AS establishes a communication to the user indicated in the participant list.

SIP header values:
INVITE 1: Request URI=Focus
<resource-lists
<entry uri="<entry uri="S1 URI?Call-ID=S1&From=S1%3Btag%3DS1&To=S1%3Btag%3DS1"
cp:copyControl="to"/>

INVITE 2: Request URI = ISC#2
The P-Asserted-Identity contains the conference URI.
"isfocus" feature parameter indicated in Contact header field
conference URI contained in the Contact header field

Comments:

ISC#1		Focus		ISC#2
INVITE (S1)				
180 Ringing				
200 OK INVITE				
ACK				
INVITE 1 (S1, sendonly)	→		→	INVITE
200 OK (INVITE)	←		←	200 OK (INVITE (recvonly))
ACK	→		→	ACK
		Conference creation		
INVITE 1 (S2)	→	INVITE		
200 OK (INVITE)	←	200 OK (INVITE)		
ACK	→	ACK		
		Focus dials out to invite ISC#2		
		INVITE 2	→	INVITE
		180 Ringing	←	180 Ringing
		200 OK INVITE	←	200 OK INVITE
		ACK	→	ACK
		Apply post test routine		

TSS	TP	Reference	Selection expression
ConferenceFocus/InviteToConf	CONF_N03_004	5.3.1.3.3, 5.3.1.5.2 [3]	

Test purpose

Three-way session creation. REFER is sent to the participants.

Ensure that it is possible that two active sessions S1 and S2 towards UE2 (via ISC#2) and UE3 (via ISC#3) are joined in a three way session by UE1 and that the existing sessions S1 and S2 can be released by the served user UE1. The remote users receive a REFER request with the Refer-To header containing the address of the Focus directly from UE1. The remote users use the URI of the Refer-To header as the Request URI of the INVITE request.

SIP header values:

REFER (S1): Request line=UE#2
Refer-To=Focus; method=INVITE
Referred-By=UE#1

REFER (S2): Request line=UE#3
Refer-To=Focus; method=INVITE
Referred-By=UE#1

INVITE (S4): Request URI=Focus
Referred-By=UE#1

INVITE (S5): Request URI=Focus
Referred-By=UE#1

Comments:

ISC#1		Focus		ISC#2		ISC#3
		Establish session #1				
		Session #1 on hold				
		Establish session #2				
		Session #2 on hold				
		Conference creation (session #3)				
INVITE (S3)	→	INVITE				
200 OK (INVITE)	←	200 OK (INVITE)				
ACK	→	ACK				
REFER (S1)	→		→	REFER		
202 Accepted	←		←	202 Accepted		
NOTIFY (100)	←		←	NOTIFY (100)		
200 OK (NOTIFY)	→		→	200 OK (NOTIFY)		
		INVITE	←	INVITE (S4)		
		200 OK (INVITE)	→	200 OK (INVITE)		
		ACK	←	ACK		
NOTIFY (200)	←		←	NOTIFY (200)		
200 OK (NOTIFY)	→		→	200 OK (NOTIFY)		
BYE (S1)	→		→	BYE (S1)		
200 OK (BYE)	←		←	200 OK (BYE)		
REFER (S2)	→				→	REFER
202 Accepted	←				←	202 Accepted
NOTIFY (100)	←				←	NOTIFY (100)
200 OK (NOTIFY)	→				→	200 OK (NOTIFY)
		INVITE	←		←	INVITE (S5)
		200 OK (INVITE)	→		→	200 OK (INVITE)
		ACK	←		←	ACK
NOTIFY (200)	←				←	NOTIFY (200)
200 OK (NOTIFY)	→				→	200 OK (NOTIFY)
BYE (S1)	→				→	BYE (S2)
200 OK (BYE)	←				←	200 OK (BYE)
		Apply post test routine				

TSS	TP	Reference	Selection expression
ConferenceFocus/InviteToConf	CONF_N03_005	5.3.1.3.3, 5.3.1.5.3, 5.3.2.5.2 [3]	

Test purpose

Three-way session creation. REFER is sent to the Focus.

Ensure that it is possible that two active sessions S1 and S2 towards UE2 (via ISC#2) and UE3 (via ISC#3) are joined in a three way session by UE1 and that the existing sessions S1 and S2 can be released by the served user UE1. UE1 sends two REFER requests to the conference focus which then sends INVITE requests to UE2 and UE3 containing the Referred-By header indicating UE1.

SIP header values:

REFER (S1): Request line=Focus
Refer-To=UE#2; method=INVITE
Referred-By=UE#1
REFER (S1): Request line=Focus
Refer-To=UE#3; method=INVITE
Referred-By=UE#1
INVITE (S4): Request URI=UE#2
Referred-By=UE#1
INVITE (S5): Request URI=UE#3
Referred-By=UE#1

Comments:

ISC#1		Focus		ISC#2		ISC#3
		Establish session #1				
		Session #1 on hold				
		Establish session #2				
		Session #2 on hold				
		Conference creation (session #3)				
INVITE (S3)	→	INVITE				
200 OK (INVITE)	←	200 OK (INVITE)				
ACK	→	ACK				
REFER (S1)	→	REFER				
202 Accepted	←	202 Accepted				
NOTIFY (100)	←	NOTIFY (100)				
200 OK (NOTIFY)	→	200 OK (NOTIFY)				
		INVITE (S4)	→	INVITE		
		200 OK (INVITE)	←	200 OK (INVITE)		
		ACK	→	ACK		
NOTIFY (200)	←	NOTIFY (200)				
200 OK (NOTIFY)	→	200 OK (NOTIFY)				
BYE (S1)	→		→	BYE (S1)		
200 OK (BYE)	←		←	200 OK (BYE)		
REFER (S2)	→	REFER				
202 Accepted	←	202 Accepted				
NOTIFY (100)	←	NOTIFY (100)				
200 OK (NOTIFY)	→	200 OK (NOTIFY)				
		INVITE (S5)	→		→	INVITE
		200 OK (INVITE)	←		←	200 OK (INVITE)
		ACK	→		→	ACK
NOTIFY (200)	←	NOTIFY (200)				
200 OK (NOTIFY)	→	200 OK (NOTIFY)				
BYE (S1)	→				→	BYE (S2)
200 OK (BYE)	←				←	200 OK (BYE)
		Apply post test routine				

TSS	TP	Reference	Selection expression
ConferenceFocus/InviteToConf	CONF_N03_006	5.3.1.3.3, 5.3.1.5.3, 5.3.2.5.2 [3]	

Test purpose

Three-way session creation. REFER is sent to the Focus. Replaces header included in the REFER.

Ensure that it is possible that two active sessions S1 and S2 towards UE2 (via ISC#2) and UE3 (via ISC#3) are joined in a three way session by UE1 and that the existing sessions S1 and S2 can be released by the remote users UE2 and UE3. UE1 sends two REFER requests including Replaces headers to the conference focus which then sends INVITE requests to UE2 and UE3 containing the Referred-By header indicating UE1 and containing the Replaces header indicating the original dialog sessions.

SIP header values:

REFER (S1): Request line=Focus
Refer-To=UE#2; method=INVITE?Replaces=S1;to-tag=S1;from-tag=S1
Referred-By=UE#1

REFER (S1): Request line=Focus
Refer-To=UE#3; method=INVITE?Replaces=S2;to-tag=S2;from-tag=S2
Referred-By=UE#1

INVITE (S4): Request URI=UE#2
Referred-By=UE#1
Replaces=S1;to-tag=S1;from-tag=S1

INVITE (S5): Request URI=UE#3
Referred-By=UE#1
Replaces=S2;to-tag=S2;from-tag=S2

Comments:

ISC#1		Focus		ISC#2		ISC#3
		Establish session #1				
		Session #1 on hold				
		Establish session #2				
		Session #2 on hold				
		Conference creation (session #3)				
INVITE (S3)	→	INVITE				
200 OK (INVITE)	←	200 OK (INVITE)				
ACK	→	ACK				
REFER (S1)	→	REFER				
202 Accepted	←	202 Accepted				
NOTIFY (100)	←	NOTIFY (100)				
200 OK (NOTIFY)	→	200 OK (NOTIFY)				
		INVITE (S4)	→	INVITE		
		200 OK (INVITE)	←	200 OK (INVITE)		
		ACK	→	ACK		
NOTIFY (200)	←	NOTIFY (200)				
200 OK (NOTIFY)	→	200 OK (NOTIFY)				
BYE (S1)	←		←	BYE (S1)		
200 OK (BYE)	→		→	200 OK (BYE)		
REFER (S2)	→	REFER				
202 Accepted	←	202 Accepted				
NOTIFY (100)	←	NOTIFY (100)				
200 OK (NOTIFY)	→	200 OK (NOTIFY)				
		INVITE (S5)	→		→	INVITE
		200 OK (INVITE)	←		←	200 OK (INVITE)
		ACK	→		→	ACK
NOTIFY (200)	←	NOTIFY (200)				
200 OK (NOTIFY)	→	200 OK (NOTIFY)				
BYE (S1)	←				←	BYE (S2)
200 OK (BYE)	→				→	200 OK (BYE)
		Apply post test routine				

TSS	TP	Reference	Selection expression
ConferenceFocus/InviteToConf	CONF_N03_007	4.5.2.2.1 [1]	

Test purpose

Referred-By value does not contain a valid identity of the requesting user.

Ensure that the invalid identity in the Referred-By header received in the REFER request from UE1 is replaced with the valid value matching the REFER request's P-Asserted-Identity when sending the INVITE request to UE2.

SIP header values:

REFER 1: Request line=Focus
Refer-To=UE#2; method=INVITE
Referred-By=any value not indicating UE#1(PIXIT)
P-Asserted-Identity=UE#1
INVITE 1: Request URI=UE#2
Referred-By=UE#1

Comments:

ISC#1		Focus		ISC#2
		Conference creation		
INVITE	→	INVITE		
200 OK (INVITE)	←	200 OK (INVITE)		
ACK	→	ACK		
		UE#1 invites UE#2 to the conference		
REFER 1	→	REFER		
202 Accepted	←	202 Accepted		
		Focus dials out to invite UE#2		
		INVITE 1	→	INVITE
NOTIFY	←	NOTIFY 1		
200 OK NOTIFY	→	200 OK NOTIFY		
		200 OK INVITE	←	200 OK INVITE
		ACK	→	ACK
NOTIFY	←	NOTIFY 2		
200 OK NOTIFY	→	200 OK NOTIFY		
		Apply post test routine		

TSS	TP	Reference	Selection expression
ConferenceFocus/InviteToConf	CONF_N03_008	4.5.2.2.1 [1]	

Test purpose
Referred-By header not present.

Ensure that the missing Referred-By header in the received REFER request from UE1 is inserted with the valid value matching the REFER request's P-Asserted-Identity when sending the INVITE request to UE2.

SIP header values:
REFER 1: Request line=Focus
Refer-To=UE#2; method=INVITE
P-Asserted-Identity=UE#1
INVITE 1: Request URI=UE#2
Referred-By=UE#1

Comments:

ISC#1		Focus		ISC#2
		Conference creation		
INVITE 1	→	INVITE		
200 OK (INVITE)	←	200 OK (INVITE)		
ACK	→	ACK		
		UE#1 invites UE#2 to the conference		
REFER 1	→	REFER		
202 Accepted	←	202 Accepted		
		Focus dials out to invite UE#2		
		INVITE 1	→	INVITE
NOTIFY	←	NOTIFY 1		
200 OK NOTIFY	→	200 OK NOTIFY		
		180 Ringing	←	180 Ringing
		200 OK INVITE	←	200 OK INVITE
		ACK	→	ACK
NOTIFY	←	NOTIFY 2		
200 OK NOTIFY	→	200 OK NOTIFY		
		Apply post test routine		

5.2.1.4 Leaving a conference

TSS	TP	Reference	Selection expression
ConferenceFocus/LeaveConf	CONF_N04_001	5.3.2.6.1 [3]	

Test purpose
A participant leaves the conference.

UE#2 wishes to leave the conference by sending a BYE request to the focus in accordance to the basic call procedures.

Comments:

ISC#1		Focus		ISC#2
		Conference creation		
INVITE	→	INVITE		
200 OK (INVITE)	←	200 OK (INVITE)		
ACK	→	ACK		
REFER	→			
202 Accepted	←			
		Focus dials out to invite UE#2		
		INVITE	→	INVITE 2
		180 Ringing	←	180 Ringing
		200 OK INVITE	←	200 OK INVITE
		ACK	→	ACK
		Conference communication		
		UE#2 leaves the conference		
			←	BYE
			→	200 OK BYE
		Apply post test routine		

5.2.1.5 Removing a conference participant from a conference

TSS	TP	Reference	Selection expression
ConferenceFocus/RemoveFromConf	CONF_N05_001	5.3.2.6.2.2, 5.3.2.6.2.3 [3]	

Test purpose

The conference owner asks the focus to remove a participant from the conference.

UE1 (via ISC#1) sends a REFER request to removes UE2 from the conference. The focus sends a BYE request to UE2 (via ISC#2).

SIP header values:

REFER 2: Request URI contained the URI of **conference URI**
Refer-To contains the **UE#2 URI**, method=BYE
Referred-By contains the URI of **UE#1 URI**NOTIFY 3 Event contains **conference**; Subscription-State contains **active**
message/sipfrag contains **SIP/2.0 200 OK**

Comments:

ISC#1		Focus		ISC#2
		Conference creation		
INVITE	→	INVITE		
200 OK (INVITE)	←	200 OK (INVITE)		
ACK	→	ACK		
REFER 1	→			
202 Accepted	←			
		UE#2 joining in the conference		
NOTIFY	←	NOTIFY 1		
200 OK NOTIFY	→	200 OK NOTIFY		
		INVITE	→	INVITE 2
		200 OK INVITE	←	200 OK INVITE
		ACK	→	ACK
NOTIFY	←	NOTIFY 2		
200 OK NOTIFY	→	200 OK NOTIFY		
		Conference communication		
		UE#1 wishes to remove UE#2 from the conference		
REFER 2	→	REFER		
202 Accepted	←	202 Accepted		
		Focus removes UE#2 from the conference		
			→	BYE
			←	200 OK BYE
NOTIFY	←	NOTIFY 3		
200 NOTIFY	→	200 NOTIFY		
		Apply post test routine		

TSS	TP	Reference	Selection expression
ConferenceFocus/RemoveFromConf	CONF_N05_002	5.3.2.6.2.2 [3]	

Test purpose

The conference owner asks the focus to remove a user that is not participant from the conference.

UE1 (via ISC#1) sends a REFER request to removes a user that is not participant in the conference from the conference. The focus rejects the request.

SIP header values:

REFER 1: Request URI contained the URI of **conference URI**
Refer-To contains the **URI** of a user that is not conference participant, method=BYE
Referred-By contains the URI of **UE#1 URI**

Comments:

ISC#1		Focus		ISC#2
		Conference creation		
INVITE	→	INVITE		
200 OK (INVITE)	←	200 OK (INVITE)		
ACK	→	ACK		
REFER	→			
202 Accepted	←			
		UE#2 joining in the conference		
		INVITE	→	INVITE 2
		200 OK INVITE	←	200 OK INVITE
		ACK	→	ACK
		Conference communication		
		UE#1 wishes to remove non-participant from the conference		
REFER 1	→	REFER		
4xx	←	4xx		
		Apply post test routine		

5.2.1.6 Conference termination

TSS	TP	Reference	Selection expression
ConferenceFocus/TerminateConf	CONF_N06_001	5.3.2.7 [3]	

Test purpose

The conference owner releases the entire conference by sending a BYE to the focus.

UE1 (via ISCP#1), the conference owner, sends a BYE request to the focus. The entire conference is released.

SIP header values:

BYE 1:
Request URI = conference URI

Comments:

ISC#1		Focus		ISC#2
		Conference creation		
INVITE	→	INVITE		
200 OK (INVITE)	←	200 OK (INVITE)		
ACK	→	ACK		
REFER	→			
202 Accepted	←			
		Focus dials out to invite UE#2		
		INVITE	→	INVITE 2
		180 Ringing	←	180 Ringing
		200 OK INVITE	←	200 OK INVITE
		ACK	→	ACK
		Conference communication		
		UE#1 wishes to finish the entire conference		
BYE 1	→	BYE		
200 OK BYE	←	200 OK BYE		
		Focus removes UE#2 from the conference		
			→	BYE
			←	200 OK BYE
		Apply post test routine		

TSS	TP	Reference	Selection expression
ConferenceFocus/TerminateConf	CONF_N06_002	5.3.2.7 [3]	PICS 1/6

Test purpose

Conference termination when the conference creator has left the conference.

Ensure that the conference is terminated when the conference creator which has created the conference using the conference factory has left the conference.

SIP header values:

INVITE S1: Request URI indicating the conference factory URI
200 OK S1: conference URI and "isfocus" feature parameter included in Contact header field

Comments:

ISC#1		Focus		ISC#2
		Conference creation		
INVITE (S1)	→	INVITE		
200 OK (INVITE) (S1)	←	200 OK (INVITE)		
ACK	→	ACK		
REFER	→			
202 Accepted	←			
		Focus dials out to invite UE#2		
		INVITE (S2)	→	INVITE 2
		200 OK INVITE	←	200 OK INVITE
		ACK	→	ACK
		Conference communication		
		Conference creator leaves the conference		
BYE (S1)	→	BYE (S1)		
200 OK BYE	←	200 OK BYE		
		BYE (S2)	→	BYE
		200 OK BYE	←	200 OK BYE

5.2.2 Actions at the UE

TSS	TP	Reference	Selection expression
UserEquipment	CONF_U01_001	4.5.2.1.2 [3]	

Test purpose

The User Equipment has the capability to create a conference. No subscription to the conference event package.

Ensure that the User Equipment to create a conference with a conference factory, sends an initial INVITE request with the Request URI containing a conference factory URI.

SIP header values:

INVITE: Request URI=conference factory URI
200 OK (INVITE): Contact: conference URI;isfocus

Comments:

User Equipment		Test Equipment
INVITE	→	INVITE
200 OK	←	200 OK
ACK	→	ACK
Apply post test routine		

TSS	TP	Reference	Selection expression
UserEquipment	CONF_U01_002	4.5.2.1.2 [3]	

Test purpose

The User Equipment has the capability to create a conference with. subscription to the conference event package.

Ensure that the User Equipment to create a conference with a conference factory, sends an initial INVITE request with the Request URI containing a conference factory URI and on receipt of a 200 OK response, to subscribe to the conference event package sends a SUBSCRIBE request with Request URI indicating the received conference URI.

SIP header values:
INVITE: Request URI=conference factory URI
200 OK (INVITE): Contact: conference URI;isfocus
SUBSCRIBE: Request URI contained the conference URI
header contains "conference"
NOTIFY: Event contains **conference**; Subscription-State contains **active; expires=xxxx**

Comments:

User Equipment		**Test Equipment**
INVITE	→	INVITE
200 OK	←	200 OK
ACK	→	ACK
SUBSCRIBE	→	SUBSCRIBE
200 OK	←	200 OK
NOTIFY	←	NOTIFY
200 OK NOTIFY	→	200 OK NOTIFY

Apply post test routine

TSS	TP	Reference	Selection expression
UserEquipment	CONF_U01_003	5.3.1.3.3, 5.3.1.5.3 [3]	

Test purpose

Conference creation by Three-way session creation. REFER request to the Focus, Conference notification service is subscribed.

The conference creator is participating in two SIP sessions (S1 and S2) which are put on hold and wants to join together two of these active sessions to a so-called three-way session. The **conference notification service is subscribed**. The conference creator shall perform the following steps:

- Create a conference at the conference factory by sending an INVITE request with the conference factory URI. Receive and store the conference URI in the 200 OK response.
- For each of the active sessions, that are requested to be joined to a three-way session, sends **two REFER requests** with the Request URI indicating the previously received conference URI and the Refer-To header indicating the SIP URI or tel URL of the respective remote user.
- The conference creator releases the sessions 1 and 2 after the receipt of NOTIFY requests indicating that the remote users have successfully joined the three-way session.

SIP header values:

INVITE: Request URI indicating the conference factory URI
200 OK: conference URI and "isfocus" feature parameter indicated in Contact header field

SUBSCRIBE: Request URI contained the conference URI
header contains "conference"
NOTIFY 1 Event contains **conference**; Subscription-State contains **active; expires=xxxx**

REFER: Request URI indicating the conference URI
Refer-to header contains URI of remote user

NOTIFY 2 Event contains **conference**; Subscription-State contains **active**
message/sipfrag contains **SIP/2.0 100 Trying**
NOTIFY 3 Event contains **conference**; Subscription-State contains **active**
message/sipfrag contains **SIP/2.0 200 OK**
application/conference-info+xml contains (S1) connected, dialled-in
NOTIFY 4 Event contains **conference**; Subscription-State contains **active**
message/sipfrag contains **SIP/2.0 100 Trying**
NOTIFY 5 Event contains **conference**; Subscription-State contains **active**
message/sipfrag contains **SIP/2.0 200 OK**
application/conference-info+xml contains (S2) connected, dialled-in

Comments:		
User Equipment		**Test Equipment**
	Create session S1	
	Set session S1 on hold	
	Create session S2	
	Set session S2 on hold	
INVITE	→	INVITE
200 OK	←	200 OK
ACK	→	ACK
SUBSCRIBE	→	SUBSCRIBE
200 OK	←	200 OK
NOTIFY	←	NOTIFY 1
200 OK NOTIFY	→	200 OK NOTIFY
REFER (S1)	→	REFER
202 Accepted	←	202 Accepted
NOTIFY	←	NOTIFY 2 (S1, 100)
200 OK NOTIFY	→	200 OK NOTIFY
NOTIFY	←	NOTIFY 3 (S1, 200)
200 OK NOTIFY	→	200 OK NOTIFY
BYE (S1)	→	BYE
200 OK (BYE)	←	200 OK (BYE)
REFER (S2)	→	REFER
202 Accepted	←	202 Accepted
NOTIFY	←	NOTIFY 4 (S2, 100)
200 OK NOTIFY	→	200 OK NOTIFY
NOTIFY	←	NOTIFY 5 (S2, 200)
200 OK NOTIFY	→	200 OK NOTIFY
BYE (S2)	→	BYE
200 OK (BYE)	←	200 OK (BYE)
	Apply post test routine	

TSS	TP	Reference	Selection expression
UserEquipment	CONF_U01_004	5.3.1.3.3, 5.3.1.5.3 [3]	

Test purpose

Conference creation by Three-way session creation. REFER request to the Focus, Conference notification service not subscribed.

The conference creator is participating in two SIP sessions (S1 and S2) which are put on hold and wants to join together two of these active sessions to a so-called three-way session. The **conference notification service is not subscribed**. The conference creator shall perform the following steps:

- Create a conference at the conference factory by sending an INVITE request with the conference factory URI. Receive and store the conference URI in the 200 OK response.
- For each of the active sessions, that are requested to be joined to a three-way session, sends **two REFER requests** with the Request URI indicating the previously received conference URI and the Refer-To header indicating the SIP URI or tel URL of the respective remote user.

SIP header values:

INVITE: Request URI indicating the conference factory URI
200 OK: conference URI and "isfocus" feature parameter indicated in Contact header field

REFER: Request URI indicating the conference URI
Refer-to header contains the URI of remote user

Comments:

User Equipment		**Test Equipment**
	Create session S1	
	Set session S1 on hold	
	Create session S2	
	Set session S2 on hold	
INVITE	→	INVITE
200 OK	←	200 OK
ACK	→	ACK
REFER (S1)	→	REFER
202 Accepted	←	202 Accepted
REFER (S2)	→	REFER
202 Accepted	←	202 Accepted
	Apply post test routine	

TSS	**TP**	**Reference**	**Selection expression**
UserEquipment	CONF_U01_005	5.3.1.3.3, 5.3.1.5.2 [3]	

Test purpose

Conference creation by Three-way session creation. REFER request to the user, Conference notification service is subscribed.

The conference creator is participating in two SIP sessions (S1 and S2) which are put on hold and wants to join together two of these active sessions to a so-called three-way session. The **conference notification service is subscribed**. The conference creator shall perform the following steps:

- Create a conference at the conference factory by sending an INVITE request with the conference factory URI. Receive and store the conference URI in the 200 OK response.
- For each of the active sessions, that are requested to be joined to a three-way session, sends **two REFER requests** with the Request URI indicating SIP URI or tel URL of the respective remote user and the Refer-To header indicating the the previously received conference URI.
- The conference creator releases the sessions 1 and 2 after the receipt of NOTIFY requests indicating that the remote users have successfully joined the three-way session.

SIP header values:

INVITE: Request URI indicating the conference factory URI
200 OK: conference URI and "isfocus" feature parameter indicated in Contact header field

SUBSCRIBE: Request URI contained the conference URI
header contains "conference"
NOTIFY 1: Event contains **conference**; Subscription-State contains **active; expires=xxxx**

REFER 1: Request URI indicating the remote user of S1
Refer-to header contains the conference URI

NOTIFY 2 Event contains **conference**; Subscription-State contains **active**
message/sipfrag contains **SIP/2.0 100 Trying**
NOTIFY 3 Event contains **conference**; Subscription-State contains **active**
message/sipfrag contains **SIP/2.0 200 OK**
application/conference-info+xml contains (S1) connected, dialled-in

REFER 2: Request URI indicating the remote user of S2
Refer-to header contains the conference URI

NOTIFY 4 Event contains **conference**; Subscription-State contains **active**
message/sipfrag contains **SIP/2.0 100 Trying**
NOTIFY 5 Event contains **conference**; Subscription-State contains **active**
message/sipfrag contains **SIP/2.0 200 OK**
application/conference-info+xml contains (S2) connected, dialled-in

Comments:		
User Equipment		**Test Equipment**
	Create session S1	
	Set session S1 on hold	
	Create session S2	
	Set session S2 on hold	
INVITE	→	INVITE
200 OK	←	200 OK
ACK	→	ACK
SUBSCRIBE	→	SUBSCRIBE
NOTIFY	←	NOTIFY 1
200 OK NOTIFY	→	200 OK NOTIFY
REFER (S1)	→	REFER
202 Accepted	←	202 Accepted
NOTIFY	←	NOTIFY 2 (S1, 100)
200 OK NOTIFY	→	200 OK NOTIFY
NOTIFY	←	NOTIFY 3 (S1, 200)
200 OK NOTIFY	→	200 OK NOTIFY
BYE	→	BYE (S1)
200 OK (BYE)	←	200 OK (BYE)
REFER (S2)	→	REFER
202 Accepted	←	202 Accepted
NOTIFY	←	NOTIFY 4 (S2, 100)
200 OK NOTIFY	→	200 OK NOTIFY
NOTIFY	←	NOTIFY 5 (S2, 200)
200 OK NOTIFY	→	200 OK NOTIFY
BYE	→	BYE (S2)
200 OK (BYE)	←	200 OK (BYE)
Apply post test routine		

TSS	TP	Reference	Selection expression
UserEquipment	CONF_U01_006	5.3.1.3.3, 5.3.1.5.2 [3]	

Test purpose

Conference creation by Three-way session creation. REFER request to the user, Conference notification service is not subscribed.

The conference creator is participating in two SIP sessions (S1 and S2) which are put on hold and wants to join together two of these active sessions to a so-called three-way session. The **conference notification service is not subscribed**. The conference creator shall perform the following steps:

- Create a conference at the conference factory by sending an INVITE request with the conference factory URI. Receive and store the conference URI in the 200 OK response.
- For each of the active sessions, that are requested to be joined to a three-way session, sends **two REFER requests** with the Request URI indicating SIP URI or tel URL of the respective remote user and the Refer-To header indicating the the previously received conference URI.

SIP header values:

INVITE: Request URI indicating the conference factory URI
200 OK: conference URI and "isfocus" feature parameter indicated in Contact header field

REFER 1: Request URI indicating the remote user of S1
Refer-to header contains the conference URI

REFER 2: Request URI indicating the remote user of S2
Refer-to header contains the conference URI

Comments:

User Equipment		**Test Equipment**
	Create session S1	
	Set session S1 on hold	
	Create session S2	
	Set session S2 on hold	
INVITE	→	INVITE
200 OK	←	200 OK
ACK	→	ACK
REFER (S1)	→	REFER
202 Accepted	←	202 Accepted
REFER (S2)	→	REFER
202 Accepted	←	202 Accepted
	Apply post test routine	

TSS	TP	Reference	Selection expression
UserEquipment	CONF_U01_007	5.3.1.4 [3]	

Test purpose

The User Equipment has the capability join a conference.

Ensure that the User Equipment on receipt of a REFER request that contains a Refer-To header indicating a conference URI including the “method” parameter set to INVITE and contains a Referred-By header, sends an INVITE request to the conference URI including the received Referred-By header.

SIP header values:

REFER: Refer-To=conference URI; method=INVITE
Referred-By=Remote User Equipment URI
INVITE: Request URI indicating the received conference URI
Referred-By=Remote User Equipment URI

Comments:

User Equipment		**Test Equipment**
REFER	←	REFER
202 Accepted	→	202 Accepted
INVITE	→	INVITE
	Apply post test routine	

TSS	TP	Reference	Selection expression
UserEquipment	CONF_U01_008	5.3.1.5.2 [3]	

Test purpose

The User Equipment has the capability to invite a participant to the conference. REFER request to the participant.

Ensure that the User Equipment is able to invite a participant to the established conference. The User Equipment sends a REFER request to the participant and the Refer-To header URI is set to the conference URI.

SIP header values:
REFER: Request URI=TestEquipment (User = PIXIT)
Refer-To=conference URI

Comments:

User Equipment		**Test Equipment**
	Create Conference	
REFER	→	REFER
202 Accepted	←	202 Accepted

Apply post test routine

TSS	TP	Reference	Selection expression
UserEquipment	CONF_U01_009	5.3.1.5.3 [3]	

Test purpose

The User Equipment has the capability to invite a participant to the conference. REFER request to the Focus.

Ensure that the User Equipment is able to invite a participant to the established conference. The User Equipment sends a REFER request to the conference AS and the Refer-To header URI is set to the inviting user's URI.

SIP header values:
REFER: Request URI=conference URI
Refer-To=Participant URI (PIXIT); method=INVITE

Comments:

User Equipment		**Test Equipment**
	Create Conference	
REFER	→	REFER
202 Accepted	←	202 Accepted

Apply post test routine

TSS	TP	Reference	Selection expression
UserEquipment	CONF_U01_010	5.3.1.5.4 [3]	

Test purpose

The User Equipment has the capability to invite a participant to the conference. Resource list is used.

Ensure that the User Equipment is able to send a resource list to the conference AS to invite participant(s) to a conference.

SIP header values:

INVITE Request URI indicating the Conference Factory URI
Content-Type: application/resource-lists+xml
Content-Disposition: recipient-list

```
<?xml version="1.0" encoding="UTF-8"?>
<resource-lists xmlns="urn:ietf:params:xml:ns:resource-lists" xmlns:cp="urn:ietf:params:xml:ns:copyControl">
    <list>
        <entry uri="S1 URI"
            cp:copyControl="to"/>
    </list>
</resource-lists>
```

Comments:

User Equipment		**Test Equipment**
INVITE	←	INVITE (S1)
200 OK (INVITE)	→	200 OK (INVITE)
ACK	←	ACK

Apply post test routine

5.3 Interaction with other supplementary services

5.3.1 Terminating Identification Restriction (TIR)

TSS	**TP**	**Reference**	**Selection expression**
Interaction/TIR	CONF_N08_001	4.6.3 [1]	**PICS 1/5**

Test purpose

Remote user requests TIR, no identity information in the conference notification info send in the NOTIFY request to the conference creator.

Ensure the no identity is sent to the conference creator if a Privacy header was received and the privacy value was set to "id" in the 200 OK to the INVITE from the conference focus to invite the participant to the conference.

SIP header values:

200 OK INVITE 2: Privacy: id

NOTIFY 2: Event contains **conference**; Subscription-State contains **active**

application/conference-info+xml:

<*conference-info*>

entity=conference URI, state="full", version="x"

<*conference-state*>

<user-count>2</user-count> if present

<active>true</active> if present

<*users*>

<*user* entity=ISC#1 URI state="full"

<endpoint entity=endpoint ISC#1 URI

<status>connected</status>

<joining-method>dialed-in</ joining-method>

<media id="1"

<status>sendrecv</status>

[No identity information of UE#2 or Element is not present]

Comments:

ISC#1		**Focus**		**ISC#2**
		Conference creation		
INVITE	→	INVITE		
200 OK (INVITE)	←	200 OK (INVITE)		
ACK	→	ACK		
SUBSCRIBE	→	SUBSCRIBE		
200 OK (SUBSCRIBE)	←	200 OK (SUBSCRIBE)		
		UE1#1 invites UE#2 via the conference focus		
REFER	→			
200 OK (REFER)	←			
		Focus invites UE#2 to the conference		
NOTIFY	←	NOTIFY 1		
200 OK NOTIFY	→	200 OK NOTIFY		
		INVITE	→	INVITE 2
		200 OK INVITE	←	200 OK INVITE 2
		ACK	→	ACK
NOTIFY	←	NOTIFY 2		
200 OK NOTIFY	→	200 OK NOTIFY		
		Apply post test routine		

5.3.2 Originating Identification Restriction (OIR)

TSS	**TP**	**Reference**	**Selection expression**
Interaction/OIR	CONF_N09_001	4.6.5 [1]	**PICS 1/4**

Test purpose

Conference creator subscribes to OIR in permanent mode. The There is no identity information of the creator included in the conference notification sent to the conference participants.

Ensure that the conference notification sent in the NOTIFY request to the participant after it has joined the conference if the conference creator has subscribed to the OIR service.

SIP header values:

SUBSCRIBE: Request URI contained the conference URI, Event contains "conference"
Event header contains "conference"
NOTIFY 3: Event contains **conference**; Subscription-State contains **active; expires=xxxx**
application/conference-info+xml:
<*conference-info*>
entity=conference URI state="full" version="x"
<*conference-state*>
<user-count>2</user-count> if present
<active>true</active> if present
<*users*>
[No identity information of UE#1 or Element is not present]
<*user* entity=ISC#2 URI state="full"
<endpoint entity=endpoint ISC#2 URI
<status>connected</status>
<joining-method>dialed-in</ joining-method>
<media id="1"
<status>sendrecv</status>

Comments:

ISC#1		**Focus**		**ISC#2**
		Conference creation		
INVITE	→	INVITE		
200 OK (INVITE)	←	200 OK (INVITE)		
ACK	→	ACK		
		UE1#1 invites UE#2 via the conference focus		
REFER	→			
200 OK (REFER)	←			
		Focus invites UE#2 to the conference		
NOTIFY	←	NOTIFY 1		
200 OK NOTIFY	→	200 OK NOTIFY		
		INVITE	→	INVITE 2
		200 OK INVITE	←	200 OK INVITE
		ACK	→	ACK
NOTIFY	←	NOTIFY 2		
200 OK NOTIFY	→	200 OK NOTIFY		
			←	SUBSCRIBE
			→	200 OK (SUBSCRIBE)
		NOTIFY 3	→	NOTIFY
		200 OK NOTIFY	←	200 OK NOTIFY
		Apply post test routine		

TSS	TP	Reference	Selection expression
Interaction/OIR	CONF_N09_002	4.6.5 [1]	PICS 1/4

Test purpose

Conference creator subscribes to OIR in temporary mode. Referred-By is not sent in the INVITE request if a Privacy header set to value "user" was received in the REFER.

Ensure that the Referred-By header received in the REFER request to the conference focus is not sent in the INVITE request to the participant to be invited to the conference if the REFER request contained Referred-By header and a Privacy header set to "user".

SIP header values:

REFER 1: Referred-By=UE#1
Privacy: user
INVITE 1: Request URI=UE#2
no Referred-By included

Comments:

ISC#1		Focus		ISC#2
		Conference creation		
INVITE	→	INVITE		
200 OK (INVITE)	←	200 OK (INVITE)		
ACK	→	ACK		
		UE1#1 invites UE#2 via the conference focus		
REFER 1	→	REFER		
202 Accepted	←	202 Accepted		
		Focus dials out to invite UE#2		
		INVITE 1	→	INVITE
NOTIFY	←	NOTIFY 1		
200 OK NOTIFY	→	200 OK NOTIFY		
		200 OK INVITE	←	200 OK INVITE
		ACK	→	ACK
NOTIFY	←	NOTIFY 2		
200 OK NOTIFY	→	200 OK NOTIFY		
		Apply post test routine		

TSS	TP	Reference	Selection expression
Interaction/OIR	CONF_N09_003	4.6.5/ [1]	PICS 1/4

Test purpose

Conference creator subscribes to OIR in temporary mode. Referred-By is not inserted into the INVITE request if Privacy value "user" was received in the REFER.

Ensure that if the Referred-By header is not received in the REFER request to the conference focus, it is not iserted into the INVITE request sent to the participant to be invited to the conference if the REFER request contained a Privacy header set to "user".

SIP header values:

REFER 1: no Referred-By present
Privacy: user
INVITE 1: Request URI=UE#2
no Referred-By inserted

Comments:

ISC#1		Focus		ISC#2
		Conference creation		
INVITE	→	INVITE		
200 OK (INVITE)	←	200 OK (INVITE)		
ACK	→	ACK		
		UE1#1 invites UE#2 via the conference focus		
REFER 1	→	REFER		
202 Accepted	←	202 Accepted		
		Focus dials out to invite UE#2		
			INVITE 1 →	INVITE
NOTIFY	←	NOTIFY 1		
200 OK NOTIFY	→	200 OK NOTIFY		
			200 OK INVITE ←	200 OK INVITE
			ACK →	ACK
NOTIFY	←	NOTIFY 2		
200 OK NOTIFY	→	200 OK NOTIFY		
		Apply post test routine		

TSS	TP	Reference	Selection expression
Interaction/OIR	CONF_N09_004	4.6.5 [1]	PICS 1/4

Test purpose

Conference creator subscribes to OIR in temporary mode. Referred-By is not inserted into the INVITE request if Privacy value "header" was received in the REFER.

Ensure that if the Referred-By header is not received in the REFER request to the conference focus, it is not iserted into the INVITE request sent to the participant to be invited to the conference if the REFER request contained a Privacy header set to "header".

SIP header values:

REFER 1: no Referred-By present
Privacy: header
INVITE 1: Request URI=UE#2
no Referred-By inserted

Comments:

ISC#1		Focus		ISC#2
		Conference creation		
INVITE	→	INVITE		
200 OK (INVITE)	←	200 OK (INVITE)		
ACK	→	ACK		
		UE1#1 invites UE#2 via the conference focus		
REFER 1	→	REFER		
202 Accepted	←	202 Accepted		
		Focus dials out to invite UE#2		
		INVITE 1	→	INVITE
NOTIFY	←	NOTIFY 1		
200 OK NOTIFY	→	200 OK NOTIFY		
		200 OK INVITE	←	200 OK INVITE
		ACK	→	ACK
NOTIFY	←	NOTIFY 2		
200 OK NOTIFY	→	200 OK NOTIFY		
		Apply post test routine		

5.3.3 Anonymous Communication Rejection and Communication Barring (ACR/CB)

TSS	TP	Reference	Selection expression
Interaction/ACR-CB	CONF_N10_001	4.6.9 [1]	PICS 1/6

Test purpose

Conference creator subscribes to ACR/CB and has Outgoin Call Barring activated for UE2. Conference invitation for UE2 via REFER is rejected.

Ensure that the conference AS rejects the REFER request targeted at a participant (UE2) that is barred by the conference creator's Outgoing Communication Barring rules.

SIP header values:

REFER: Request URI contained the **conference URI**
Refer-To contains the URI of **UE#2**, method=invite
Referred-By contains SIP URI of **UE#1**

Comments:

ISC#1		Focus		ISC#2
		Conference creation		
INVITE	→	INVITE		
200 OK (INVITE)	←	200 OK (INVITE)		
ACK	→	ACK		
		UE1#1 invites outgoing call barred UE#2 via the conference focus		
REFER	→	REFER		
4xx	←	4xx		
		Apply post test routine		

TSS	TP	Reference	Selection expression
Interaction/ACR-CB	CONF_N10_002	4.6.9 [1]	PICS 1/6

Test purpose

Conference creator subscribes to ACR/CB and has Outgoin Call Barring activated for UE2. Conference invitation for UE2 via the uri-list is rejected.

Ensure that the focus AS removes the URI of UE2 that is barred by the conference creator's Outgoing Communication Barring rules from the list of URIs in the "recipient-list" body of INVITE request. UE2 is not invited to the conference.

SIP header values:

INVITE (S1) Request URI indicating Conference Factory
Content-Type: application/resource-lists+xml
Content-Disposition: recipient-list

```
<?xml version="1.0" encoding="UTF-8"?>
<resource-lists xmlns="urn:ietf:params:xml:ns:resource-lists" xmlns:cp="urn:ietf:params:xml:ns:copyControl">
    <list>
        <entry uri="UE#2" cp:copyControl="to"/>
        <entry uri="UE#3" cp:copyControl="to"/>
    </list>
</resource-lists>
```

Comments:

ISC#1		Focus	ISC#2		ISC#3
INVITE (S1)	→	INVITE			
200 OK (INVITE)	←	200 OK (INVITE)			
ACK	→	ACK			
			INVITE (S2)	→	INVITE
			200 OK (INVITE)	←	200 OK (INVITE)
			ACK	→	ACK

Apply post test routine

6 Compliance

An ATS which complies with the present document shall:

a) consist of a set of test cases corresponding to the set or to a subset of the TPs specified in clause 5;

b) use a TSS which is an appropriate subset of the whole of the TSS specified in clause 4;

c) use the same naming conventions for the test groups and test cases;

d) maintain the relationship specified in clause 5 between the test groups and TPs and the entries in the PICS proforma to be used for test case deselection;

In the case of a) or b) above, a subset shall be used only where a particular Abstract Test Method (ATM) makes some TPs untestable. All testable TPs from clause 5 shall be included in a compliant ATS.

History

Document history		
V2.1.1	July 2009	Publication
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