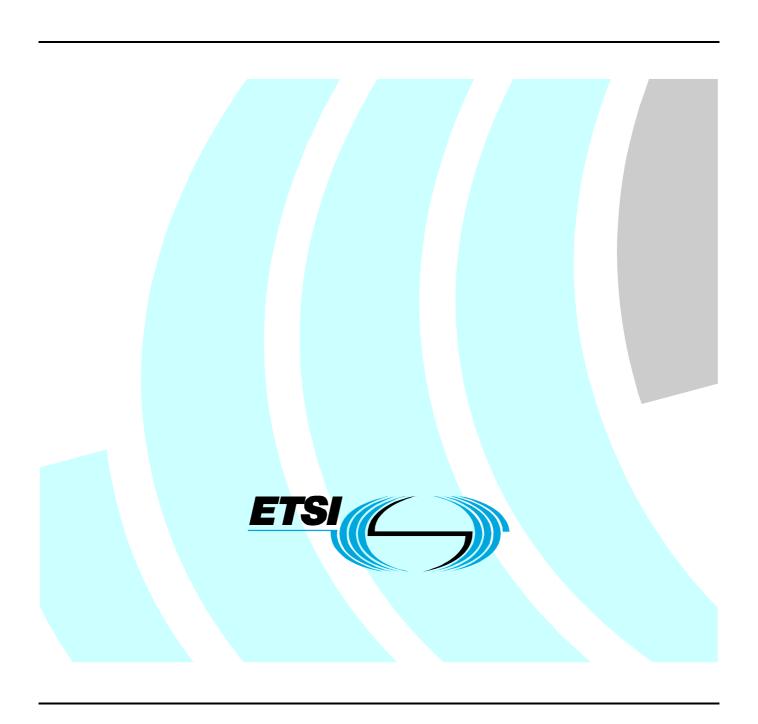
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Technical Specification

IMS Network Testing (INT); Network Integration Testing; Part 3: Test Suite Structure and Test Purposes (TSS&TP) for SIP-SIP



Reference
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Keywords
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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 3 of a multi-part deliverable covering Network Integration Testing, as identified below:

- Part 1: "Test Suite Structure and Test Purposes (TSS&TP) for SIP-ISDN";
- Part 2: "Abstract Test Suite (ATS) and partial Protocol Implementation eXtra Information for Testing (PIXIT) proforma specification";
- Part 3: "Test Suite Structure and Test Purposes (TSS&TP) for SIP-SIP";
- Part 4: "Abstract Test Suite (ATS) and partial Protocol Implementation eXtra Information for Testing (PIXIT) proforma specification".

1 Scope

[11]

Void.

The present document specifies the Test Suite Structure and Test Purposes (TSS&TP) for Network Integration Testing (NIT) to verify the overall compatibility of IMS networks. For IMS, SIP and SDP specific terminology, reference shall be made to ES 283 003 [1] and RFC 3261 [3] respectively.

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.

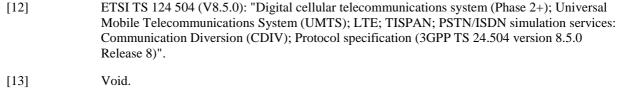
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2.1 Normative references

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

=	
[1]	ETSI ES 283 003 (V2.6.1): "Telecommunications and Internet converged Services and Protocols for Advanced Networking (TISPAN); IP Multimedia Call Control Protocol based on Session Initiation Protocol (SIP) and Session Description Protocol (SDP) Stage 3 [3GPP TS 24.229 [Release 7], modified]".
[2]	ETSI TS 124 503 (V8.5.0): "Digital cellular telecommunications system (Phase 2+); Universal Mobile Telecommunications System (UMTS); LTE; TISPAN; IP Multimedia Call Control Protocol based on Session Initiation Protocol (SIP) and Session Description Protocol (SDP) Stage 3 [3GPP TS 24.229 (Release 7), modified] (3GPP TS 24.503 version 8.5.0 Release 8)".
[3]	IETF RFC 3261 (2002): "SIP: Session Initiation Protocol".
[4]	ISO/IEC 9646-1 (1994): "Information technology - Open Systems Interconnection - Conformance testing methodology and framework - Part 1: General concepts".
[5]	ISO/IEC 9646-2 (1994): "Information technology - Open Systems Interconnection - Conformance testing methodology and framework - Part 2: Abstract Test Suite specification".
[6]	ISO/IEC 9646-3 (1998): "Information technology - Open Systems Interconnection - Conformance testing methodology and framework - Part 3: The Tree and Tabular Combined Notation (TTCN)".
[7]	Void.
[8]	ISO/IEC 9646-5 (1994): "Information technology - Open Systems Interconnection - Conformance testing methodology and framework - Part 5: Requirements on test laboratories and clients for the conformance assessment process".
[9]	ISO/IEC 9646-7 (1995): "Information technology - Open Systems Interconnection - Conformance testing methodology and framework - Part 7: Implementation Conformance Statements".
[10]	ETSI TS 124 229 (V7.15.0): "Digital cellular telecommunications system (Phase 2+); Universal Mobile Telecommunications System (UMTS); LTE; Internet Protocol (IP) multimedia call control protocol based on Session Initiation Protocol (SIP) and Session Description Protocol (SDP); Stage 3 (3GPP TS 24.229 version 7.15.0 Release 7)".



- [14] ETSI TS 124 407 (V7.0.0): "Digital cellular telecommunications system (Phase 2+); Universal Mobile Telecommunications System (UMTS); TISPAN; PSTN/ISDN simulation services; Originating Identification Presentation (OIP) and Originating Identification Restriction (OIR); Protocol specification (3GPP TS 24.407 version 7.0.0 Release 7)".
- ETSI TS 124 410 (V7.0.0): "Digital cellular telecommunications system (Phase 2+); Universal [15] Mobile Telecommunications System (UMTS); TISPAN; NGN Signalling Control Protocol; Communication HOLD (HOLD) PSTN/ISDN simulation services; Protocol specification (3GPP TS 24.410 version 7.0.0 Release 7)".
- [16] IETF RFC 4566 (2006): "SDP: Session Description Protocol".
- IETF RFC 3312 (2002): "Integration of Resource Management and Session Initiation Protocol [17] (SIP)".
- [18] IETF RFC 3311 (2002): "The Session Initiation Protocol (SIP) UPDATE Method".
- [19] ETSI TS 124 147 (V8.2.0): "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 8.2.0 Release 8)".
- [20] Void.
- ETSI TS 124 615 (V8.2.0): "Digital cellular telecommunications system (Phase 2+); Universal [21] Mobile Telecommunications System (UMTS); LTE; Communication Waiting (CW) using IP Multimedia (IM) Core Network (CN) subsystem; Protocol Specfication (3GPP TS 24.615 version 8.2.0 Release 8)".
- ETSI TS 124 642 (V8.2.0): "Digital cellular telecommunications system (Phase 2+); Universal [22] Mobile Telecommunications System (UMTS); LTE; Completion of Communications to Busy Subscriber (CCBS) and Completion of Communications by No Reply (CCNR) using IP Multimedia (IM) Core Network (CN) subsystem; Protocol Specification (3GPP TS 24.642 version 8.2.0 Release 8)".
- [23] ETSI TS 124 529 (V8.1.0): "Digital cellular telecommunications system (Phase 2+); Universal Mobile Telecommunications System (UMTS); LTE; TISPAN; PSTN/ISDN simulation services: Explicit Communication Transfer (ECT); Protocol specification (3GPP TS 24.529 version 8.1.0 Release 8)".
- ETSI TS 124 508 (V8.1.0): "Digital cellular telecommunications system (Phase 2+): Universal [24] Mobile Telecommunications System (UMTS); PSTN/ISDN simulation services Terminating Identification Presentation (TIP) and Terminating Identification Restriction (TIR); Protocol specification (3GPP TS 24.508 version 8.1.0 Release 8)".
- [25] IETF RFC 5366: "Conference Establishment Using Request-Contained Lists in the Session Initiation Protocol (SIP)".

Informative references 2.2

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 following terms and definitions apply:

For SIP and SDP specific terminology, reference shall be made to RFC 3261 [3] and RFC 4566 [16] respectively.

SIP precondition: Indicates the support of the SIP "precondition procedure" as defined in RFC 3312 [17].

test purpose: non-formal test description, mainly using text

NOTE: TSIs test description can be used as the basis for a formal test specification (e.g. Abstract Test Suite in TTCN). See ISO 9646 (all parts) [4] to [9].

The test purposes have been defined from the user's viewpoint and the abbreviation "UE" is used in the description. However, the detailed comments section uses the abbreviation "UA" for test system instances of the users.

3.2 Conventions for representation of SIP/SDP information

1) All letters of SIP method names are capitalised.

EXAMPLE 1: INVITE, INFO.

2) SIP header fields are identified by the unabbreviated header field name as defined in the relevant RFC, including capitalization and enclosed hyphens but excluding the following colon.

EXAMPLE 2: To, From, Call-ID.

3) Where it is necessary to refer with finer granularity to components of a SIP message, the component concerned is identified by the ABNF rule name used to designate it in the defining RFC (generally 25/RFC 3261 [3]), in plain text without surrounding angle brackets.

EXAMPLE 3: Request-URI, the userinfo portion of a sip: URI.

4) URI types are represented by the lower-case type identifier followed by a colon and the abbreviation "URI".

EXAMPLE 4: sip: URI, tel: URI.

5) SIP provisional responses and final responses other than 2XX are represented by the status code followed by the normal reason phrase for that status code, with initial letters capitalized.

EXAMPLE 5: 100 Trying, 484 Address Incomplete.

6) Because of potential ambiguity within a call flow about which request a 200 OK final response answers, 200 OK is always followed by the method name of the request.

EXAMPLE 6: 200 OK INVITE, 200 OK PRACK.

7) A particular line of an SDP session description is identified by the two initial characters of the line -- that is, the line type character followed by "=".

EXAMPLE 7: m=line, a=line.

8) Where it is necessary to refer with finer granularity to components of a session description, the component concerned is identified by its rule name in the ABNF description of the SDP line concerned, delimited with angle brackets.

EXAMPLE 8: The <media> and <fmt> components of the m= line.

3.3 Abbreviations

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

ABNF Augmented Backus-Naur Form

ATS Abstract Test Suite

CCBS Completion of Communications to Busy Subscriber CCNR Completion of Communications by No Reply

CD Communication Deflection
CDIV Communication DIVersion

CDIVN Communication DIVersion Notification CFB Communication Forwarding Busy

CFNL Communication Forwarding on Not Logged-in CFNR Communication Forwarding No Replay

CFNRc Communication Forwarding on subscriber Not Reachable

CFU Communication Forwarding Unconditional

CONF CONFerence CW Call Waiting

ECT Explicit Communication Transfer

HOLD communication HOLD
IUT Implementation Under Test
NDUB Network Determined User Busy
OIP Originating Identification Presentation
OIR Originating Identification Restriction

PIXIT Protocol Implementation eXtra Information for Testing

SDP Session Description Protocol SIP Session Initiation Protocol SUT System Under Test

TIP Terminating Identification Presentation
TIR Terminating Identification Restriction

TP Test Purpose

TSI Test System Interface
TSS Test Suite Structure

TTCN Test and Test Control Notation

UA User Agent

UDUB User Determined User Busy

UE User Equipment

4 Test Suite Structure (TSS)

4.1 SIP-SIP

C - Plane / U - Plane Basic_Call

Dasic_Call				
	Successful			
		Normal call establishment	SS_	XXxx
		Codec negotiation	SS	CNxx
		UPDATE	SS	XX_UP_xx
	Unsuccessful		SS	XX Uxx
Supplementary_Services	1			
	OIP		SS	_XXSS_OIPxx
	OIR		SS	XXSS OIRxx
	TIP		SS	XXSS_TIPxx
	TIR		SS	XXSS TIRxx
	HOLD		SS	XXSS_CHxx
	CDIV			
		CFU	SS	XXSS_CFUxx
		CFB	SS	XXSS_CFBxx
		CFNR	SS_	_XXSS_CFNRxx
		CFNRc	SS_	_XXSS_CFNRcxx
		CFNL	SS_	_XXSS_CFNLxx
		CD	SS_	_XXSS_CDxx
	CONF			
		CONF_CRE	SS	_XXSS_CONF_CRExx
		CONF_IN	SS	_XXSS_CONF_INVxx
		CONF_LEAV	SS	XXSS_CONF_LEAVxx
		CONF_REMOV	SS	_XXSS_CONF_REMOVxx
	CW		SS	XXSS_CWxx
	CCBS		SS	XXSS_CCBSxx
	CCNR		SS	XXSS CCNRxx
	ECT		SS_	_XXSS_ECT
	-			

5 Numbering Scheme

5.1 General description

Pos. 1: Network of the A-Subscriber

Pos. 2: Network of the B-Subscriber

Pos. 3: Network of the C-Subscriber

Pos. 4: Network of the D-Subscriber

Pos. 5: Network of the E-Subscriber

The following Network Codes apply:

_: No such network used (used e.g. for C-Subscriber in successful A to B Calls)

(underscore makes it easier to read the name)

P: PSTN

I: ISDN

S: SIP

(Extensions will be added when needed)

Pos. 6 and 7: Bearer- or Teleservice involved

XX: Defined per PIXIT value

NOTE: TSIs may be appropriate for Test Purposes (provided the Test Purpose states for which Bearer- and/or

Tele Services it should be tested). It is however NOT appropriate for Test Cases since it would be

detrimental to Test Automation.

SP: Speech

AU: 3,1 kHz Audio

UD: UDI

UT: UDI/TA

CN: Codec negotiation

DT: DTMF

UP: UPDATE Method

Pos. 8 and 9:

__: No Supplementary Services Involved / Successful

_U: No Supplementary Services Involved / Unsuccessful

SS: Supplementary Services Involved

5.2 Basic Call

	Speech			ISXX_XX						
1	2	3	4	5	6	7	8	9	10	11
I	S	_	_	_	S	Р	_	_	Х	Х

5.3 Supplementary Services

CLIP

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
	S				Χ	Χ	S	S	С	L		Р	Х	Χ

XXSSCLIP XX

6 Test purposes

The registration and application usage procedures in the ATS shall be compliant to RFC 3261 [3] and ES 283 003 [1] (modified TS 124 229 [10] and TS 124 503 [2]). The validation of the registration procedure is out of scope of the present document and will be part of the preambles used in the abstract test cases.

6.1 Test purposes for Basic Call

6.1.1 Test purposes for SIP-SIP, Basic call, Successful

6.1.1.1 Normal call establishment

SSXX01	NGN reference to:						
	RFC 3261 [3]	0.544					
	TS 124 229 [10], clauses 5.1	•					
TSS reference:	SIP-SIP/Basic_call/Successful.						
Selection criteria:							
Test purpose:	Ensure that call establishment between UE A and UE B is handled correctly when reliable provisional responses and the precondition framework are not used. Ensure that the handling and mapping of the SDP parameters of the INVITE message is performed correctly. The call is released by the called user. Ensure that in the active call state the voice/data transfer on the media channels is performed correctly (e.g. testing QoS parameters).						
SIP Parameter values:	INVITE: Require header without 100rel and precondition option tags sdp: PIXIT (Value should be taken from tables 1 and 2) 180 Ringing: Require header without 100rel						
Comments:	SIP UA A		SUT	SIP UA B			
	180 Ringing 200 OK INVITE ACK	→ ← ← → Che	→ ← ← → eck media ←	INVITE 180 Ringing 200 OK INVITE ACK BYE 200 OK BYE			

SSXX02	NGN reference to: RFC 3261 [3], RFC 3312 [17] TS 124 229 [10], clauses 5.1.3, 5.1.4				
TSS reference:	SIP-SIP/Basic_call/Successful.				
Selection criteria:					
Test purpose:	Ensure that call establishment between UE A and UE B is handled correctly when reliable provisional responses and the precondition framework are used. Ensure that the messages for the resource negotiation and reservation are delivered correctly. The call is released by the called user. Ensure that in the active call state the voice/data transfer on the media channels is performed correctly (e.g. testing QoS parameters).				
SIP Parameter values:	INVITE: Supported header with 100rel and precondition option tags sdp: PIXIT (Value should be taken from tables 1 and 2) a=curr and a=des lines present				
	183 Session Progress: Require header with 100rel sdp: a=curr and a=des lines present				
	UPDATE1 sdp: a=curr and a=des lines present				

Comments:	SIP UA A	S	UT	SIP UA B
	INVITE	→	→	INVITE
		Start resource negot	tiation/reserv	vation
	183 Session Progress	←	←	183 Session Progress
	PRACK	→	→	PRACK
	200 OK PRACK	←	←	200 OK PRACK
	UPDATE	→	→	UPDATE1
	200 OK UPDATE1	←	←	200 OK UPDATE
		End resource negot	iation/reserv	ration
	180 Ringing	←	←	180 Ringing
	PRACK	→	→	PRACK
	200 OK PRACK	←	←	200 OK PRACK
	200 OK INVITE	←	←	200 OK INVITE
	ACK	→	→	ACK
		Check n	nedia	
	BYE	←	←	BYE
	200 OK BYE	→	→	200 OK BYE

RFC 3261 [3] TS 124 229 [10], clauses 5.1.3, 5.1.4 P-SIP/Basic_call/Successful. Insure that call establishment between liable provisional responses and the insure that the handling and mapping erformed correctly. The call is release insure that in the active call state the performed correctly (e.g. testing QoS performed correctly (e.	n UE A and UE B is precondition frame of the SDP parame and by the calling us voice/data transfer of	vork are not used. ters of the INVITE message is er.				
nsure that call establishment between liable provisional responses and the nsure that the handling and mapping erformed correctly. The call is released as the state that in the active call state the	precondition framever of the SDP paramered by the calling uswoice/data transfer of	vork are not used. ters of the INVITE message is er.				
liable provisional responses and the nsure that the handling and mapping erformed correctly. The call is release nsure that in the active call state the	precondition framever of the SDP paramered by the calling uswoice/data transfer of	vork are not used. ters of the INVITE message is er.				
liable provisional responses and the nsure that the handling and mapping erformed correctly. The call is release nsure that in the active call state the	precondition framever of the SDP paramered by the calling uswoice/data transfer of	vork are not used. ters of the INVITE message is er.				
INVITE: Require header without 100rel and precondition option tags sdp: PIXIT (Value should be taken from tables 1 and 2) 180 Ringing:						
SIP UA A	SUT	SIP UA B				
	→	INVITE 180 Ringing 200 OK INVITE ACK BYE 200 OK BYE				
\	VITE: quire header without 100rel and prescribed prescr	/ITE: quire header without 100rel and precondition option tage: PIXIT (Value should be taken from tables 1 and 2) Pixinging: quire header without 100rel SIP UA A SUT /ITE Pixinging OK INVITE K Check media				

SSXX_04	NGN referen								
	RFC 3261 [3], RFC								
	TS 124 229 [10], claus								
TSS reference:	SIP-SIP/Basic_call/Suc	cessful.							
Selection criteria:									
Test purpose:	Ensure that call establishment between UE A and UE B is handled correctly when								
		eliable provisional responses and the precondition framework are used.							
		Ensure that the messages for the resource negotiation and reservation are delivered							
		correctly. The call is released by the calling user.							
	Ensure that in the active call state the voice/data transfer on the media channels is								
		performed correctly (e.g. testing QoS parameters).							
SIP Parameter values:	INVITE:								
	Supported header with			IS					
	sdp: PIXIT (Value show		tables 1 and 2)						
	a=curr and a=des	lines present							
	102 Cassian Drawns								
	183 Session Progress:	01							
	Require header with 10								
	sdp: a=curr and a=des	lines present							
	UPDATE1								
	sdp: a=curr and a=des	lines present							
Comments:	SIP UA A	оо р. ооо	SUT	SIP UA B					
	INVITE	→	→	INVITE					
		Start resource r	negotiation/reserv	vation					
	183 Session Progress	←	←	183 Session Progress					
	PRACK	→	→	PRACK					
	200 OK PRACK	←	←	200 OK PRACK					
	UPDATE	→	→	UPDATE1					
	200 OK UPDATE1	←	←	200 OK UPDATE					
		End resource n	egotiation/reserv	ration					
	180 Ringing	←	←	180 Ringing					
	PRACK	→	→	PRACK					
	200 OK PRACK	←	←	200 OK PRACK					
	200 OK INVITE	←	(200 OK INVITE					
	ACK	→	→	ACK					
		_	eck media						
	BYE	→	→	BYE					
	200 OK BYE	←	←	200 OK BYE					

Table 1: Values for the test purpose SS__XX__01 to SS__XX__04

		m= line		b= line	a= line		
VA	<media></media>	<transport></transport>	<fmt-list></fmt-list>	<modifier>:<bandwidth-value></bandwidth-value></modifier>	rtpmap: <dynamic-pt> <encoding name="">/<clock rate="">[/encoding parameters></clock></encoding></dynamic-pt>		
				See note			
VA_01	Audio	RTP/AVP	0	N/A or up to 64 kbit/s	N/A		
VA_02	Audio	RTP/AVP	Dynamic PT	N/A or up to 64 kbit/s	rtpmap: <dynamic-pt> PCMU/8000</dynamic-pt>		
VA_03	Audio	RTP/AVP	8	N/A or up to 64 kbit/s	N/A		
VA_04	Audio	RTP/AVP	Dynamic PT	N/A or up to 64 kbit/s	rtpmap: <dynamic-pt> PCMA/8000</dynamic-pt>		
VA_05	Image	Udptl	t38	N/A or up to 64 kbit/s	Based on T.38		
VA_06	Image	Tcptl	t38	N/A or up to 64 kbit/s	Based on T.38		
NOTE: <bandwidth value=""> for <modifier> of AS is evaluated to be B kbit/s.</modifier></bandwidth>							

Table 2: Values for test purposes SS___XX__01 and SS___XX__04

VARIABLE	PT	Encoding	media type	clock rate	channels
VA_01	0	PCMU	Α	8,000	1
VA_02	3	GSM	Α	8,000	1
VA_03	4	G723	Α	8,000	1
VA_04	5	DVI4	Α	8,000	1
VA_05	6	DVI4	Α	16,000	1
VA_06	7	LPC	Α	8,000	1
VA_07	8	PCMA	Α	8,000	1
VA_08	9	G722	Α	8,000	1
VA_09	10	L16	Α	44,100	2
VA_10	11	L16	Α	44,100	1
VA_13	12	QCELP	Α	8,000	1
VA_12	13	CN	Α	8,000	1
VA_13	14	MPA	Α	90,000	
VA_14	15	G728	Α	18,000	1
VA_15	16	DVI4	Α	11,025	1
VA_16	17	DVI4	Α	22,050	1
VA_17	18	G729	Α	8,000	1
VA_18	Dyn	G726-40	Α	8,000	1
VA_19	Dyn	G726-32	Α	8,000	1
VA_20	Dyn	G726-24	Α	8,000	1
VA_21	Dyn	G726-16	Α	8,000	1
VA_22	Dyn	G729D	Α	8,000	1
VA_23	Dyn	G729E	Α	8,000	1
VA_24	Dyn	GSM-EFR	Α	8,000	1
VA_25	25	CelB	V	90,000	
VA_26	26	JPEG	V	90,000	
VA_27	28	Nv	V	90,000	
VA_28	31	H261	V	90,000	
VA_29	32	MPV	V	90,000	
VA_30	33	MP2T	V	90,000	
VA_31	34	H263	V	90,000	
VA_32	Dyn	H263-1998	V	90,000	

6.1.1.2 Codec negotiation

SSCN01	NGN referen RFC 3261			
	TS 124 229 [10], claus			
TSS reference:	SIP-SIP/Basic_call/Cod	ec negotiation.		
Selection criteria:				
Test purpose:				a session which was set-up
				aracteristics of the media
	session by sending a re			
				d ACK messages correctly.
				ith the re-negotiated media
	is performed correctly (e	e.g. testing QoS	parameters).	
SIP Parameter values:	re-INVITE:			
	sdp: PIXIT (Value shoul	d be taken from	tables 1 and 2).	
Comments:	SIP UA A		SUT	SIP UA B
	INVITE	→	→	INVITE
	180 Ringing	←	←	180 Ringing
	200 OK INVITE	←	(200 OK INVITE
	ACK	→	→	ACK
	re-INVITE	→	→	re-INVITE
	200 OK re-INVITE	←	←	200 OK re-INVITE
	ACK	→	→	ACK
		Ch	neck media	
	BYE	←	←	BYE
	200 OK BYE	→	→	200 OK BYE

SSCN02	NGN referen	C 3312 [17]		
T00 (TS 124 229 [10], clau			
TSS reference:	SIP-SIP/Basic_call/Cod	ec negotiation.		
Selection criteria:	E 4 44 U.F.			
Test purpose:	with using the precondi session by sending a re transports the re-INVITE	tion mechanism to -INVITE request, E request and the re ata transfer on the r	change the chara elated 200 OK and media channels w	session which was set-up cteristics of the media d ACK messages correctly. ith the re-negotiated media
SIP Parameter values:	re-INVITE:			
	sdp: PIXIT (Value shoul			
Comments:	SIP UA A		SUT	SIP UA B
	INVITE	→	→	INVITE
		Start resource ne	gotiation/reservat	
			+	183 Session Progress SDP
	183 Session Progress SDP	←		
	PRACK	→	→	PRACK
	200 OK PRACK	←	←	200 OK PRACK
	UPDATE	→	→	UPDATE
	200 OK UPDATE	←	←	200 OK UPDATE
		End resource ne	gotiation/reservati	
	180 Ringing	←	←	180 Ringing
	PRACK	→	→	PRACK
	200 OK PRACK	←	←	200 OK PRACK
	200 OK INVITE	←	←	200 OK INVITE
	ACK	→	→	ACK
	re-INVITE	→	→	re-INVITE
	200 OK re-INVITE	←	←	200 OK re-INVITE
	ACK	→	→	ACK
		Chec	k media	
	BYE	←	+	BYE
	200 OK BYE	→	→	200 OK BYE
NOTE: Re-Invite may	need precondition, too	(but is out of scope	of this test case).	

SSCN03	NGN reference RFC 3261 [3				
	TS 124 229 [10], clause				
TSS reference:	SIP-SIP/Basic_call/Codec	negotiation.			
Selection criteria:					
Test purpose:	Ensure that the SUT, when the called user decides during a session which was set-up without using the precondition mechanism to change the characteristics of the media session by sending a re-INVITE, transports the re-INVITE request and the related 200 OK and ACK messages correctly. Ensure that the voice/data transfer on the media channels with the re-negotiated media is performed correctly (e.g. testing QoS parameters).				
SIP Parameter values:	re-INVITE:	<u> </u>	,		
	sdp: PIXIT (Value should	oe taken from ta	ables 1 and 2).		
Comments:	SIP UA A		SUT	SIP UA B	
	INVITE	→	→	INVITE	
	180 Ringing	←	←	180 Ringing	
	200 OK INVITE	←	←	200 OK INVITE	
	ACK	→	→	ACK	
	re-INVITE	←	←	re-INVITE	
	200 OK re-INVITE	→	→	200 OK re-INVITE	
	ACK	←	←	ACK	
		Che	eck media		
	BYE	←	←	BYE	
	200 OK BYE	→	→	200 OK BYE	

SSCN04	NGN reference RFC 320	61 [3]				
T00 (TS 124 229 [10], cla					
TSS reference:	SIP-SIP/Basic_call/C	odec negotiation.				
Selection criteria:		 				
Test purpose:	with using the precor session by sending a transports the re-INVI	ndition mechanism to re-INVITE, TE request and the data transfer on the	change the chara related 200 OK an media channels w	session which was set-up acteristics of the media d ACK messages correctly.		
SIP Parameter value	re-INVITE: sdp: PIXIT (Value sho	ould he taken from t	ables 1 and 2)			
Comments:	SIP UA A	Jaia Do tanon nom t	SUT	SIP UA B		
Commonto.	INVITE	→	→	INVITE		
		Start resource r	negotiation/reserva			
			+	183 Session Progress SDP		
	183 Session Progress	s ←				
	PRACK	→	→	PRACK		
	200 OK PRACK	←	←	200 OK PRACK		
	UPDATE	→	→	UPDATE		
	200 OK UPDATE	←	←	200 OK UPDATE		
		End resource negotiation/reservation				
	180 Ringing	←	←	180 Ringing		
	PRACK	→	→	PRACK		
	200 OK PRACK	(←	200 OK PRACK		
	200 OK INVITE	←	-	200 OK INVITE		
	ACK	→	→	ACK		
	re-INVITE re-INVITE	(÷	re-INVITE re-INVITE		
	200 OK	→	→	200 OK		
	ACK	←	←	ACK		
	DVE	-	eck media	DVE		
	BYE	← →	←	BYE		
NOTE: De la site	200 OK BYE			200 OK BYE		
NOTE: Re-Invite	may need precondition, to	o (but is out of scop	e of this test case).			

SSCN05	NGN reference to: RFC 3261 [3]						
	TS 124 229 [10], clauses 5.1.3	3, 5.1.4					
TSS reference:	:	SIP-SIP/Basic_call/Codec negotiation					
Selection criteria:	-						
Test purpose:	Ensure that the SUT can correctly transport an SDP answer related to the SDP offer in the INVITE request in the 180 Ringing message, which is sent reliably. Ensure that the voice/data transfer on the media channels with the re-negotiated media is performed correctly (e.g. testing QoS parameters).						
SIP Parameter	INVITE:	,					
values:	sdp: PIXIT (Value should be taken Supported header with 100rel opt 180 Ringing: sdp: PIXIT (Value should be taken Require header with 100rel option	ion tag ı from tables 1 a ı tag	ınd 2)				
Comments:	SIP UA A	SUT		SIP UA B			
	INVITE 180 Ringing with SDP answer PRACK 200 OK PRACK 200 OK INVITE ACK	÷ ÷ ÷ Check med		INVITE 180 Ringing with SDP answer PRACK 200 OK PRACK 200 OK INVITE ACK			
	BYE 200 OK BYE	← →	← →	BYE 200 OK BYE			

SSCN06	NGN reference to: RFC 3261 [3] TS 124 229 [10], clauses 5.1.3, 5.	1.4				
TSS reference:	SIP-SIP/Basic_call/Codec negotiation.					
Selection criteria:						
Test purpose:	Ensure that the SUT can correctly the INVITE request in the 183 Sess Ensure that the voice/data transfer is performed correctly (e.g. testing 0)	ion Pi on the	rogress message e media channel	e, which is sent reliably.		
SIP Parameter	INVITE:					
values:	sdp: PIXIT (Value should be taken f Supported header with 100rel optic					
	183 Session Progress: sdp: PIXIT (Value should be taken f	from t	ables 1 and 2)			
	Require header with 100rel option		abics i and 2)			
Comments:	SIP UA A		SUT	SIP UA B		
	INVITE	→	→	INVITE		
	183 Session Progress with SDP answer	←	←	183 Session Progress with SDP answer		
	PRACK	→	→	PRACK		
	200 OK PRACK	←	←	200 OK PRACK		
	180 Ringing	←	←	180 Ringing		
	200 OK INVITE	←	←	200 OK INVITE		
	ACK	→	→	ACK		
		Ch	eck media			
	BYE	←	←	BYE		
	200 OK BYE	→	→	200 OK BYE		

SSCN07	NGN reference to: RFC 3261 [3]				
	TS 124 229 [10], clauses 5.1.3, 5.	1.4			
TSS reference:	SIP-SIP/Basic_call/Codec negotiatio				
Selection criteria:					
Test purpose:	Ensure that the SUT can correctly transport an SDP answer related to the SDP offer in the INVITE request in the 200 OK message. Ensure that the voice/data transfer on the media channels with the re-negotiated media is performed correctly (e.g. testing QoS parameters).				
SIP Parameter	INVITE:				
values:	sdp: PIXIT (Value should be taken fr	om tab	les 1 and 2)		
	200 OK: sdp: PIXIT (Value should be taken fr	om tab	les 1 and 2)		
Comments:	SIP UA A		SUT	SIP UA B	
	INVITE	→	→	INVITE	
	180 Ringing	←	←	180 Ringing	
	200 OK INVITE with SDP answer	←	+	200 OK INVITE with SDP answer	
	ACK	→	→	ACK	
		Che	ck media		
	BYE	←	←	BYE	
	200 OK BYE	→	→	200 OK BYE	

6.1.1.3 UPDATE method

SSUP01	NGN reference RFC 3261 [3], RFC TS 124 229 [10], claus	3311 [18]			
TSS reference:	SIP-SIP/Basic call/upda	•			
Selection criteria:	_				
Test purpose:	Ensure that the SUT, when the calling user decides during a session which was set-up without using the precondition mechanism to change the characteristics of the media session by sending an UPDATE request, transports the UPDATE request and the related 200 OK and ACK messages correctly. Ensure that the voice/data transfer on the media channels with the re-negotiated media is performed correctly (e.g. testing QoS parameters).				
SIP Parameter values:	UPDATE:	ng. tosting Qoo p	arameters).		
on random values.	sdp: PIXIT (Value should	d be taken from t	ables 1 and 2).		
Comments:	SIP UA A		SUT	SIP UA B	
	INVITE	→	→	INVITE	
	180 Ringing	←	←	180 Ringing	
	200 OK INVITE	←	←	200 OK INVITE	
	ACK	→	→	ACK	
	UPDATE	→	→	UPDATE	
	200 OK UPDATE	←	←	200 OK UPDATE	
		Ch	eck media		
	BYE	←	←	BYE	
	200 OK BYE	→	→	200 OK BYE	

SSUP02	NGN referer RFC 3261 [3], RF						
	RFC 3311						
	TS 124 229 [10], clau	ses 5.1.3, 5.1.4					
TSS reference:	SIP-SIP/Basic_call/upda	SIP-SIP/Basic_call/update.					
Selection criteria:							
Test purpose:	Ensure that the IUT, when the calling user decides during a session which was set-up with using the precondition mechanism to change the characteristics of the media session by sending an UPDATE request, transports the UPDATE request and the related 200 OK message correctly. Ensure that the voice/data transfer on the media channels with the re-negotiated media is performed correctly (e.g. testing QoS parameters).						
SIP Parameter values:	UPDATE:		•				
	sdp: PIXIT (Value should						
Comments:	SIP UA A		SUT	SIP UA B			
	INVITE	→	→	INVITE			
		Start resource ne	gotiation/reservat				
			←	183 Session Progress SDP			
	183 Session Progress SDP	←					
	PRACK	→	→	PRACK			
	200 OK PRACK	←	←	200 OK PRACK			
	UPDATE	→	→	UPDATE			
	200 OK UPDATE	_ ←	←	200 OK UPDATE			
			gotiation/reservati				
	180 Ringing	((180 Ringing			
	PRACK	→	→	PRACK			
	200 OK PRACK	((200 OK PRACK			
	200 OK INVITE	((200 OK INVITE			
	ACK	→	→	ACK			
	UPDATE)	→	UPDATE			
	200 OK UPDATE	←	←	200 OK UPDATE			
	DVE		k media	DVE			
	BYE	← →	←	BYE			
NOTE: UPDATE afte	200 OK BYE			200 OK BYE ut of scope of this test case).			

SSUP03	NGN reference			
	RFC 3261 [3], RFC			
	TS 124 229 [10], clause	s 5.1.3, 5.1.4		
TSS reference:	SIP-SIP/Basic_call/update	=		
Selection criteria:				
Test purpose:	Ensure that the SUT, wher	the called user	decides during a	session which was set-up
	without using the precond	ition mechanism	to change the ch	aracteristics of the media
	session by sending an UP			
	transports the UPDATE re-			
				ith the re-negotiated media
	is performed correctly (e.g	testing QoS par	ameters).	
SIP Parameter values:	UPDATE:			
	sdp: PIXIT (Value should b			
Comments:	SIP UA A		SUT	SIP UA B
	INVITE	→	→	INVITE
	180 Ringing	←	←	180 Ringing
	200 OK INVITE	←	←	200 OK INVITE
	ACK	→	→	ACK
	UPDATE	←	←	UPDATE
	200 OK UPDATE	→	→	200 OK UPDATE
		Chec	k media	
	BYE	←	←	BYE
	200 OK BYE	→	→	200 OK BYE

SSUP04	NGN refere						
	RFC 3261 [3], RF RFC 3311						
	TS 124 229 [10], clar		4				
TSS reference:		SIP-SIP/Basic_call/update.					
Selection criteria:							
Test purpose:				session which was set-up			
	with using the precondit			acteristics of the media			
	session by sending an U						
	transports the UPDATE						
				vith the re-negotiated media			
OID D	is performed correctly (e	e.g. testing QoS	parameters).				
SIP Parameter values:	UPDATE:	d b a 4alva a fua aa	tables 4 and 9\				
Comments:	sdp: PIXIT (Value should SIP UA A	d be taken from	SUT	SIP UA B			
Comments.	INVITE	→	→	INVITE			
	INVIIL	-	e negotiation/reserva				
		Otan 1030ard	+ Tiogotiation/Tosciva	183 Session Progress			
			_	SDP			
	183 Session Progress	←					
	SDP						
	PRACK	→	→	PRACK			
	200 OK PRACK	←	←	200 OK PRACK			
	UPDATE	→	→	UPDATE			
	200 OK UPDATE	_ ←	←	200 OK UPDATE			
	100 D: :		negotiation/reserva				
	180 Ringing	((180 Ringing			
	PRACK	→ ←	→	PRACK			
	200 OK PRACK 200 OK INVITE	-	-	200 OK PRACK 200 OK INVITE			
	ACK	→	→	ACK			
	UPDATE	É	÷	UPDATE			
	200 OK UPDATE	÷	÷	200 OK UPDATE			
		-	heck media				
	BYE	←	+	BYE			
	200 OK BYE	→	→	200 OK BYE			
NOTE: UPDATE afte	r session establishment r	may need preco	ondition, too (but is o	ut of scope of this test case).			

SSUP05	NGN reference	to:		
	RFC 3261 [3], RFC 3			
	RFC 3311 [18			
	TS 124 229 [10], clauses	5.1.3, 5.1.4		
TSS reference:	SIP-SIP/Basic_call/update	٠.		
Selection criteria:				
Test purpose:	Ensure that the IUT, after a			
	been answered in a reliabl			
	calling user decides befor			
	characteristics of the medi			
	transports the UPDATE re			
				ith the re-negotiated media
	is performed correctly (e.g	. testing QoS p	arameters).	
SIP Parameter values:	INVITE:			
	Allow including UPDATE	100 1		
	Supported header include	100rel		
	sdp offer1			
	400 Din sin su			
	180 Ringing: Allow including UPDATE			
	Require header include 10	Oral		
	sdp answer1	orei		
	sup answer i			
	UPDATE:			
	sdp offer2			
	5dp 511612			
	200 OK UPDATE:			
	sdp answer2			
Comments:	SIP UA A		SUT	SIP UA B
	INVITE (sdp offer1)	→	→	INVITE (sdp offer1)
	180 Ringing	←	←	180 Ringing
	(sdp answer1)			(sdp answer1)
	PRACK	→	→	PRACK
	200 OK PRACK	←	←	200 OK PRACK
	UPDATE (sdp offer2)	→	→	UPDATE (sdp offer2)
	200 OK UPDATE	←	+	200 OK UPDATE
	(sdp answer2)	_		(sdp answer2)
	200 OK INVITE	(←	200 OK INVITE
	ACK	→	→	ACK
	5.45	_	eck media	D)/F
	BYE	((BYE
	200 OK BYE	→	→	200 OK BYE

SSUP06	NGN reference	to:		
	RFC 3261 [3], RFC 33	312 [17],		
	RFC 3311 [18			
	TS 124 229 [10], clauses	5.1.3, 5.1.4		
TSS reference:	SIP-SIP/Basic_call/update			
Selection criteria:				
Test purpose:	Ensure that the IUT, after a			
	been answered in a reliably			
	called user decides before			
	characteristics of the media			
	transports the UPDATE red			
				ith the re-negotiated media
	is performed correctly (e.g.	. testing QoS p	arameters).	
SIP Parameter values:	INVITE:			
	Allow including UPDATE			
	Supported header include	100rel		
	sdp offer1			
	400 Dinging			
	180 Ringing: Allow including UPDATE			
	Require header include 10	Orol		
	sdp answer1	orei		
	sup answer i			
	UPDATE:			
	sdp offer2			
	Sup 5.1.5.2			
	200 OK UPDATE:			
	sdp answer2			
Comments:	SIP UA A		SUT	SIP UA B
	INVITE (sdp offer1)	→	→	INVITE (sdp offer1)
	180 Ringing	←	←	180 Ringing
	(sdp answer1)			(sdp answer1)
	PRACK	→	→	PRACK
	200 OK PRACK	←	←	200 OK PRACK
	UPDATE (sdp offer2)	←	←	UPDATE (sdp offer2)
	200 OK UPDATE	→	→	200 OK UPDATE
	(sdp answer2)	_	_	(sdp answer2)
	200 OK INVITE	((200 OK INVITE
	ACK	→	→	ACK
	D./E	_	eck media	D)/E
	BYE	((BYE
	200 OK BYE	→	→	200 OK BYE

SSUP07	NGN reference			
	RFC 3261 [3], RFC			
	RFC 3311 [1			
	TS 124 229 [10], clause			
TSS reference:	SIP-SIP/Basic_call/update).		
Selection criteria:				
Test purpose:	Ensure that the IUT, after			
	calling user and an SDP o			
	message has been answe			
	calling user decides before			
	characteristics of the medi			
	transports the UPDATE re			rith the re-negotiated media
	is performed correctly (e.g			illi tile re-negotiated media
SIP Parameter values:	INVITE:	. testing Quo pa	irameters).	
On rarameter values.	Allow including UPDATE			
	Supported header include	100rel		
	sdp not present1			
	' '			
	180 Ringing:			
	Allow including UPDATE			
	Require header include 10	00rel		
	sdp offer1			
	DD 4 OK			
	PRACK:			
	sdp answer1			
	UPDATE:			
	sdp offer2			
	Sup Official			
	200 OK UPDATE:			
	sdp answer2			
Comments:	SIP UA A		SUT	SIP UA B
	INVITE (no sdp)	→	→	INVITE (no sdp)
	180 Ringing (sdp offer1)	←	←	180 Ringing (sdp offer1)
	PRACK(sdp answer1)	→	→	PRACK(sdp answer1)
	200 OK PRACK	((200 OK PRACK
	UPDATE (sdp offer2)	→	→	UPDATE (sdp offer2)
	200 OK UPDATE	+	+	200 OK UPDATE
	(sdp answer2) 200 OK INVITE	←	←	(sdp answer2) 200 OK INVITE
	ACK	→	→	ACK
	AUR	=	ck media	AUR
	BYE	←	tk illedia	BYF
	200 OK BYE	÷	÷	200 OK BYE
l	ILOO OK DIL			LOG OILDIL

SSUP_08	NGN reference	; tO:				
	RFC 3261 [3], RFC 3	3312 [17],				
	RFC 3311 [1					
	TS 124 229 [10], clause					
TSS reference:	SIP-SIP/Basic_call/update	•				
Selection criteria:						
Test purpose:	Ensure that the IUT, after a					
	calling user and an SDP of					
	message has been answe					
	called user decides before					
	characteristics of the media					
	transports the UPDATE red					
				ith the re-negotiated media		
	is performed correctly (e.g.	testing QoS par	ameters).			
SIP Parameter values:	INVITE:					
	Allow including UPDATE Supported header:100rel					
	sdp not present1					
	Sup not present i					
	180 Ringing:					
	Allow including UPDATE					
	Require header include 10	0rel				
	sdp offer1	0.0.				
	•					
	PRACK:					
	sdp answer1					
	UPDATE:					
	sdp offer2					
	000 01/1100 475					
	200 OK UPDATE:					
0	sdp answer2		\ 	OID IIA D		
Comments:	SIP UA A		SUT	SIP UA B		
	INVITE (no sdp)	→ ←	→	INVITE (no sdp)		
	180 Ringing (sdp offer1) PRACK(sdp answer1)	→	→	180 Ringing (sdp offer1) PRACK(sdp answer1)		
	200 OK PRACK			200 OK PRACK		
	UPDATE (sdp offer2)	-	-	UPDATE (sdp offer2)		
	200 OK UPDATE	à	•	200 OK UPDATE		
	(sdp answer2)	-	•	(sdp answer2)		
	200 OK INVITE	(←	200 OK INVITE		
	ACK	→	→	ACK		
		Chec	k media			
	BYE	←	←	BYE		
	200 OK BYE	→	→	200 OK BYE		

6.1.2 Test purposes for SIP-SIP, Basic call, Unsuccessful

SSXX_U01	NGN reference to: RFC 3261 [3] TS 124 229 [10], clause 5.2.	2 2	
TSS reference:	SIP-SIP/Basic_call/Unsuccess		
Selection criteria:	CH OH / Daolo_call/ Chicacocc	idi.	
Test purpose:			ce Unavailable message from the called 503 Service Unavailable message to the
SIP Parameter values:	Dial string parameters options= TYPE_SDP= PIXIT	-PIXIT	
Comments:	SIP UA A	SUT	SIP UA B
	INVITE 500 Server Internal Error or 503 Service Unavailable	→	→ INVITE← 503 Service Unavailable
	ACK	→	→ ACK

SSXX_U02	NGN reference to: RFC 3261 [3] TS 124 229 [10], clause 5.2.6.3		
TSS reference:	SIP-SIP/Basic_call/Unsuccessful.		
Selection criteria:			
Test purpose:	Ensure that the SUT delivers a 486 user.	Busy Here message	e from the called to the calling
SIP Parameter values:	Dial string parameters options=PIX TYPE_SDP= PIXIT	ΊΤ	
Comments:	SIP UA A	SUT	SIP UA B
	INVITE →	→	INVITE
	486 Busy Here ←	(486 Busy Here
	ACK →	→	ACK

SSXX_U03	NGN reference to: RFC 3261 [3]				
TSS reference:	SIP-SIP/Basic call/Unsuccessful.				
Selection criteria:	J., 724010_0411, 01104000001411				
Test purpose:	Ensure that when there is no answer from the called user (there is no response to the INVITE messages), the SUT initiates call clearing to the calling user with a 480 Temporarily Unavailable or 408 Request Timeout message.				
SIP Parameter values:	Dial string parameters options=PIXTYPE_SDP= PIXIT	(IT			
Comments:	SIP UA A	SUT	SIP UA B		
	INVITE ->	→	INVITE		
	100 Trying ←				
		→	INVITE		
		→	INVITE		
		→	INVITE		
		→	INVITE		
		→	INVITE		
		→	INVITE		
		→	INVITE		
	480 Temporarily Unavailable ← or 408 Request Timeout	_			
	ACK ·				
NOTE: No 100 Trying	g response by UA-B.				

SSXX_U04	NGN reference to: RFC 3261 [3] TS 124 229 [10], clause 5.2.	6.3	
TSS reference:	SIP-SIP/Basic_call/Unsuccess	ful.	
Selection criteria:			
Test purpose:	Ensure that the SUT delivers a called user to the calling user		navailable message from the alerting ce).
SIP Parameter values:	Dial string parameters options TYPE_SDP= PIXIT	=PIXIT	
Comments:	SIP UA A	SUT	SIP UA B
	INVITE 180 Ringing 480 Temporary unavaible ACK	→ ← ← →	 → INVITE ← 180 Ringing ← 480 Temporary unavaible → ACK

SSXX_U05	NGN reference to: RFC 3261 [3]			
	TS 124 229 [10]			
TSS reference:	SIP-SIP/Basic_call/Unsucces	sful.		
Selection criteria:				
Test purpose:	Ensure that when the calling or receiving an answer to the prodelivers the CANCEL message	eviously ser	nt INVITE reques	ANCEL message before of from the called user, the SUT
SIP Parameter values:	Dial string parameters options TYPE_SDP= PIXIT	=PIXIT		
Comments:	SIP UA A		SUT	SIP UA B
	INVITE	→	→ ←	INVITE 100 Trying
	CANCEL	→	→	CANCEL
	200 OK CANCEL	←	←	200 OK CANCEL
	487 Request Terminated	←	←	487 Request Terminated
	ACK	→	→	ACK
NOTE: No 100 Tryin	g response by UA-B.			

SSXX_U06	NGN reference to: RFC 3261 [3]			
T00 (TS 124 229 [10]	, ,		
TSS reference:	SIP-SIP/Basic_call/Unsuccess	stul.		
Selection criteria:				
Test purpose:	Ensure that the IUT, when the calling user decides during a session to change the characteristics of the media session by sending a re-INVITE request and the Re-INVITE is rejected by the called user with a 488 Not Acceptable Here, delivers the 488 Not Acceptable Here to the calling user. Ensure that the voice/data transfer on the media channels with the original media is still performed correctly (e.g. testing QoS parameters).			
SIP Parameter values:	Dial string parameters options TYPE_SDP= PIXIT	=PIXIT		
Comments:	SIP	SUP		SIP
	INVITE	→	→	INVITE
	180 Ringing	←	←	180 Ringing
	200 OK INVITE	←	←	200 OK INVITE
	ACK	→	→	ACK
	Re-INVITE	→	→	Re-INVITE offer
	488 Not Acceptable Here	← Communication	←	488 Not Acceptable Here
	BYE	+	←	BYE
	200 OK BYE			200 OK BYE

SSXX_U07	NGN reference to: RFC 3261 [3]		
	TS 124 229 [10]		
TSS reference:	SIP-SIP/Basic_call/Unsuccessful.		
Selection criteria:			
Test purpose:	Ensure that the IUT, when the call	ed user decides durin	g a session to change the
	characteristics of the media sessio		
	is rejected by the calling user with	-	
	delivers the 488 Not Acceptable He		
	Ensure that the voice/data transfer		Is with the original media is still
OID D	performed correctly (e.g. testing Qo		
SIP Parameter values:	Dial string parameters options=PIX	.11	
	TYPE_SDP= PIXIT;		
	PIXIT for supported header: Case a) No 100 rel;		
	Case b) Supported: 100 rel;		
	Case c) Supported: 100 rel al	nd precondition	
Comments:	SIP	SUT	SIP
	INVITE ->	→	INVITE
	180 Ringing ←	←	180 Ringing
	200 OK INVITE ←	←	200 OK INVITE
	ACK →	→	ACK
	Re-INVITE ←	+	Re-INVITE
	488 Not Acceptable Here →	→	488 Not Acceptable Here
	·	Communication	·
	BYE ←	←	BYE
	200 OK BYE		200 OK BYE

SSXX_U08	NGN reference to: RFC 3261 [3] TS 124 229 [10]		
TSS reference:	SIP-SIP/Basic_call/Unsuccessful.		
Selection criteria:			
Test purpose:	Ensure that when there is no answ SUT initiates call clearing to the couser with a 408 Request Timeout, Terminated response.	alled user with a CANC	EL request and to the calling
SIP Parameter values:	Dial string parameters options=PI TYPE_SDP= PIXIT	XIT	
Comments:	SIP	SUT	SIP
	INVITE 180 Ringing	=	INVITE 180 Ringing
	408/480/487 ACK →	-	CANCEL 200 OK CANCEL 487 Request Terminated ACK

6.2 Test purposes for SIP-SIP, Supplementary services

6.2.1 Test purposes for OIP

SSXXSS_OIP01	OIP/OIR referenc	e to:	
	TS 124 407 [14], clauses 4.3.2	, 4.5.2.1, 4.5.2.12	
TSS reference:	SIP-SIP/SupplementaryServices/	OIP.	
Selection criteria:	The originating user subscribes to The terminating user subscribes to		de" default "not restricted".
Test purpose:	Ensure that, when no P-Preferrer in the INVITE request, the terminating user receives a P identity associated with the origin	- Asserted-Identity b	d is provided by the originating UE ased on the default public user
SIP Parameter values:	Dial string parameters options=PITYPE_SDP= PIXIT	XIT	
Comments:	SIP UA A	SUT	SIP UA B
	INVITE -)	→ INVITE

SSXXSS_OIP02	OIP/OIR reference	to:	
	TS 124 407 [14], clauses 4.3.2,	4.5.2.1, 4.5.2.12	
TSS reference:	SIP-SIP/SupplementaryServices/O	IP.	
Selection criteria:	The originating user subscribes to 0		de" default "not restricted".
	The terminating user subscribes to	OIP service.	
Test purpose:	Ensure that, when the Privacy head		one" and no P-Preferred-Identity
	header field is provided by the original		
	the terminating user receives a P-Asserted-Identity based on the default public user		
	identity associated with the originat	ing UE.	
SIP Parameter values:	Dial string parameters options=PIX	ĪT	
	TYPE_SDP= PIXIT;		
	Privacy header field is set to "none	н	
Comments:	SIP UA A	SUT	SIP UA B
	INVITE →		→ INVITE

SSXXSS_OIP03	OIP/OIR refe	erence to:	
	TS 124 407 [14], clauses	4.3.2, 4.5.2.1, 4.5.2.12	
TSS reference:	SIP-SIP/SupplementaryServ	rices/OIP.	
Selection criteria:	The originating user subscri The terminating user subscr		de" default "restricted".
Test purpose:	header field is provided by tl	ne originating UE, s a P-Asserted-Identity b	one" and no P-Preferred-Identity ased on the default public user
SIP Parameter values:	Dial string parameters option TYPE_SDP= PIXIT; Privacy header field is set to		
Comments:	SIP UA A	SUT	SIP UA B
	INVITE	→	→ INVITE

SSXXSS_OIP04	OIP/OIR reference to:
	TS 124 407 [14], clauses 4.3.2, 4.5.2.1, 4.5.2.12
TSS reference:	SIP-SIP/SupplementaryServices/OIP.
Selection criteria:	The originating user subscribes to OIR "temporary mode" default "not restricted". The terminating user subscribes to OIP service.
Test purpose:	Ensure that, when no Privacy header field is inserted and a P-Preferred-Identity header field is provided by the originating UE, but the identity information in the P-Preferred-Identity does not match with the set of registered public identities of the originating UE, the terminating user receives a P-Asserted-Identity based on the default public user identity associated with the originating UE.
SIP Parameter values:	Dial string parameters options=PIXIT TYPE_SDP= PIXIT;
Comments:	SIP UA A SUT SIP UA B INVITE → INVITE

SSXXSS_OIP05	OIP/OIR refe	rence to:	
	TS 124 407 [14], clauses	4.3.2, 4.5.2.1, 4.5.2.12	
TSS reference:	SIP-SIP/SupplementaryServ	ices/OIP.	
Selection criteria:	The originating user subscribe terminating user subscriberations.		e" default "not restricted".
Test purpose:	header field is provided by the Preferred-Identity does not no riginating UE,	ne originating UE, but the id match with the set of registe a P-Asserted-Identity ba	
SIP Parameter values:	Dial string parameters option TYPE_SDP= PIXIT;		
	Privacy header field is set to		2.2
Comments: SIP UA A SUT SIP UA B			SIP UA B
	INVITE → INVITE		

SSXXSS_OIP06	OIP/OIR reference to:		
	TS 124 407 [14], clauses 4.3.2, 4.5.2.1, 4.5.2.12		
TSS reference:	SIP-SIP/SupplementaryServices/OIP.		
Selection criteria:	The originating user subscribes to OIR "temporary of the terminating user subscribes to OIP service.	mode" default "restricted".	
Test purpose:	Ensure that, when the Privacy header field is set to "none" and a P-Preferred-Identity header field is provided by the originating UE, but the identity information in the P-Preferred-Identity does not match with the set of registered public identities of the originating UE, the terminating user receives a P-Asserted-Identity based on the default public user identity associated with the originating UE.		
SIP Parameter values:	Dial string parameters options=PIXIT TYPE_SDP= PIXIT; Privacy header field is set to "none"		
Comments:	SIP UA A SUT	SIP UA B	
	INVITE →	→ INVITE	

SSXXSS_OIP07	OIP/OIR reference to:		
	TS 124 407 [14], clauses 4.3.2, 4.5.2.1	, 4.5.2.12	
TSS reference:	SIP-SIP/SupplementaryServices/OIP.		
Selection criteria:	The originating user subscribes to OIR "te The terminating user subscribes to OIP se		
Test purpose:	Ensure that, when no Privacy header field is inserted and a P-Preferred-Identity header field is provided by the originating UE (the identity information in the P-Preferred-Identity must be present in the set of registered public identities of the originating UE and it shall be different from the default public user identity), the terminating UE receives a P-Asserted-Identity based on the information provided by the originating UE.		
SIP Parameter values:	Dial string parameters options=PIXIT TYPE_SDP= PIXIT;		
Comments:	SIP UA A	SUT SIP UA B	
	INVITE →	→ INVITE	

SSXXSS_OIP08	OIP/OIR reference to:		
	TS 124 407 [14], clauses 4.3.2, 4.5	.2.1, 4.5.2.12	
TSS reference:	SIP-SIP/SupplementaryServices/OIP.		
Selection criteria:	The originating user subscribes to OIF The terminating user subscribes to OI		de" default "not restricted".
Test purpose:	Ensure that, when the Privacy header field is set to "none" and a P-Preferred-Identity header field is provided by the originating UE (the identity information in the P-Preferred-Identity must be present in the set of registered public identities of the originating UE and it shall be different from the default public user identity), the terminating UE receives a P-Asserted-Identity based on the information provided by the originating UE.		
SIP Parameter values:	Dial string parameters options=PIXIT TYPE_SDP= PIXIT; Privacy header field is set to "none"		
Comments:	SIP UA A	SUT	SIP UA B
Comments.	INVITE →	301	→ INVITE

SSXXSS_OIP09	OIP/OIR reference to:		
	TS 124 407 [14], clauses 4.3.2, 4.5.2.1, 4.5.2.12		
TSS reference:	SIP-SIP/SupplementaryServices/OIP.		
Selection criteria:	The originating user subscribes to OIR "temporary mo	de" default "restricted".	
	The terminating user subscribes to OIP service.		
Test purpose:	Ensure that, when the Privacy header field is set to "none" and a P-Preferred-Identity header field is provided by the originating UE (the identity information in the P-Preferred-Identity must be present in the set of registered public identities of the originating UE and it shall be different from the default public user identity), the terminating UE receives a P-Asserted-Identity based on the information provided by the originating UE.		
SIP Parameter values:	Dial string parameters options=PIXIT TYPE_SDP= PIXIT;		
	Privacy header field is set to "none"		
Comments:	SIP UA A SUT	SIP UA B	
	INVITE ->	→ INVITE	

SSXXSS_OIP10		eference to: es 4.3.2, 4.5.2.1, 4.5.2.12	
TSS reference:	SIP-SIP/SupplementaryS		
Selection criteria:	The terminating user is no	ot subscribed to OIP service.	
Test purpose:	Ensure that, for any INVITE request, the terminating user receives no P-Asserted-Identity header field and no Privacy header field.		
SIP Parameter values:	Dial string parameters op TYPE_SDP= PIXIT;	tions=PIXIT	
Comments:	SIP UA A	SUT	SIP UA B
	INVITE	→	→ INVITE

6.2.2 Test purposes for OIR

SSXXSS_OIR01	OIP/OIR reference to:		
	TS 124 407 [14], clauses 4.3.1.2, 4.3.2	2, 4.5.2.1,	
	4.5.2.4, 4.5.2.12		
TSS reference:	SIP-SIP/SupplementaryServices/OIR.		
Selection criteria:	The originating user subscribes to OIR "temporary mode" default "restricted". Also, the restricted type is set to "restrict the asserted identity" (see table 1, TS 124 407 [14], clause 4.3.1.2).		
	The terminating user subscribes to OIP se		
Test purpose:	Ensure that, when no Privacy header field is inserted by the originating UE in the INVITE request, the terminating UE receives an INVITE message where the From header field is set to "anonymous", the Privacy header field is set to "id" and no P-Asserted-Identity header is received.		
SIP Parameter values:	Dial string parameters options=PIXIT TYPE_SDP= PIXIT;		
Comments:	SIP UA A	SUT	SIP UA B
	INVITE →		→ INVITE

SSXXSS_OIR02	OIP/OIR reference to: TS 124 407 [14], clauses 4.3.1.2, 4.3 4.5.2.4, 4.5.2.12	3.2, 4.5.2.1,	
TSS reference:	SIP-SIP/SupplementaryServices/OIR.		
Selection criteria:	The originating user subscribes to OIR "temporary mode" default "restricted". Also, the restricted type is set to "restrict all private information appearing in headers" (see table 1, TS 124 407 [14], clause 4.3.1.2). The terminating user subscribes to OIP service.		
Test purpose:	Ensure that, when no Privacy header field is inserted by the originating UE in the INVITE request, the terminating UE receives an INVITE message where the From header field is set to "anonymous", the Privacy header field is set to "header" and no P-Asserted-Identity header is received.		
SIP Parameter values:	Dial string parameters options=PIXIT TYPE_SDP= PIXIT;		
Comments:	SIP UA A	SUT	SIP UA B
	INVITE →		→ INVITE

SSXXSS_OIR03	OIP/OIR reference	to:	
	TS 124 407 [14], clauses 4.3.2,	4.5.2.1, 4.5.2.4,	
	4.5.2.12		
TSS reference:	SIP-SIP/SupplementaryServices/OI	R.	
Selection criteria:	The originating user subscribes to 0	OIR "temporary mo	de" default "restricted".
	The terminating user subscribes to	OIP service.	
Test purpose:	Ensure that, when the Privacy head	ler field is set to "ic	I" by the originating UE in the
	INVITE request,		
	the terminating UE receives an INV		
	"anonymous", the Privacy header fi	eld is set to " id " or	"header" and no P-Asserted-
	Identity header is received.		
SIP Parameter values:	Dial string parameters options=PIXI	Τ	
	TYPE_SDP= PIXIT;		
	Privacy header field is set to "id"		
Comments:	SIP UA A	SUT	SIP UA B
	INVITE →		→ INVITE

SSXXSS_OIR04	OIP/OIR reference to:	
	TS 124 407 [14], clauses 4.3.2, 4.5.2.1, 4.5.2.4,	
	4.5.2.12	
TSS reference:	SIP-SIP/SupplementaryServices/OIR.	
Selection criteria:	The originating user subscribes to OIR "temporary m	ode" default "restricted".
	The terminating user subscribes to OIP service.	
Test purpose:	Ensure that, when the Privacy header field is set to "l	neader" by the originating UE in the
	INVITE request,	
	the terminating UE receives an INVITE message who	
	"anonymous", the Privacy header field is set to "id" o	r " header " and no P-Asserted-
	Identity header is received.	
SIP Parameter values:	Dial string parameters options=PIXIT	
	TYPE_SDP= PIXIT;	
	Privacy header field is set to "header"	
Comments:	SIP UA A SUT	SIP UA B
	INVITE →	→ INVITE

SSXXSS_OIR05	OIP/OIR reference to: TS 124 407 [14], clauses 4.3.2, 4.5.2.1, 4.5.2.4, 4.5.2.12	
TSS reference:	SIP-SIP/SupplementaryServices/OIR.	
Selection criteria:	The originating user subscribes to OIR "temporary mo The terminating user subscribes to OIP service.	ode" default "not restricted".
Test purpose:	Ensure that, when the Privacy header field is set to "it to "anonymous" by the originating UE in the INVITE rethe terminating UE receives an INVITE message whe "anonymous", the Privacy header field is set to "id" arreceived.	equest, re the From header field is set to
SIP Parameter values:	Dial string parameters options=PIXIT TYPE_SDP= PIXIT; Privacy header field is set to "id" From header field is set to: From: "Anonymous" <sip:anonymous@anonymous.ir< td=""><td>nvalid>;tag= xxxxxxx</td></sip:anonymous@anonymous.ir<>	nvalid>;tag= xxxxxxx
Comments:	SIP UA A SUT	SIP UA B
	INVITE →	→ INVITE

SSXXSS_OIR06	OIP/OIR reference to: TS 124 407 [14], clauses 4.3.2, 4.5.2.1, 4.5.2.4, 4.5.2.12	
TSS reference:	SIP-SIP/SupplementaryServices/OIR.	
Selection criteria:	The originating user subscribes to OIR "temporary The terminating user subscribes to OIP service.	mode" default "not restricted".
Test purpose:	Ensure that, when the Privacy header field is set to is set to "anonymous" by the originating UE in the II the terminating UE receives an INVITE message w "anonymous", the Privacy header field is set to "header is received.	NVITE request, here the From header field is set to
SIP Parameter values:	Dial string parameters options=PIXIT TYPE_SDP= PIXIT; Privacy header field is set to "header" From header field is set to: From: "Anonymous" <sip:anonymous@anonymous< td=""><td>s.invalid>;tag= xxxxxxx</td></sip:anonymous@anonymous<>	s.invalid>;tag= xxxxxxx
Comments:	SIP UA A SUT	SIP UA B
	INVITE →	→ INVITE

SSXXSS_OIR07	OIP/OIR reference TS 124 407 [14], clauses 4.3.2, 4.5.2.12		
TSS reference:	SIP-SIP/SupplementaryServices/O	IR.	
Selection criteria:	The originating user subscribes to OIR permanent mode. Also, the restricted type is set to "restrict the asserted identity" (see table 1, TS 124 407 [14], clause 4.3.1.2). The terminating user subscribes to OIP service.		
Test purpose:	Ensure that, when no Privacy head request, the terminating UE receives an INV "anonymous", the Privacy header fireceived.	ITE message wher	re the From header field is set to
SIP Parameter values:	Dial string parameters options=PIX TYPE_SDP= PIXIT;	IT	
Comments:	SIP UA A	SUT	SIP UA B
	INVITE →	·	→ INVITE

SSXXSS_OIR08	OIP/OIR reference t	o:	
	TS 124 407 [14], clauses 4.3.2, 4	l.5.2.1, 4.5.2.4 ,	
	4.5.2.12		
TSS reference:	SIP-SIP/SupplementaryServices/OI	R.	
Selection criteria:	The originating user subscribes to OIR permanent mode. Also, the restricted type is set to "restrict all private information appearing in headers" (see table 1, TS 124 407 [14], clause 4.3.1.2). The terminating user subscribes to OIP service.		
Test purpose:	Ensure that, when no Privacy header request, the terminating UE receives an INVI "anonymous", the Privacy header field header is received.	TE message wher	re the From header field is set to
SIP Parameter values:	Dial string parameters options=PIXI TYPE_SDP= PIXIT;	Т	
Comments:	SIP UA A	SUT	SIP UA B
	INVITE ->		→ INVITE

SSXXSS_OIR09	OIP/OIR reference		
	TS 124 407 [14], clauses 4.3.2	4.5.2.1, 4.5.2.4,	
	4.5.2.12		
TSS reference:	SIP-SIP/SupplementaryServices/0	DIR.	
Selection criteria:	The originating user subscribes to		de.
	The terminating user subscribes to	OIP service.	
Test purpose:	Ensure that, when the Privacy hea	der field is set to "ic	I" by the originating UE in the
	INVITE request,		
	the terminating UE receives an IN		
	"anonymous", the Privacy header	field is set to " id " or	"header" and no P-Asserted-
	Identity header is received.		
SIP Parameter values:	Dial string parameters options=PIX	KIT	
	TYPE_SDP= PIXIT;		
	Privacy header field is set to "id"		
Comments:	SIP UA A	SUT	SIP UA B
	INVITE -	_	→ INVITE

SSXXSS_OIR10	OIP/OIR reference to):		
	TS 124 407 [14], clauses 4.3.2, 4	5.2.1, 4.5.2.4,		
	4.5.2.12			
TSS reference:	SIP-SIP/SupplementaryServices/OIF			
Selection criteria:	The originating user subscribes to O	R permanent mo	de.	
	The terminating user subscribes to C	IP service.		
Test purpose:	Ensure that, when the Privacy heade	r field is set to "h	eader" by the originating UE in the	
	INVITE request,			
	the terminating UE receives an INVI			
	"anonymous", the Privacy header field is set to "id" or "header" and no P-Asserted-			
	Identity header is received.			
SIP Parameter values:	Dial string parameters options=PIXIT	•		
	TYPE_SDP= PIXIT;			
	Privacy header field is set to "header	."		
Comments:	SIP UA A	SUT	SIP UA B	
	INVITE →		→ INVITE	

SSXXSS_OIR11	OIP/OIR ref	erence to:	
	TS 124 407 [14], clauses	s 4.3.2, 4.5.2.1, 4.5.2.4,	
	4.5.2	.12	
TSS reference:	SIP-SIP/SupplementarySer	vices/OIP.	
Selection criteria:	The originating user subscr		ode".
	The terminating user subsc	ribes to OIP service.	
Test purpose:	Ensure that, when the Privacy header field is set to "none" by the originating UE in the INVITE request, the terminating UE receives an INVITE message where the From header field is set to "anonymous", the Privacy header field is set to "id" or "header" and no P-Asserted-		
OID Danasastanisalisas	Identity header is received.	DIVIT	
SIP Parameter values:	Dial string parameters optic TYPE_SDP= PIXIT; Privacy header field is set to		
Comments:	SIP UA A	SUT	SIP UA B
	INVITE	→	→ INVITE

6.2.3 Test purposes for TIP

SSXXSS_TIP01	TIP/TIR reference to: TS 124 508 [24], clauses 4.3.2, 4.5.2. 4.5.2.12	1, 4.5.2.4,		
TSS reference:	SIP-SIP/SupplementaryServices/TIP.			
Selection criteria:	The originating user subscribes to TIP se	rvice.		
Test purpose:	Ensure that, when the option tag "from-change" in the Supported header field is provided by the originating UE in the INVITE request: the originating UE receives, in the 2xx SIP response, a P-Asserted-Identity header field with a valid public user identity of the terminating UE.			
SIP Parameter values:	Dial string parameters options=PIXIT TYPE_SDP= PIXIT;			
Comments:	SIP UA A	→	SUT SIP UA B → INVITE	
	180 Ringing 200 OK INVITE (P-Asserted-Identity) ACK	← ← →	★ 180 Ringing★ 200 OK INVITE→ ACK	

SSXXSS_TIP02	TIP/TIR reference to: TS 124 508 [24], clauses 4.3.2, 4.5.2. 4.5.2.12	1, 4.5.2.4,			
TSS reference:	SIP-SIP/SupplementaryServices/TIP.				
Selection criteria:	The originating user subscribes to TIP service. The terminating user subscribes to TIR "temporary mode" default "not restricted".				
Test purpose:	Ensure that, when the option tag "from-change" in the Supported header field is provided by the originating UE in the INVITE request: the originating UE receives, in the 2xx SIP response, a P-Asserted-Identity header field with a valid public user identity of the terminating UE.				
SIP Parameter values:	Dial string parameters options=PIXIT TYPE_SDP= PIXIT;				
Comments:	SIP UA A INVITE 180 Ringing 200 OK INVITE (P-Asserted-Identity) ACK	\$U' → ← →	T SIP UA B → INVITE ← 180 Ringing ← 200 OK INVITE → ACK		

SSXXSS_TIP03	TIP/TIR reference to: TS 124 508 [24], clauses 4.3.2, 4.5.2.1	. 4.5.2.4.			
	4.5.2.12	,,			
TSS reference:	SIP-SIP/SupplementaryServices/TIP.				
Selection criteria:		The originating user subscribes to TIP service. The terminating user subscribes TIR "temporary mode" default "not restricted".			
Test purpose:	Ensure that, when the option tag "from-change" in the Supported header field is provided by the originating UE in the INVITE request and the Privacy header field is set to "none" by the terminating UE in the 2xx SIP response: the originating UE receives, in the 2xx SIP response, a P-Asserted-Identity header field with a valid public user identity of the terminating UE.				
SIP Parameter values:	Dial string parameters options=PIXIT TYPE_SDP= PIXIT; Privacy header field is set to "none"				
Comments:	SIP UA A	SUT	•	SIP UA B	
	INVITE 180 Ringing 200 OK INVITE (P-Asserted-Identity) ACK	→ ← ← →	→ ← →	INVITE 180 Ringing 200 OK INVITE ACK	

SSXXSS_TIP04	TIP/TIR reference to:			
	TS 124 508 [24], clauses 4.3.2, 4.5.2.	1, 4.5.2.4,		
	4.5.2.12			
TSS reference:	SIP-SIP/SupplementaryServices/TIP.			
Selection criteria:	The originating user subscribes to TIP se			
	The terminating user subscribes to TIR "temporary mode" default "restricted".			
Test purpose:	Ensure that, when the option tag "from-change" in the Supported header field is provided by the originating UE in the INVITE request and the Privacy header field is			rted header field is
				Privacy header field is set
	to "none" by the terminating UE in the 2xx SIP response: the originating UE receives, in the 2xx SIP response, a P-Asserted-Identity header fie with a valid public user identity of the terminating UE.			
SIP Parameter values:	Dial string parameters options=PIXIT			
	TYPE_SDP= PIXIT;			
	Privacy header field is set to "none"			
Comments:	SIP UA A	SU	JT	SIP UA B
	INVITE	→	→	INVITE
	180 Ringing	←	←	180 Ringing
	200 OK INVITE (P-Asserted-Identity)	←	←	200 OK INVITE
	ACK	→	→	ACK

6.2.4 Test purposes for TIR

SSXXSS_TIR01	TIP/TIR reference to: TS 124 508 [24], clauses 4.3.2, 4.5.2 4.5.2.12	.1, 4.5.2.4,		
TSS reference:	SIP-SIP/SupplementaryServices/TIR.			
Selection criteria:	The originating user subscribes to TIP se The terminating user subscribes to TIR "t		ode" defa	ault "not restricted".
Test purpose:	Ensure that, when the option tag "from-change" in the Supported header field is provided by the originating UE in the INVITE request and the Privacy header field is set to "id" by the terminating UE in any non-100 SIP response (e.g. 180, 183, 200): the originating UE receives, in any non-100 SIP response (e.g. 180, 183, 200), a Privacy header field is set to "id" and no P-Asserted-Identity header field.			
SIP Parameter values:	Dial string parameters options=PIXIT TYPE_SDP= PIXIT; Privacy header field is set to "id"	-		
Comments:	SIP UA A	S	UT	SIP UA B
	INVITE 180 Ringing 200 OK INVITE ACK	→ ← →	+	NVITE 180 Ringing 200 OK INVITE ACK

SSXXSS_TIR02	TIP/TIR reference to: TS 124 508 [24], clauses 4.3.2, 4.5 4.5.2.12	.2.1, 4.5.2.4,		
TSS reference:	SIP-SIP/SupplementaryServices/TIR.			
Selection criteria:	The originating user subscribes to TIP sometimes to TIP sometimes are subscribes to TIR		e" default "restricted".	
Test purpose:	Ensure that, when the option tag "from-change" in the Supported header field is provided by the originating UE in the INVITE request and no Privacy header field is inserted by the terminating UE in any non-100 SIP response (e.g. 180, 183, 200): the originating UE receives, in any non-100 SIP response (e.g. 180, 183, 200), a Privacy header field is set to "id" and no P-Asserted-Identity header field.			
SIP Parameter values:	Dial string parameters options=PIXIT TYPE_SDP= PIXIT;			
Comments:	SIP UA A	SU	T SIP UA B	
	INVITE 180 Ringing 200 OK INVITE ACK	→ ← ← →	→ INVITE ← 180 Ringing ← 200 OK INVITE → ACK	

SSXXSS_TIR03	TIP/TIR reference to:			
	TS 124 508 [24], clauses 4.3.2, 4.5.2.	1, 4.5.2.4,		
	4.5.2.12			
TSS reference:	SIP-SIP/SupplementaryServices/TIR.			
Selection criteria:	The originating user subscribes to TIP services	vice.		
	The terminating user subscribes to TIR "te	mporary mod	de" defa	ult "restricted".
Test purpose:	Ensure that, when the option tag "from-change" in the Supported header field is			
	provided by the originating UE in the INVITE request and the Privacy header field is set			
	to "id" by the terminating UE in any non-100 SIP response (e.g. 180, 183, 200): the originating UE receives, in any non-100 SIP response (e.g. 180, 183, 200), a Privacy header field is set to "id" and no P-Asserted-Identity header field.			
SIP Parameter values:	Dial string parameters options=PIXIT			
	TYPE_SDP= PIXIT;			
	Privacy header field is set to "id"			
Comments:	SIP UA A	SU	JT	SIP UA B
	INVITE	→		INVITE
	180 Ringing	←	←	180 Ringing
	200 OK INVITE	←	←	200 OK INVITE
	ACK	→	→	ACK

SSXXSS_TIR04	TIP/TIR reference to:		
	TS 124 508 [24], clauses 4.3.2, 4.5	.2.1, 4.5.2.4,	
	4.5.2.12		
TSS reference:	SIP-SIP/SupplementaryServices/TIR.		
Selection criteria:	The originating user subscribes to TIP s	service.	
	The terminating user subscribes to TIR	"permanent mode	2 ".
Test purpose:	Ensure that, when the option tag "from-change" in the Supported header field is provided by the originating UE in the INVITE request and no Privacy header field is inserted by the terminating UE in any non-100 SIP response (e.g. 180, 183, 200): the originating UE receives, in any non-100 SIP response (e.g. 180, 183, 200), a Privacy header field is set to "id" and no P-Asserted-Identity header field.		
SIP Parameter values:	Dial string parameters options=PIXIT TYPE_SDP= PIXIT;		
Comments:	SIP UA A	SUT	SIP UA B
	INVITE 180 Ringing 200 OK INVITE ACK	→ ← ← →	→ INVITE ← 180 Ringing ← 200 OK INVITE → ACK

SSXXSS_TIR05	TIP/TIR reference to: TS 124 508 [24], clauses 4.3.2, 4.5.2.1	4524	
	4.5.2.12	, 4.3.2.4,	
TSS reference:	SIP-SIP/SupplementaryServices/TIR.		
Selection criteria:	The originating user subscribes to TIP servine terminating user subscribes to TIR "pe		ode".
Test purpose:	Ensure that, when the option tag "from-change" in the Supported header field is provided by the originating UE in the INVITE request and the Privacy header field is set to "id" by the terminating UE in any non-100 SIP response (e.g. 180, 183, 200): the originating UE receives, in any non-100 SIP response (e.g. 180, 183, 200), a Privacy header field is set to "id" and no P-Asserted-Identity header field.		
SIP Parameter values:	Dial string parameters options=PIXIT TYPE_SDP= PIXIT; Privacy header field is set to " id "	-	
Comments:	SIP UA A	SI	UT SIP UA B
	INVITE 180 Ringing 200 OK INVITE ACK	→ ← →	→ INVITE ← 180 Ringing ← 200 OK INVITE → ACK

SSXXSS_TIR06	TIP/TIR reference to:			
	TS 124 508 [24], clauses 4.3.2, 4.5.2.1	, 4.5.2.4,		
	4.5.2.12			
TSS reference:	SIP-SIP/SupplementaryServices/TIP.			
Selection criteria:	The originating user subscribes to TIP service. Additionally, the originating user has the "override category". The terminating user subscribes TIR "permanent mode".			
Test purpose:	Ensure that, when the option tag "from-change" in the Supported header field is provided by the originating UE in the INVITE request and no Privacy header field is inserted by the terminating UE in any non-100 SIP response (e.g. 180, 183, 200): The originating UE does not receive a Privacy set to "id" in any non-100 SIP response (e.g. 180, 183, 200) and receives, in the 2xx SIP response, a P-Asserted-Identity header field with a valid public user identity of the terminating UE.			
SIP Parameter values:	Dial string parameters options=PIXIT TYPE_SDP= PIXIT;	-		
Comments:	SIP UA A	S	UT	SIP UA B
	INVITE	→	→	INVITE
	180 Ringing	←	←	180 Ringing
	200 OK INVITE (P-Asserted-Identity)	←	←	200 OK INVITE
	ACK	→	→	ACK

SSXXSS_TIR07	TIP/TIR reference to:	4504		
	TS 124 508 [24], clauses 4.3.2, 4.5.2.1 4.5.2.12	, 4.5.2.4,		
TSS reference:	SIP-SIP/SupplementaryServices/TIP.			
Selection criteria:	The originating user subscribes to TIP set The user subscribes to TIR "permanent m			
Test purpose:	Ensure that, when the option tag "from-change" in the Supported header field is provided by the originating UE in the INVITE request and the Privacy header field is set to "none" by the terminating UE in any non-100 SIP response (e.g. 180, 183, 200): the originating UE receives, in any non-100 SIP response (e.g. 180, 183, 200), a Privacy header field is set to "id" and no P-Asserted-Identity header field.			
SIP Parameter values:	Dial string parameters options=PIXIT TYPE_SDP= PIXIT; Privacy header field is set to "none"	·		
Comments:	SIP UA A		SUT	SIP UA B
	INVITE 180 Ringing 200 OK INVITE ACK	→ ← ←		INVITE 180 Ringing 200 OK INVITE ACK

6.2.5 Test purposes for Hold

6.2.5.1 Communication Hold with support for UPDATE

SS_XXSSCH01	HOLD reference to: TS 124 410 [15], clauses 4.5.2.1, 4.5.2.4, 4.5.2.9				
TSS reference:	ServedUser/WithoutAnnounc/Withl	ServedUser/WithoutAnnounc/WithUPDATE.			
Selection criteria:	Session hold. UPDATE method is a	ısed.			
Test purpose:	 Ensure that, when the originating UE (user A) sends an UPDATE request containing a SDP with the attribute "a=" sendonly to put the session on hold: The terminating UE (user B) receives an UPDATE containing a SDP with the attribute "a=" sendonly. The terminating UE (user B) sends a 200 OK SIP response containing a SDP with the attribute "a=" recvonly. The originating UE (user A) receives a 200 OK SIP response containing a SDP with the attribute "a=" recvonly. Then the originating UE (user A) hang up the session. 				
Precondition:	A session was established between user A (originating UE) and user B (terminating UE) according to the "basic Call" procedures. The media stream was previously set to "sendrecv".				
SIP Parameter values:	Dial string parameters options=PIX TYPE_SDP= PIXIT;	IT			
Comments:					
SIP UA A	SUT		SIP UA B		
INVITE (sendrecv) 180 Ringing 200 OK INVITE (sendrecv ACK	→ ← • • •	→ ← ← →	INVITE (sendrecv) 180 Ringing 200 OK INVITE (sendrecv) ACK		
UPDATE (sendonly) 200 OK UPDATE (recvonly) → UPDATE (sendonly) ← 200 OK UPDATE (recvonly)					
BYE 200 OK BYE	→ → BYE ← 200 OK BYE				

SS_XXSSCH02	HOLD reference to:			
_	TS 124 410 [15], clauses 4.5.2.1,			
	4.5.2.4, 4.5.2.9			
TSS reference:	ServedUser/WithoutAnnounc/WithUPDATE.			
Selection criteria:	Session hold. UPDATE method is	used.		
Test purpose:	Ensure that, when the originating L SDP with the attribute "a=" inactive	Ensure that, when the originating UE (user A) sends an UPDATE request containing a SDP with the attribute "a=" inactive to change the media stream status to inactive:		
		B) receives an UPDATE containing a SDP with the		
	The terminating UE (user with the attribute "a=" inac	B) sends a 200 OK SIP response containing a SDP stive.		
	The originating UE (user / with the attribute "a=" inact")	A) receives a 200 OK SIP response containing a SDP tive.		
	Then the originating UE (user A) ha	and up the session.		
Precondition:	A session was established	d between user A (originating UE) and user B g to the "basic Call" procedures.		
		sly put on hold from user B (terminating UE).		
SIP Parameter values:	Dial string parameters options=PIX TYPE SDP= PIXIT;			
Comments:	· · · · · · · · · · · · · · · · · · ·			
SIP UA A	SUT	SIP UA B		
INVITE (sendrecv)	→	→ INVITE (sendrecv)		
180 Ringing	←	← 180 Ringing		
200 OK INVITE (sendrecv)	<	← 200 OK INVITE (sendrecv)		
ACK	→	→ ACK		
,	condition: The session was previous	ely put on hold from user B		
UPDATE (sendonly)	Condition. The session was previous	₩ UPDATE(sendonly)		
200 OK UPDATE (recvonly)		→ 200 OK UPDATE (recvonly)		
200 OK OF BATTE (100VOINY)	•	2 200 OK OF BATE (1000 Gilly)		
UPDATE (inactive)	→	→ UPDATE (inactive)		
200 OK UPDATE (inactive)	←	← 200 OK UPDATE (inactive)		
BYE	→	→ BYE		
200 OK BYE	-	€ 200 OK BYE		
200 ON DIE	~	- LOO OK DIL		

SS_XXSSCH03	HOLD reference to:			
	TS 124 410 [15], clauses 4.5.2.1,			
	4.5.2.4, 4.5.2.9			
TSS reference:	ServedUser/WithoutAnnounc/WithUPDATE.			
Selection criteria:	Session hold. UPDATE method is used.			
Test purpose:	Ensure that, when the originating UE (user A) sends an UPDATE request containing a			
	SDP with the attribute "a=" sendred			
		B) rece	ives an UPDATE containing a SDP with the	
	attribute "a=" sendrecv.	5)		
	The terminating UE (user with the attribute "a=" sen		ls a 200 OK SIP response containing a SDP	
			ves a 200 OK SIP response containing a SDP	
	with the attribute "a=" sen	drecv.		
	Then the originating UE (user A) ha	ana up t	he session.	
	, , , , ,	3 1		
		ute can	be omitted, since sendrecv attribute is the	
	default.			
Precondition:			en user A (originating UE) and user B	
	(terminating UE) accordin	_	·	
OID Danaga at a mark a sa			n hold from user A (originating UE).	
SIP Parameter values:	Dial string parameters options=PIX TYPE_SDP= PIXIT;	11		
Comments:				
SIP UA A	SUT		SIP UA B	
INVITE (sendrecv)	→	→	INVITE (sendrecv)	
180 Ringing	←	←	180 Ringing	
200 OK INVITE (sendrecv)	←	←	200 OK INVITE (sendrecv)	
ACK	→	→	ACK	
UPDATE(sendonly)	→	→	UPDATE(sendonly)	
200 OK UPDATE (recvonly				
UPDATE (sendrecv) → UPDATE (sendrecv)			UPDATE (sendrecv)	
200 OK UPDATE (sendrect				
BYE	→	→	BYE	
200 OK BYE	+	+	200 OK BYE	

SS_XXSSCH04	HOLD reference to: TS 124 410 [15], clauses 4.5.2.1,			
	4.5.2.4, 4.5.2.9			
TSS reference:	ServedUser/WithoutAnnounc/WithUPDATE.			
Selection criteria:	Session hold. UPDATE method is used.			
Test purpose:	 Ensure that, when the originating UE (user A) sends an UPDATE request containing a SDP with the attribute "a=" recvonly to resume the media stream status to recvonly: The terminating UE (user B) receives an UPDATE containing a SDP with the attribute "a=" recvonly. The terminating UE (user B) sends a 200 OK SIP response containing a SDP with the attribute "a=" sendonly. 			
	The originating UE (user A) receives a 200 OK SIP response containing a SDP with the attribute "a=" sendonly. Then the originating UE (user A) hang up the session.			
Precondition:	 A session was established between user A (originating UE) and user B (terminating UE) according to the "basic Call" procedures. The media stream was previously set to "inactive" from user A (originating UE). 			
SIP Parameter values:	Dial string parameters options=PIX TYPE_SDP= PIXIT;	IT		
Comments:				
SIP UA A	SUT		SIP UA B	
INVITE (sendrecv)	→	→	INVITE (sendrecv)	
180 Ringing	←	←	180 Ringing	
200 OK INVITE (sendrecv) ACK	← →	←	200 OK INVITE (sendrecv) ACK	
UPDATE(sendonly) 200 OK UPDATE (recvonly)	← →	← →	UPDATE(sendonly) 200 OK UPDATE (recvonly)	
UPDATE (inactive)	→	→	UPDATE (inactive)	
200 OK UPDATE (inactive)	- 0.2= (
UPDATE (recvonly) 200 OK UPDATE (sendonly	→ ←	→	UPDATE (recvonly) 200 OK UPDATE (sendonly)	
BYE 200 OK BYE	→	→	BYE 200 OK BYE	

SS_XXSSCH05	HOLD reference to: TS 124 410 [15], clauses 4.5.2.1, 4.5.2.4, 4.5.2.9		
TSS reference:	ServedUser/WithoutAnnounc/WithL	JPDATE	
Selection criteria:	Session hold. UPDATE method is a	ısed.	
Test purpose:	Ensure that, when the terminating UE (user B) sends an UPDATE request containing a SDP with the attribute "a=" sendonly to put the session on hold: • The originating UE (user A) receives an UPDATE containing a SDP with the attribute "a=" sendonly. • The originating UE (user A) sends a 200 OK SIP response containing a SDP with the attribute "a=" recvonly. • The terminating UE (user B) receives a 200 OK SIP response containing a SDP with the attribute "a=" recvonly.		
	Then the originating UE (user A) ha		
Precondition:	 A session was established between user A (originating UE) and user B (terminating UE) according to the "basic Call" procedures. The media stream was previously set to "sendrecv". 		
SIP Parameter values:	Dial string parameters options=PIX TYPE_SDP= PIXIT;	IT	
Comments:			
SIP UA A INVITE (sendrecv) 180 Ringing 200 OK INVITE (sendrecv) ACK	SUT → ← ← →	→ ← ← →	SIP UA B INVITE (sendrecv) 180 Ringing 200 OK INVITE (sendrecv) ACK
UPDATE (sendonly) 200 OK UPDATE (recvonly	•	← →	UPDATE (sendonly) 200 OK UPDATE (recvonly)
BYE 200 OK BYE	→ ←	→	BYE 200 OK BYE

SS_XXSSCH06	HOLD reference to: TS 124 410 [15], clauses 4.5.2.1, 4.5.2.4, 4.5.2.9		
TSS reference:	ServedUser/WithoutAnnounc/Withl	JPDATE	Ξ.
Selection criteria:	Session hold. UPDATE method is	used.	
Test purpose:	Ensure that, when the terminating UE (user B) sends an UPDATE request containing a SDP with the attribute "a=" inactive to change the media stream status to inactive: The originating UE (user A) receives an UPDATE containing a SDP with the attribute "a=" inactive. The originating UE (user A) sends a 200 OK SIP response containing a SDP with the attribute "a=" inactive. The terminating UE (user A) receives a 200 OK SIP response containing a SDP with the attribute "a=" inactive.		
	Then the originating UE (user A) ha		
Precondition:	(terminating UE) accordin	g to the	en user A (originating UE) and user B "basic Call" procedures. n hold from user A (originating UE).
SIP Parameter values:	Dial string parameters options=PIX TYPE_SDP= PIXIT;		Thola from aser A (originating 62).
Comments:			
SIP UA A	SUT		SIP UA B
INVITE (sendrecv)	→	→	INVITE (sendrecv)
180 Ringing	←	←	180 Ringing
200 OK INVITE (sendrecv)	←	(200 OK INVITE (sendrecv)
ACK	→	→	ACK
UPDATE (sendonly) 200 OK UPDATE (recvonly	→ ←	→	UPDATE (sendonly) 200 OK UPDATE (recvonly)
UPDATE (inactive) 200 OK UPDATE (inactive)	← →	← →	UPDATE (inactive) 200 OK UPDATE (inactive)
BYE 200 OK BYE	→	→	BYE 200 OK BYE

SS_XXSSCH07	HOLD reference to: TS 124 410 [15], clauses 4.5.2.1, 4.5.2.4, 4.5.2.9		
TSS reference:	ServedUser/WithoutAnnounc/WithL	UPDATE.	
Selection criteria:	Session hold. UPDATE method is a	used.	
Test purpose:	Ensure that, when the terminating UE (user B) sends an UPDATE request containing a SDP with the attribute "a=" sendrecv to resume the session: • The originating UE (user A) receives an UPDATE containing a SDP with the attribute "a=" sendrecv. • The originating UE (user A) sends a 200 OK SIP response containing a SDP with the attribute "a=" sendrecv. • The terminating UE (user B) receives a 200 OK SIP response containing a SDP with the attribute "a=" sendrecv.		
	Then the originating UE (user A) has NOTE: The sendrecv SDP attributed default.	ang up the session. bute can be omitted, since sendrecv attribute is the	
Precondition:	 A session was established between user A (originating UE) and user B (terminating UE) according to the "basic Call" procedures. The session was previously put on hold from user B (terminating UE). 		
SIP Parameter values:	Dial string parameters options=PIX TYPE_SDP= PIXIT;	KIT	
Comments:			
SIP UA A INVITE (sendrecv) 180 Ringing 200 OK INVITE (sendrecv) ACK	SUT → ← ← →	SIP UA B → INVITE (sendrecv) ← 180 Ringing ← 200 OK INVITE (sendrecv) → ACK	
UPDATE (sendonly) 200 OK UPDATE (recvonly	← →	← UPDATE(sendonly)→ 200 OK UPDATE (recvonly)	
UPDATE (sendrecv) ← UPDATE (sendrecv) → 200 OK UPDATE (sendrecv)			
BYE 200 OK BYE	→	→ BYE← 200 OK BYE	

SS_XXSSCH08	HOLD reference to: TS 124 410 [15], clauses 4.5.2.1, 4.5.2.4, 4.5.2.9			
TSS reference:	ServedUser/WithoutAnnounc/WithUPDATE.			
Selection criteria:	Session hold. UPDATE method is a	used.		
Test purpose:	 Ensure that, when the terminating UE (user B) sends an UPDATE request containing a SDP with the attribute "a=" recvonly to resume the media stream status to recvonly: The originating UE (user A) receives an UPDATE containing a SDP with the attribute "a=" recvonly. The originating UE (user A) sends a 200 OK SIP response containing a SDP with the attribute "a=" sendonly. The terminating UE (user B) receives a 200 OK SIP response containing a SDP with the attribute "a=" sendonly. 			
Precondition:	(terminating UE) according	Ing up the session. If between user A (originating UE) and user B g to the "basic Call" procedures. Deviously set to "inactive" from user B (terminating		
SIP Parameter values:	Dial string parameters options=PIX TYPE_SDP= PIXIT;	Т		
Comments:	,			
SIP UA A INVITE (sendrecv) 180 Ringing 200 OK INVITE (sendrecv) ACK	SUT → ← ← →	SIP UA B → INVITE (sendrecv) ← 180 Ringing ← 200 OK INVITE (sendrecv) → ACK		
UPDATE (sendonly) 200 OK UPDATE (recvonly)	→	→ UPDATE (sendonly)← 200 OK UPDATE (recvonly)		
UPDATE (inactive) 200 OK UPDATE (inactive)	← →	← UPDATE (inactive)→ 200 OK UPDATE (inactive)		
UPDATE(recvonly) 200 OK UPDATE (sendonly	← →	← UPDATE(recvonly)→ 200 OK UPDATE (sendonly)		
BYE 200 OK BYE	→ ←	→ BYE← 200 OK BYE		

6.2.5.2 Communication Hold without support for UPDATE

SS_XXSSCH09	HOLD reference to: TS 124 410 [15], clauses 4.5.2.1, 4.5.2.4, 4.5.2.9		
TSS reference:	ServedUser/WithoutAnnounc/Without	utUPD/	ATE.
Selection criteria:	Session hold. INVITE method is us	ed.	
Test purpose:	Ensure that, when the originating UE (user A) sends an INVITE request containing a SDP with the attribute "a=" sendonly to put the session on hold: • The terminating UE (user B) receives an INVITE containing a SDP with the attribute "a=" sendonly. • The terminating UE (user B) sends a 200 OK SIP response containing a SDP with the attribute "a=" recvonly. • The originating UE (user A) receives a 200 OK SIP response containing a SDP with the attribute "a=" recvonly. Then the originating UE (user A) hang up the session.		
Precondition:	A session was established between user A (originating UE) and user B (terminating UE) according to the "basic Call" procedures. The media stream was previously set to "sendrecv".		
SIP Parameter values:	Dial string parameters options=PIX TYPE_SDP= PIXIT;	IT	
Comments: SIP UA A INVITE (sendrecv)	SUT →	→	SIP UA B INVITE (sendrecv)
180 Ringing 200 OK INVITE (sendrecv) ACK	← ← →	← →	180 Ringing 200 OK INVITE (sendrecv) ACK
INVITE (sendonly) 200 OK INVITE (recvonly) ACK	→ ← →	→ ← →	INVITE (sendonly) 200 OK INVITE(recvonly) ACK
BYE 200 OK BYE	→ ←	→	BYE 200 OK BYE

SS_XXSSCH 10	HOLD reference to: TS 124 410 [15], clauses 4.5.2.1, 4.5.2.4, 4.5.2.9		
TSS reference:	ServedUser/WithoutAnnounc/Without	utUPD/	ATE.
Selection criteria:	Session hold. INVITE method is us	ed.	
Test purpose:	 Ensure that, when the originating UE (user A) sends an INVITE request containing a SDP with the attribute "a=" inactive to change the media stream status to inactive: The terminating UE (user B) receives an INVITE containing a SDP with the attribute "a=" inactive. The terminating UE (user B) sends a 200 OK SIP response containing a SDP with the attribute "a=" inactive. The originating UE (user A) receives a 200 OK SIP response containing a SDP with the attribute "a=" inactive. 		
Precondition:	Then the originating UE (user A) hang up the session. A session was established between user A (originating UE) and user B (terminating UE) according to the "basic Call" procedures. The session was previously put on hold from user B (terminating UE).		
SIP Parameter values:	Dial string parameters options=PIX TYPE_SDP= PIXIT;	IT	
Comments: SIP UA A INVITE (sendrecv) 180 Ringing 200 OK INVITE (sendrecv) ACK INVITE (sendonly) 200 OK INVITE (recvonly) ACK INVITE (inactive) 200 OK INVITE (inactive) ACK	SUT → ← → → ←	++++ +++	SIP UA B INVITE (sendrecv) 180 Ringing 200 OK INVITE (sendrecv) ACK INVITE (sendonly) 200 OK INVITE (recvonly) ACK INVITE (inactive) 200 OK INVITE (inactive) ACK
BYE 200 OK BYE	→ ←	→ ←	BYE 200 OK BYE

SS_XXSSCH 11	HOLD reference to: TS 124 410 [15], clauses 4.5.2.1,		
	4.5.2.4, 4.5.2.9		
TSS reference:	ServedUser/WithoutAnnounc/Without	utUPD	ATE.
Selection criteria:	Session hold. INVITE method is us		
Test purpose:	Ensure that, when the originating UE (user A) sends an INVITE request containing a SDP with the attribute "a=" sendrecv to resume the session: • The terminating UE (user B) receives an INVITE containing a SDP with the attribute "a=" sendrecv. • The terminating UE (user B) sends a 200 OK SIP response containing a SDP with the attribute "a=" sendrecv. • The originating UE (user A) receives a 200 OK SIP response containing a SDP with the attribute "a=" sendrecv.		
	default.	ute can	be omitted, since sendrecv attribute is the
Precondition:	(terminating UE) according	g to the	en user A (originating UE) and user B "basic Call" procedures. n hold from user A (originating UE).
SIP Parameter values:	Dial string parameters options=PIX TYPE_SDP= PIXIT;		, ,
Comments:			
SIP UA A	SUT	_	SIP
INVITE (sendrecv)	→	→	INVITE (sendrecv)
180 Ringing	←	(180 Ringing
200 OK INVITE (sendrecv) ACK	← →	←	200 OK INVITE (sendrecv) ACK
INVITE (sendonly) 200 OK INVITE (recvonly) ACK	→ ← →	→ ← →	INVITE (sendonly) 200 OK INVITE(recvonly) ACK
INVITE (sendrecv)	→	→	INVITE (sendrecv)
200 OK INVITE (sendrecv)	←	É	200 OK INVITE (sendrecv)
ACK	→	→	ACK
BYE	→	→	BYE
200 OK BYE	←	←	200 OK BYE

SS_XXSSCH 12	HOLD reference to: TS 124 410 [15], clauses 4.5.2.1, 4.5.2.4, 4.5.2.9		
TSS reference:	ServedUser/WithoutAnnounc/WithoutUPDATE.		
Selection criteria:	Session hold. INVITE method is use	ed.	
Test purpose:	Ensure that, when the originating UE (user A) sends an INVITE request containing a SDP with the attribute "a=" recvonly to resume the media stream status to recvonly: • The terminating UE (user B) receives an INVITE containing a SDP with the attribute "a=" recvonly. • The terminating UE (user B) sends a 200 OK SIP response containing a SDP with the attribute "a=" sendonly. • The originating UE (user A) receives a 200 OK SIP response containing a SDP with the attribute "a=" sendonly.		
Precondition:	Then the originating UE (user A) ha		en user A (originating UE) and user B
Precondition.	(terminating UE) according	g to the	
SIP Parameter values:	Dial string parameters options=PIXITYPE_SDP= PIXIT;		(, 2,, 2,)
Comments:			
SIP UA A	SUT		SIP UA B
INVITE (sendrecv)	→	→	INVITE (sendrecv)
180 Ringing	←	←	180 Ringing
200 OK INVITE (sendrecv)	←	←	200 OK INVITE (sendrecv)
ACK	→	→	ACK
INVITE(sendonly) 200 OK INVITE (recvonly) ACK	← → ←	← → ←	INVITE(sendonly) 200 OK INVITE(recvonly) ACK
INVITE (inactive) 200 OK INVITE (inactive) ACK	→ ← →	→ ← →	INVITE (inactive) 200 OK INVITE (inactive) ACK
INVITE (recvonly) 200 OK INVITE (sendonly) ACK	→ ← →	→ ← →	INVITE (recvonly) 200 OK INVITE (sendonly) ACK
BYE 200 OK BYE	}	→	BYE 200 OK BYE

SS_XXSSCH 13	HOLD reference to: TS 124 410 [15], clauses 4.5.2.1, 4.5.2.4, 4.5.2.9		
TSS reference:	ServedUser/WithoutAnnounc/With	outUPDATE.	
Selection criteria:	Session hold. INVITE method is us	sed.	
Test purpose:	Ensure that, when the terminating UE (user B) sends an INVITE request containing a SDP with the attribute "a=" sendonly to put the session on hold: • The originating UE (user A) receives an INVITE containing a SDP with the attribute "a=" sendonly. • The originating UE (user A) sends a 200 OK SIP response containing a SDP with the attribute "a=" recvonly. • The terminating UE (user B) receives a 200 OK SIP response containing a SDP with the attribute "a=" recvonly.		
Precondition:	Then the originating UE (user A) hang up the session. • A session was established between user A (originating UE) and user B (terminating UE) according to the "basic Call" procedures. • The media stream was previously set to "sendrecv".		
SIP Parameter values:	Dial string parameters options=PIX TYPE_SDP= PIXIT;	ÚT	
Comments: SIP UA A INVITE (sendrecv) 180 Ringing 200 OK INVITE (sendrecv) ACK	SUT → ← ← →	SIP UA B → INVITE (sendrecv) ← 180 Ringing ← 200 OK INVITE (sendrecv) → ACK	
INVITE (sendonly) 200 OK INVITE (recvonly) ACK BYE 200 OK BYE	← → ← →	 ← INVITE (sendonly) → 200 OK INVITE (recvonly) ← ACK → BYE ← 200 OK BYE 	

SS_XXSSCH 14	HOLD reference TS 124 410 [15], cla	auses 4.5.2.	1,
	4.5.2.4, 4.5		
TSS reference:	ServedUser/Without		
Selection criteria:	Session hold. INVIT		
Test purpose:			g UE (user B) sends an INVITE request
	containing a SDP wi status to inactive:	th the attribu	te "a=" inactive to change the media stream
	 The origina the attribute 	iting UE (use e "a=" inactiv	er A) receives an INVITE containing a SDP with ve.
			er A) sends a 200 OK SIP response containing
			er A) receives a 200 OK SIP response he attribute "a=" inactive.
	Then the originating	UE (user A)	hang up the session.
Precondition:			ned between user A (originating UE) and user B ding to the "basic Call" procedures.
	The session	n was previo	usly put on hold from user A (originating UE).
SIP Parameter values:	Dial string paramete TYPE_SDP= PIXIT;	rs options=P	
Comments:			
SIP UA A	SU	Т	SIP UA B
INVITE (sendrecv)	→	→	INVITE (sendrecv)
180 Ringing	←	←	180 Ringing
200 OK INVITE (sendrecv)	←	←	200 OK INVITE (sendrecv)
ACK	→	→	ACK
INVITE (sendonly)	→	→	INVITE (sendonly)
200 OK INVITE (recvonly)	←	←	200 OK INVITE (recvonly)
ACK	→	→	ACK
INVITE(inactive)	←	←	INVITE (inactive)
200 OK INVITE (inactive)	→	→	200 OK INVITE (inactive)
ACK	←	←	ACK
BYE	→	→	BYE
200 OK BYE	+	+	200 OK BYE

SS_XXSSCH 15	HOLD reference to: TS 124 410 [15], clauses 4.5.2.1, 4.5.2.4, 4.5.2.9	1,	
TSS reference:	ServedUser/WithoutAnnounc/With	thoutUPDATE.	
Selection criteria:	Session hold. INVITE method is used.		
Test purpose:	 Ensure that, when the terminating UE (user B) sends an INVITE request containing a SDP with the attribute "a=" sendrecv to resume the session: The originating UE (user A) receives an INVITE containing a SDP with the attribute "a=" sendrecv. The originating UE (user A) sends a 200 OK SIP response containing a SDP with the attribute "a=" sendrecv. The terminating UE (user B) receives a 200 OK SIP response containing a SDP with the attribute "a=" sendrecv. Then the originating UE (user A) hang up the session. 		
	default.	ribute can be omitted, since sendrecv attribute is the	
Precondition:	A session was established between user A (originating UE) and user B (terminating UE) according to the "basic Call" procedures. The session was previously put on hold from user B (terminating UE).		
SIP Parameter values:	Dial string parameters options=PIXTYPE_SDP= PIXIT;	IXII	
Comments:			
SIP UA A	SUT	SIP UA B	
INVITE (sendrecv)	→	→ INVITE (sendrecv)	
180 Ringing	←	← 180 Ringing	
200 OK INVITE (sendrecv) ACK	← →	← 200 OK INVITE (sendrecv)→ ACK	
INVITE (sendonly) 200 OK INVITE (recvonly) ACK	← → ←	← INVITE(sendonly)→ 200 OK INVITE(recvonly)← ACK	
INVITE (sendrecv) 200 OK INVITE (sendrecv) ACK	← → ←	 ← INVITE (sendrecv) → 200 OK INVITE (sendrecv) ← ACK 	
BYE 200 OK BYE	→	→ BYE ← 200 OK BYE	

SS_XXSSCH 16	HOLD reference to:	
	TS 124 410 [15], clauses 4.5.2.1,	
	4.5.2.4, 4.5.2.9	
TSS reference:	ServedUser/WithoutAnnounc/With	
Selection criteria:	Session hold. INVITE method is us	sed.
Test purpose:		UE (user B) sends an INVITE request containing a
		ly to resume the media stream status to recvonly:
	attribute "a=" recvonly.	A) receives an INVITE containing a SDP with the
	with the attribute "a=" ser	
	The terminating UE (user SDP with the attribute "as	r B) receives a 200 OK SIP response containing a =" sendonly.
	Then the originating UE (user A) h	
Precondition:		ed between user A (originating UE) and user B and the "basic Call" procedures.
	The media stream was property. UE).	reviously set to "inactive" from user B (terminating
SIP Parameter values:	Dial string parameters options=PIXTYPE_SDP= PIXIT;	KIT
Comments:		
SIP UA A	SUT	SIP UA B
INVITE (sendrecv)	→	→ INVITE (sendrecv)
180 Ringing 200 OK INVITE (sendrecv)	(← 180 Ringing← 200 OK INVITE (sendrecv)
ACK (Sendrecv)	→	→ ACK
INVITE(sendonly)	>	→ INVITE(sendonly)
200 OK INVITE (recvonly) ACK	← →	← 200 OK INVITE(recvonly)→ ACK
INVITE (inactive)	(← INVITE (inactive)
200 OK INVITE (inactive) ACK	→	→ 200 OK INVITE(inactive)← ACK
INVITE (recvonly) 200 OK INVITE (sendonly)	← →	 ← INVITE (recvonly) → 200 OK INVITE (sendonly)
ACK	←	← ACK
BYE 200 OK BYE	→ ←	→ BYE← 200 OK BYE

6.2.5.3 Communication with announcements

6.2.5.3.1 Communication Hold with support for UPDATE

SS_XXSSCH17	HOLD reference to: TS 124 410 [15], clauses 4.5.2.1,			
	4.5.2.4, 4.5.2.9			
TSS reference:	ServedUser/WithAnnounc/WithUP			
Selection criteria:	The remote user is put on hold, ar method is used.	announ	cement starts to the held user. The UPDATE	
Test purpose:	Ensure that, when the originating I	JE (user	A) sends an UPDATE request containing a	
	SDP with the attribute "a=" sendor	nly to put	the session on hold:	
	 The terminating UE (user attribute "a=" sendonly. 	B) rece	ives an UPDATE containing a SDP with the	
	The terminating UE (user with the attribute "a=" reconstruction.")		ls a 200 OK SIP response containing a SDP	
	The originating UE (user with the attribute "a=" rec	A) receiv	ves a 200 OK SIP response containing a SDP	
		-	e terminating UE (user B).	
	Then the originating UE (user A) h	ang up t	he session.	
Precondition:	 A session was established (terminating UE) according 		en user A (originating UE) and user B "basic Call" procedures.	
	The media stream was previously set to "sendrecv".			
SIP Parameter values:	Dial string parameters options=PIXTYPE_SDP= PIXIT;			
Comments:				
SIP UA A	SUT		SIP UA B	
INVITE (sendrecv)	→	→	INVITE (sendrecv)	
180 Ringing	←	←	180 Ringing	
200 OK INVITE (sendrecv)	← 200 OK INVITE (sendrecv)			
ACK	→	→	ACK	
Conversation				
UPDATE (sendonly)	→ UPDATE (sendonly)			
200 OK UPDATE (recvonly)		(200 OK UPDATE (recvonly)	
DVE	Announcement		DVE	
BYE	→	→	BYE	
200 OK BYE	←	+	200 OK BYE	

SS_XXSSCH18	HOLD reference to: TS 124 410 [15], clauses 4.5.2.1,			
	4.5.2.4, 4.5.2.9			
TSS reference:	ServedUser/WithAnnounc/WithUPDATE.			
Selection criteria:	The announcement is stopped after the held user puts the media stream on hold. The			
	UPDATE method is used.			
Test purpose:	 Ensure that, when the originating UE (user A) sends an UPDATE request containing a SDP with the attribute "a=" inactive to change the media stream status to inactive: The terminating UE (user B) receives an UPDATE containing a SDP with the attribute "a=" inactive. The terminating UE (user B) sends a 200 OK SIP response containing a SDP with the attribute "a=" inactive. The originating UE (user A) receives a 200 OK SIP response containing a SDP with the attribute "a=" inactive. The announcement to the originating UE (user A) is stopped. 			
	Then the originating UE (user A) had			
Precondition:			en user A (originating UE) and user B	
	(terminating UE) according			
	· ·		n hold from user B (terminating UE).	
OID Developed	An announcement is play District Announcement Announce		e originating UE (user A).	
SIP Parameter values:	Dial string parameters options=PIX TYPE_SDP= PIXIT;	.11		
Comments:				
SIP UA A	SUT		SIP UA B	
INVITE (sendrecv)	→	→	INVITE (sendrecv)	
180 Ringing	←	←	180 Ringing	
200 OK INVITE (sendrecv)	←	←	200 OK INVITE (sendrecv)	
ACK	→	→	ACK	
LIBBATE (CALLED	Conversation		LIDDATE (COLLEGE)	
UPDATE (sendonly)	((UPDATE (sendonly)	
200 OK UPDATE (recvonly)				
UPDATE (inactive)	Announcement to UE A → UPDATE (inactive)			
200 OK UPDATE (inactive)	· · · · · · · · /			
Media stream is stopped				
BYE)	→	BYE	
200 OK BYE	←	←	200 OK BYE	

SS_XXSSCH19	HOLD reference to:			
	TS 124 410 [15], clauses 4.5.2.1,			
	4.5.2.4, 4.5.2.9			
TSS reference:	ServedUser/WithAnnounc/WithUPDATE.			
Selection criteria:	The announcement is stopped after retrieve.			
Test purpose:	Ensure that, when the originating l	JE (user	A) sends an UPDATE request containing a	
	SDP with the attribute "a=" sendrecv to resume the session:			
	 The terminating UE (user attribute "a=" sendrecv. 	B) rece	ives an UPDATE containing a SDP with the	
	The terminating UE (user with the attribute "a=" ser		ds a 200 OK SIP response containing a SDP	
	The originating UE (user with the attribute "a=" ser		ves a 200 OK SIP response containing a SDP	
			ating UE (user B) is stopped.	
	Then the originating UE (user A) h	ang up t	he session.	
	NOTE: The sendrecv SDP attril default.	bute can	be omitted, since sendrecv attribute is the	
Precondition:	(terminating UE) accordir	ng to the	en user A (originating UE) and user B "basic Call" procedures. n hold from user A (originating UE).	
			e terminating UE (user B).	
SIP Parameter values:	Dial string parameters options=PIX TYPE_SDP= PIXIT;		(uso: 2).	
Comments:				
SIP UA A	SUT		SIP UA B	
INVITE (sendrecv)	→	→	INVITE (sendrecv)	
180 Ringing	←	←	180 Ringing	
200 OK INVITE (sendrecv)	←	←	200 OK INVITE (sendrecv)	
ACK	→	→	ACK	
	Conversati			
UPDATE (sendonly)	→ UPDATE (sendonly)			
200 OK UPDATE (recvonly) Announcement to UE B				
UPDATE (sendrecv)	Announcement •	to UE B	UPDATE (sendrecv)	
200 OK UPDATE (sendrecy)				
200 ON OF DATE (Selidiecy	Conversati		200 OR OF DATE (Schulecy)	
	Conversati	···		
BYE	→	→	BYE	
200 OK BYE	-	(200 OK BYE	

SS_XXSSCH20	HOLD reference to:		
	TS 124 410 [15], clauses 4.5.2.1,		
	4.5.2.4, 4.5.2.9		
TSS reference:	ServedUser/WithAnnounc/WithUPD	ATE.	
Selection criteria:	Announcement is started to user B when user B retrieves the connection.		
Test purpose:			A) sends an UPDATE request containing a
			ume the media stream status to recvonly:
	 The terminating UE (user lastribute "a=" recvonly. 	B) rece	ives an UPDATE containing a SDP with the
	The terminating UE (user I SDP with the attribute "a="		ds a 200 OK SIP response containing a
		A) recei	ves a 200 OK SIP response containing a
	An announcement is player		•
	Then the originating UE (user A) ha		
Precondition:			en user A (originating UE) and user B
	(terminating UE) according		
		eviously	set to "inactive" from user A (originating
	UE).		
CID Deservation and the second			ting UE (user A) is stopped.
SIP Parameter values:	Dial string parameters options=PIXI TYPE_SDP= PIXIT;	 	
Comments:			
SIP UA A	SUT	_	SIP UA B
INVITE (sendrecv)	→	→	INVITE (sendrecv)
180 Ringing	(+	180 Ringing
200 OK INVITE (sendrecv) ACK	← →	←	200 OK INVITE (sendrecv) ACK
ACK	Conversation	_	ACK
UPDATE (sendonly)	←	' ←	UPDATE (sendonly)
200 OK UPDATE (recvonly		À	200 OK UPDATE (recvonly)
200 011 01 27112 (10010111)	Announcement to	_	Los on or britz (rooverny)
UPDATE (inactive)	→	→	UPDATE (inactive)
200 OK UPDATE (inactive	(←	200 OK UPDATE (inactive)
Media stream is stopped			
UPDATE (recvonly)	→	→	UPDATE (recvonly)
200 OK UPDATE (sendon		←	200 OK UPDATE (sendonly)
	Announcement to		->-
BYE	→	→	BYE
200 OK BYE	←	—	200 OK BYE

SS_XXSSCH21	HOLD reference to: TS 124 410 [15], clauses 4.5.2.1, 4.5.2.4, 4.5.2.9				
TSS reference:	ServedUser/WithAnnounc/WithUPDATE.				
Selection criteria:	The remote user is put on hold, an announcement starts to the held user. The UPDATE method is used.				
Test purpose:	Ensure that, when the terminating UE (user B) sends an UPDATE request containing a SDP with the attribute "a=" sendonly to put the session on hold: The originating UE (user A) receives an UPDATE containing a SDP with the attribute "a=" sendonly. The originating UE (user A) sends a 200 OK SIP response containing a SDP with the attribute "a=" recvonly. The terminating UE (user B) receives a 200 OK SIP response containing a SDP with the attribute "a=" recvonly. An announcement is played to the terminating UE (user B).				
Precondition:	Then the originating UE (user A) hang up the session. • A session was established between user A (originating UE) and user B (terminating UE) according to the "basic Call" procedures. • The media stream was previously set to "sendrecv".				
SIP Parameter values:	Dial string parameters options=PIXIT TYPE_SDP= PIXIT;				
Comments:					
SIP UA A	SUT SIP UA B				
INVITE (sendrecv)	→ INVITE (sendrecv)				
180 Ringing	← ← 180 Ringing				
200 OK INVITE (sendrecv)	← 200 OK INVITE (sendrecv)				
ACK	→ → ACK Conversation				
UPDATE (sendonly) 200 OK UPDATE (recvonly)	← ← UPDATE (sendonly) → → 200 OK UPDATE (recvonly) Announcement to UE A				
BYE	→ → BYE				
200 OK BYE	← 200 OK BYE				

SS_XXSSCH22	HOLD reference to: TS 124 410 [15], clauses 4.5.2.1,				
	4.5.2.4, 4.5.2.9				
TSS reference:	ServedUser/WithAnnounc/WithUP	DATE.			
Selection criteria:		er the he	eld user puts the media stream on hold. The		
	UPDATE method is used.				
Test purpose:			er B) sends an UPDATE request containing a nge the media stream status to inactive:		
			ves an UPDATE containing a SDP with the		
	attribute "a=" inactive.	A) IECEI	ves all of DATE containing a 3DF with the		
		A) send	s a 200 OK SIP response containing a SDP		
	with the attribute "a=" ina				
			eives a 200 OK SIP response containing a SDP		
	with the attribute "a=" ina				
	The announcement to the	e termin	ating UE (user B) is stopped.		
	Then the originating UE (user A) h	ang up i	the session.		
Precondition:			een user A (originating UE) and user B		
	(terminating UE) accordir				
	 The session was previou 	sly put c	on hold from user A (originating UE).		
			e terminating UE (user B).		
SIP Parameter values:	Dial string parameters options=PI	KIT			
	TYPE_SDP= PIXIT;				
Comments: SIP UA A	SUT		SIP UA B		
INVITE (sendrecv)	→	→	INVITE (sendrecv)		
180 Ringing	←	-	180 Ringing		
200 OK INVITE (sendrecv)	←	←	200 OK INVITE (sendrecv)		
ACK	→	→	ACK		
LIDDATE (condensity)	Conversation		LIDD ATE (condents)		
UPDATE (sendonly) 200 OK UPDATE (recvonly)	→ UPDATE(sendonly) ← 200 OK UPDATE (recvonly)				
200 OR OF DATE (IECVOINS)	Announcement to UE B				
UPDATE (inactive)	← ← UPDATE (inactive)				
200 OK UPDATE (inactive)	` ,				
Media stream is stopped					
BYE	→	→	BYE		
200 OK BYE	+	+	200 OK BYE		

SS_XXSSCH23	HOLD reference to:				
	TS 124 410 [15], clauses 4.5.2.1	,			
	4.5.2.4, 4.5.2.9				
TSS reference:	ServedUser/WithAnnounc/WithUF	ServedUser/WithAnnounc/WithUPDATE.			
Selection criteria:	Announcement is stopped after re	trieve.			
Test purpose:	Ensure that, when the terminating UE (user B) sends an UPDATE request containing a SDP with the attribute "a=" sendrecv to resume the session: • The originating UE (user A) receives an UPDATE containing a SDP with the				
			s a 200 OK SIP response containing a SDP		
		r B) rece	ives a 200 OK SIP response containing a SDP		
	with the attribute "a=" se The announcement to the		ting UE (user A) is stopped.		
	Then the originating UE (user A) I	nang up	the session.		
	NOTE: The sendrecv SDP attr default.	ibute car	n be omitted, since sendrecv attribute is the		
Precondition:	 A session was established between user A (originating UE) and user B (terminating UE) according to the "basic Call" procedures. The session was previously put on hold from user B (terminating UE). An announcement is played to the originating UE (user A). 				
SIP Parameter values:	Dial string parameters options=PI TYPE_SDP= PIXIT;		o originating of (aboti 71).		
Comments:					
SIP UA A	SUT		SIP UA B		
INVITE (sendrecv)	→	→	INVITE (sendrecv)		
180 Ringing	←	←	180 Ringing		
200 OK INVITE (sendrecv)	((200 OK INVITE (sendrecv)		
ACK	→	→	ACK		
	Conversati				
UPDATE (sendonly)	← UPDATE (sendonly)				
200 OK UPDATE (recvonly)					
LIDDATE (condracy)	Announcement to UE A ←				
UPDATE (sendrecv) 200 OK UPDATE (sendrecv					
200 OR OFDATE (SelidieCV	Conversation				
Conversation					
BYE	→	→	BYE		
200 OK BYE	←	←	200 OK BYE		

SS_XXSSCH24	HOLD reference to:					
	TS 124 410 [15], clauses 4.5.2.1,					
	4.5.2.4, 4.5.2.9					
TSS reference:	ServedUser/WithAnnounc/WithUPDATE.					
Selection criteria:	Announcement is started to user E	3 when เ	user B retrieves the connection.			
Test purpose:	Ensure that, when the terminating UE (user B) sends an UPDATE request containing a					
		SDP with the attribute "a=" recvonly to resume the media stream status to recvonly:				
	 The originating UE (user attribute "a=" recvonly. 	A) recei	ves an UPDATE containing a SDP with the			
	 The originating UE (user the attribute "a=" sendonl 		s a 200 OK SIP response containing a SDP with			
			eives a 200 OK SIP response containing a SDP			
	with the attribute "a=" ser		TVOO U 200 OK OH TOOPOHOO OOMUMINING U ODI			
		•	e terminating UE (user B).			
	7 Transcardent is play	ca to th	c terrimating of (user b).			
	Then the originating UE (user A) h	ang up	the session.			
Precondition:	 A session was establishe 	d betwe	en user A (originating UE) and user B			
			e "basic Call" procedures.			
	 The media stream was presented in the presen	reviously	y set to "inactive" from user B (terminating UE).			
	 The announcement to the 	 The announcement to the terminating UE (user B) is stopped. 				
SIP Parameter values:	Dial string parameters options=PIXTYPE_SDP= PIXIT;	(IT				
Comments:						
SIP UA A	SUT		SIP UA B			
INVITE (sendrecv)	→	→	INVITE (sendrecv)			
180 Ringing	←	←	180 Ringing			
200 OK INVITE (sendrecv)	((200 OK INVITE (sendrecv)			
ACK	→	→	ACK			
LIDDATE (Conversati		LIDDATE (L L)			
UPDATE (sendonly)	→	→	UPDATE (sendonly)			
200 OK UPDATE (recvonly)	Announcement	←	200 OK UPDATE (recvonly)			
UPDATE (inactive)	Aimouncement ←	€	UPDATE (inactive)			
200 OK UPDATE (inactive)						
	Media stream is stopped					
UPDATE (recvonly)	←					
200 OK UPDATE (sendonly)						
	Announcement	to UE E				
BYE	→	→	BYE			
200 OK BYE	+	<u>+</u>	200 OK BYE			

6.2.5.3.2 Communication Hold without support for UPDATE

HOLD reference to: TS 124 410 [15], clauses 4.5.2.1,					
4.5.2.4, 4.5.2.9					
ServedUser/WithAnnounc/WithoutUPI	DATE.				
The remote user is put on hold, an an method is used.	The remote user is put on hold, an announcement starts to the held user. The INVITE method is used.				
		A) sends an INVITE request containing a SDP ssion on hold:			
 The terminating UE (user B) attribute "a=" sendonly. 	receiv	es an INVITE containing a SDP with the			
		a 200 OK SIP response containing a SDP			
		es a 200 OK SIP response containing a SDP			
An announcement is played	to the	terminating UE (user B).			
Then the originating UE (user A) hang	up the	e session.			
		n user A (originating UE) and user B basic Call" procedures.			
 The media stream was previ 	ously s	set to "sendrecv".			
Dial string parameters options=PIXIT TYPE_SDP= PIXIT;					
SUT		SIP UA B			
→	_	INVITE (sendrecv)			
		180 Ringing			
2 /1011					
y /					
` ,					
2 /1011					
	_	BYE			
-	-	200 OK BYE			
	TS 124 410 [15], clauses 4.5.2.1, 4.5.2.4, 4.5.2.9 ServedUser/WithAnnounc/WithoutUPI The remote user is put on hold, an animethod is used. Ensure that, when the originating UE (with the attribute "a=" sendonly to put The terminating UE (user B) attribute "a=" sendonly. The terminating UE (user B) with the attribute "a=" recvon The originating UE (user A) recvon An announcement is played to terminating UE) according to terminating UE) according to the media stream was previous surple surpl	TS 124 410 [15], clauses 4.5.2.1, 4.5.2.4, 4.5.2.9 ServedUser/WithAnnounc/WithoutUPDATE. The remote user is put on hold, an announce method is used. Ensure that, when the originating UE (user A with the attribute "a=" sendonly to put the see attribute "a=" sendonly. The terminating UE (user B) receive attribute "a=" sendonly. The terminating UE (user B) sends with the attribute "a=" recvonly. The originating UE (user A) receive with the attribute "a=" recvonly. An announcement is played to the the material of the "announcement is played to the "a			

SS_XXSSCH26	HOLD reference to: TS 124 410 [15], clauses 4.5.2.1, 4.5.2.4, 4.5.2.9				
TSS reference:	ServedUser/WithAnnounc/WithoutUPDATE.				
Selection criteria:	The announcement is stopped after the held user puts the media stream on hold. The INVITE method is used.				
Test purpose:	Ensure that, when the originating UE (user A) sends an INVITE request containing a SDP with the attribute "a=" inactive to change the media stream status to inactive: • The terminating UE (user B) receives an INVITE containing a SDP with the attribute "a=" inactive. • The terminating UE (user B) sends a 200 OK SIP response containing a SDP with the attribute "a=" inactive. • The originating UE (user A) receives a 200 OK SIP response containing a SDP with the attribute "a=" inactive. • The announcement to the originating UE (user A) is stopped. Then the originating UE (user A) hang up the session.				
Precondition:	 A session was established between user A (originating UE) and user B (terminating UE) according to the "basic Call" procedures. The session was previously put on hold from user B (terminating UE). An announcement is played to the originating UE (user A). 				
SIP Parameter values:	Dial string parameters options=PIXIT TYPE_SDP= PIXIT;				
Comments:	1				
SIP UA A	SUT		SIP UA B		
INVITE (sendrecv)	→	→	INVITE (sendrecv)		
180 Ringing	←	←	180 Ringing		
200 OK INVITE (sendrecv)	É	←	200 OK INVITE (sendrecv)		
ACK	÷	÷	ACK		
	Conversation)			
INVITE (sendonly)	←	←	INVITE (sendonly)		
200 OK INVITE (recvonly)	→	→	200 OK INVITE (recvonly)		
ACK	-	-	ACK		
1.0.1	Announcement to UE A				
INVITE (inactive)	→ INVITE (inactive)				
200 OK INVITE (inactive)	← ← 200 OK INVITE (inactive)				
ACK	÷	÷	ACK		
Media stream is stopped					
BYE	→	→	BYE		
200 OK BYE	+	+	200 OK BYE		

SS_XXSSCH27	HOLD reference to:				
	TS 124 410 [15], clauses 4.5.2.1,				
	4.5.2.4, 4.5.2.9				
TSS reference:	ServedUser/WithAnnounc/WithoutUPDATE.				
Selection criteria:	Announcement is stopped after retrieve. The INVITE method is used.				
Test purpose:	Ensure that, when the originating	UE (user A	A) sends an INVITE request containing a SDP		
	with the attribute "a=" sendrecv to				
		r B) receiv	es an INVITE containing a SDP with the		
	attribute "a=" sendrecv.				
			a 200 OK SIP response containing a SDP		
	with the attribute "a=" se		000 01/ 010		
	Ine originating UE (user with the attribute "a=" set)		es a 200 OK SIP response containing a SDP		
			in a LIE (vers D) is atomical		
	The announcement to the	e terminati	ing UE (user B) is stopped.		
	Then the originating UE (user A) h	ana un th	e session		
	Then the originating OL (user A) I	iang up un	c 36331011.		
	NOTE: The sendrecv SDP attri	bute can b	be omitted, since sendrecv attribute is the		
	default.				
Precondition:	A session was established.	ed betweer	n user A (originating UE) and user B		
	(terminating UE) according				
	The session was previously put on hold from user A (originating UE).				
	 An announcement is play 	ed to the	terminating UE (user B).		
SIP Parameter values:	Dial string parameters options=PIX		-		
	TYPE_SDP= PIXIT;				
Comments:					
SIP UA A	SUT	_	SIP UA B		
INVITE (sendrecv)	→	→	INVITE (sendrecv)		
180 Ringing 200 OK INVITE (sendrecv)	+ +	+	180 Ringing 200 OK INVITE (sendrecv)		
ACK	→	→	ACK		
ACR	Conversation				
INVITE (sendonly)	→	→	INVITE (sendonly)		
200 OK INVITE (recvonly)	← ← 200 OK INVITE (recvonly)				
ACK	→ ACK				
	Announcement to UE B				
INVITE (sendrecv)	→ INVITE (sendrecv)				
200 OK INVITE (sendrecv)	← 200 OK INVITE (sendrecv)				
ACK	→	→	ACK		
DVE	Conversat		DVE		
BYE 200 OK BYE	→	→	BYE 200 OK BYE		
ZUU ON DIE	T	~	ZUU UN DIE		

SS XXSSCH28	HOLD reference to:					
	TS 124 410 [15], clauses 4.5.2.1,					
	4.5.2.4, 4.5.2.9					
TSS reference:	ServedUser/WithAnnounc/WithoutUPDATE.					
Selection criteria:	Announcement is started to user B when user B retrieves the connection. The INVITE					
	method is used.					
Test purpose:	Ensure that, when the originating L	JE (user	A) sends an INVITE request containing a SDP			
			ne media stream status to recvonly:			
	The terminating UE (user)	B) recei	ves an INVITE containing a SDP with the			
	attribute "a=" recvonly.		-			
			s a 200 OK SIP response containing a SDP			
	with the attribute "a=" sen					
			es a 200 OK SIP response containing a SDP			
	with the attribute "a=" sen	•				
	 An announcement is play 	ed to the	originating UE (user A).			
	Then the originating UE (user A) ha					
Precondition:			en user A (originating UE) and user B			
	(terminating UE) according					
			set to "inactive" from user A (originating UE).			
			ing UE (user A) is stopped.			
SIP Parameter values:	Dial string parameters options=PIX	ΊΤ				
	TYPE_SDP= PIXIT;					
Comments:	OUT		OID HA D			
SIP UA A	SUT	_	SIP UA B			
INVITE (sendrecv) 180 Ringing	→ ←	→	INVITE (sendrecv) 180 Ringing			
200 OK INVITE (sendrecv)	`	-	200 OK INVITE (sendrecv)			
ACK	→	→	ACK			
AOR	Conversation	-	AOR			
INVITE(sendonly)	←	··· ←	INVITE(sendonly)			
200 OK INVITE (recvonly)	→	→	200 OK INVITE(recvonly)			
ACK	←	←	ACK			
	Announcement t	to UE A				
INVITE (inactive)	→	→	INVITE(inactive)			
200 OK INVITE (inactive)	←	←	200 OK INVITE(inactive)			
ACK	→	→ .	ACK			
	Media stream is s					
INVITE (recvonly)	}	→	INVITE (recvonly)			
200 OK INVITE (sendonly)	((200 OK INVITE (sendonly)			
ACK	Announcement	→ •~ !!E ^	ACK			
BYE	Announcement t	:0 UE A	BYE			
200 OK BYE	→	→	200 OK BYE			
ZUU ON DIE	τ		ZUU UN DIE			

SS_XXSSCH29	HOLD reference to: TS 124 410 [15], clauses 4.5.2.1, 4.5.2.4, 4.5.2.9				
TSS reference:	ServedUser/WithAnnounc/WithoutUPDATE.				
Selection criteria:	The remote user is put on hold, an announcement starts to the held user. The INVITE method is used.				
Test purpose:	 Ensure that, when the terminating UE (user B) sends an INVITE request containing a SDP with the attribute "a=" sendonly to put the session on hold: The originating UE (user A) receives an INVITE containing a SDP with the attribute "a=" sendonly. The originating UE (user A) sends a 200 OK SIP response containing a SDP with the attribute "a=" recvonly. The terminating UE (user B) receives a 200 OK SIP response containing a SDP with the attribute "a=" recvonly. An announcement is played to the terminating UE (user B). Then the originating UE (user A) hang up the session. 				
Precondition:	A session was established between user A (originating UE) and user B (terminating UE) according to the "basic Call" procedures. The media stream was previously set to "sendrecv".				
SIP Parameter values:	Dial string parameters options=PIXIT TYPE_SDP= PIXIT;				
Comments: SIP UA A	SUT SIP UA B				

INVITE (sendrecv)					
180 Ringing 200 OK INVITE (sendrecv)					
ACK	←				
ACK	Conversation				
INVITE (sendonly) 200 OK INVITE (recvonly) ACK	←				
BYE	→ → BYE				
200 OK BYE	← 200 OK BYE				

SS_XXSSCH30	HOLD reference to:					
	TS 124 410 [15], clauses 4.5.2.1,					
	4.5.2.4, 4.5.2.9					
TSS reference:	ServedUser/WithAnnounc/Without	UPDATE				
Selection criteria:	The announcement is stopped after the held user puts the media stream on hold. The					
	INVITE method is used.					
Test purpose:			B) sends an INVITE request containing a SDP			
	with the attribute "a=" inactive to ch					
	 The originating UE (user a attribute "a=" inactive. 	A) receiv	es an INVITE containing a SDP with the			
	The originating UE (user /	A) sends	a 200 OK SIP response containing a SDP			
	with the attribute "a=" inac					
	The terminating UE (user with the attribute "a=" inac		ves a 200 OK SIP response containing a SDP			
			ting UE (user B) is stopped.			
	Then the originating UE (user A) ha					
Precondition:			en user A (originating UE) and user B			
	(terminating UE) according					
	•	• •	h hold from user A (originating UE).			
	An announcement is play		terminating UE (user B).			
SIP Parameter values:	Dial string parameters options=PIX	JT				
	TYPE_SDP= PIXIT;					
Comments: SIP UA A	SUT		SIP UA B			
INVITE (sendrecv)	→ →	→	INVITE (sendrecv)			
180 Ringing		-	180 Ringing			
200 OK INVITE (sendrecv)	÷	È	200 OK INVITE (sendrecv)			
ACK	· •	÷	ACK			
	Conversati	on				
INVITE (sendonly)	→	→	INVITE (sendonly)			
200 OK INVITE (recvonly)	←	←	200 OK INVITE (recvonly)			
ACK	→ ACK					
	Announcement	to UE B				
INVITE (inactive)	←					
200 OK INVITE (inactive)	→	→	200 OK INVITE (inactive)			
ACK	→	→ .	ACK			
5)/5	Media stream is					
BYE	}	→	BYE			
200 OK BYE	+	-	200 OK BYE			

SS_XXSSCH31	Н	IOLD referen	ce to:		
	TS 124	410 [15], clau			
		4.5.2.4, 4.5.			
TSS reference:		ServedUser/WithAnnounc/WithoutUPDATE.			
Selection criteria:		Announcement is stopped after retrieve. The INVITE method id used.			
Test purpose:		Ensure that, when the terminating UE (user B) sends an INVITE request containing a SDP			
		attribute "a="			
	•	The originati attribute "a=		A) receiv	es an INVITE containing a SDP with the
	•		ing UE (user / bute "a=" sen		a 200 OK SIP response containing a SDP
	•		ting UE (user bute "a=" sen		ves a 200 OK SIP response containing a SDP
	•	The announ	cement to the	originat	ing UE (user A) is stopped.
	Then the	e originating U	JE (user A) ha	ang up th	ne session.
	NOTE:	The sendre default.	ecv SDP attrib	oute can	be omitted, since sendrecv attribute is the
Precondition:	•	A session wa	as establishe	d betwee	en user A (originating UE) and user B
					"basic Call" procedures.
	•	The session	was previous	sly put or	n hold from user B (terminating UE).
	•	An announce	ement is play	ed to the	e originating UE (user A).
SIP Parameter values:		ng parameters SDP= PIXIT;	s options=PIX	ΊΤ	
Comments:					
SIP UA A			SUT		SIP UA B
INVITE (sendrecv)		→		→	INVITE (sendrecv)
180 Ringing		((180 Ringing
200 OK INVITE (sendrecv)		((200 OK INVITE (sendrecv)
ACK		→	Conversati	→	ACK
INVITE (sendonly)		_	Conversati	on ←	INIVITE (sondonly)
200 OK INVITE (recvonly)	\ J/				
ACK	← ← ACK				
AOR	Announcement to UE A				
INVITE (sendrecv)	← ← INVITE (sendrecv)				
200 OK INVITE (sendrecv)					
ACK		←		←	ACK
			Conversati	on	
BYE		→		→	BYE
200 OK BYE		←		←	200 OK BYE

HOLD reference to:				
TS 124 410 [15], clauses 4.5.2.1, 4.5.2.4, 4.5.2.9				
ServedUser/WithAnnounc/WithoutUPDATE.				
Announcement is started to user B when user B retrieves the connection. The INVITE				
method id used.				
 Ensure that, when the terminating UE (user B) sends an INVITE request containing a SDP with the attribute "a=" recvonly to resume the media stream status to recvonly: The originating UE (user A) receives an INVITE containing a SDP with the attribute "a=" recvonly. The originating UE (user A) sends a 200 OK SIP response containing a SDP with the attribute "a=" sendonly. The terminating UE (user B) receives a 200 OK SIP response containing a SDP with the attribute "a=" sendonly. An announcement is played to the terminating UE (user B). 				
		set to "inactive" from user B (terminating UE).		
		ang or (door b) to etoppour		
SUT		SIP UA B		
→	→	INVITE		
	←	180 Ringing		
	←	200 OK INVITE		
-	-	ACK		
	=	INVITE(sendonly)		
		200 OK INVITE(recvonly)		
-	-	ACK		
		INVITE(inactive)		
	-	200 OK INVITE(inactive)		
1 101				
		INVITE (recvonly)		
		200 OK INVITE (sendonly)		
	=	ACK		
-	-			
	to o∟ →	BYE		
É	É	200 OK BYE		
	A.5.2.4, 4.5.2.9 ServedUser/WithAnnounc/Without! Announcement is started to user B method id used. Ensure that, when the terminating with the attribute "a=" recvonly to record "a=" recvonly. The originating UE (user a the attribute "a=" sendonle the attribute "a=" sendonle. The terminating UE (user with the attribute "a=" sendonle. An announcement is play. Then the originating UE (user A) have a session was established. A session was established. Boal string parameters options=PIXTYPE_SDP= PIXIT; SUT Convers Announcement Announcement Announcement Announcement Announcement Announcement Announcement Announcement Announcement	ServedUser/WithAnnounc/WithoutUPDATE Announcement is started to user B when use method id used. Ensure that, when the terminating UE (user with the attribute "a=" recvonly to resume the "a=" recvonly. The originating UE (user A) sends the attribute "a=" sendonly. The terminating UE (user B) receive with the attribute "a=" sendonly. An announcement is played to the the originating UE (user A) hang up the A session was established between UE) according to the "basic Call" proceed to the UE) according to the UE according		

6.2.6 Test purposes for Communication Diversion

The configuration lines in this clause contain only the subscription options to the communication diversion service that are relevant for the test purpose. Subscription options not mentioned can take any value.

6.2.6.1 CFU

SSS_XXSSCFU01	CDIV reference to:				
	TS 124 504 [12], clause 4.5.2.6.	.5			
TSS reference:	SIP-SIP/Supplementary_Services/CFU.				
Configuration:	The user B has subscribed to CFU, CDIVN is not activated				
	Subscription options:				
	Served user receives indication that a communication has been forwarded = Yes				
Selection criteria:	CFU supported.				
Test purpose:	Ensure that when user A calls user B, the call is forwarded to user C. Ensure that in the active call state the voice transfer on the media channels is performed correctly (e.g. testing QoS parameters). Ensure that User B receives a MESSAGE request indicating the call diversion.				
SIP Parameter values:	Dial string parameters options=PIXIT TYPE_SDP= PIXIT				
Comments:					
SIP UA A	SUT	SIP UA B	SIP UA C		
INVITE	→				
	Communication divers	-			
181 Call Is Being Forward (optional)	ded ←)	NVITE		
	→	MESSAGE			
	←	200 OK MESSAGE			
180 Ringing	←	+	180 Ringing		
200 OK INVITE	←	+	200 OK INVITE		
ACK	→)	ACK		
	Communication				
BYE	→ BYE				
200 OK BYE	←	+	200 OK BYE		

OCC VYCCOFILOS	0011/					
SSS_XXSSCFU02	CDIV reference to:	0.5.4				
	TS 124 504 [12], clause 4.5.2					
	SIP-SIP-SIP/Supplementary_Services/CFU.					
	The user B has subscribed to CFU and CDIVN.					
	CFU and CDIVN supported.					
	Ensure that when user A calls user B, the call is forwarded to user C. Ensure that in the					
	active call state the voice transfer on the media channels is performed correctly (e.g.					
	testing QoS parameters).					
	Ensure that User B, having activated the CDIVN service, receives a NOTIFY request					
	indicating the call diversion.					
	Dial string parameters options=F	PIXIT				
	TYPE_SDP= PIXIT					
Comments:						
SIP UA A	SUT	SIP UA B	SIP UA C			
	Start Activat	on CDIVN				
	+	0020022				
	→	200 OK SUBSCRIBE				
	→	NOTIFY				
	+	200 OK NOTIFY				
	End Activati	on CDIVN				
INVITE	→					
l <u>.</u> <u>.</u>	Communication diversion is performed					
181 Call Is Being Forward	led ←		→ INVITE			
(optional)	_					
	→	NOTIFY				
	+	200 OK NOTIFY				
180 Ringing	-		€ 180 Ringing			
200 OK INVITE	(€ 200 OK INVITE			
ACK	→ ACK					
DVE	Communication					
BYE	→		→ BYE			
200 OK BYE	←		← 200 OK BYE			

SSS XXSSCFU03	CDIV reference to:			
	TS 124 504 [12], clause 4.5.2.6.4			
TSS reference:	SIP-SIP-SIP/Supplementary_Service	es/CFL	J.	
Configuration:	The user B has subscribed to CFU			
	Subscription options:			
	Originating user receives notification	n that hi	is communication	has been diverted = No
Selection criteria:	CFU supported.	CFU supported.		
Test purpose:	Ensure that when user A calls user B, the call is forwarded to user C.			
	Ensure that User A does not receive a 181 Call Is Being Forwarded message.			
SIP Parameter values:	Dial string parameters options=PIXIT			
	TYPE_SDP= PIXIT			
Comments:				
SIP UA A	SUT			SIP UA C
INVITE	→	→	INVITE	
180 Ringing	←	←	180 Ringing	
200 OK INVITE	←	←	200 OK INVITE	
ACK	→	→	ACK	
BYE	→	→	BYE	
200 OK BYE	Č	←	200 OK BYE	

SSS_XXSSCFU04	CDIV reference to: TS 124 504 [12], clause 4.5.2.6.4			
TSS reference:	SIP-SIP/Supplementary_Service		I	
Configuration:	The user B has subscribed to CFU and has not activated TIR Subscription options:			
	Originating user receives notification that his communication has been diverted = Yes Served user allows the presentation of diverted to URI to originating user in diversion notification = No			
	notification = No	1 Of MS/f	her URI to originating user in diversion	
Selection criteria:	CFU supported.			
Test purpose:	Ensure that when user A calls user B, the call is forwarded to user C. Ensure that User A receives a 181 Call Is Being Forwarded message containing a Privacy header with value "id" and not containing a P-Asserted-Identity indicating the URI of user B and not containing a History-Info header (with CDIV related cause value) indicating the URI of user B or user A.			
SIP Parameter values:	Dial string parameters options=PIXIT TYPE_SDP= PIXIT			
Comments:				
SIP UA A	→	→	SIP UA C INVITE	
181 Call Is Being Forwa 180 Ringing 200 OK INVITE ACK	rded	← ← →	180 Ringing 200 OK INVITE ACK	
BYE 200 OK BYE	→	→	BYE 200 OK BYE	

SSS XXSSCFU05	CDIV reference to:		
	TS 124 504 [12], clause 4.5.2.6.4		
TSS reference:	SIP-SIP/Supplementary_Services/CFU.		
Configuration:	The user B has subscribed to CFU and has not activated TIR		
Corniguration.	Subscription options:		
	Originating user receives notification that his communication has been diverted = Yes		
	Served user allows the presentation of diverted to URI to originating user in diversion notification = Yes		
		of bio/	her URI to originating user in diversion
	notification = Yes	1 01 1115/1	ner ORI to originating user in diversion
Selection criteria:			
	CFU supported.		W: () 1 () 0
Test purpose:	Ensure that when user A calls user		
	Ensure that User A receives a 181		
	containing a P-Asserted-Identity inc	licating t	the URI of user B and
	containing a History-Info header		
	 including a first entry with the hi-targeted-to-URI of user B, index = 1, 		
	cause param = 302 and		
			hi-targeted-to-URI of user C, index = 1.1
SIP Parameter values:	=		
	TYPE_SDP= PIXIT		
Comments:			
SIP UA A	SUT		SIP UA C
INVITE	→	→	INVITE
181 Call Is Being Forwa			
180 Ringing	←	←	180 Ringing
200 OK INVITE	←	←	200 OK INVITE
ACK	→	→	ACK
BYE	→	→	BYE
200 OK BYE	←	←	200 OK BYE

SSS_XXSSCFU06	CDIV reference to:		
	TS 124 504 [12], clause 4.5.2.6.2.2		
TSS reference:	SIP-SIP-SIP/Supplementary_Services/C	FU.	
Configuration:	The user B has subscribed to CFU and has not activated OIR		
	Subscription options:		
	Served user allows the presentation of his/her URI to diverted-to user = Yes		
Selection criteria:	CFU supported.		
Test purpose:	Ensure that when user A calls user B, the call is forwarded to user C.		
	Ensure that User C receives an INVITE r	message containing a History-Info header	
	including an entry (with CDIV related cau	use value) with the hi-targeted-to-URI of user B.	
SIP Parameter values:	Dial string parameters options=PIXIT		
	TYPE_SDP= PIXIT		
Comments:			
SIP UA A	SUT	SIP UA C	
INVITE	→	NVITE	
181 Call Is Being Forwa	arded ←		
(optional)			
180 Ringing	-	← 180 Ringing	
200 OK INVITE		€ 200 OK INVITE	
ACK	→	→ ACK	
BYE	→	→ BYE	
200 OK BYE	Ξ	200 OK BYE	

6.2.6.2 CFB

6.2.6.2.1 NDUB

CCC VVCCCED04	CDIV reference to:				
SSS_XXSSCFB01	CDIV reference to:				
	TS 124 504 [12], clause 4.5.2.6.5				
TSS reference:	SIP-SIP/Supplementary_Services/CFB.				
Configuration:	The user B has subscribed to CFB, CDIVN is not activated				
	Subscription options: Served user receives indication that a communication has been forwarded = Yes				
	The user B has not subscribed to C	CW			
Selection criteria:	CFB supported, NDUB status can be	e achieved for user B.			
Test purpose:	Ensure that when user A calls user	B which is network determine	d user busy (NDUB), the		
	call is forwarded to user C. Ensure t	that in the active call state the	voice transfer on the		
	media channels is performed correc	ctly (e.g. testing QoS parameter	ers).		
	Ensure that User B receives a MES				
SIP Parameter values:	Dial string parameters options=PIXI				
	TYPE_SDP= PIXIT				
Comments:					
SIP UA A	SUT	SIP UA B	SIP UA C		
UA E	Benters NDUB condition (e.g. by e	stablishing a communication	on)		
INVITE	→				
	Communication diversion	on is performed			
181 Call Is Being Forward	led ←	→	INVITE		
(optional)					
	→ N	MESSAGE			
	← 2	200 OK MESSAGE			
180 Ringing	←	←	180 Ringing		
200 OK INVITE	←	←	200 OK INVITE		
ACK	→	→	ACK		
	Communicat	tion			
BYE	→	→	BYE		
200 OK BYE	←	←	200 OK BYE		

SSS_XXSSCFB02	CDIV reference to:					
	TS 124 504 [12], clause 4.5.2.6.					
TSS reference:	SIP-SIP-SIP/Supplementary_Services/CFB.					
Configuration:		The user B has subscribed to CFB and CDIVN				
	The user B has not subscribed to					
Selection criteria:	CFB and CDIVN supported, NDU					
Test purpose:	Ensure that when user A calls use					
	call is forwarded to user C. Ensure					
	media channels is performed corr					
	Ensure that User B, having activa	ted the CDIVN service, recei	ves a NOTIFY request			
	indicating the call diversion.					
SIP Parameter values:	Dial string parameters options=PI	XII				
Comments:	TYPE_SDP= PIXIT					
SIP UA A	SUT	SIP UA B	SIP UA C			
Oil OA A	Activation		Sil GA G			
	←	SUBSCRIBE				
	→	200 OK SUBSCRIBE				
	→	NOTIFY				
	←	200 OK NOTIFY				
	B enters NDUB condition (e.g. b	y establishing a communic	cation)			
INVITE	→ Communication dive	roion is norformed				
181 Call Is Being Forwa		sion is performed	→ INVITE			
(optional)	ided •		- INVIIL			
(optional)	→	NOTIFY				
	É	200 OK NOTIFY				
180 Ringing	←		← 180 Ringing			
200 OK INVITE	←		€ 200 OK INVITE			
ACK	→		→ ACK			
	Communication					
BYE	→		→ BYE			
200 OK BYE	+		← 200 OK BYE			

SSS_XXSSCFB03	CDIV reference to:		
333_XX33CI B03			
T00 (TS 124 504 [12], clause 4.5.2.6.4	/OED	
TSS reference:	SIP-SIP-SIP/Supplementary_Service	es/CFB	3.
Configuration:	The user B has subscribed to CFB		
	Subscription options:		
	Originating user receives notification	n that his	is communication has been diverted = No
	The user B has not subscribed to 0		
Selection criteria:	CFB supported, NDUB status can b	e achiev	eved for user B.
Test purpose:	Ensure that when user A calls user	B which	n is network determined user busy (NDUB), the
	call is forwarded to user C.		
	Ensure that User A does not receive	e a 181	Call Is Being Forwarded message.
SIP Parameter	Dial string parameters options=PIXI	T	
values:	TYPE_SDP= PIXIT		
Comments:			
SIP UA A	A SUT		SIP UA C
U	A B enters NDUB condition (e.g. b	y estab	olishing a communication)
INVITE	→	→	INVITE
180 Ringing	←	←	180 Ringing
200 OK INVITE	←	←	200 OK INVITE
ACK	→	→	ACK
		=	
BYE	→	→	BYE
200 OK BYE	-	-	200 OK BYE

SSS_XXSSCFB04	CDIV reference to:				
	TS 124 504 [12], clause 4.5.2.6.4				
TSS reference:	SIP-SIP-SIP/Supplementary_Services/CFB.				
Configuration:	The user B has subscribed to CFB and has not activated TIR				
	Subscription options:	Subscription options:			
	Originating user receives notification that his communication has been diverted = Yes				
		of dive	erted to URI to originating user in diversion		
	notification = No				
		of his/h	her URI to originating user in diversion		
	notification = No	214			
	The user B has not subscribed to 0				
Selection criteria:	CFB supported, NDUB status can b				
Test purpose:		B which	n is network determined user busy (NDUB), the		
	call is forwarded to user C.	O 11 1 5			
	Ensure that User A receives a 181 (
	,	containing a Privacy header with value "id" and not containing a P-Asserted-Identity indicating the URI of user B and			
	j ,		3		
	not containing a History-Info header (with CDIV related cause value) indicating the URI of user B or user A.				
SIP Parameter values:	Dial string parameters options=PIXI	Т			
on raramotor values.	TYPE_SDP= PIXIT	•			
Comments:					
SIP UA A	A SUT		SIP UA C		
UA	A B enters NDUB condition (e.g. by	establi	ishing a communication)		
INVITE	→	→	INVITE		
181 Call Is Being Forw					
180 Ringing	← 180 Ringing				
200 OK INVITE	((200 OK INVITE		
ACK	→	→	ACK		
BYE	→	→	BYE		
200 OK BYE	←	←	200 OK BYE		

SSS XXSSCFB05	CDIV reference to:				
	TS 124 504 [12], clause 4.5.2.6.4				
TSS reference:	SIP-SIP/Supplementary_Services/CFB.				
Configuration:	The user B has subscribed to CFB and has not activated TIR				
3	Subscription options:				
	Originating user receives notification that his communication has been diverted = Yes				
			rted to URI to originating user in diversion		
	notification = Yes				
	Served user allows the presentation	n of his/h	ner URI to originating user in diversion		
	notification = Yes		-		
	The user B has not subscribed to 0	CW			
Selection criteria:	CFB supported, NDUB status can b	e achie	ved for user B.		
Test purpose:	Ensure that when user A calls user	B which	n is network determined user busy (NDUB), the		
	call is forwarded to user C.				
	Ensure that User A receives a 181 (
	containing a P-Asserted-Identity ind	licating 1	the URI of user B and		
	containing a History-Info header				
	 including a first entry with the hi-targeted-to-URI of user B, index = 1, 				
	cause param = 486 and				
	 including a second entry with the hi-targeted-to-URI of user C, index = 1.1. 				
SIP Parameter values:	Dial string parameters options=PIXI	T			
	TYPE_SDP= PIXIT				
Comments:					
SIP UA A			SIP UA C		
	B enters NDUB condition (e.g. by				
INVITE	→ INVITE				
181 Call Is Being Forwa					
180 Ringing	← ← 180 Ringing ← ← 200 OK INVITE				
200 OK INVITE ACK	← →	→	200 OK INVITE ACK		
ACK	7	7	ACK		
BYE	→	→	BYE		
200 OK BYE	←				

SSS_XXSSCFB06	CDIV reference to:			
	TS 124 504 [12], clause 4.5.2.6.2.2			
TSS reference:	SIP-SIP-SIP/Supplementary_Services/C	ĴF	B.	
Configuration:	The user B has subscribed to CFB and	ha	as not activated OIR	
	Subscription options:			
	Served user allows the presentation of h	nis	/her URI to diverted-to user = Yes	
	The user B has not subscribed to CW			
Selection criteria:	CFB supported, NDUB status can be ac	:hi	eved for user B.	
Test purpose:	Ensure that when user A calls user B wh	hic	ch is network determined user busy (NDUB), the	
	call is forwarded to user C.			
			essage containing a History-Info header	
	including an entry (with CDIV related ca	us	e value) with the hi-targeted-to-URI of user B.	
SIP Parameter values:	Dial string parameters options=PIXIT TYPE_SDP= PIXIT			
Comments:				
SIP UA A	SUT		SIP UA C	
UA	B enters NDUB condition (e.g. by esta	abl	lishing a communication)	
INVITE	-	→	INVITE	
181 Call Is Being Forwar	rded			
(optional)	_	_		
180 Ringing	← 180 Ringing			
200 OK INVITE	← 200 OK INVITE			
ACK	→ ACK			
DVE	3	_	DVE	
BYE		→	BYE	
200 OK BYE	+	←	200 OK BYE	

6.2.6.2.2 UDUB

SSS_XXSSCFB07	CDIV re	ference to:			
	TS 124 504 [12], clause 4.5.2.6	5		
TSS reference:	SIP-SIP/Supplementary_Services/CFB.				
Configuration:			B, CDIVN is not activat	ed	
	Subscription of				
		eives indication th	nat a communication ha	is been f	orwarded = Yes
Selection criteria:	CFB supported.				
Test purpose:			er B which is user deter		
			e that in the active call		
			ectly (e.g. testing QoS		
CID Deservator values			SSAGE request indica	ting the	call diversion.
SIP Parameter values:	TYPE_SDP= PIX	neters options=Pl XIT	XII		
Comments:	·				
SIP UA A		SUT	SIP UA B		SIP UA C
INVITE	→	→			
		←	486 Busy Here ACK		
	Comm	_	sion is performed		
181 Call Is Being Forward			oron to portonilou	→	INVITE
(optional)					
,		→	MESSAGE		
		←	200 OK MESSAGE		
180 Ringing	←				180 Ringing
200 OK INVITE	←				200 OK INVITE
ACK	→			→	ACK
DVE	Communication				
BYE	→			7	BYE
200 OK BYE	+				200 OK BYE

SSS_XXSSCFB08	CDIV reference to:					
	TS 124 504 [12], clause 4.5					
	SIP-SIP/Supplementary_Services/CFB.					
Configuration:	The user B has subscribed to CFB and CDIVN					
Selection criteria:	CFB and CDIVN supported.					
	Ensure that when user A calls user B which is user determined user busy (UDUB), the call is forwarded to user C. Ensure that in the active call state the voice transfer on the media channels is performed correctly (e.g. testing QoS parameters). Ensure that User B, having activated the CDIVN service, receives a NOTIFY request indicating the call diversion.					
	Dial string parameters options=F TYPE_SDP= PIXIT	PIXIT				
Comments:						
SIP UA A	SUT	SIP UA B	SIP UA C			
	Start Activat	ion CDIVN				
	← → → ←	0020022				
	End Activati	on CDIVN				
INVITE	→ → ← →	INVITE 486 Busy Here ACK				
	Communication dive	rsion is performed				
181 Call Is Being Forwarde (optional)	ed ←		→ INVITE			
	→ ←	NOTIFY 200 OK NOTIFY				
180 Ringing	←		← 180 Ringing			
200 OK INVITE	←		← 200 OK INVITE			
ACK	→		→ ACK			
	Commun	ication				
BYE	→		→ BYE			
200 OK BYE	←		← 200 OK BYE			

SSS_XXSSCFB09	CDIV reference to:			
	TS 124 504 [12], clause 4.5.2.6.4	,		
TSS reference:	SIP-SIP-SIP/Supplementary_Serv	ices/CFB.		
Configuration:	The user B has subscribed to CFE	3		
	Subscription options:			
	Originating user receives notification	on that his communicati	on has been diverted = No	
Selection criteria:	CFB supported.			
Test purpose:	Ensure that when user A calls use	r B which is user determ	nined user busy (UDUB), the call	
	is forwarded to user C.			
	Ensure that User A does not receive	ve a 181 Call Is Being F	orwarded message.	
SIP Parameter values:				
	TYPE_SDP= PIXIT			
Comments:				
SIP UA A	SUT	SIP UA B	SIP UA C	
INVITE	→	INVITE		
	(486 Busy Here		
	→	ACK		
	Communication diver	rsion is performed	>	
400 Dinging	Z		→ INVITE	
180 Ringing	←		← 180 Ringing	
200 OK INVITE ACK	← →		← 200 OK INVITE→ ACK	
ACK	7		7 ACK	
BYE	→		→ BYE	
200 OK BYE	´		€ 200 OK BYE	

CDIV reference to:				
The user B has subscribed to CFB and has not activated TIR				
	n of diverted to URI to originati	ng user in diversion		
	n of his/her URI to originating u	ser in diversion		
	<u> </u>	(1515)		
	B which is user determined us	er busy (UDUB), the call		
	Call la Baina Farwardad masa	200		
		age		
		nd		
	(With ODIV related cause value	ic) indicating the orthor		
	IT			
TYPE_SDP= PIXIT				
_				
SUT	SIP UA B	SIP UA C		
→ →	INVITE			
←	486 Busy Here			
	•			
		INVITE		
		180 Ringing		
-		200 OK INVITE ACK		
7	7	AUN		
→	→	BYE		
←	+	200 OK BYE		
	The user B has subscribed to CFB Subscription options: Originating user receives notification Served user allows the presentation notification = No Served user allows the presentation notification = No CFB supported. Ensure that when user A calls user is forwarded to user C. Ensure that User A receives a 181 containing a Privacy header with vanot containing a P-Asserted-Identity not containing a History-Info heade user B or user A. Dial string parameters options=PIX TYPE_SDP= PIXIT SUT Communication diversed	SIP-SIP-SIP/Supplementary_Services/CFB. The user B has subscribed to CFB and has not activated TIR Subscription options: Originating user receives notification that his communication has been served user allows the presentation of diverted to URI to origination to tification = No Served user allows the presentation of his/her URI to originating unotification = No CFB supported. Ensure that when user A calls user B which is user determined uses forwarded to user C. Ensure that User A receives a 181 Call Is Being Forwarded messacontaining a Privacy header with value "id" and not containing a P-Asserted-Identity indicating the URI of user B and containing a History-Info header (with CDIV related cause valueser B or user A. Dial string parameters options=PIXIT TYPE_SDP= PIXIT SUT SIP UA B INVITE 486 Busy Here ACK Communication diversion is performed ded Communication diversion is performed		

→ BYE← 200 OK BYE

SSS_XXSSCFB11	CDIV reference to:				
	TS 124 504 [12], clause 4.5.2.6.4				
TSS reference:	SIP-SIP/Supplementary_Services/CFB.				
Configuration:	The user B has subscribed to CFB and has not activated TIR				
	Subscription options:				
	Originating user receives notification that his communication has been diverted = Yes				
	Served user allows the presentation notification = Yes	n of diverted to URI to origina	ting user in diversion		
	Served user allows the presentation notification = Yes	n of his/her URI to originating	user in diversion		
Selection criteria:	CFB supported.				
Test purpose:	Ensure that when user A calls user B which is user determined user busy (UDUB), the call is forwarded to user C.				
	Ensure that User A receives a 181				
	containing a P-Asserted-Identity inc	dicating the URI of user B and	I		
	containing a History-Info header				
	 including a first entry with the hi-targeted-to-URI of user B, index = 1, 				
	cause param = 486 and				
		vith the hi-targeted-to-URI of	user C, index = 1.1		
SIP Parameter values:	Dial string parameters options=PIX TYPE_SDP= PIXIT	IT			
Comments:					
SIP UA A	SUT	SIP UA B	SIP UA C		
INVITE		INVITE			
		486 Busy Here			
		ACK			
404 0 114 0	Communication diversion is performed				
181 Call Is Being Forwa			INVITE		
180 Ringing	(180 Ringing		
200 OK INVITE ACK	← →		€ 200 OK INVITE ACK		

SSS XXSSCFB12	CDIV reference	o to:	
333^^330FB12	TS 124 504 [12], claus		
TSS reference:	SIP-SIP-SIP/Suppleme		
			to d OID
Configuration:		ibed to CFB and has not activa	ted OIR
	Subscription options:		P. A. L.A. W
		presentation of his/her URI to o	diverted-to user = Yes
Selection criteria:	CFB supported.		
Test purpose:	Ensure that when user	A calls user B which is user de	termined user busy (UDUB), the call
	is forwarded to user C.		
	Ensure that User C rec	eives an INVITE message cont	aining a History-Info header (with
	CDIV related cause val	lue) including an entry with the l	hi-targeted-to-URI of user B.
SIP Parameter values:	Dial string parameters	options=PIXIT	
	TYPE_SDP= PIXIT	•	
Comments:			
SIP UA A	SUT	SIP UA B	SIP UA C
INVITE	→	→ INVITE	
		← 486 Busy Here	
		→ ACK	
	Communic	ation diversion is performed	
181 Call Is Being Forwa	arded C	-	→ INVITE
180 Ringing	←		← 180 Ringing
200 OK INVITE	←		◆ 200 OK INVITE
ACK	→		→ ACK
BYE	→		→ BYE
200 OK BYE	←		← 200 OK BYE

BYE 200 OK BYE

6.2.6.3 CFNR

SSS_XXSSCFNR01	CDIV reference to:					
	TS 124 504 [12], clause 4.5.2.6.5	3				
TSS reference:	SIP-SIP/Supplementary_Services/CFNR.					
Configuration:	The user B has subscribed to CFN	IR, CDIVN is not activated				
	Subscription options:					
	Served user receives indication that	at a communication has bee	n forwarded = Yes			
Selection criteria:	CFNR supported.					
Test purpose:	Ensure that when user A calls use	r B which does not answer, t	the call is forwarded to			
	user C. Ensure that in the active ca		n the media channels is			
	performed correctly (e.g. testing Q					
	Ensure that User B receives a MES	SSAGE request indicating the	ne call diversion.			
SIP Parameter values:	Dial string parameters options=PIX	(IT				
	TYPE_SDP= PIXIT					
Comments:						
SIP UA A	SUT	SIP UA B	SIP UA C			
INVITE		INVITE				
180 Ringing		180 Ringing	•			
	lo reply timer expires - Communic					
181 Call Is Being Forwa (optional)	rded ← →	CANCEL (Note)	→ INVITE			
		200 OK CANCEL				
		487 Request Terminated				
)	ACK				
	→	MESSAGE				
		200 OK MESSAGE				
			← 180 Ringing			
200 OK INVITE	←		← 200 OK ĬNŬITE			
ACK	→		→ ACK			
	Communic	ation				
BYE	→		→ BYE			
200 OK BYE	+		← 200 OK BYE			
NOTE: The commun	ication to user B may be retained u	ntil the 180 Ringing from use	er C has been received.			

SSS_XXSSCFNR02	CDIV reference to:		
	TS 124 504 [12], clause 4.5.2.6.	5.1	
TSS reference:	SIP-SIP-SIP/Supplementary_Serv		
Configuration:	The user B has subscribed to CF	NR and CDIVN	
Selection criteria:	CFNR and CDIVN supported.		
Test purpose:	Ensure that when user A calls use		
	user C. Ensure that in the active of		on the media channels is
	performed correctly (e.g. testing C		
	Ensure that User B, having activa	ted the CDIVN service, red	ceives a NOTIFY request
OID D	indicating the call diversion.	\/\T	
SIP Parameter values:	Dial string parameters options=PI	XII	
Comments:	TYPE_SDP= PIXIT		
SIP UA A	SUT	SIP UA B	SIP UA C
S	Start Activat		S. S. S
	+	SUBSCRIBE	
	→	200 OK SUBSCRIBE	
	→	NOTIFY	
	←	200 OK NOTIFY	
	End Activati		
INVITE	> >	INVITE	
180 Ringing	←	180 Ringing	
	No reply timer expires - Commur		
181 Call Is Being Forwa (optional)	irded F	CANCEL (Note)	→ INVITE
(Optional)	←	200 OK CANCEL	
	÷	487 Request Terminated	
	÷	ACK	
	_	,	
	→	NOTIFY	
	+	200 OK NOTIFY	
			← 180 Ringing
200 OK INVITE	←		◆ 200 OK INVITE
ACK	→		→ ACK
DVE	Commun	ication	▶ DVE
BYE	→		→ BYE
200 OK BYE	ication to year D may be retained a	until the 100 Dinging from	← 200 OK BYE
NOTE: The commun	ication to user B may be retained u	inui ine 100 Kinging irom i	user o has been received.

SSS_XXSSCFNR03	CDIV reference to:							
	TS 124 504 [12], clause 4.5.2.6.4							
TSS reference:		SIP-SIP-SIP/Supplementary_Services/CFNR.						
Configuration:	The user B has subscribed to CFN	IR						
	Subscription options:							
	Originating user receives notification	on that his communication h	as been diverted = No					
Selection criteria:	CFNR supported.							
Test purpose:	Ensure that when user A calls user	B which does not answer,	the call is forwarded to					
	user C.							
	Ensure that User A does not receive	e a 181 Call Is Being Forwa	arded message.					
SIP Parameter values:	Dial string parameters options=PIX	(IT						
	TYPE_SDP= PIXIT							
Comments:								
SIP UA A	SUT	SIP UA B	SIP UA C					
INVITE	→ →	INVITE						
180 Ringing	+ +	180 Ringing						
	No reply timer expires - Communi							
	→	CANCEL (Note)	→ INVITE					
	←	200 OK CANCEL						
	←	487 Request Terminated						
	→	ACK						
0.4.1.1.4	_		← 180 Ringing					
200 OK INVITE	(← 200 OK INVITE					
ACK	→		→ ACK					
DVE	_		→ RYF					
BYE	→		2 D.L					
	200 OK BYE ← 200 OK BYE							
NOTE: The commun	NOTE: The communication to user B may be retained until the 180 Ringing from user C has been received.							

The user B has subscribed to CFNR and has not activated TIR Subscription options: Originating user receives notification that his communication has been diverted = Yes Served user allows the presentation of diverted to URI to originating user in diversion notification = No Served user allows the presentation of his/her URI to originating user in diversion notification = No Selection criteria: CFNR supported. Test purpose: Ensure that when user A calls user B which does not answer, the call is forwarded to user C. Ensure that User A receives a 181 Call Is Being Forwarded message containing a Privacy header with value "id" and not containing a Privacy header with value "id" and not containing a Presserted-Identity indicating the URI of user B and not containing a History-Info header indicating the URI of user B or user A. SIP Parameter values: Dial string parameters options=PIXIT TYPE_SDP= PIXIT Comments: SIP UA A SUT SIP UA B SIP UA B SIP UA C NVITE	SSS_XXSSCFNR04	CDIV reference to:							
The user B has subscribed to CFNR and has not activated TIR Subscription options: Originating user receives notification that his communication has been diverted = Yes Served user allows the presentation of diverted to URI to originating user in diversion notification = No Served user allows the presentation of his/her URI to originating user in diversion notification = No Selection criteria: CFNR supported. Test purpose: Ensure that when user A calls user B which does not answer, the call is forwarded to user C. Ensure that User A receives a 181 Call Is Being Forwarded message containing a Privacy header with value "id" and not containing a Privacy header with value "id" and not containing a Privacy header indicating the URI of user B or user A. SIP Parameter values: Dial string parameters options=PIXIT TYPE_SDP= PIXIT Comments: SIP UA A NVITE A SUT SIP UA B SIP UA C NVITE A NVITE A NVITE A NVITE A A SUT SIP UA B SIP UA C NVITE A NVITE A A SUT SIP UA B SIP UA C NVITE A A SUF A NVITE A A SUF A S		TS 124 504 [12], clause 4.5.2.6.4							
Subscription options: Originating user receives notification that his communication has been diverted = Yes Served user allows the presentation of diverted to URI to originating user in diversion notification = No Served user allows the presentation of his/her URI to originating user in diversion notification = No Selection criteria: CFNR supported. Test purpose: Ensure that when user A calls user B which does not answer, the call is forwarded to user C. Ensure that User A receives a 181 Call Is Being Forwarded message containing a Privacy header with value "id" and not containing a Privacy header with value "id" and not containing a History-Info header indicating the URI of user B and not containing a History-Info header indicating the URI of user B or user A. SIP Parameter values: Dial string parameters options=PIXIT TYPE_SDP= PIXIT Comments: SIP UA A SUT SIP UA B SIP UA C INVITE 180 Ringing No reply timer expires - Communication diversion is performed 181 Call Is Being Forwarded 200 OK CANCEL 487 Request Terminated ACK 488 Request Terminated ACK 489 ACK 499 BYE 400 OK BYE	TSS reference:		SIP-SIP/Supplementary_Services/CFNR.						
Originating user receives notification that his communication has been diverted = Yes Served user allows the presentation of diverted to URI to originating user in diversion notification = No Served user allows the presentation of his/her URI to originating user in diversion notification = No Selection criteria: CFNR supported. Test purpose: Ensure that when user A calls user B which does not answer, the call is forwarded to user C. Ensure that User A receives a 181 Call Is Being Forwarded message containing a Privacy header with value "id" and not containing a P-Asserted-Identity indicating the URI of user B and not containing a Pistory-Info header indicating the URI of user B or user A. SIP Parameter values: Dial string parameters options=PIXIT TYPE_SDP= PIXIT Comments: SIP UA B SIP UA B SIP UA C INVITE INVITE INVITE INVITE INVITE ACK INVITE ACK	Configuration:		R and has not activated TIF	?					
Served user allows the presentation of diverted to URI to originating user in diversion notification = No Served user allows the presentation of his/her URI to originating user in diversion notification = No Selection criteria: CFNR supported. Test purpose: Ensure that when user A calls user B which does not answer, the call is forwarded to user C. Ensure that User A receives a 181 Call Is Being Forwarded message containing a Privacy header with value "id" and not containing a Privacy header with value "id" and not containing a History-Info header indicating the URI of user B and not containing a History-Info header indicating the URI of user B or user A. SIP Parameter values: Dial string parameters options=PIXIT TYPE_SDP= PIXIT Comments: SIP UA A NVITE INVITE INVITE INVITE INVITE INVITE CANCEL (Note) CANCEL (Note) CANCEL (Note) ACK ISO Ringing No reply timer expires - Communication diversion is performed ACK ISO OK INVITE ACK ISO Ringing COO OK INVITE ACK BYE COO OK BYE BYE COO OK BYE									
notification = No Served user allows the presentation of his/her URI to originating user in diversion notification = No Selection criteria: CFNR supported. Test purpose: Ensure that when user A calls user B which does not answer, the call is forwarded to user C. Ensure that User A receives a 181 Call Is Being Forwarded message containing a Privacy header with value "id" and not containing a Privacy header indicating the URI of user B and not containing a History-Info header indicating the URI of user B or user A. SIP Parameter values: Dial string parameters options=PIXIT TYPE_SDP= PIXIT Comments: SIP UA B SIP UA B SIP UA C NVITE Habo Ringing No reply timer expires - Communication diversion is performed No reply timer expires - Communication diversion is performed 181 Call Is Being Forwarded ACK Habo Ringing No reply timer expires - Communication diversion is performed ACK Habo Ringing ACK Habo Ringing COO OK INVITE ACK BYE ACK BYE 200 OK BYE BYE COO OK BYE									
Served user allows the presentation of his/her URI to originating user in diversion notification = No Selection criteria: CFNR supported. Test purpose: Ensure that when user A calls user B which does not answer, the call is forwarded to user C. Ensure that User A receives a 181 Call Is Being Forwarded message containing a Privacy header with value "id" and not containing a P-Asserted-Identity indicating the URI of user B and not containing a History-Info header indicating the URI of user B or user A. SIP Parameter values: Dial string parameters options=PIXIT TYPE_SDP= PIXIT TYPE_SDP= PIXIT Comments: SIP UA A SUT SIP UA B SIP UA C INVITE + INVITE + 180 Ringing No reply timer expires - Communication diversion is performed 181 Call Is Being Forwarded + CANCEL (Note) + INVITE 487 Request Terminated + ACK 487 Request Terminated + ACK 488 PE 200 OK INVITE - ACK - BYE - CONCE BYE - CONC			n of diverted to URI to origin	nating user in diversion					
notification = No			(1: // UDI/ :: /:						
Selection criteria: CFNR supported. Test purpose: Ensure that when user A calls user B which does not answer, the call is forwarded to user C. Ensure that User A receives a 181 Call Is Being Forwarded message containing a Privacy header with value "id" and not containing a P-Asserted-Identity indicating the URI of user B and not containing a History-Info header indicating the URI of user B or user A. SIP Parameter values: Dial string parameters options=PIXIT TYPE_SDP= PIXIT Comments: SIP UA A NVITE A SUT SIP UA B SIP UA C NVITE 180 Ringing No reply timer expires - Communication diversion is performed 181 Call Is Being Forwarded CANCEL (Note) COO OK CANCEL CARC ARREQUEST Terminated ACK 180 Ringing COO OK INVITE ACK BYE ACK BYE COO OK BYE A CANCEL CANCEL			n of his/her URI to originating	ig user in diversion					
Test purpose: Ensure that when user A calls user B which does not answer, the call is forwarded to user C. Ensure that User A receives a 181 Call Is Being Forwarded message containing a Privacy header with value "id" and not containing a Privacy header with value "id" and not containing a History-Info header indicating the URI of user B and not containing a History-Info header indicating the URI of user B or user A. SIP Parameter values: Dial string parameters options=PIXIT TYPE_SDP= PIXIT Comments: SIP UA A SUT SIP UA B SIP UA C NVITE 180 Ringing No reply timer expires - Communication diversion is performed 181 Call Is Being Forwarded CANCEL (Note) CANCEL (Note) COO OK CANCEL CARCEL (Note) ACK 180 Ringing COO OK INVITE COO OK INVITE COO OK INVITE COO OK INVITE COO OK BYE COO OK BYE	Salaction critoria:								
user C. Ensure that User A receives a 181 Call Is Being Forwarded message containing a Privacy header with value "id" and not containing a P-Asserted-Identity indicating the URI of user B and not containing a History-Info header indicating the URI of user B or user A. SIP Parameter values: Dial string parameters options=PIXIT TYPE_SDP= PIXIT Comments: SIP UA A SUT SIP UA B SIP UA C NVITE 180 Ringing No reply timer expires - Communication diversion is performed 181 Call Is Being Forwarded ACK PACK 180 Ringing COO OK INVITE 487 Request Terminated ACK 180 Ringing COO OK INVITE ACK PACK		• • • • • • • • • • • • • • • • • • • •	P which does not answer t	the call is forwarded to					
Ensure that User A receives a 181 Call Is Being Forwarded message containing a Privacy header with value "id" and not containing a P-Asserted-Identity indicating the URI of user B and not containing a History-Info header indicating the URI of user B or user A. SIP Parameter values: Dial string parameters options=PIXIT TYPE_SDP= PIXIT Comments: SIP UA A SUT SIP UA B SIP UA C INVITE I80 Ringing No reply timer expires - Communication diversion is performed 181 Call Is Being Forwarded ACK Fig. 200 OK CANCEL 487 Request Terminated ACK Fig. 180 Ringing COO OK INVITE ACK BYE BYE COO OK BYE Fig. 200 OK BYE	rest purpose.		b willcit does not answer, t	tile call is forwarded to					
containing a Privacy header with value "id" and not containing a P-Asserted-Identity indicating the URI of user B and not containing a History-Info header indicating the URI of user B or user A. SIP Parameter values: Dial string parameters options=PIXIT TYPE_SDP= PIXIT Comments: SIP UA A SUT SIP UA B SIP UA C INVITE 180 Ringing No reply timer expires - Communication diversion is performed 181 Call Is Being Forwarded ACK CONCEL (Note) ACK Table Ringing COO OK INVITE ACK ACK BYE BYE COO OK BYE ACK BYE ACK BYE CONTENT NOTE ACK BYE CONTENT NOTE ACK BYE CONTENT NOTE ACK BYE CONTENT NOTE BYE		1	Call Is Being Forwarded me	essage					
not containing a P-Asserted-Identity indicating the URI of user B and not containing a History-Info header indicating the URI of user B or user A. SIP Parameter values: Dial string parameters options=PIXIT TYPE_SDP= PIXIT Comments: SIP UA A SUT SIP UA B SIP UA C INVITE 180 Ringing No reply timer expires - Communication diversion is performed 181 Call Is Being Forwarded CANCEL (Note) CANCEL (Note) CANCEL CARCEL				700490					
Dial string parameters options=PIXIT TYPE_SDP= PIXIT Comments: SIP UA A SUT SIP UA B SIP UA C INVITE 180 Ringing No reply timer expires - Communication diversion is performed 181 Call Is Being Forwarded CANCEL (Note) CANCEL 487 Request Terminated ACK 180 Ringing COO OK INVITE ACK BYE 200 OK BYE ACK BYE COO OK BYE				B and					
TYPE_SDP= PIXIT Comments: SIP UA A SUT SIP UA B SIP UA C INVITE 180 Ringing No reply timer expires - Communication diversion is performed 181 Call Is Being Forwarded ← → CANCEL (Note) → INVITE ← 200 OK CANCEL ← 487 Request Terminated → ACK ← 180 Ringing ← 487 Request Terminated → ACK ← 180 Ringing ← 200 OK INVITE ← 200 OK INVITE ← 200 OK INVITE ← 200 OK BYE ← 200 OK BYE		not containing a History-Info header	r indicating the URI of user	B or user A.					
SIP UA A SUT SIP UA B INVITE 180 Ringing No reply timer expires - Communication diversion is performed 181 Call Is Being Forwarded CANCEL (Note) CANCEL (Note) CANCEL (Note) CANCEL	SIP Parameter values:		Τ						
SIP UA A SUT NVITE No reply timer expires - Communication diversion is performed No reply timer expires - Communication diversion is performed 181 Call Is Being Forwarded CANCEL (Note) CANCEL (Note) COUNTE ACK 180 Ringing COUNTE ACK 180 Ringing COUNTE ACK 180 Ringing COUNTE ACK PACK BYE COUNTE ACK ACK		TYPE_SDP= PIXIT							
INVITE 180 Ringing No reply timer expires - Communication diversion is performed 181 Call Is Being Forwarded CANCEL (Note) CONCEL (Note) CONCEL (Note) ACK 180 Ringing CONCEL (Note) ACK 180 Ringing CONCEL CONCE		OUT	CID IIA D	OID IIA O					
180 Ringing No reply timer expires - Communication diversion is performed 181 Call Is Being Forwarded ← → CANCEL (Note) → INVITE ← 200 OK CANCEL ← 487 Request Terminated → ACK ← 180 Ringing ← 200 OK INVITE ← 200 OK BYE				SIP UA C					
No reply timer expires - Communication diversion is performed 181 Call Is Being Forwarded CANCEL (Note) INVITE 200 OK CANCEL 487 Request Terminated ACK 180 Ringing 200 OK INVITE ACK BYE 200 OK BYE BYE 200 OK BYE		=							
181 Call Is Being Forwarded		= =		med					
← 200 OK CÂNCÉL ← 487 Request Terminated → ACK ← 180 Ringing ← 200 OK INVITE ← 200 OK INVITE ← ACK → BYE ← 200 OK BYE ← 200 OK BYE									
→ ACK									
## 180 Ringing ## 200 OK INVITE ## 200 OK INVITE ## ACK ## 300 OK INVITE ## ACK ## BYE ## 200 OK BYE ## 200 OK BYE		←	487 Request Terminated						
200 OK INVITE		→	ACK						
ACK → ACK BYE → BYE 200 OK BYE ← 200 OK BYE		_							
BYE → BYE 200 OK BYE ← 200 OK BYE									
€ 200 OK BYE	ACK	→		→ ACK					
€ 200 OK BYE	BYE	→		→ BYF					
	200 OK BYE	-		= · =					
		nication to user B may be retained un	til the 180 Ringing from use	er C has been received.					

SSS_XXSSCFNR05							
T00 (TS 124 504 [12], clause 4.5.2.6.4	/OFNID					
TSS reference:	SIP-SIP/Supplementary_Services/CFNR.						
Configuration:	The user B has subscribed to CFNI	R and has not activated TIR					
	Subscription options:	. 41-4 1-1	haran disantad Was				
	Originating user receives notification						
	Served user allows the presentation notification = Yes	n of diverted to URI to origina	ting user in diversion				
		of hig/har LIDI to originating	upor in divorcion				
	Served user allows the presentation notification = Yes	i of his/her ORI to originating	user in diversion				
Selection criteria:	CFNR supported.						
	Ensure that when user A calls user	Durbish does not answer the	a coll in forwarded to				
Test purpose:	user C.	b which does not answer, the	e can is forwarded to				
	Ensure that User A receives a 181 (Call Is Boing Forwarded mos	2200				
	containing a P-Asserted-Identity ind						
	containing a History-Info header	ilicating the Orthologer Band					
		the hi-targeted-to-URI of use	B index = 1				
	cause param = 408 and	ine in largeted to entre of deel	B, IIIdox = 1,				
	·	vith the hi-targeted-to-URI of	ser C index - 1 1				
SIP Parameter values:	Dial string parameters options=PIXI		dser o, maex = 1.1				
On Talameter values.	TYPE_SDP= PIXIT						
Comments:	J						
SIP UA A	SUT	SIP UA B	SIP UA C				
INVITE	→ →	INVITE					
180 Ringing	← ←	180 Ringing					
	No reply timer expires - Communic		ed				
181 Call Is Being Forwa	arded ← →	CANCEL (Note)	INVITE				
		200 OK CANCEL					
		487 Request Terminated					
	→	ACK					
	← 180 Ringing						
200 OK INVITE	(200 OK INVITE				
ACK	→	=	► ACK				
BYE	→		N DVE				
	→	-	, D.L				
200 OK BYE			C has been received				
NOTE: The communication to user B may be retained until the 180 Ringing from user C has been received.							

SSS_XXSSCFNR06	CDIV reference	e to:				
	TS 124 504 [12], claus	e 4.5.2.6.2.2				
TSS reference:	SIP-SIP-SIP/Supplemen	tary_Services	/CFNR.			
Configuration:	The user B has subscrib	ed to CFNR a	and has not activated	OIR		
	Subscription options:					
	Served user allows the p	resentation o	f his/her URI to divert	ted-to user = Yes		
Selection criteria:	CFNR supported.					
Test purpose:		calls user B	which does not answ	er, the call is forwarded to		
	user C.					
				g a History-Info header (with		
0.0	CDIV related cause value		n entry with the hi-tar	geted-to-URI of user B.		
SIP Parameter values:	3	otions=PIXII				
0 1	TYPE_SDP= PIXIT					
Comments: SIP UA A	SUT		SIP UA B	SIP UA C		
INVITE	→ →	→	INVITE	SIP UA C		
180 Ringing	7	-	180 Ringing			
	No reply timer expires -	_		formed		
181 Call Is Being Forwa		→	CANCEL (Note)	→ INVITE		
	-	-	200 OK CANCEL			
		←	487 Request			
			Terminated			
		→	ACK			
				180 Ringing		
200 OK INVITE	←			← 200 OK INVITE		
ACK	→			→ ACK		
BYE	→			→ BYE		
200 OK BYE	+			← 200 OK BYE		
NOTE: The commun	NOTE: The communication to user B may be retained until the 180 Ringing from user C has been received.					

SSS_XXSSCFNR07	CDIV reference to	0:					
	TS 124 504 [12], clause 4	.5.2.6.3	3)				
TSS reference:	SIP-SIP-SIP/Supplementary_Services/CFNR.						
Configuration:	The user B has subscribed	to CFN	R				
	Subscription options:						
	Served user communication						
	communication to the ser	ved us	er until alerting begi	ns at the diverted-to user			
Selection criteria:	CFNR supported.						
Test purpose:	Ensure that when user A ca	ılls user	B which has not answ	wered before the expiry of the			
				orwarded to user C and when			
				alerting, the communication is			
		and us	er B and the commun	nication is cancelled towards			
	user C.						
				he media channels is performed			
	correctly (e.g. testing QoS p						
SIP Parameter values:	Dial string parameters optio	ns=PIX	IT				
_	TYPE_SDP= PIXIT						
Comments:			015 114 5	0.5.11.0			
SIP UA A	SUT		SIP UA B	SIP UA C			
INVITE	→		NVITE				
180 Ringing	e nombretimon overinos. Com		180 Ringing	uf a uma a d			
	o reply timer expires - Com	imunica	ation diversion is pe				
181 Call Is Being Forwar	rded ←			→ INVITE			
(optional) 200 OK INVITE	4		200 OK INVITE				
	← →	_		→ CANCEL			
ACK	7	7	ACK	◆ 200 OK CANCEL			
	Com	munica	tion	200 OR CANCEL			
BYE	→		BYE				
200 OK BYE	-	-	200 OK BYE				
200 OR DIL			LOU ON DIL				

6.2.6.4 CFNRc

SSS XXSSCFNRc01	CDIV reference to:				
	TS 124 504 [12], clause 4.5.2.6.5	5.1			
TSS reference:	SIP-SIP-SIP/Supplementary_Serv				
Configuration:	The user B has subscribed to CFI				
Selection criteria:	CFNRC and CDIVN supported.				
Test purpose:	Ensure that when user A calls use user C. Ensure that in the active c performed correctly (e.g. testing Q Ensure that User B, having activatindicating the call diversion.	all state the voice transfer on too sparameters).	he media channels is		
SIP Parameter values:	Dial string parameters options=PIXTYPE_SDP= PIXIT	KIT			
Comments:					
SIP UA A	SUT	SIP UA B	SIP UA C		
	Activation C				
		SUBSCRIBE			
		200 OK SUBSCRIBE			
	→ NOTIFY				
	←	200 OK NOTIFY			
INVITE	User B becomes "Not reachable →	" (indication not specified)			
INVITE	Communication divers	ion is parformed			
181 Call Is Being Forwar (optional)		•	INVITE		
180 Ringing	←	←	180 Ringing		
200 OK INVITE	←		200 OK INVITE		
ACK	→		ACK		
	Communic				
BYE	→		BYE		
200 OK BYE	← 200 OK BYE				
		'Reachable" NOTIFY 200 OK NOTIFY			

SSS XXSSCFNRc02	CDIV reference to:			
	TS 124 504 [12], clause 4.5.2.6.4			
TSS reference:	SIP-SIP-SIP/Supplementary_Service	es/CFN	Rc.	
Configuration:	The user B has subscribed to CFNI	Rc		
	Subscription options:			
	Originating user receives notification	n that hi	s communication I	nas been diverted = No
Selection criteria:	CFNRC supported.			
Test purpose:	Ensure that when user A calls user	B which	is unreachable, th	ne call is forwarded to
	user C.			
	Ensure that User A does not receive	e a 181	Call Is Being Forw	arded message.
SIP Parameter values:	Dial string parameters options=PIXI	T		
	TYPE_SDP= PIXIT			
Comments:				
SIP UA A				SIP UA C
INVITE	→	→	INVITE	
180 Ringing	←	←	180 Ringing	
200 OK INVITE	(-	200 OK INVITE	
ACK	→	→	ACK	
BYE	→	→	BYE	
200 OK BYE	←	←	200 OK BYE	

SSS XXSSCFNRc03	CDIV reference to:				
	TS 124 504 [12], clause 4.5.2.6.4				
TSS reference:	SIP-SIP/Supplementary_Services/CFNRc.				
Configuration:	The user B has subscribed to CFN				
Joseph Mariana	Subscription options:				
		n that hi	is communication has been diverted = Yes		
	Served user allows the presentation	of dive	erted to URI to originating user in diversion		
	notification = No				
	Served user allows the presentation	of his/h	her URI to originating user in diversion		
	notification = No				
Selection criteria:	CFNRC supported.				
Test purpose:		B which	n is unreachable, the call is forwarded to		
	user C.				
	Ensure that User A receives a 181				
	containing a Privacy header with va				
	not containing a P-Asserted-Identity				
	• •	r (with C	CDIV related cause value) indicating the URI of		
CID Degrees sterring by ser	user B or user A.	_			
SIP Parameter values:	Dial string parameters options=PIXI TYPE_SDP= PIXIT	I			
Comments:	ITTPE_SDP= PIXIT				
SIP UA A	SUT		SIP UA C		
INVITE	→	→	INVITE		
181 Call Is Being Forward	=	-			
180 Ringing	← 180 Ringing				
200 OK INVITE	← ← 200 OK INVITE				
ACK	→	→	ACK		
D./F			DVE		
BYE	→	→	BYE		
200 OK BYE	+	+	200 OK BYE		

SSS_XXSSCFNRc04						
	TS 124 504 [12], clause 4.5.2.6.4					
TSS reference:	SIP-SIP-SIP/Supplementary_Service	es/CFN	Rc.			
Configuration:	The user B has subscribed to CFN	Rc and h	has not activated TIR			
	Subscription options:					
			s communication has been diverted = Yes			
	•	ı of dive	rted to URI to originating user in diversion			
	notification = Yes					
		i of his/h	ner URI to originating user in diversion			
	notification = Yes					
Selection criteria:	CFNRC supported.					
Test purpose:		B which	is unreachable, the call is forwarded to			
	user C.	0-11 I- D	sing Companded assessment			
	Ensure that User A receives a 181 (
	containing a P-Asserted-Identity ind containing a History-Info header	licating t	THE ORT OF USEF B AFIG			
		tha hi-ta	rgeted-to-URI of user B, index = 1,			
	cause param = 503 and	ine m-ia	ingered-to-orthol user b, index = 1,			
	<u> </u>	ith tha k	ni-targeted-to-URI of user C, index = 1.1			
SID Darameter values:	Dial string parameters options=PIXI		in-targeted-to-orthordser o, index = 1.1			
on rarameter values.	TYPE_SDP= PIXIT					
Comments:						
SIP UA A	SUT		SIP UA C			
INVITE	→	→	INVITE			
181 Call Is Being Forwa	arded ←					
180 Ringing	← ← 180 Ringing					
200 OK INVITE	←	←	200 OK INVITE			
ACK	→	→	ACK			
	_	_				
BYE	→	→	BYE			
200 OK BYE	←	-	200 OK BYE			

SSS_XXSSCFNRc05	CDIV reference to:			
	TS 124 504 [12], clause 4.5.2.6.2.2			
TSS reference:	SIP-SIP-SIP/Supplementary_Services	/CFN	IRc.	
Configuration:	The user B has subscribed to CFNRc	and l	has not activated C	DIR
	Subscription options:			
	Served user allows the presentation of	f his/h	ner URI to diverted	-to user = Yes
Selection criteria:	CFNRC supported.			
Test purpose:	Ensure that when user A calls user B	which	is unreachable, th	e call is forwarded to
	user C.			
	Ensure that User C receives an INVIT			
	including an entry (with CDIV related of	ause	value) with the hi-	targeted-to-URI of user B.
SIP Parameter values:	Dial string parameters options=PIXIT			
	TYPE_SDP= PIXIT			
Comments:				
SIP UA A				SIP UA C
INVITE	→	→	INVITE	
181 Call Is Being Forwa	arded ←			
(optional)				
180 Ringing	←	←	180 Ringing	
200 OK INVITE	←	←	200 OK INVITE	
ACK	→	→	ACK	
BYE	→	→	BYE	
200 OK BYE	+	+	200 OK BYE	

6.2.6.5 CFNL

SSS_XXSSCFNL01	CDIV reference to:	5.1		
TSS reference:	TS 124 504 [12], clause 4.5.2.6 SIP-SIP-SIP/Supplementary_Ser			
Configuration:	The user B has subscribed to CF			
Selection criteria:	CFNL and CDIVN supported.	THE AIR COIVIN		
Test purpose:	Ensure that when user A calls us	or P which is not logged in	the call is forwarded to	
rest purpose.	user C. Ensure that in the active			
	performed correctly (e.g. testing			
	Ensure that User B, having activa		eceives a NOTIFY request	
	indicating the call diversion.		•	
SIP Parameter values:	Dial string parameters options=P	IXIT		
	TYPE_SDP= PIXIT			
Comments:				
SIP UA A	SUT	SIP UA B	SIP UA C	
	Activation			
	←	SUBSCRIBE 200 OK SUBSCRIBE		
	→ →	NOTIFY		
	,	200 OK NOTIFY		
	Log off U			
INVITE	→			
	Communication diver	sion is performed		
181 Call Is Being Forward		•	→ INVITE	
(optional)				
180 Ringing	←		← 180 Ringing	
200 OK INVITE	-		€ 200 OK INVITE	
ACK	→		→ ACK	
7.01	Communication			
BYE	→		→ BYE	
200 OK BYE	←		← 200 OK BYE	
Log in User B				
	→	NOTIFY		
	+	200 OK NOTIFY		

SSS_XXSSCFNL02	CDIV reference to:					
	TS 124 504 [12], clause 4.5.2.6.4					
TSS reference:	SIP-SIP-SIP/Supplementary_Service	SIP-SIP-SIP/Supplementary_Services/CFNL.				
Configuration:	The user B has subscribed to CFN	L				
	Subscription options:					
	Originating user receives notificatio	n that hi	s communication I	has been diverted = No		
Selection criteria:	CFNL supported.					
Test purpose:	Ensure that when user A calls user	B which	is not logged in, t	he call is forwarded to		
	user C.					
	Ensure that User A does not receive		Call Is Being Forw	varded message.		
SIP Parameter values:	Dial string parameters options=PIX	T				
	TYPE_SDP= PIXIT					
Comments:						
SIP UA A				SIP UA C		
INVITE	→	→	INVITE			
180 Ringing	←	←	180 Ringing			
200 OK INVITE	_	-	200 OK INVITE			
ACK	→	→	ACK			
BYE	→	→	BYE			
200 OK BYE	←	+	200 OK BYE			

SSS_XXSSCFNL03	CDIV reference to:				
	TS 124 504 [12], clause 4.5.2.6.4				
TSS reference:	SIP-SIP-SIP/Supplementary_Service	es/CFN	L.		
Configuration:	The user B has subscribed to CFN	L and ha	as not activated TIR		
	Subscription options:				
	Originating user receives notificatio				
	Served user allows the presentation	າ of dive	rted to URI to originatin	g user in diversion	
	notification = No				
	Served user allows the presentation	i of his/h	ner URI to originating us	ser in diversion	
	notification = No				
Selection criteria:	CFNL supported.				
Test purpose:	Ensure that when user A calls user	B which	is not logged in, the ca	all is forwarded to	
	user C.				
	Ensure that User A receives a 181		•	ge	
	containing a Privacy header with va				
	not containing a P-Asserted-Identity				
	not containing a History-Info header	r (with C	DIV related cause valu	e) indicating the URI of	
OID Developed	user B or user A.	_			
SIP Parameter values:	Dial string parameters options=PIXI	ı I			
0	TYPE_SDP= PIXIT				
Comments: SIP UA A	SUT		CID	UA C	
INVITE	→	→	INVITE	UAC	
181 Call Is Being Forwa	——————————————————————————————————————	7	INVIIE		
180 Ringing	arded ← 180 Ringing				
200 OK INVITE	← ← 200 OK INVITE				
ACK	→ ACK				
7.01	-	•	7.010		
BYE	→	→	BYE		
200 OK BYE	-	←	200 OK BYE		

CDIV reference to:					
TS 124 504 [12], clause 4.5.2.6.4					
	SIP-SIP-SIP/Supplementary_Services/CFNL.				
The user B has subscribed to CFNI	L and ha	as not activated TIR			
Subscription options:					
Originating user receives notification that his communication has been diverted = Yes					
Served user allows the presentation	of dive	erted to URI to originating user in diversion			
notification = Yes					
Served user allows the presentation	of his/h	her URI to originating user in diversion			
notification = Yes					
CFNL supported.					
	B which	h is not logged in, the call is forwarded to			
, ,	icating t	the URI of user B and			
,					
	the hi-ta	argeted-to-URI of user B, index = 1,			
cause param = 404 and					
		hi-targeted-to-URI of user C, index = 1.1			
	T				
TYPE_SDP= PIXIT					
		SIP UA C			
	7	INVITE			
7	7	ACN			
->	→	BYE			
É	É	200 OK BYE			
	TS 124 504 [12], clause 4.5.2.6.4 SIP-SIP-SIP/Supplementary_Service The user B has subscribed to CFNI Subscription options: Originating user receives notification Served user allows the presentation notification = Yes Served user allows the presentation notification = Yes CFNL supported. Ensure that when user A calls user user C. Ensure that User A receives a 181 containing a P-Asserted-Identity indicontaining a History-Info header including a first entry with a cause param = 404 and including a second entry with a cause parameters options=PIXITYPE_SDP= PIXIT SUT arded ** SUT ** ** ** ** ** ** ** ** **	TS 124 504 [12], clause 4.5.2.6.4 SIP-SIP-SIP/Supplementary_Services/CFI The user B has subscribed to CFNL and h Subscription options: Originating user receives notification that h Served user allows the presentation of diventification = Yes Served user allows the presentation of his/notification = Yes CFNL supported. Ensure that when user A calls user B which user C. Ensure that User A receives a 181 Call Is I containing a P-Asserted-Identity indicating containing a History-Info header including a first entry with the history parameters options=PIXIT TYPE_SDP= PIXIT SUT arded **SUT* **A SUT* **A SUT*			

SSS_XXSSCFNL05	CDIV reference to:				
	TS 124 504 [12], clause 4.5.2.6.2.2				
TSS reference:	SIP-SIP-SIP/Supplementary_Services/CF	NL.			
Configuration:	The user B has subscribed to CFNL and	has not activated OI	R		
	Subscription options:				
	Served user allows the presentation of his	her URI to diverted	-to user = Yes		
Selection criteria:	CFNL supported.				
Test purpose:	Ensure that when user A calls user B which	ch is not logged in, t	ne call is forwarded to		
	user C.				
	Ensure that User C receives an INVITE m	essage containing a	History-Info header (with		
	CDIV related cause value) including an er	ntry with the hi-targe	ted-to-URI of user B.		
SIP Parameter values:	Dial string parameters options=PIXIT				
	TYPE_SDP= PIXIT				
Comments:					
SIP UA A	SUT		SIP UA C		
INVITE	→ →	INVITE			
181 Call Is Being Forwar	rded ←				
(optional)					
180 Ringing	+ +				
200 OK INVITE	← 200 OK INVITE				
ACK	→ ACK				
BYE	→ →	BYE			
200 OK BYE	+ +	200 OK BYE			

6.2.6.6 CD

6.2.6.6.1 CD Immediate

SSS_XXSSCD01		erence to:				
	TS 124 504 [12]					
TSS reference:		SIP-SIP/Supplementary_Services/CFB.				
Configuration:), CDIVN is not activated			
	Subscription op					
		ives indication th	nat a communication has b	peen forwarded = Yes		
Selection criteria:	CD supported.					
Test purpose:				mmunication towards user C		
				d to user C. Ensure that in		
			ster on the media channel	Is is performed correctly (e.g.		
	testing QoS para		TOO A O.E. was suit and in dispation	a the coll diversion		
CID Devements values			SSAGE request indicating	g the call diversion.		
SIP Parameter values:	Dial string param TYPE_SDP= PIX		XII			
Comments:	TITPE_SUP= PIX	.1 1				
SIP UA A		SUT	SIP UA B	SIP UA C		
INVITE	→	→	INVITE	on on o		
" "	-	÷	302 Moved Temporarily			
		→	ACK			
	Comm	unication divers	sion is performed			
181 Call Is Being Forwar	ded ←		-	→ INVITE		
(optional)						
		→	MESSAGE			
		+	200 OK MESSAGE			
180 Ringing	←			180 Ringing		
200 OK INVITE	(€ 200 OK INVITE		
ACK	→	0		→ ACK		
DVE	•	Communic	cation	▶ DVE		
BYE	→			→ BYE		
200 OK BYE				← 200 OK BYE		

SSS_XXSSCD02		eference to:				
], clause 4.5.2.6				
TSS reference:		SIP-SIP-SIP/Supplementary_Services/CFB.				
Configuration:	The user B has		and CDIVN			
Selection criteria:	CD and CDIVN s	1.1				
Test purpose:	Ensure that when user A calls user B which deflects the communication towards user C immediately (i.e. before alerting starts), the call is forwarded to user C. Ensure that in the active call state the voice transfer on the media channels is performed correctly (e.g. testing QoS parameters). Ensure that User B, having activated the CDIVN service, receives a NOTIFY request					
SIP Parameter values:	Dial string param	eters options=P	IXIT			
Commonte	TYPE_SDP= PI	VII.				
Comments: SIP UA A		SUT	SIP UA B	SIP UA C		
SIF UA A		Start Activation		SIFUAC	,	
		Start Activation	SUBSCRIBE			
		→	200 OK SUBSCRIBE			
		→	NOTIFY			
		É	200 OK NOTIFY			
		End Activation				
INVITE	→	→	INVITE			
=	_	-	302 Moved Temporarily	1		
		→	ACK			
	Comm	unication diver	sion is performed			
181 Call Is Being Forward (optional)			•	→ INVITE		
		→	NOTIFY			
		←	200 OK NOTIFY			
180 Ringing	←			 180 Ringing 		
200 OK INVITE	←			← 200 OK INVITE	Ξ	
ACK	→			→ ACK		
		Communi	cation			
BYE	→			→ BYE		
200 OK BYE	(← 200 OK BYE		

ece yyecchaa	CDIV ==f		1	1
SSS_XXSSCD03		erence to:		
		, clause 4.5.2.6.		
TSS reference:	SIP-SIP-SIP/Sup	plementary_Serv	rices/CD.	
Configuration:	The user B has	subscribed to CD		
	Subscription op	tions:		
	Originating user	receives notificati	on that his communication	has been diverted = No
Selection criteria:	CD supported.			
Test purpose:	Ensure that when	n user A calls use	er B which deflects the com	munication towards user C
	immediately (i.e.	before alerting st	arts), the call is forwarded	to user C.
			ve a 181 Call Is Being For	
SIP Parameter values:	Dial string param			9
	TYPE_SDP= PIX			
Comments:				
SIP UA A		SUT	SIP UA B	SIP UA C
INVITE	→	→	INVITE	
		+	302 Moved Temporarily	
		→	ACK	
	Comn	nunication defle	ction is performed	
			•	→ INVITE
180 Ringing	←			← 180 Ringing
200 OK INVITE	←			◆ 200 OK ĬNĬTE
ACK	→			→ ACK
BYE	→			→ BYE
200 OK BYE	←			← 200 OK BYE

SSS_XXSSCD04	CDIV reference to:					
	TS 124 504 [12], clause 4.5.2.6.4					
TSS reference:	SIP-SIP/Supplementary_Services/CD.					
Configuration:	The user B has subscribed to CD a	The user B has subscribed to CD and has not activated TIR				
	Subscription options:					
	Originating user receives notification					
	Served user allows the presentation	n of diverted to URI to originat	ing user in diversion			
	notification = No					
	Served user allows the presentation notification = No	n of his/her URI to originating	user in diversion			
Selection criteria:	CD supported.					
Test purpose:	Ensure that when user A calls user					
	immediately (i.e. before alerting sta					
	Ensure that User A receives a 181		sage			
	containing a Privacy header with va					
	not containing a P-Asserted-Identity					
OID Developed	not containing a History-Info heade		or user A.			
SIP Parameter values:	Dial string parameters options=PIX TYPE_SDP= PIXIT	.11				
Comments:						
SIP UA A	SUT	SIP UA B	SIP UA C			
INVITE	→ →	INVITE				
	←	302 Moved Temporarily				
	→	ACK				
404 0 114 0	Communication deflect	•	N. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1.			
181 Call Is Being Forwa						
180 Ringing	(180 Ringing			
200 OK INVITE ACK	← →	-	■ 200 OK INVITE ■ ACK			
ACK	7	7	HON			
BYE	→	-	BYE			
200 OK BYE	←		- 200 OK BYE			

SSSXXSSCD05	CDIV re	ference to:				
	TS 124 504 [12], clause 4.5.2.6.4	,			
TSS reference:	SIP-SIP-SIP/Su	SIP-SIP/Supplementary_Services/CD.				
Configuration:	The user B has	The user B has subscribed to CD and has not activated TIR				
		Subscription options:				
		Originating user receives notification that his communication has been diverted = Yes				
			n of diverted to URI to orig	ginating user in diversion		
	notification = Ye	•				
			on of his/her URI to origina	ting user in diversion		
0.1	notification = Ye	es .				
Selection criteria:	CD supported.	A 11	5 1:1 1 (1			
Test purpose:				munication towards user C		
			arts), the call is forwarded			
			Call Is Being Forwarded r dicating the URI of user B			
		tory-Info header	dicating the ORI of user B	anu		
			the hi-targeted-to-URI of	user R index – 1		
		param = 480 and	Title III-targeted-to-OTT OF	user B, muex = 1,		
		•	with the hi-targeted-to-URI	of user Clindey = 1.1		
			entries may be different if			
		d to H-I header."	entines may be unlerent in	other entires have been		
SIP Parameter values:		neters options=PI	(IT			
	TYPE_SDP= PI					
Comments:						
SIP UA A		SUT	SIP UA B	SIP UA C		
INVITE	→	→	INVITE			
		(302 Moved Temporarily			
→ ACK Communication deflection is performed						
404 O-II I- D-i T		munication deflec	tion is performed	> IND/ITE		
181 Call Is Being Forw	arded ← → INVITE ← 180 Ringing					
180 Ringing 200 OK INVITE	-			← 200 OK INVITE		
ACK	→			→ ACK		
7.01	•			Z AON		
BYE	→			→ BYE		
200 OK BYE	-			€ 200 OK BYE		

SSS_XXSSCD06	CDIV reference to:		
	TS 124 504 [12], clause 4.5.2.6.	2.2	
TSS reference:	SIP-SIP-SIP/Supplementary_Serv	vices/CD.	
Configuration:	The user B has subscribed to CD	and has not activated OIR	
	Subscription options:		
	Served user allows the presentation	on of his/her URI to diverted	l-to user = Yes
Selection criteria:	CD supported.		
Test purpose:	Ensure that when user A calls use	er B which deflects the comr	nunication towards user C
	immediately (i.e. before alerting st	arts), the call is forwarded t	o user C.
	Ensure that User C receives an IN	IVITE message containing a	a History-Info header (with
	CDIV related cause value) includir	ng an entry with the hi-targe	ted-to-URI of user B.
SIP Parameter values:	Dial string parameters options=PIX	XIT	
	TYPE_SDP= PIXIT		
Comments:	_		
SIP UA A	SUT	SIP UA B	SIP UA C
INVITE	→ →		
	+	00=0100	
	_	Temporarily	
	•	/ //OIX	
l	Communication defle	ction is performed	
181 Call Is Being Forwa			→ INVITE
180 Ringing	_		← 180 Ringing
200 OK INVITE	<		← 200 OK INVITE
ACK	→		→ ACK
DVE			> DVE
BYE	→		→ BYE
200 OK BYE	+		← 200 OK BYE

6.2.6.6.2 CD during alerting

SSS XXSSCD07	CDIV reference to:					
	TS 124 504 [12], clause 4.5.2.6.4					
TSS reference:	SIP-SIP-SIP/Supplementary_Se	rvices/CD.				
Configuration:	The user B has subscribed to C	D				
	Subscription options:					
	Originating user receives notification	ation that his communication	has been diverted = No			
Selection criteria:	CD supported.					
Test purpose:	Ensure that when user A calls us	ser B which deflects the com	munication towards user C			
	during alerting, the call is forward					
	Ensure that User A does not rec	<u>eive a 181 Call Is Being Fon</u>	warded message.			
SIP Parameter values:	Dial string parameters options=F	PIXIT				
	TYPE_SDP= PIXIT					
Comments:						
SIP UA A	SUT	SIP UA B	SIP UA C			
INVITE	-	NVITE				
180 Ringing	-					
	(00=0100				
	-	71011				
	Communication de	lection is performed	→ INVITE			
			- INVIIE			
			← 180 Ringing			
200 OK INVITE	←		€ 200 OK INVITE			
ACK	→		→ ACK			
7.01.	-		2 7.6.1			
BYE	→		→ BYE			
200 OK BYE	←		← 200 OK BYE			

6.2.7 Test purposes for CONF

6.2.7.1 Conference creation

SSS_XXSSCONF_C	CONF reference to:	
RE_001	TS 124 147 [19], clauses 5.2.1, 5.3.1.3	
TSS reference:	SIP-SIP/Supplementary_Services/CONF_CRE.	
Configuration: Selection criteria:	Conference creation by Three-way session creation	PEEED request to the user Conference
Selection chiena.	event package is subscribed.	. INCI LIN request to the user, Conterence
Test purpose:	Creation of the conference	
Trock purposes.	Ensure that, when User A sends an INVITE request factory URI:	with request URI set to a valid conference
	 User A receives a 200 OK SIP response for feature parameter in Contact header. User Contact header as the conference URI. User A sends an ACK SIP request. User A sends a SUBSCRIBE request with (previously stored) and the Event header subserved. User A receives a 200 OK SIP response to 	request URI set to the conference URI set to "conference". the SUBSCRIBE request. same dialog of the SUBSCRIBE previously
	User A sends a 200 OK SIP response to the second control of t	
	,	·
	Inviting users to the conference For each active SIP session, User A sends a REFEI User C) with request URI set to the URI of the addreset to the conference URI previously stored (the par Refer-To header can be included or omitted): Remote user receives a REFER request conference URI.	ess of the remote user and Refer-To header rameter "method" set to INVITE in the
	·	
	previously received) with the Event header set to "message/sipfrag". The message/sip User A receives a NOTIFY (on the same d	lialog of the REFER previously sent) with the lt-Type header set to "message/sipfrag". The 0 Trying. he NOTIFY request.
	previously received) with the Event header set to "message/sipfrag". The message/sip User A receives a NOTIFY (on the same d	he User A (on the same dialog of the REFER set to "refer" and the Content-Type header
	message/sipfrag body contains SIP/2.0 20 User A sends a 200 OK SIP response to the Remote user receives a 200 OK SIP response to the Remote user secures a 200 OK SIP response to the remote user A sends a BYE request to the remote secure and the Content of the Content	0 OK. ne NOTIFY request. onse to the NOTIFY request.
	 session between the user A and the remote Remote user receives a BYE request from Remote user sends a 200 OK SIP response User A receives a 200 OK SIP response to User A receives a NOTIFY from the confer 	e user. user A. se to the BYE request. the BYE request.
	SUBSCRIBE previously sent). User A sends a 200 OK SIP response to the	,
	NOTE: Additionally, User A may include the Refehis SIP URI.	erred-By header to the REFER and set it to

I=	T				
Precondition:	 User A User C 	was participating in two SIP sessions (one with User B and the other with			
	The SI	P session between User A and User B was previously put on HOLD by User A.			
SIP Parameter values:		meters options=PIXIT			
		YPE_SDP= PIXIT;			
	SIP header valu				
	INVITE:	Request URI contains the conference factory URI			
	200 OK:	"isfocus" feature parameter indicated in Contact header field			
		conference URI contains in the Contact header field			
	SUBSCRIBE:	Request URI contains the conference URI,			
		Event header contains "conference"			
	REFER:	Refer-to header contains the conference URI			
	NOTIFY:	Event header contains conference; Subscription-State header contains			
		active, application/conference-info+xml contains connected, dialled-in			
	NOTIFY 1:	Event header contains refer; Subscription-State header contains active,			
		Content-Type header contains "message/sipfrag", message/sipfrag body			
		contains SIP/2.0 100 Trying			
	NOTIFY 2:	Event header contains refer; Subscription-State header contains terminated,			
		Content-Type header contains "message/sipfrag", message/sipfrag body			
		contains SIP/2.0 200 OK			
	NOTIFY 3:	Event header contains conference ; Subscription-State header contains			
	NOTIEN	active, application/conference-info+xml contains connected, dialled-in			
	NOTIFY 4:	Event header contains refer ; Subscription-State header contains active ,			
		Content-Type header contains "message/sipfrag", message/sipfrag body			
	NOTICY 5:	contains SIP/2.0 100 Trying			
	NOTIFY 5:	Event header contains refer ; Subscription-State header contains terminated ,			
		Content-Type header contains "message/sipfrag", message/sipfrag body			
	NOTIFY 6:	contains SIP/2.0 200 OK Event header contains conference; Subscription-State header contains			
	10.	active, application/conference-info+xml contains connected, dialled-in			
Comments:	1	active, approacion/comoronico into rann containe connected, didiica-in			
SIP UA A		Focus SIP UA B SIP UA C			
		Establishment of session #1			
INVITE	→	→ INVITE			
180 Ringing	←	← 180 Ringing			
200 OK (INVITE)	←	← 200 OK (INVITE)			
ACK `	→	→ ACK `			
INVITE (sendonly)	→	→ INVITE (sendonly)			
200 OK (recvonly)	←	← 200 OK (recvonly)			
ACK	→	→ ACK			
	_	Establishment of session #2			
INVITE	→	→ INVITE			
180 Ringing	(€ 180 Ringing			
200 OK (INVITE)	(€ 200 OK (INVITE)			
ACK	→	→ ACK			
INIVITE	_ IA	Conference creation			
INVITE					
200 OK (INVITE) ACK		00 OK (INVITE) CK			
SUBSCRIBE		UBSCRIBE			
200 OK (SUBSCRIBE)		OBSCRIBE 00 OK (SUBSCRIBE)			
NOTIFY		OTIFY			
200 OK (NOTIFY)		00 OK (NOTIFY)			
200 OK (NOTH 1)	# Z(

	Inviting UA B to the c	onference	
REFER →	→	REFER	
202 Accepted	←	202 Accepted	
	INVITE	INVITE	
NOTIFY 1	←	NOTIFY 1	
200 OK (NOTIFY 1) →	→	200 OK (NOTIFY 1)	
	200 OK →		
	ACK ←		
NOTIFY 2	←	NOTIFY 2	
200 OK (NOTIFY 2) →	→	200 OK (NOTIFY 2)	
BYE -	→	BYE	
200 OK (BYE) ←	+	200 OK (BYE)	
NOTIFY 3 ←	NOTIFY 3		
200 OK (NOTIFY 3) →	200 OK (NOTIFY 3)		
200 OK (NOTIFT 3)	Inviting UA C to the c	onference	
REFER →	miving of o to the c		→ REFER
202 Accepted			€ 202 Accepted
202710000100	INVITE ←		← INVITE
NOTIFY 4 ←	1144112		NOTIFY 4
200 OK (NOTIFY 4) →			→ 200 OK (NOTIFY 4)
	200 OK →		→ 200 OK
	ACK ←	•	← ACK
NOTIFY 5 ←	-	•	NOTIFY 5
200 OK (NOTIFY 5) →		•	→ 200 OK (NOTIFY 5)
BYE →		•	→ BYE `
200 OK (BYE) ←		•	← 200 OK (BYE)
NOTIFY 6 ←	NOTIFY 6		` ′
200 OK (NOTIFY 6) →	200 OK (NOTIFY 6)		

SSS_XXSSCONF	CONF reference to:
_CRE_002	TS 124 147 [19], clauses 5.2.1, 5.3.1.3
TSS reference:	SIP-SIP-SIP/Supplementary_Services/CONF_CRE.
Configuration:	CONF
Selection criteria:	Conference creation by Three-way session creation. REFER request to the user,
	Conference event package not subscribed.
Test purpose:	Creation of the conference
	Ensure that, when User A sends an INVITE request with request URI set to a valid
	conference factory URI:
	User A receives a 200 OK SIP response from the <i>conference focus</i> containing "isfocus" feature parameter in Contact header. User A shall store the content of
	the receive Contact header as the conference URI.
	User A sends an ACK SIP request.
	ossi // sanda dii //ork on Toquesti
	Inviting users to the conference
	For each active SIP session, User A sends a REFER request to the remote user (User B
	or User C) with request URI set to the URI of the address of the remote user and Refer-To
	header set to the <i>conference URI</i> previously stored (the parameter "method" set to INVITE
	in the Refer-To header can be included or omitted):
	Remote user receives a REFER request containing the Refer-To header set to
	the conference URI.
	Remote user sends a 202 Accepted SIP response to the REFER request. Remote user sends a 202 Accepted SIP response to the REFER request. Remote user sends a 202 Accepted SIP response to the REFER request.
	User A receives a 202 Accepted SIP response to the REFER request. Parameter and the REFER request. Parameter and the REFER request.
	Remote user sends an INVITE request with request URI set to conference URI to the conference focus.
	Remote user sends a NOTIFY request to the User A (on the same dialog of the
	REFER previously received) with the Event header set to "refer" and the Content-
	Type header set to "message/sipfrag". The message/sipfrag body contains
	SIP/2.0 100 Trying.
	User A receives a NOTIFY (on the same dialog of the REFER previously sent)
	with the Event header set to "refer" and the Content-Type header set to
	"message/sipfrag". The message/sipfrag body contains SIP/2.0 100 Trying.
	User A sends a 200 OK SIP response to the NOTIFY request.
	Remote user receives a 200 OK SIP response to the NOTIFY request.
	Remote user receives a 200 OK SIP response to the INVITE request from the
	conference focus.
	Remote user sends an ACK to the conference focus.
	Remote user sends a NOTIFY request to the User A (on the same dialog of the REFER previously received) with the Event booder set to "refer" and the Content
	REFER previously received) with the Event header set to "refer" and the Content- Type header set to "message/sipfrag". The message/sipfrag body contains
	SIP/2.0 200 OK.
	User A receives a NOTIFY (on the same dialog of the REFER previously sent)
	with the Event header set to "refer" and the Content-Type header set to
	"message/sipfrag". The message/sipfrag body contains SIP/2.0 200 OK.
	User A sends a 200 OK SIP response to the NOTIFY request.
	Remote user receives a 200 OK SIP response to the NOTIFY request.
	User A sends a BYE request to the remote user in order to release the active SIP
	session between the user A and the remote user.
	Remote user receives a BYE request from user A.
	Remote user sends a 200 OK SIP response to the BYE request.
	User A receives a 200 OK SIP response to the BYE request.
	NOTE: Additionally, User A may include the Referred-By header to the REFER and set it to his SIP URI.
Precondition:	User A was participating in two SIP sessions (one with User B and the other with User C).
	The SIP session between User A and User B was previously put on HOLD by
	User A.

OID Damanatan and a	Dial staisses	t DIVI	T		
SIP Parameter values:	Dial string para	ameters options=PIXI PIXIT·	I		
	SIP header va				
	INVITE:		nins the conference factor	/ URI	
	200 OK:		arameter indicated in Conf		eader field
			ntains in the Contact head		
	REFER:		ntains the conference UR		 -
	NOTIFY 1:		ains refer ; Subscription-S		eader contains active.
			der contains "message/sip		
		contains SIP/2.0 1	00 Trying.	•	
	NOTIFY 2:	Event header conta	ains refer; Subscription-S		
			nt-Type header contains '		age/sipfrag",
			ody contains SIP/2.0 200		
	NOTIFY 3:		ains refer ; Subscription-S		
			der contains "message/sip	frag",	message/sipfrag body
	NOTIFY	contains SIP/2.0 1			
	NOTIFY 4:		ains refer; Subscription-S		
			nt-Type header contains '		age/siptrag",
Commonte		message/siptrag b	ody contains SIP/2.0 200	UK.	
Comments: SIP UA A		Focus	SIP UA B		SIP UA C
SIF UA A		Establishment of s			SIF UA C
INVITE	→		INVITE		
180 Ringing	,	+	180 Ringing		
200 OK (INVITE)	÷	`	200 OK (INVITE)		
ACK	→	→	ACK		
			7.5.1		
INVITE (sendonly)	→	→	INVITE (sendonly)		
200 OK (recvonly)	←	←	200 OK (recvonly)		
ACK `	→	→	ACK `		
		Establishment of s	session #2		
INVITE	→				INVITE
180 Ringing	←				180 Ringing
200 OK (INVITE)	(200 OK (INVITE)
ACK	→			→	ACK
INIVITE	- > 1817/1	Conference cr	eation		
INVITE	→ INVI				
200 OK (INVITE) ACK	← 200→ ACk	OK (INVITE)			
ACK		∖ Inviting UA B to the	conference		
REFER	→	→ to the	REFER		
202 Accepted	É	É	202 Accepted		
202710000100	•	INVITE 🗲	INVITE		
NOTIFY 1	←	÷	NOTIFY 1		
200 OK (NOTIFY 1)	→	→	200 OK (NOTIFY 1)		
		200 OK →	200 OK (INVITE)		
		ACK ←	ACK		
NOTIFY 2	←	←	NOTIFY 2		
200 OK (NOTIFY 2)	→	→	200 OK (NOTIFY 2)		
BYE	→	→	BYE		
200 OK (BYE)	←	+	200 OK (BYE)		
		Inviting UA C to the	conference	_	
REFER	→				REFER
202 Accepted	←	18 13 // TE			202 Accepted
NOTIFY 0		INVITE 🗲			INVITE
NOTIFY 3	+				NOTIFY 3
200 OK (NOTIFY 3)	→	200 01/ 🍱		フ	200 OK (NOTIFY 3) 200 OK
		200 OK → ACK ←			ACK
NOTIFY 4	←	ACK T			NOTIFY 4
200 OK (NOTIFY 4)	→				200 OK (NOTIFY 4)
BYE	→ →				BYE
200 OK (BYE)	-			-	200 OK (BYE)
	-				200 OK (DTL)

SSS_XXSSCONF_	CONF reference to:
CRE_003	TS 124 147 [19], clauses 5.2.1, 5.3.1.3
TSS reference:	SIP-SIP/Supplementary_Services/CONF_CRE.
Configuration: Selection criteria:	Conference creation by Three-way session creation. REFER request to the conference focus, Conference event package subscribed.
Test purpose:	Creation of the conference Ensure that, when User A sends an INVITE request with request URI set to a valid conference factory URI: User A receives a 200 OK SIP response from the conference focus containing "isfocus" feature parameter in Contact header. User A shall store the content of the receive Contact header as the conference URI. User A sends an ACK SIP request. User A sends a SUBSCRIBE request with request URI set to the conference URI (previously stored) and the Event header set to "conference". User A receives a 200 OK SIP response to the SUBSCRIBE request. User A receives a NOTIFY request (on the same dialog of the SUBSCRIBE previously sent) with the Event header set to "conference". User A sends a 200 OK SIP response to the NOTIFY request.
	Inviting users to the conference For each active SIP session, User A sends a REFER request to the conference focus with request URI set to the conference URI previously stored and Refer-To header set to the SIP URI of the remote user (the parameter "method" set to INVITE in the Refer-To header can be included or omitted): • User A receives a 202 Accepted SIP response to the REFER request. • Remote user receives an INVITE request from the conference focus to be invited to the conference. • User A receives a NOTIFY (on the same dialog of the REFER previously sent) with the Event header set to "refer" and the Content-Type header set to "message/sipfrag". The message/sipfrag body contains SIP/2.0 100 Trying. • User A sends a 200 OK SIP response to the NOTIFY request. • Remote user sends a 200 OK SIP response to the INVITE request from the conference focus. • Remote user receives an ACK from the conference focus. • User A receives a NOTIFY (on the same dialog of the REFER previously sent) with the Event header set to "refer" and the Content-Type header set to "message/sipfrag". The message/sipfrag body contains SIP/2.0 200 OK. • User A sends a 200 OK SIP response to the NOTIFY request. • User A sends a BYE request to the remote user in order to release the active SIP session between the user A and the remote user A. • Remote user receives a BYE request from user A. • Remote user sends a 200 OK SIP response to the BYE request. • User A receives a NOTIFY from the conference focus (on the same dialog of the SUBSCRIBE previously sent). • User A sends a 200 OK SIP response to the NOTIFY request.
	NOTE: Additionally, User A may include the Referred-By header to the REFER and set it to his SIP URI.
Precondition:	 User A was participating in two SIP sessions (one with User B and the other with User C). The SIP session between User A and User B was previously put on HOLD by User A.

SIP Parameter values:		ameters options=PIXIT	-			
	TYPE_SDP= F					
	INVITE:		aine th	ne conference factor	v I IR	7/
	200 OK:	"isfocus" feature p	arame	eter indicated in Constitution in the Contact head	tact h	neader field
	SUBSCRIBE:			s in the Contact nead ne <i>conference URI</i> .	aer II	eia.
	REFER 1:	•		s the SIP URI of the	UA E	3.
	NOTIFY:	Event header cont	ains c	onference; Subscrip	tion-	State header contains
						connected, dialled-in
	NOTIFY 1:		der co	ontains "message/sip		header contains active, ', message/sipfrag body
	NOTIFY 2:	Event header cont terminated, Conte	ains r ent-Ty	efer; Subscription-Spe header contains '	'mes	
	NOTIFY 3:	Event header cont	ains c		ption	-State header contains
	REFER 2:			erence-into+xml cont s the URI of the UA		connected, dialled-out.
	NOTIFY 4:					header contains active,
		Content-Type head	der co	ontains "message/sip		', message/sipfrag body
	NOTIFY 5:	contains SIP/2.0 1 Event header cont		yıng. efer; Subscription-S	tate l	header contains
	1.0			pe header contains '		
		message/sipfrag c	ontair	s SIP/2.0 200 OK.		
	NOTIFY 6:			nce; Subscription-St		
Comments:		application/confere	ence-i	nfo+xml contains co	nnec	tea, diallea-out.
SIP UA A		Focus Establishment of	sessi	SIP UA B on #1		SIP UA C
INVITE	→		→	INVITE		
180 Ringing	←		←	180 Ringing		
200 OK (INVITE)	((200 OK (INVITE)		
ACK	→		→	ACK		
INVITE (sendonly)	→		→	INVITE(sendonly)		
200 OK (recvonly)	←		←	200 OK (recvonly)		
ACK	→		→ .	ACK		
IND/ITE	-3	Establishment of	sessi	on #2	_	INIV/ITE
INVITE 180 Ringing	→				→	INVITE 180 Ringing
200 OK (INVITE)	-				-	200 OK (INVITE)
ACK	→				→	ACK
	<u>.</u>	Conference c	reatio	n		
INVITE	→ INVI					
200 OK (INVITE) ACK	← 200 €→ ACK	OK (INVITE)				
SUBSCRIBE	_	SCRIBE				
200 OK (SUBSCRIBE)		OK (SUBSCRIBE)				
NOTIFY	← NOT	IFY` ´				
200 OK (NOTIFY)	→ 200 0	OK (NOTIFY) Inviting UA B to the	conf	ference		
REFER 1	→ REF		, 50111	O. O. IOO		
202 Accepted	← 202 /	Accepted				
NOTIEV 4	∠ NOT	INVITE	→	INVITE		
NOTIFY 1 200 OK (NOTIFY 1)		IFY 1 OK (NOTIFY 1)				
LOU OK (NOTIFT I)	-2 200 ((200 OK (INVITE)		
			→			
NOTIFY 2		IFY 2				
200 OK (NOTIFY 2)		OK (NOTIFY 2)	_	D) (E		
BYE	→		→	BYE		
200 OK (BYE) NOTIFY 3	← NOT	IFY 3	←	200 OK (BYE)		
200 OK (NOTIFY 3)		OK (NOTIFY 3)				

	Inviting UA C to the conference	
REFER 2	→ REFER 2	
202 Accepted	 202 Accepted 	
·	. INVITE →	→ INVITE
NOTIFY 4	← NOTIFY 4	
200 OK (NOTIFY 4)	→ 200 OK (NOTIFY 4)	
,	200 OK (ÍNVITE) ←	← 200 OK (INVITE)
	ACK →	→ ACK
NOTIFY 5	← NOTIFY 5	
200 OK (NOTIFY 5)	→ 200 OK (NOTIFY 5)	
BYE	→	→ BYE
200 OK (BYE)	←	← 200 OK (BYE)
NOTIFY 6	← NOTIFY 6	,
200 OK (NOTIFY 6)	→ 200 OK (NOTIFY 6)	

SSS_XXSSCONF_	CONF reference to:
CRE_004	TS 124 147 [19], clauses 5.2.1, 5.3.1.3
TSS reference:	SIP-SIP/Supplementary_Services/CONF_CRE.
Configuration:	CONF
Selection criteria:	Conference creation by Three-way session creation. REFER request to the focus,
	Conference event package not subscribed.
Test purpose:	Creation of the conference Ensure that, when User A sends an INVITE request with request URI set to a valid conference factory URI: User A receives a 200 OK SIP response from the conference focus containing "isfocus" feature parameter in Contact header. User A shall store the content of the receive Contact header as the conference URI. User A sends an ACK SIP request.
	Inviting users to the conference For each active SIP session, User A sends a REFER request to the conference focus with request URI set to the conference URI previously stored and Refer-To header set to the SIP URI of the remote user (the parameter "method" set to INVITE in the Refer-To header can be included or omitted): • User A receives a 202 Accepted SIP response to the REFER request. • Remote user receives an INVITE request from the conference focus to be invited to the conference. • User A receives a NOTIFY (on the same dialog of the REFER previously sent) with the Event header set to "refer" and the Content-Type header set to "message/sipfrag". The message/sipfrag body contains SIP/2.0 100 Trying. • User A sends a 200 OK SIP response to the NOTIFY request. • Remote user sends a 200 OK SIP response to the INVITE request from the conference focus. • Remote user receives an ACK from the conference focus. • User A receives a NOTIFY (on the same dialog of the REFER previously sent) with the Event header set to "refer" and the Content-Type header set to "message/sipfrag". The message/sipfrag body contains SIP/2.0 200 OK. • User A sends a 200 OK SIP response to the NOTIFY request. • User A sends a BYE request to the remote user in order to release the active SIP session between the user A and the remote user. • Remote user receives a BYE request from user A. • Remote user sends a 200 OK SIP response to the BYE request.
	NOTE: Additionally, User A may include the Referred-By header to the REFER and set it to his SIP URI.

User C	Dragondition	11	A		NDi / with		N = == 1 tl= = = tl= = = :::itl=
The SIP session between User A and User B was previously put on HOLD by User A. SIP Parameter values: Dial string parameters options=PIXIT TYPE_SIPS_PIXIT; SIP header values: INVITE: Request URI contains the Conference factory URI. Provided the Conference URI contains the Contact header field conference URI contains the Contact header field conference URI contains the SIP URI of the UAB. REFER 1: Refer to header contains the SIP URI of the UAB. REFER 1: Refer to header contains the SIP URI of the UAB. REFER 1: Refer to header contains the SIP URI of the UAB. REFER 1: Refer to header contains the SIP URI of the UAB. REFER 2: NOTIFY 2: Event header contains refer; Subscription-State header contains terminated. Content-Type header contains active. Content-Type header contains refer; Subscription-State header contains active. Content-Type header contains terminated by contains SIP/2.0 at the header contains series sayerispirate header contains active. Content-Type header contains ressage/sipfrag*, message/sipfrag body contains SIP/2.0 to Tying. NOTIFY 3: Event header contains refer; Subscription-State header contains active. Content-Type header contains refers. Refer: Subscription-State header contains active. Content-Type header contains refers. Refer: Subscription-State header contains series sage/sipfrag body contains SIP/2.0 to Tying. NOTIFY 3: Event header contains refer; Subscription-State header contains active. Content-Type header contains refers. Refer: Subscription-State header contains refers. Refer: Subscription-State header contains refers. SIP UA C. SIP UB SIP UB SIP UB SIP UB	Precondition:			wo S	SIP sessions (one with	User E	and the other with
User A.			•	00r A	and Hear Burge prov	المامان	nut on HOLD by
SIP Parameter values: Dial string parameters options=PIXIT Type SDP= PIXIT; SIP header values: INVITE 200 OK: Invite SIP Labe SIP LAB SI				ser <i>F</i>	and User B was prev	iousiy	put on HOLD by
TYPE_SDP=PIXIT; Sip header values: INVITE: Request URI contains the conference factory URI. 200 OK; Invited 18	CID Doromotor values:						
SIP header values: INVITE: Request URI contains the conference factory URI. 200 OK;	SIF Farameter values.						
INVITE Request URI contains the conference factory URI 200 OK: "isfocus" feature parameter indicated in Contact header field conference URI contains in the Contact header field conference URI contains in the Contact header field. REFER 1: Refer-to header contains the SIP URI of the UA B. NOTIFY 1: Event header contains the SIP URI of the UA B. NOTIFY 2: Event header contains the SIP URI of the UA B. NOTIFY 2: Event header contains are fer; Subscription-State header contains active, Content-Type header contains "message/sipfrag" message/sipfrag body contains SIP/2.0 100 Trying. NOTIFY 3: Event header contains refer; Subscription-State header contains the URI of the UA C. NOTIFY 3: Event header contains refer; Subscription-State header contains active, Content-Type header contains stemplated contains size on the URI of the UA C. NOTIFY 3: Event header contains refer; Subscription-State header contains active, Content-Type header contains "message/sipfrag", message/sipfrag body contains SIP/2.0 100 Trying. NOTIFY 4: Event header contains refer; Subscription-State header contains terminated. Content-Type header contains "message/sipfrag" message/sipfrag body contains SIP/2.0 100 Trying. NOTIFY 4: Event header contains refer; Subscription-State header contains terminated. Content-Type header contains state header contains terminated. Content-Type header contains state header contains terminated. Content-Type header contains state header contains terminated. SIP/2.0 100 Trying. NOTIFY 4: Event header contains refer; Subscription-State header contains refer Subscription-State header contains terminated contains refer; Subscription-State header contains refer Subscription-State h							
200 OK:				ns the	e conference factory U	'RI	
REFER 1: Refer-to header contains in the Contact header field.							er field
NOTIFY 1:							
Content-Type header contains "message/sipfrag", message/sipfrag body contains \$IP/2.0 100 Trying. NOTIFY 2:		REFER 1:					
NOTIFY 2: Event header contains refer; Subscription-State header contains terminated, Content-Type header contains "message/sipfrag", message/sipfrag body contains \$IP/2.0 200 OK. REFER 2: Refer-to header contains the URI of the UA C. NOTIFY 3: Event header contains the URI of the UA C. NOTIFY 3: Event header contains the URI of the UA C. NOTIFY 4: Event header contains refer; Subscription-State header contains active, Content-Type header contains "message/sipfrag body contains \$IP/2.0 100 Trying. NOTIFY 4: Event header contains refer; Subscription-State header contains sterminated, Content-Type header contains "message/sipfrag body contains \$IP/2.0 200 OK. NOTIFY 4: Event header contains refer; Subscription-State header contains terminated, Content-Type header contains "message/sipfrag body contains \$IP/2.0 200 OK. NOTIFY 4: Event header contains refer; Subscription-State header contains active, Content-Type header contains "message/sipfrag body contains \$IP/2.0 200 OK. NOTIFY 4: Event header contains refer; Subscription-State header contains active, Content-Type header contains subscription-State header contains subs		NOTIFY 1:					
NOTIFY 2:						g", me	ssage/sipfrag body
		NOTIFY O					
REFER 2: REFER 2: Refer-to header contains SIP/2.0 200 OK. Refer-to header contains the URI of the UA C. Event header contains refer; Subscription-State header contains active, Content-Type header contains refer; Subscription-State header contains sterminated, Content-Type header contains refer; Subscription-State header contains sterminated, Content-Type header contains refer; Subscription-State header contains sterminated, Content-Type header contains sterminated header contains sterminated header contains active, Content-Type header contains sterminated header contains sterminated, Content-Type header contains sterminated header cont		NOTIFY 2:					
REFER 2:							/sipirag ,
NOTIFY 3:		REFER 2.				٠-	
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Contains SIP/2.0 100 Trying.							
NOTIFY 4: Event header contains refer; Subscription-State header contains terminated. Content-Type header contains "message/sipfrag", message/sipfrag body contains SIP/2.0 200 OK. Comments: SIP UA A			contains SIP/2.0 100) Try	ing.	_	
terminated, Content-Type header contains "message/sipfrag", message/sipfrag body contains SIP/2.0 200 OK. Comments: SIP UA A Focus Establishment of session #1 INVITE 180 Ringing ← 180 Ringing ← 200 OK (INVITE) ACK INVITE (sendonly) 200 OK (recvonly) ACK INVITE (sendonly) 200 OK (recvonly) ACK Establishment of session #2 INVITE 180 Ringing ← 200 OK (recvonly) ACK Establishment of session #2 INVITE 180 Ringing ← 180 Ringing ← 180 Ringing ← 200 OK (INVITE) ACK Conference creation INVITE 200 OK (INVITE) ACK INVITE 200 OK (INVITE) ACK Inviting UA B to the conference REFER 1 202 Accepted INVITE NOTIFY 1 200 OK (NOTIFY 1) 200 OK (NOTIFY 1) 200 OK (NOTIFY 2) BYE 200 OK (BYE) Inviting UA C to the conference REFER 2 202 Accepted Inviting UA C to the conference REFER 2 202 Accepted Inviting UA C to the conference REFER 2 202 Accepted Inviting UA C to the conference REFER 2 202 Accepted Inviting UA C to the conference REFER 2 202 Accepted Inviting UA C to the conference		NOTIFY 4:	Event header contai	ns re	efer; Subscription-State		
SIP UA A Focus SIP UA B Establishment of session #1 SIP UA C			terminated, Conten	t-Typ	e header contains "me	essage	
SIP UA A Focus SIP UA B SIP UA C			message/sipfrag boo	dy co	ntains SIP/2.0 200 OK	<u>.</u>	
INVITE			_				
INVITE	SIP UA A						SIP UA C
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200 OK (INVITE) ACK	INVITE	→ IN\		outic	,11		
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200 OK (INVITE) ← 200 OK (INVITE) ACK → ACK NOTIFY 2 200 OK (NOTIFY 2) BYE 200 OK (BYE) Inviting UA C to the conference REFER 2 202 Accepted 200 OK (INVITE) ← 200 OK (INVITE) ACK → ACK NOTIFY 2 200 OK (NOTIFY 2) BYE ← 200 OK (BYE) Inviting UA C to the conference REFER 2 202 Accepted							
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Inviting UA C to the conference REFER 2 → REFER 2 202 Accepted ← 202 Accepted		=		←	200 OK (BYE)		
202 Accepted ← 202 Accepted	, ,		Inviting UA C to the	con			
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200 OK (NOTIFY 3) → 200 OK (NOTIFY 3) ← 200 OK (NIV/ITE)	200 OK (NOTIFY 3)	7 200		_		_	200 OK (INIVITE)
200 OK (INVITE) ← ← 200 OK (INVITE) ACK → ACK							
NOTIFY 4 ← NOTIFY 4	NOTIFY 4	← NO					AUN
200 OK (NOTIFY 4) → 200 OK (NOTIFY 4)							
BYE → BYE						→	BYE
200 OK (BYE) ← 200 OK (BYE)		←				←	

SSSXXSSCONF_ CRE_005	CONF reference to: TS 124 147 [19], clauses 5.2.1, 5.3.1.3
TSS reference:	SIP-SIP/Supplementary Services/CONF CRE.
Configuration:	CONF
Selection criteria:	Conference creation by Three-way session creation. REFER request to the focus, Replaces method is used, Conference event package subscribed.
Test purpose:	 Creation of the conference Ensure that, when User A sends an INVITE request with request URI set to a valid conference factory URI: User A receives a 200 OK SIP response from the conference focus containing "isfocus" feature parameter in Contact header. User A shall store the content of the receive Contact header as the conference URI. User A sends an ACK SIP request. User A sends a SUBSCRIBE request with request URI set to the conference URI (previously stored) and the Event header set to "conference". User A receives a 200 OK SIP response to the SUBSCRIBE request. User A receives a NOTIFY request (on the same dialog of the SUBSCRIBE previously sent) with the Event header set to "conference". User A sends a 200 OK SIP response to the NOTIFY request.
	Inviting users to the conference For each active SIP session, User A sends a REFER request to the conference focus with request URI set to the conference URI previously stored and Refer-To header set to the SIP URI of the remote user. Also, into the Refer-to header the replaces method is used in order to terminate the active SIP session between the user A and the remote user: • User A receives a 202 Accepted SIP response to the REFER request. • Remote user receives an INVITE request from the conference focus to be invited to the conference. The INVITE contains the Replaces header with SIP dialog data ("Call-ID", "From" tag, "To" tag) to be replaced. • User A receives a NOTIFY (on the same dialog of the REFER previously sent) with the Event header set to "refer" and the Content-Type header set to "message/sipfrag". The message/sipfrag body contains SIP/2.0 100 Trying. • User A sends a 200 OK SIP response to the INVITE request from the conference focus. • Remote user sends a 200 OK SIP response to the INVITE request from the conference focus. • User A receives a NOTIFY (on the same dialog of the REFER previously sent) with the Event header set to "refer" and the Content-Type header set to "message/sipfrag". The message/sipfrag body contains SIP/2.0 200 OK. • User A sends a 200 OK SIP response to the NOTIFY request. • Remote user sends a BYE request to the User A in order to release the active SIP session between the user A and the remote user. • User A sends a 200 OK SIP response to the BYE request. • User A sends a 200 OK SIP response to the BYE request. • User A receives a BYE request from remote user. • User A sends a 200 OK SIP response to the BYE request. • Remote user receives a 200 OK SIP response to the BYE request.

Precondition:		A was participating in two SIP sessions (one with User B and t	the other with
	User C The SI	ر. IP session between User A and User B was previously put on	HOLD by
	User A	A	
SIP Parameter values:	Dial string parar	meters options=PIXIT	
	SIP header value		
	INVITE:	Request URI contains the conference factory URI.	
	200 OK:	"isfocus" feature parameter indicated in Contact header field	ld
	NOTIFY:	conference URI contains in the Contact header field. Event header contains conference; Subscription-State head	der contains
		active, application/conference-info+xml contains connected	
	REFER 1:	Refer-to header contains the SIP URI of the UA B . Refer-To: <sip: uri-b?replaces="call-id1%3Bto-tagsession</td"><td>n1%3Bfrom-</td></sip:>	n1%3Bfrom-
	NOTIFY 1:	tagSession1; method=INVITE>. Event header contains refer ; Subscription-State header co	ntains active
		Content-Type header contains "message/sipfrag", message contains SIP/2.0 100 Trying.	
	NOTIFY 2:	Event header contains refer ; Subscription-State header co	ntains
		terminated, Content-Type header contains "message/sipfr	
	NOTIFY 3:	message/sipfrag body contains SIP/2.0 200 OK. Event header contains conference; Subscription-State hea	ader contains
	NOTH 1 3.	active, application/conference-info+xml contains connected	
	BYE 1:	Call-ID: call-id1/ To:; tag=session1/ From:;tag=Sessi	
	REFER 2:	Refer-to header contains the SIP URI of the UA C and Repl	laces header
		for session 2. Refer-To: <sip: uri-c?replaces="call-id2%3Bto-tagsessior</td"><td>n2%3Bfrom-</td></sip:>	n2%3Bfrom-
		tagSession2; method=INVITE>.	
	NOTIFY 4:	Event header contains refer ; Subscription-State header co	
		Content-Type header contains "message/sipfrag", message contains SIP/2.0 100 Trying.	e/sipfrag body
	NOTIFY 5:	Event header contains refer ; Subscription-State header co	ntains
		terminated, Content-Type header contains "message/sipfr	ag",
	NOTIFY 6:	message/sipfrag contains SIP/2.0 200 OK. Event contains conference; Subscription-State contains ac	ctive
	140111 1 0.	application/conference-info+xml contains connected, dialler	
	BYE 2:	Call-ID: call-id2/ To:; tag=session2/ From:;tag=Sessi	on2.
Comments: SIP UA A		Focus SIP UA B	SIP UA C
		Establishment of session #1	C.I. C.I. C
INVITE	→	→ INVITE	
180 Ringing 200 OK (INVITE)	+	← 180 Ringing← 200 OK (INVITE)	
ACK	→	→ ACK	
INVITE (sendonly)	→	→ INVITE (sendonly)	
200 OK (recvonly)	÷	€ 200 OK (recvonly)	
ACK	→	→ ACK	
INVITE	→	Establishment of session #2 → INV	ITC
180 Ringing	÷		Ringing
200 OK (INVITE)	←	← 200	OK (INVITE)
ACK	→	→ ACM Conference creation	<
INVITE	→ INVIT		
200 OK (INVITE)	← 200 O	OK (INVITE)	
ACK	→ ACK	ACDIDE.	
SUBSCRIBE 200 OK (SUBSCRIBE)		SCRIBE DK (SUBSCRIBE)	
NOTIFY	← NOTIF	FY	
200 OK (NOTIFY)	→ 200 O	OK (NOTIFY)	

	Inviting UA B to the	con	ference		
REFER 1	→ REFER 1				
202 Accepted	← 202 Accepted				
	•	. →	INVITE 4		
NOTIFY 1	◆ NOTIFY 1				
200 OK (NOTIFY 1)	→ 200 OK (NOTIFY 1)				
		+	200 OK (INVITE 4)		
			ACK		
NOTIFY 2	♠ NOTIFY 2				
200 OK (NOTIFY 2)	→ 200 OK (NOTIFY 2)				
BYE 1	←	←	BYE 1		
200 OK (BYE 1)	→	→	200 OK (BYE 1)		
NOTIFY 3	◆ NOTIFY 3		,		
200 OK (NOTIFY 3)	→ 200 OK (NOTIFY 3)				
,	Inviting UA C to the	con	ference		
REFER 2	→ REFER 2				
202 Accepted	← 202 Accepted				
·	. INVITE 5	→		→	INVITE 5
NOTIFY 4	◆ NOTIFY 4				
200 OK (NOTIFY 4)	→ 200 OK (NOTIFY 4)				
,	200 OK (INVITE5	←		+	200 OK(INVITE 5)
		→			ACK `
NOTIFY 5	← NOTIFY 5				
200 OK (NOTIFY 5)	→ 200 OK (NOTIFY 5)				
BYE 2	←			←	BYE 2
200 OK (BYE 2)	→			→	200 OK (BYE 2)
NOTIFY 6	◆ NOTIFY 6				, ,
200 OK (NOTIFY 6)	→ 200 OK (NOTIFY 6)				

SSS_XXSSCONF_	CONF reference to:		
CRE_06	TS 124 147 [19], clauses 5.2.1, 5.3.1.3		
TSS reference:	SIP-SIP/Supplementary_Services/CONF_CRE.		
Configuration:	CONF		
Selection criteria:	Conference creation by Three-way session creation. REFER request to the focus, Replaces method is used, Conference event package not subscribed.		
Test purpose:	Creation of the conference Ensure that, when User A sends an INVITE request with request URI set to a valid conference factory URI: User A receives a 200 OK SIP response from the conference focus containing "isfocus" feature parameter in Contact header. User A shall store the content of the receive Contact header as the conference URI. User A sends an ACK SIP request. Inviting users to the conference For each active SIP session, User A sends a REFER request to the conference focus with request URI set to the conference URI previously stored and Refer-To header set to the SIP URI of the remote user. Also, into the Refer-to header the replaces method is used in order to terminate the active SIP session between the user A and the remote user: User A receives a 202 Accepted SIP response to the REFER request. Remote user receives an INVITE request from the conference focus to be invited to the conference. The INVITE contains the Replaces header with SIP dialog data ("Call-ID", "From" tag, "To" tag) to be replaced. User A receives a NOTIFY (on the same dialog of the REFER previously sent) with the Event header set to "refer" and the Content-Type header set to "message/sipfrag". The message/sipfrag body contains SIP/2.0 100 Trying. User A sends a 200 OK SIP response to the NOTIFY request from the conference focus. Remote user receives an ACK from the conference focus. Remote user receives an ACK from the conference focus. User A receives a NOTIFY (on the same dialog of the REFER previously sent) with the Event header set to "refer" and the Content-Type header set to "message/sipfrag". The message/sipfrag body contains SIP/2.0 200 OK. User A sends a 200 OK SIP response to the NOTIFY request. Remote user sends a BYE request from remote user. User A receives a BYE request from remote user. User A sends a 200 OK SIP response to the NOTIFY request.		
Precondition:	 Remote user receives a 200 OK SIP response to the BYE request. User A was participating in two SIP sessions (one with User B and the other with User C). The SIP session between User A and User B was previously put on HOLD by User A. 		

SIP Parameter values:					
on rarameter values.		rameters options=PIXIT			
	TYPE_SDP=				
	SIP header v		4h	D.	
	INVITE: 200 OK:		the conference factory U meter indicated in Contac		or field
	200 OK.		ins in the Contact header		lei ileiu
	REFER 1:		ins the URI of user#2 and		aces header for
	INCI EIX II	session 1.	ins the orthor ascime and	i i topii	acco ricador for
			?Replaces=Call-ID1%3B	to-tag	session1%3Bfrom-
		tagSession1; method=			
	INVITE 4:		-tag=to-tagSession1; fron	n-tag=	from-tagSession1.
	NOTIFY 1:		refer; Subscription-State		
			contains "message/sipfra	g", me	essage/sipfrag body
		contains SIP/2.0 100			
	NOTIFY 2:		refer; Subscription-State		
			Type header contains "me		e/siptrag",
	BYE 1:		contains SIP/2.0 200 OK; tag=session1/ From:		Section1
	REFER 2:		ins the URI of user#3 and		
	INCI LIN Z.	session 2.		i i topii	acco ricador for
			?Replaces=Call-ID2%3B	to-tag	session2%3Bfrom-
		tag Session2; method		3	
	INVITE 5:	Replaces: Call-ID2; to	-tag=to-tagSession2; fron		
	NOTIFY 3:		refer; Subscription-State		
			contains "message/sipfra	g", me	essage/sipfrag body
	NOTIEV 4.	contains SIP/2.0 100			lan aantaina
	NOTIFY 4:	terminated Contains	s refer; Subscription-State Type header contains "me	e nead	er contains
			contains SIP/2.0 200 OK		s/sipiray ,
	BYE 2:		; tag=session2/ From:		Session2
Comments:		Jan. 121 Jan. 162, 131. 1	, tag ***********************************	.,	0000.0
SIP UA A		Focus	SIP UA B		SIP UA C
		Establishment of ses			
INVITE	→	→	INVITE		
180 Ringing	←	←	180 Ringing		
			200 OK (INVITE)		
200 OK (INVITE)	+	+			
ACK (INVITE)	← →	← →	ACK		
ACK	→	→	ACK		
ACK INVITE (sendonly)			ACK INVITE (sendonly)		
ACK	→	→	ACK		
ACK INVITE (sendonly) 200 OK (recvonly) ACK	→ → ←	→ → ←	ACK INVITE (sendonly) 200 OK (recvonly) ACK		
ACK INVITE (sendonly) 200 OK (recvonly) ACK INVITE	→	→ + +	ACK INVITE (sendonly) 200 OK (recvonly) ACK	>	INVITE
ACK INVITE (sendonly) 200 OK (recvonly) ACK INVITE 180 Ringing	→ + + → +	→ + +	ACK INVITE (sendonly) 200 OK (recvonly) ACK	←	180 Ringing
ACK INVITE (sendonly) 200 OK (recvonly) ACK INVITE 180 Ringing 200 OK (INVITE)	→ + + → + +	→ + +	ACK INVITE (sendonly) 200 OK (recvonly) ACK	+	180 Ringing 200 OK (INVITE)
ACK INVITE (sendonly) 200 OK (recvonly) ACK INVITE 180 Ringing	→ + + → +	→ → Establishment of ses	ACK INVITE (sendonly) 200 OK (recvonly) ACK sion #2	←	180 Ringing
ACK INVITE (sendonly) 200 OK (recvonly) ACK INVITE 180 Ringing 200 OK (INVITE) ACK		→ Establishment of ses Conference creat	ACK INVITE (sendonly) 200 OK (recvonly) ACK sion #2	+	180 Ringing 200 OK (INVITE)
ACK INVITE (sendonly) 200 OK (recvonly) ACK INVITE 180 Ringing 200 OK (INVITE) ACK INVITE	→ → → → →	→ Establishment of ses Conference creates	ACK INVITE (sendonly) 200 OK (recvonly) ACK sion #2	+	180 Ringing 200 OK (INVITE)
ACK INVITE (sendonly) 200 OK (recvonly) ACK INVITE 180 Ringing 200 OK (INVITE) ACK	→ → → → → + ← →	→ Establishment of ses Conference creat	ACK INVITE (sendonly) 200 OK (recvonly) ACK sion #2	+	180 Ringing 200 OK (INVITE)
ACK INVITE (sendonly) 200 OK (recvonly) ACK INVITE 180 Ringing 200 OK (INVITE) ACK INVITE 200 OK (INVITE)	→ → → → IN ← → A	Conference created to the conference UNITE OO OK (INVITE)	ACK INVITE (sendonly) 200 OK (recvonly) ACK sion #2	+	180 Ringing 200 OK (INVITE)
ACK INVITE (sendonly) 200 OK (recvonly) ACK INVITE 180 Ringing 200 OK (INVITE) ACK INVITE 200 OK (INVITE) ACK REFER 1	→ → → → III → A	Conference created to the conference the conference created to the conference that the	ACK INVITE (sendonly) 200 OK (recvonly) ACK sion #2	+	180 Ringing 200 OK (INVITE)
ACK INVITE (sendonly) 200 OK (recvonly) ACK INVITE 180 Ringing 200 OK (INVITE) ACK INVITE 200 OK (INVITE)	→ → → → III → A	Conference created by the conference created	ACK INVITE (sendonly) 200 OK (recvonly) ACK sion #2	+	180 Ringing 200 OK (INVITE)
ACK INVITE (sendonly) 200 OK (recvonly) ACK INVITE 180 Ringing 200 OK (INVITE) ACK INVITE 200 OK (INVITE) ACK REFER 1 202 Accepted	→ → → → A → A ← 2	Conference creates VITE 00 OK (INVITE) CK Inviting UA B to the content of the	ACK INVITE (sendonly) 200 OK (recvonly) ACK sion #2	+	180 Ringing 200 OK (INVITE)
ACK INVITE (sendonly) 200 OK (recvonly) ACK INVITE 180 Ringing 200 OK (INVITE) ACK INVITE 200 OK (INVITE) ACK REFER 1 202 Accepted NOTIFY 1		Conference creates Conference creates VITE 00 OK (INVITE) CK Inviting UA B to the conference of the conference creates INVITE Inviting UA B to the conference creates INVITE 4	ACK INVITE (sendonly) 200 OK (recvonly) ACK sion #2	+	180 Ringing 200 OK (INVITE)
ACK INVITE (sendonly) 200 OK (recvonly) ACK INVITE 180 Ringing 200 OK (INVITE) ACK INVITE 200 OK (INVITE) ACK REFER 1 202 Accepted		Conference creates Conference creates VITE 00 OK (INVITE) CK Inviting UA B to the conference invite 4 INVITE 4 OO OK (NOTIFY 1)	ACK INVITE (sendonly) 200 OK (recvonly) ACK sion #2 ion INVITE 4	+	180 Ringing 200 OK (INVITE)
ACK INVITE (sendonly) 200 OK (recvonly) ACK INVITE 180 Ringing 200 OK (INVITE) ACK INVITE 200 OK (INVITE) ACK REFER 1 202 Accepted NOTIFY 1		Conference creates Conference creates VITE 00 OK (INVITE) CK Inviting UA B to the conference EFER 1 02 Accepted INVITE 4 IOTIFY 1 00 OK (NOTIFY 1) 200 OK (INVITE 4)	ACK INVITE (sendonly) 200 OK (recvonly) ACK sion #2 ion Inference INVITE 4 200 OK (INVITE 4)	+	180 Ringing 200 OK (INVITE)
ACK INVITE (sendonly) 200 OK (recvonly) ACK INVITE 180 Ringing 200 OK (INVITE) ACK INVITE 200 OK (INVITE) ACK REFER 1 202 Accepted NOTIFY 1 200 OK (NOTIFY 1)		Conference creates Conference creates VITE 00 OK (INVITE) CK Inviting UA B to the conference of the conference creates INVITE 102 Accepted INVITE 4 INVITE 4 ACK ACK	ACK INVITE (sendonly) 200 OK (recvonly) ACK sion #2 ion INVITE 4	+	180 Ringing 200 OK (INVITE)
ACK INVITE (sendonly) 200 OK (recvonly) ACK INVITE 180 Ringing 200 OK (INVITE) ACK INVITE 200 OK (INVITE) ACK REFER 1 202 Accepted NOTIFY 1 200 OK (NOTIFY 1)	+ + + + + + + + + + + + + + + + + + +	Conference creates Conference creates VITE 00 OK (INVITE) CK Inviting UA B to the conference of the conference creates INVITE 00 OK (INVITE) 100 OK (INVITE 4) ACK ACK	ACK INVITE (sendonly) 200 OK (recvonly) ACK sion #2 ion Inference INVITE 4 200 OK (INVITE 4)	+	180 Ringing 200 OK (INVITE)
ACK INVITE (sendonly) 200 OK (recvonly) ACK INVITE 180 Ringing 200 OK (INVITE) ACK INVITE 200 OK (INVITE) ACK REFER 1 202 Accepted NOTIFY 1 200 OK (NOTIFY 1)	+ + + + + + + + + + + + + + + + + + +	Conference creates Conference creates VITE 00 OK (INVITE) CK Inviting UA B to the conference of the conference creates INVITE 102 Accepted INVITE 4 INVITE 4 ACK ACK	ACK INVITE (sendonly) 200 OK (recvonly) ACK sion #2 ion Inference INVITE 4 200 OK (INVITE 4)	+	180 Ringing 200 OK (INVITE)

		Inviting UA C to t	the conference		
REFER 2	→	REFER			
202 Accepted	←	202 Accepted			
		INVITE 5	→	→	INVITE 5
NOTIFY 3	←	NOTIFY 3			
200 OK (NOTIFY 3)	→	200 OK (NOTIFY 3)			
		200 OK (INVITE 5)	←	←	200 OK (INVITE5)
		ACK	→	→	ACK
NOTIFY 4	←	NOTIFY 4			
200 OK (NOTIFY 4)	→	200 OK (NOTIFY 4)			
BYE 2	←			←	BYE 2
200 OK (BYE 2)	→			→	200 OK (BYE 2)

SSS_XXSSCONF_	CONF reference to:		
CRE_007	TS 124 147 [19], clauses 5.2.1, 5.3.1.3		
TSS reference:	SIP-SIP-SIP/Supplementary_Services/CONF_CRE.		
Configuration:	CONF		
Selection criteria:	Conference creation by SIP URI-list. Conference event package subscribed.		
Test purpose:	 Ensure that, when User A sends an INVITE request with "resource-list+xml" body (which contains a SIP URI-list of the participants that User A wants to invite to the conference) and request URI set to a valid conference factory URI: User A receives a 200 OK SIP response from the conference focus containing "isfocus" feature parameter in Contact header. User A shall store the content of the receive Contact header as the conference URI. User A sends an ACK SIP request. User A sends a SUBSCRIBE request with request URI set to the conference URI (previously stored) and the Event header set to "conference". User A receives a 200 OK SIP response to the SUBSCRIBE request. User A receives a NOTIFY request (on the same dialog of the SUBSCRIBE previously sent) with the Event header set to "conference". User A sends a 200 OK SIP response to the NOTIFY request. Remote user (User B/User C) receives an INVITE request from the conference focus to be invited to the conference. Remote user (User B/User C) sends a 180 Ringing SIP response to the INVITE request from the conference focus. Remote user (User B/User C) sends a 200 OK SIP response to the INVITE request from the conference focus. Remote user receives an ACK from the conference focus. User A receives a NOTIFY from the conference focus (on the same dialog of the SUBSCRIBE previously sent). 		
	User A sends a 200 OK SIP response to the NOTIFY request.		
Precondition:			
SIP Parameter values:	Dial string parameters options=PIXIT TYPE_SDP= PIXIT; SIP header values: INVITE: Request URI contains the conference factory URI, Require header contains "recipient-list-invite", Content-Disposition header contains "recipient-list", Content-Type header contains "application/resource-lists+xml" and the resource-lists+xml body contains the SIP URI-list of participants at the conference (according to RFC 5366 [25]). 200 OK: "isfocus" feature parameter indicated in Contact header field conference URI contained in the Contact header field. SUBSCRIBE: Request URI contained the conference URI. NOTIFY: Event header contains conference; Subscription-State header contains active, application/conference-info+xml contains connected, dialled-in The P-Asserted-Identity contains the conference URI. "isfocus" feature parameter indicated in Contact header field conference URI contained in the Contact header field. Referred-By contains SIP or tel URI of UA A. (This is not mandatory) INVITE 3: "isfocus" feature parameter indicated in Contact header field conference URI contained in the Contact header field. Referred-By contains SIP or tel URI of UA A. (This is not mandatory).		

Comments:			
SIP UA A	Focus	SIP UA B	SIP UA C
	Conference cre	eation	
INVITE	→ INVITE		
200 OK (INVITE)	← 200 OK (INVITE)		
ACK	→ ACK		
SUBSCRIBE	→ SUBSCRIBE		
200 OK (SUBSCRIBE)	← 200 OK (SUBSCRIBE)		
NOTIFY	← NOTIFY		
200 OK (NOTIFY)	→ 200 OK (NOTIFY)		
	Inviting UA B to the	conference	
		→ INVITE 2	
		← 180 Ringing	
		← 200 OK(INVITE2)	
		→ ACK	
NOTIFY	← NOTIFY		
200 OK (NOTIFY)	→ 200 OK (NOTIFY)	_	
	Inviting UA C to the		
	INVITE 3		→ INVITE 3
	180 Ringing		← 180 Ringing
	200 OK (INVITE 3)		← 200 OK (INVITE 3)
NOTIFY	ACK	→	→ ACK
NOTIFY	← NOTIFY		
200 OK (NOTIFY)	→ 200 OK (NOTIFY)		

SSS_XXSSCONF_	CONF reference to:		
CRE_008	TS 124 147 [19], clauses 5.2.1, 5.3.1.3		
TSS reference:	SIP-SIP/Supplementary_Services/CONF_CRE.		
Configuration:	CONF		
Selection criteria:	Conference creation by SIP URI-list. Conference event package not subscribed.		
Test purpose:	 Ensure that, when User A sends an INVITE request with "resource-list+xml" body (which contains a SIP URI-list of the participants that User A wants to invite to the conference) and request URI set to a valid conference factory URI: User A receives a 200 OK SIP response from the conference focus containing "isfocus" feature parameter in Contact header. User A shall store the content of the receive Contact header as the conference URI. User A sends an ACK SIP request. Remote user (User B/User C) receives an INVITE request from the conference focus to be invited to the conference. Remote user (User B/User C) sends a 180 Ringing SIP response to the INVITE request from the conference focus. Remote user (User B/User C) sends a 200 OK SIP response to the INVITE request 		
	from the conference focus.		
Dro condition:	Remote user receives an ACK from the conference focus.		
Precondition: SIP Parameter values:	Dial string parameters options=PIXIT		
	TYPE_SDP= PIXIT; SIP header values: INVITE: Request URI contains the conference factory URI, Require header contains "recipient-list-invite", Content-Disposition header contains "recipient-list", Content-Type header contains "application/resource-lists+xml" and the resource-lists+xml body contains the SIP URI-list of participants at the conference (according to RFC 5366 [25]). 200 OK: "isfocus" feature parameter indicated in Contact header field conference URI contained in the Contact header field. INVITE 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. Referred-By contains SIP or tel URI of UA A. (This is not mandatory) The P-Asserted-Identity contains the conference URI. "isfocus" feature parameter indicated in Contact header field conference URI contained in the Contact header field. Referred-By contains SIP or tel URI of UA A. (This is not mandatory).		
Comments: SIP UA A	Focus SIP UA B SIP UA C		
INVITE 200 OK (INVITE) ACK	Conference creation → INVITE ← 200 OK (INVITE) → ACK Inviting UA B to the conference INVITE 2 → INVITE 2 180 Ringing ← 180 Ringing 200 OK (INVITE 2) ← 200 OK (INVITE 2) ACK → ACK Inviting UA C to the conference INVITE 3 → INVITE 3 180 Ringing ← 180 Ringing 200 OK (INVITE 3) ← 200 OK (INVITE 3)		

SSS_XXSSCONF_	CONF reference to:					
CRE_09	TS 124 147 [19], clauses 5.2.1, 5.3.1.3					
TSS reference:	SIP-SIP-SIP/Supplementary_Services/CONF_CRE.					
Configuration:	CONF					
Selection criteria:	nsuccessful. Conference creation with a conference factory URI not allocated by the conference focus.					
Test purpose:	Ensure that, when User A sends an INVITE request with request URI set to a not valid conference factory URI: User A receives a 488 Not Acceptable Here SIP response from the conference focus. User A sends an ACK SIP request					
Precondition:						
SIP Parameter values:	Dial string parameters options=PIXIT TYPE_SDP= PIXIT; SIP header values: INVITE: Request URI contains a conference factory URI not allocated by the conference focus.					
Comments:	_					
SIP U						
INVITE 488 Not Acceptable He ACK	→ INVITE re ← 488 Not Acceptable Here → ACK					

6.2.7.2 Inviting other users to a conference

SSS_XXSSCONF_I	CONF reference to:				
NV_001	TS 124 147 [19], clauses 5.2.1, 5.3.1.4, 5.3.1.5				
TSS reference:	SIP-SIP/Supplementary_Services/CONF_INV.				
Configuration:	CONF				
Selection criteria:	nviting participant by sending REFER to the conference focus. The conference event package s subscribed.				
Test purpose:	Ensure that, when User A sends a REFER request to the conference focus with request URI set to the conference URI previously stored and Refer-To header set to the SIP URI of the remote user (the parameter "method" set to INVITE in the Refer-To header can be included or omitted): • User A receives a 202 Accepted SIP response to the REFER request. • Remote user receives an INVITE request from the conference focus to be invited to the conference. • User A receives a NOTIFY (on the same dialog of the REFER previously sent) with the Event header set to "refer" and the Content-Type header set to "message/sipfrag". The message/sipfrag body contains SIP/2.0 100 Trying. • User A sends a 200 OK SIP response to the NOTIFY request. • Remote user sends a 180 Ringing SIP response to the INVITE request from the conference focus. • Remote user sends a 200 OK SIP response to the INVITE request from the conference focus. • Remote user receives an ACK from the conference focus. • User A receives a NOTIFY (on the same dialog of the REFER previously sent) with the Event header set to "refer" and the Content-Type header set to "message/sipfrag". The message/sipfrag body contains SIP/2.0 200 OK. • User A sends a 200 OK SIP response to the NOTIFY request. • Remote user sends a SUBSCRIBE request with request URI set to the conference URI (previously stored) and the Event header set to "conference". • Remote User receives a 200 OK SIP response to the SUBSCRIBE request. • Remote user receives a NOTIFY request (on the same dialog of the SUBSCRIBE previously sent) with the Event header set to "conference". • Remote user receives a NOTIFY request (on the same dialog of the SUBSCRIBE previously sent) with the Event header set to "conference". • Remote user sends a 200 OK SIP response to the NOTIFY request.				
	Repeat the above steps twice in order to invite to the conference User B (when remote user is UA B) and User C (when remote user is UA C).				
	When User C has joined the conference:				
	User B receives a NOTIFY request (on the same dialog of the SUBSCRIBE previously sent) with the Event header set to "conference".				
	User B sends a 200 OK SIP response to the NOTIFY request.				
	NOTE: Additionally, User A may include the Referred-By header to the REFER and set it to his SIP URI.				
Precondition:	User A has created a conference by using a conference factory URI.				

SIP Parameter values: Dial string parameters options=PIXIT TYPE_SDP=PIXIT; SIP header values: REFER 1: Request URI contains the conference URI (previously stored). Refer-To header contains the SIP URI of UA B. Refer-ED y contains SIP D ret I URI of UA B. Refer-ED y contains SIP D ret I URI of UA A. (This is not mandatory) INVITE 2: The P-Asserted-Identity contains the conference URI. 'islocus' feature parameter indicated in Contact header field conference URI contained in the Contact header field Referred-By contains SIP D ret I URI of UA A. (This is not mandatory) NOTIFY 1: Event header contains refer; Subscription-State header contains active, Content-Type header contains 'message/sipfrag', message/sipfrag body, contains SIP/2.0 100 Trying, NOTIFY 2: Event tontains refer; Subscription-State header contains sEIP/2.0 200 OK. SUBSCRIBE: Request URI contained the conference URI, Event header contains SIP/2.0 200 OK. REFER 2: Request URI contained the conference URI (previously stored), Refer-To header contains the SIP URI of UA C. Referred-By contains SIP Or tell URI of UA C. Referred-By contains SIP Or tell URI of UA C. Referred-By contains the SIP URI of UA C. Referred-By contains SIP Or tell URI of UA C. Referred-By contains SIP Or tell URI of UA C. Referred-By contains SIP Or tell URI of UA C. Referred-By contains SIP Or tell URI of UA C. Referred-By contains SIP Or tell URI of UA C. Referred-By contains SIP Or tell URI of UA C. Referred-By contains SIP Or tell URI of UA C. Referred-By contains SIP Or tell URI of UA C. Referred-By contains SIP Or tell URI of UA C. Referred-By contains SIP Or tell URI of UA C. Referred-By contains SIP Or tell URI of UA C. Referred-By contains SIP OR tell URI of UA C. Referred-By contains SIP OR tell URI of URI OR CONTENT OR Referred-By contains SIP OR tell URI of URI OR CONTENT OR Referred-By contains SIP OR tell URI of URI OR CONTENT OR Referred-By contains SIP OR tell URI of URI OR CONTENT OR Referred-By contains SIP OR tell URI or URI OR CONTENT OR REFER OR REFER 1 REFER 1						
SIP header values: REFER 1: Request URI contains the conference URI (previously stored). Refer-To header contains the SIP URI of UA B. Refer-Eby contains SIP or tel URI of UA A. (This is not mandatory) INVITE 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 conference URI contained in the Contact header field. Referred-By contains SIP or tel URI of UA A. (This is not mandatory) NOTIFY 1: Event header contains refer; Subscription-State header contains active, application/conference URI, Event header contains siP/2.0 100 Trying. NOTIFY 2: Event contains refer; Subscription-State header contains siP/2.0 200 CK. SUBSCRIBE: Request URI contained the conference URI, Event header contains siP/2.0 200 CK. SUBSCRIBE: Request URI contained the conference URI, Event header contains active, application/conference-inflor-win contains conference. URI (previously stored). REFER 2: Request URI contained the conference URI, (previously stored). Refer-To header contains the SIP URI of UA A. (This is not mandatory) INVITE 3: The P-Asserted-Identity contains the Conference URI. SIP URI A. (This is not mandatory) NOTIFY 4: Event header contains SIP or tel URI of UA A. (This is not mandatory) NOTIFY 5: Event contains sip of the URI of UA A. (This is not mandatory) NOTIFY 6: Event header contains sip of the conference URI. SIP URI A. (This is not mandatory) NOTIFY 7: Event header contains sip of the URI of UA A. (This is not mandatory) NOTIFY 7: Event contains refer; Subscription-State header contains active, content-Type header contains refer; Subscription-State header contains active, conference URI. NOTIFY 7: Event header contains conference URI, Event header contains active, application/conference-info+xml contains connected, dialled-out. NOTIFY 7: Event header contains conference Subscription-State header contains active, application/conference-info+xml contains connected, dialled-out. NOTI	SIP Parameter values:	Dial string	parameters options=PIXIT			
REFER 1: Request URI contains the conference URI (previously stored). Refer To header contains the SIP URI of U.B. Refer To header contains the SIP URI of U.B. (This is not mandatory) INVITE 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 conference URI contained in the Contact header field Referred-By contains SIP or tel URI of U.A. (This is not mandatory) NOTIFY 1: Event header contains refer; Subscription-State header contains active, Contemt-Type header contains refer; Subscription-State header contains active, Contemt-Type header contains refer; Subscription-State header contains serving type header contains refer; Subscription-State header contains serving type header contains refer contains refer subscription-State header contains serving type header contains refer contains refer subscription-State header contains serving type header contains refer contains conference. URI, Event header contains active, application/conference-info+xmi contains connected, dialled-out. REFER 2: Request URI contained the conference URI, (previously stored). Referred-By contains SIP or tel URI of U.A. (This is not mandatory) INVITE 3: The P-Asserted-Identity contains the Conference URI. "Isfocus" feature parameter indicated in Contact header field conference URI contained in the Contact header field conference URI contact header contains active, Content-Type header contains refer; Subscription-State header contains active, Content-Type header contains refer; Subscription-State header contains active, Content-Type header contains refer; Subscription-State header contains active, contains SIP/2.0 to Tyring. NOTIFY 5: Event header contains refer; Subscription-State header contains active, contains SIP/2.0 to Tyring. NOTIFY 6: Event header contains conference; Subscription-State header contains active, application/conference-info+xmi contains connected, dialled-out. NOTIFY 7: Event header contains conference						
Refer-To header contains the SIP URI of UA B. Referred-By contains SIP or tel URI of UA A. (This is not mandatory) The P-Asserted-House in the Contact header field conference URI. Instruction of the Contact header field conference URI contained in the Contact header field. Referred-By contains SIP or tel URI of UA. (This is not mandatory) NOTIFY 1: Event header contains refer; Subscription-State header contains active, contains SIP2.0 100 Trying. NOTIFY 2: Event contains refer; Subscription-State header contains active, contains SIP2.0 100 Trying. NOTIFY 3: Event contains refer; Subscription-State header contains SIP2.0 200 OK. SUBSCRIBE: Request URI contained the conference URI, Event header contains "message/sipfrag", message/sipfrag body, contains SIP2.0 200 OK. SUBSCRIBE: Request URI contained the conference URI, Event header contains "conference." NOTIFY 3: Event header contains conference; Subscription-State header contains active, application/conference-info+xml contains connected, dialled-out. REFER 2: Request URI contained the conference URI (previously stored). Refer-To header contains SIP or tel URI of UA A. Chis is not mandatory) INVITE 3: The P-Asserted-Identity contains the conference URI. Instruction of URI A inst						
Referred-By contains SIP or tel URI of UA A. (This is not mandatory) The P-Asserted-Hotentity contains the conference URI. "Isfocus" feature parameter indicated in Contact header field conference URI contained in the Contact header field conference URI contained in the Contact header field Referred-By contains SIP or tel URI of UA A. (This is not mandatory) NOTIFY 1: Event bender contains refer; Subscription-State header contains active, Content-Type header contains active; Subscription-State header contains active, contains SIP2.0 100 Trying. NOTIFY 2: Event contains refers; Subscription-State header contains SIP2.0 200 OK. SUBSCRIBE: Request URI contained the conference URI, Event header contains active, application/conference*, Incompared to the conference URI (previously stored). Refer 10 header contains schorerence URI (previously stored). Refer 10 header contains the SIP URI of UA A. (This is not mandatory) INVITE 3: Request URI contained the conference URI (previously stored). Refer 10 header contains the SIP URI of UA A. (This is not mandatory) INVITE 4: The P-Asserted-Identity contains the conference URI. 'Islocus' feature parameter indicated in Contact header field conference URI contained in the Contact header field conference Contains size SIP or tel URI of UA A. (This is not mandatory) NOTIFY 4: Event header contains refer; Subscription-State header contains active, application of URI contained in the Contact header field conference URI contained in the Contact header field conference. SIP UA A. SUBSCRIBE: Subscription-State header contains active, application/conference contains refer; Subscription-State header contains active, application/conference contains conference URI, Event header contains active, application/conference-info+xml contains connected, dialled-out. Focus SIP UA A. SUBSCRIBE: SUBSCRIBE: SUBSCRIBE: NOTIFY 2: ACK		REFER 1:				∍d) .
INVITE 2: The P-Asserted-Identity contains the conference UR. "Islocus" feature parameter indicated in Contact header field conference URI contained in the Contact header field. Referred-By contains SIP or tel URI of UA A. (This is not mandatory) NOTIFY 1: Event header contains refer; Subscription-State header contains active, content-Type header contains "message/sipfrag", message/sipfrag body, contains SIP/2.0 100 Trying. NOTIFY 2: Event contains refer; Subscription-State header contains terminated, Content-Type header cominains "message/sipfrag", message/sipfrag body contains SIP/2.0 200 0K. SUBSCRIBE: Request URI contained the conference URI, Event header contains "conference". NOTIFY 3: Event header contains conference; Subscription-State header contains active, application/conference-info+xml contains connected, dialled-out. REFER 2: Request URI contained the conference URI (previously stored). Refer-To header contains the SIP URI of UA A. (This is not mandatory) INVITE 3: The P-Asserted-Identity contains the conference URI. "Isfocus" feature parameter indicated in Contact header field conference URI contained in the Contact header field conference URI contained the conference URI (previous). NOTIFY 4: Event header contains serier; Subscription-State header contains active, contains SIP/2.0 100 Trying. NOTIFY 5: Event contains refer; Subscription-State header contains SIP/2.0 200 OK (INVITE) (Content-Type header contains conference; Subscription-State header contains active, application/conference-info+xml contains connected						
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application/conference-info+xml contains connected, dialled-out. Event header contains conference; Subscription-State header contains active, application/conference-info+xml contains connected, dialled-out. Comments: SIP UA A Focus Conference creation INVITE 200 OK (INVITE) ACK Inviting UA B to the conference REFER 1 202 Accepted INVITE 2 200 OK (NOTIFY 1) ACK Inviting UA B to the conference REFER 1 202 Accepted INVITE 2 I		NOTIEN (a				
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SUBSCRIBE ← SUBSCRIBE 200 OK (SUBSCRIBE) → 200 OK(SUBSCRIBE) NOTIFY 3 → NOTIFY 3			_			
200 OK (SUBSCRIBE) → 200 OK(SUBSCRIBE) NOTIFY 3 → NOTIFY 3		<u> </u>	,	←	SUBSCRIBE	
NOTIFY 3 → NOTIFY 3						

		Inviting UA C to the	е со	nference		
REFER 2	→	REFER 2				
202 Accepted	←	202 Accepted				
		. INVITE 3	→		→	INVITE 3
NOTIFY 4	←	NOTIFY 4				
200 OK (NOTIFY 4)	→	200 OK (NOTIFY 4)				
, , ,		180 Ringing	←		←	180 Ringing
		200 OK (INVITE 3)	←		←	200 OK (INVITE 3)
		ACK	→		→	ACK
NOTIFY 5	←	NOTIFY 5				
200 OK (NOTIFY 5)	→	200 OK (NOTIFY 5)				
		SUBSCRIBE	←		←	SUBSCRIBE
		200 OK (SUBSCRIBE)	→		→	200 OK(SUBSCRIBE)
		NOTIFY 6	→		→	NOTIFY 6
		200 OK (NOTIFY 6)	←		←	200 OK (NOTIFY 6)
		NOTIFY 7	→	NOTIFY 7		
		200 OK (NOTIFY 7)	←	200 OK (NOTIFY 7)		

SSS_XXSSCONF_I NV_002	CONF reference to: TS 124 147 [19], clauses 5.2.1, 5.3.1.4, 5.3.1.5
TSS reference:	SIP-SIP-SIP/Supplementary_Services/CONF_INV.
Configuration:	CONF
Selection criteria:	Inviting participant by sending REFER to the conference focus. The conference event package is not subscribed.
Test purpose:	Ensure that, when User A sends a REFER request to the conference focus with request URI set to the conference URI previously stored and Refer-To header set to the SIP URI of the remote user (the parameter "method" set to INVITE in the Refer-To header can be included or omitted): User A receives a 202 Accepted SIP response to the REFER request. Remote user receives an INVITE request from the conference focus to be invited to the conference. User A receives a NOTIFY (on the same dialog of the REFER previously sent) with the Event header set to "refer" and the Content-Type header set to "message/sipfrag". The message/sipfrag body contains SIP/2.0 100 Trying. User A sends a 200 OK SIP response to the NOTIFY request. Remote user sends a 180 Ringing SIP response to the INVITE request from the conference focus. Remote user sends a 200 OK SIP response to the INVITE request from the conference focus. Remote user receives an ACK from the conference focus. User A receives a NOTIFY (on the same dialog of the REFER previously sent) with the Event header set to "refer" and the Content-Type header set to "message/sipfrag". The message/sipfrag body contains SIP/2.0 200 OK. User A sends a 200 OK SIP response to the NOTIFY request. Repeat the above steps twice in order to invite to the conference User B (when remote user is UA B) and User C (when remote user is UA C). NOTE: Additionally, User A may include the Referred-By header to the REFER and set it to his SIP URI.
Precondition:	User A has created a conference by using a conference factory URI.

OID D	Inc		
SIP Parameter values		arameters options=PIXIT	
	TYPE_SDP		
	SIP header		1 ()
	REFER 1:	Request URI contains the <i>conference URI</i> (previous Refer-To header contains the URI of UA B .	sly stored).
		Referred-By header contains SIP URI of UA A . (Thi	s is not mandatory)
	INVITE 2:	The P-Asserted-Identity contains the conference UF	
		"isfocus" feature parameter indicated in Contact hea	
		conference URI contained in the Contact header fie	ld.
		Referred-By contains SIP or tel URI of UA A . (This	
	NOTIFY 1:	Event header contains refer; Subscription-State header	
		Type header contains "message/sipfrag", message/	sipfrag body contains SIP/2.0
		100 Trying.	
	NOTIFY 2:	Event header contains refer ; Subscription-State header contains "subscription-State header contains"	
		Type header contains "message/sipfrag", message/ OK.	siptrag contains SIP/2.0 200
	REFER 2:	Request URI contained the conference URI (previous	usly stored).
		Refer-To header contains the URI of UA C .	o in mot manualate A
	INIVITE O	Referred-By header contains SIP URI of UA A . (Thi	
	INVITE 3:	The P-Asserted-Identity contains the conference UF	
		"isfocus" feature parameter indicated in Contact heaconference URI contained in the Contact header fie	
		Referred-By contains SIP or tel URI of UA A . (This	
	NOTIFY 3:	Event header contains refer ; Subscription-State header	
	11011110.	Type header contains "message/sipfrag", message/	
		100 Trying.	The same of the sa
	NOTIFY 4:	Event header contains refer ; Subscription-State header	ader contains active, Content-
		Type header contains "message/sipfrag", message/	
		OK.	
Comments: SIP UA A		Focus SIP UA B	SIP UA C
SIF UA A		Conference creation	SIF UA C
INVITE	→	INVITE	
200 OK (INVITE)	É	200 OK (INVITE)	
ACK	÷	ACK	
		Inviting UA B to the conference	
REFER 1	→	REFER 1	
202 Accepted	←	202 Accepted	
		INVITE 2 → INVITE 2	
NOTIFY 1	←	NOTIFY 1	
200 OK (NOTIFY 1)	→	200 OK (NOTIFY 1)	
		180 Ringing ← 180 Ringing	
		200 OK (INVITE 2) ← 200 OK (INVITE 2)	
NOTIFY O	-	ACK → ACK	
NOTIFY 2	(NOTIFY 2	
200 OK (NOTIFY 2)	→	200 OK (NOTIFY 2)	
DEEED O		Inviting UA C to the conference	
REFER 2	→	REFER 2	
202 Accepted	~	202 Accepted INVITE 3 →	→ INVITE 3
	_	NOTIFY 3	/ INVITE 3
NOTIFY 3		INOTH 1 J	
NOTIFY 3	←	200 OK (NOTIFY 3)	
NOTIFY 3 200 OK (NOTIFY 3)	→	200 OK (NOTIFY 3) 180 Ringing ←	← 180 Ringing
		180 Ringing ←	 ← 180 Ringing ← 200 OK (INVITE 3)
		180 Ringing ← 200 OK (INVITE 3) ←	← 200 OK (INVITE 3)
200 OK (NOTIFY 3)		180 Ringing ← 200 OK (INVITE 3) ← ACK →	← 200 OK (INVITE 3)
	→	180 Ringing ← 200 OK (INVITE 3) ←	← 200 OK (INVITE 3)

SSSXXSSCONF_	CONF reference to:
INV_003	TS 124 147 [19], clauses 5.2.1, 5.3.1.4, 5.3.1.5
TSS reference:	SIP-SIP-SIP/Supplementary_Services/CONF_INV.
Configuration:	CONF
Selection criteria:	Inviting participant by sending REFER to the participant. The conference event package is subscribed.
	Inviting participant by sending REFER to the participant. The conference event package is
	 User A receives a NOTIFY (on the same dialog of the REFER previously sent) with the Event header set to "refer" and the Content-Type header set to "message/sipfrag". The message/sipfrag body contains SIP/2.0 200 OK. User A sends a 200 OK SIP response to the NOTIFY request. Remote user sends a SUBSCRIBE request with request URI set to the conference URI (previously stored) and the Event header set to "conference". Remote User receives a 200 OK SIP response to the SUBSCRIBE request. Remote user receives a NOTIFY request (on the same dialog of the SUBSCRIBE previously sent) with the Event header set to "conference". Remote user sends a 200 OK SIP response to the NOTIFY request.
	Repeat the above steps twice in order to invite to the conference User B (when remote user is UA B) and User C (when remote user is UA C). When User C has joined the conference: User B receives a NOTIFY request (on the same dialog of the SUBSCRIBE previously sent) with the Event header set to "conference".
	 User B sends a 200 OK SIP response to the NOTIFY request. NOTE: Additionally, User A may include the Referred-By header to the REFER and set it
Precondition:	 to his SIP URI. User A has created a conference by using a conference factory URI.

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SIP Parameter values:	0 1	arameters options=PIXIT			
	TYPE_SDP=				
	SIP header va				
	REFER 1:	Request URI contains the SIP URI of UA B			
		Refer-To header contains the <i>conference URI</i> (previously stored).			
		Referred-By contains SIP or tel URI of UA A. (This is not mandatory)			
	INVITE 2:	Request URI contains the <i>conference URI</i> .			
		The P-Asserted-Identity contains the URI of UA B .			
		"isfocus" feature parameter indicated in Contact header field			
		conference URI contained in the Contact header field.			
		Referred-By contains SIP or tel URI of UA A. (This is not mandatory)			
	NOTIFY 1:	Event header contains refer; Subscription-State header contains active,			
		Content-Type header contains "message/sipfrag", message/sipfrag body,			
		contains SIP/2.0 100 Trying.			
	NOTIFY 2:	Event contains refer ; Subscription-State header contains terminated , Content-			
		Type header contains "message/sipfrag", message/sipfrag body contains			
		SIP/2.0 200 OK.			
	SUBSCRIBE:	Request URI contained the conference URI, Event header contains			
	NOTIFY 3:	"conference".			
	NOTIFY 3.	Event header contains conference ; Subscription-State header contains active ,			
	REFER 2:	application/conference-info+xml contains connected, dialled-out.			
	REFER 2.	Request URI contains the SIP URI of UA C .			
		Refer-To header contains the <i>conference URI</i> (previously stored).			
	INIVITE O	Referred-By contains SIP or tel URI of UA A. (This is not mandatory)			
	INVITE 3:	Request URI contains the <i>conference URI</i> .			
		The P-Asserted-Identity contains the URI of UA C .			
		"isfocus" feature parameter indicated in Contact header field			
		conference URI contained in the Contact header field.			
		Referred-By contains SIP or tel URI of UA A. (This is not mandatory)			
	NOTIFY 4:	Event header contains refer ; Subscription-State header contains active ,			
		Content-Type header contains "message/sipfrag", message/sipfrag body,			
		contains SIP/2.0 100 Trying.			
	NOTIFY 5:	Event contains refer ; Subscription-State header contains terminated , Content-			
		Type header contains "message/sipfrag", message/sipfrag body contains SIP/2.0 200 OK.			
	NOTIFY 6:	Event header contains conference ; Subscription-State header contains active ,			
	NOTIFI 6.				
	NOTIFY 7.	application/conference-info+xml contains connected, dialled-out.			
	NOTIFY 7:	Event header contains conference ; Subscription-State header contains active ,			
Comments		application/conference-info+xml contains connected, dialled-out.			
Comments: SIP UA A		Focus SIP UA B SIP UA C			
SIP UA A		Conference creation			
INVITE		000100 0.0001			
		NVITE			
200 OK (INVITE)		200 OK (INVITE)			
ACK	→ A	ACK			
	•	Inviting UA B to the conference			
REFER 1	→	→ REFER 1			
202 Accepted	←	€ 202 Accepted			
NOTIFY (-	INVITE 2 • INVITE 2			
NOTIFY 1	(◆ NOTIFY 1			
200 OK (NOTIFY 1)	→	→ 200 OK (NOTIFY 1)			
		200 OK (INVITE 2) → 200 OK (INVITE 2)			
	_	ACK ← ACK			
NOTIFY 2	←	← NOTIFY 2			
200 OK (NOTIFY 2)	→	→ 200 OK (NOTIFY 2)			
		SUBSCRIBE SUBSCRIBE			
	2	200 OK (SUBSCRIBE) → 200 OK (SUBSCRIBE)			
		NOTIFY 3 → NOTIFY 3			
		200 OK (NOTIFY 3) ← 200 OK (NOTIFY 3)			

		Inviting UA C to th	e conference	
REFER 2	→	_		→ REFER 2
202 Accepted	←			← 202 Accepted
		INVITE 3	-	← INVITE 3
NOTIFY 4	←			← NOTIFY 4
200 OK (NOTIFY 4)	→			→ 200 OK (NOTIFY 4)
		200 OK (INVITE 3)	→	→ 200 OK (INVITE 3)
		ACK	←	← ACK
NOTIFY 5	←			← NOTIFY 5
200 OK (NOTIFY 5)	→			→ 200 OK (NOTIFY 5)
		SUBSCRIBE	←	← SUBSCRIBE
		200 OK (SUBSCRIBE)	→	→ 200 OK (SUBSCRIBE)
		NOTIFY 6	→	→ NOTIFY 6
		200 OK (NOTIFY 6)	←	← 200 OK (NOTIFY 6)
		NOTIFY 7	→ NOTIFY 7	
		200 OK (NOTIFY 7)	← 200 OK (NOTIFY 7)	

SSS_XXSSCONF_ INV_004	CONF reference to: TS 124 147 [19], clauses 5.2.1, 5.3.1.4, 5.3.1.5
TSS reference:	SIP-SIP/Supplementary_Services/CONF_INV.
Configuration:	CONF
Selection criteria:	Inviting participant by sending REFER to the participant. The conference event package is not subscribed.
Precondition:	Ensure that, when User A sends a REFER request to the remote user with request URI set to the SIP URI of the remote user and Refer-To header set to the conference URI previously stored (the parameter "method" set to INVITE in the Refer-To header can be included or omitted): Remote user receives a REFER request containing the Refer-To header set to the conference URI. Remote user sends a 202 Accepted SIP response to the REFER request. Remote user sends an INVITE request with request URI set to conference URI to the conference focus. Remote user sends a NOTIFY request to the User A (on the same dialog of the REFER previously received) with the Event header set to "refer" and the Content-Type header set to "message/sipfrag". The message/sipfrag body contains SIP/2.0 100 Trying. User A receives a NOTIFY (on the same dialog of the REFER previously sent) with the Event header set to "refer" and the Content-Type header set to "message/sipfrag body contains SIP/2.0 100 Trying. User A sends a 200 OK SIP response to the NOTIFY request. Remote user receives a 200 OK SIP response to the NOTIFY request. Remote user receives a 200 OK SIP response to the INVITE request from the conference focus. Remote user sends an ACK to the conference focus. Remote user sends an ACK to the conference focus. Remote user sends an ACK to the conference focus. Remote user sends an NOTIFY request to the User A (on the same dialog of the REFER previously received) with the Event header set to "refer" and the Content-Type header set to "message/sipfrag". The message/sipfrag body contains SIP/2.0 200 OK. User A receives a NOTIFY (on the same dialog of the REFER previously sent) with the Event header set to "refer" and the Content-Type header set to "message/sipfrag" body contains SIP/2.0 200 OK. User A sends a 200 OK SIP response to the NOTIFY request. Repeat the above steps twice in order to invite to the conference User B (when remote user is UA B) and User C (when remote user is UA C).
l .	and the state of t

SIP Parameter values:	: Dial string pa	arameters options=PIXI = PIXIT;	Т		
	SIP header				
	REFER 1:	Request URI contain	s the SIP URI of UA B		
			tains the conference URI	(previously stored).	
			SIP or tel URI of UA A. (
	INVITE 2:		s the <i>conference URI</i> .	The id not mandatery,	
	11441122.		tity contains the URI of U	ΔR	
			ameter indicated in Conta		
			ained in the Contact head		
			SIP or tel URI of UA A. (
	NOTIFY 1:				
	INOTIFT I.			te header contains active ,	
				ag", message/sipfrag body,	
	NOTIEVA	contains SIP/2.0 100			
	NOTIFY 2:		Subscription-State head		
				ag", message/sipfrag body	
	DEEE5 -	contains SIP/2.0 200			
	REFER 2:		s the SIP URI of UA C.		
			tains the conference URI		
			SIP or tel URI of UA A. (This is not mandatory)	
	INVITE 3:		s the <i>conference URI</i> .		
			tity contains the URI of U		
		"isfocus" feature para	ameter indicated in Conta	ct header field	
		conference URI cont	ained in the Contact head	er field.	
			SIP or tel URI of UA A. (
	NOTIFY 3:	Event header contain	ns refer; Subscription-Sta	te header contains active,	
				ag", message/sipfrag body,	
		contains SIP/2.0 100 Trying.			
	NOTIFY 4:	Event contains refer	Subscription-State head	er contains terminated,	
		Content-Type heade	r contains "message/sipfra	ag", message/sipfrag body	
		contains SIP/2.0 200	OK.		
Comments:		_			
SIP UA A		Focus	SIP UA B	SIP UA C	
l		Conference	reation		
INVITE		VITE			
200 OK (INVITE)		00 OK (INVITE)			
ACK	→ A(CK			
		Inviting UA B to th			
REFER 1	→	→	REFER 1		
202 Accepted	←	←	202 Accepted		
		INVITE 2 🗲	INVITE 2		
NOTIFY 1	←	(NOTIFY 1		
200 OK (NOTIFY 1)	→	→	200 OK (NOTIFY 1)		
	,	200 OK (INVITE 2) 🗕	200 OK (INVITE 2)		
		ACK ←	ACK		
NOTIEN	←	←	NOTIFY 2		
NOTIFY 2		_	200 OK (NOTIFY 2)		
	→	→	200 OK (NOTH 1 2)		
NOTIFY 2 200 OK (NOTIFY 2)		=			
		Inviting UA C to th		→ REFER 2	
200 OK (NOTIFY 2) REFER 2	→	=			
200 OK (NOTIFY 2)	→	Inviting UA C to th		← 202 Accepted	
200 OK (NOTIFY 2) REFER 2 202 Accepted	→	=		← 202 Accepted← INVITE 3	
200 OK (NOTIFY 2) REFER 2 202 Accepted NOTIFY 3	→ →	Inviting UA C to th		← 202 Accepted← INVITE 3← NOTIFY 3	
200 OK (NOTIFY 2) REFER 2 202 Accepted	→ + + + +	Inviting UA C to th		 ← 202 Accepted ← INVITE 3 ← NOTIFY 3 → 200 OK (NOTIFY 3) 	
200 OK (NOTIFY 2) REFER 2 202 Accepted NOTIFY 3	→ + + + +	Inviting UA C to th INVITE 3 ← 200 OK (INVITE 3) →		 ← 202 Accepted ← INVITE 3 ← NOTIFY 3 → 200 OK (NOTIFY 3) → 200 OK (INVITE 3) 	
200 OK (NOTIFY 2) REFER 2 202 Accepted NOTIFY 3	→ + + + +	Inviting UA C to th		 ← 202 Accepted ← INVITE 3 ← NOTIFY 3 → 200 OK (NOTIFY 3) → 200 OK (INVITE 3) 	

SSSXXSSCONF_	CONF reference to:	
INV_005	TS 124 147 [19], clauses 5.2.1, 5.3.1.4, 5.3.1.5	
TSS reference:	SIP-SIP/Supplementary_Services/CONF_INV.	
Configuration:	CONF	
Selection criteria:	Unsuccessful. User joining a conference by using a not valid <i>conference URI</i> .	
Test purpose:	Ensure that, when User A sends a REFER request to the User B with request URI set to the SIP URI of the User B and Refer-To header set to the conference URI previously stored (the parameter "method" set to INVITE in the Refer-To header can be included or omitted): • User B receives a REFER request containing the Refer-To header set to the conference URI. • User B sends a 202 Accepted SIP response to the REFER request. • User A receives a 202 Accepted SIP response to the REFER request. • Remote user sends an INVITE request with request URI set to a not valid conference URI to the conference focus. • User B sends a NOTIFY request to the User A (on the same dialog of the REFER previously received) with the Event header set to "refer" and the Content-Type he set to "message/sipfrag". The message/sipfrag body contains SIP/2.0 100 Trying. • User A receives a NOTIFY (on the same dialog of the REFER previously sent) with the Event header set to "refer" and the Content-Type header set to "message/sipfrag body contains SIP/2.0 100 Trying. • User A sends a 200 OK SIP response to the NOTIFY request. • User B receives a 200 OK SIP response to the NOTIFY request. • User B receives a 488 Not Acceptable Here SIP response to the INVITE request the conference focus. • Remote user sends a NOTIFY request to the User A (on the same dialog of the REFER previously received) with the Event header set to "refer" and the Content Type header set to "message/sipfrag". The message/sipfrag body contains SIP/2 503 Service Unavailable. • User A receives a NOTIFY (on the same dialog of the REFER previously sent) with the Event header set to "refer" and the Content Type header set to "message/sipfrag". The message/sipfrag body contains SIP/2 503 Service Unavailable.	Reader J. ith from from
	The message/sipfrag body contains 503 Service Unavailable .	
Precondition:	User A sends a 200 OK SIP response to the NOTIFY request.	
SIP Parameter values:	 User A has created a conference by using a conference factory URI. Dial string parameters options=PIXIT TYPE_SDP= PIXIT; SIP header values: REFER 1: Request URI contains the SIP URI of UA B	ent-
SIP UA		
INVITE 200 OK (INVITE) ACK	Conference creation → INVITE ← 200 OK (INVITE) → ACK Inviting UA B to the conference	
REFER 1	→ REFER 1	
202 Accepted	← 202 Accepted	
NOTIFY 1 200 OK (NOTIFY 1)	INVITE 2 ← INVITE 2 ← NOTIFY 1 → 200 OK (NOTIFY 1) 488 Not Acceptable Here ACK ← ACK	
NOTIFY 2 200 OK (NOTIFY 2)	 ← NOTIFY 2 → 200 OK (NOTIFY 2) 	

6.2.7.3 Leaving a conference

SSS_XXSSCONF	CONF reference to:			
_LEAV_001	TS 124 147 [19], clauses 5.2.1, 5.3.1.6			
TSS reference:	SIP-SIP-SIP/Supplementary_Services/CONF_LEAV.			
Configuration:	CONF			
Selection criteria:	A participant leaves the conference. The conferer			
Test purpose:	Ensure that, when User B sends a BYE request (i	in orc	der to leave the conference) to the	
	conference focus with request URI set to the conf			
	User B sends a 200 OK SIP response to			
	User B receives a NOTIFY request (on t			
	previously sent) with the Event header s header set to "terminated".	et to	conference and Subscription-State	
		tho	NOTIEV request	
Precondition:	 User B sends a 200 OK SIP response to User A has created a conference by using 			
riecondition.	 User A has created a conference by using User A has invited User B to the conference 	•	conference factory ORI.	
	 User B has joined the conference. 	iice.		
	 User B has subscribed to the conference. 	2 01/0	nt nackage	
SIP Parameter	Dial string parameters options=PIXIT	e eve	in package.	
values:	TYPE_SDP= PIXIT;			
	SIP header values:			
	NOTIFY 4: Event header contains conference; S			
	terminated, Content-Type header co	ntain	s "application/conference-info+xml".	
Comments:	_			
SIP UA			SIP UA B	
INVITE	Conference creation → INVITE			
200 OK (INVITE)	€ 200 OK (INVITE)			
ACK	→ ACK			
	Inviting UA B to the conference	се		
REFER 1	→	→	REFER 1	
202 Accepted	←	←	202 Accepted	
NOTIFY 4	INVITE 2	(INVITE 2	
NOTIFY 1 200 OK (NOTIFY 1)	← →	←	NOTIFY 1 200 OK (NOTIFY 1)	
200 OK (NOTIFITI)	200 OK (INVITE 2)	→	200 OK (NOTIFET) 200 OK (INVITE 2)	
	ACK	É	ACK	
NOTIFY 2	←	←	NOTIFY 2	
200 OK (NOTIFY 2)	→	→	200 OK (NOTIFY 2)	
	SUBSCRIBE	←		
	200 OK (SUBSCRIBE)	→	200 OK (SUBSCRIBE)	
	NOTIFY 3 200 OK (NOTIFY 3)	→	NOTIFY 3 200 OK (NOTIFY 3)	
	Conference communication		ZUU UN (INUTIFT 3)	
	UA B leaves the conference	,		
	BYE	←	BYE	
	200 OK (BYE)	→	200 OK (BYE)	
	NOTIFY 4	→	NOTIFY 4	
i e	200 OK (NOTIFY 4)	←	200 OK (NOTIFY 4)	

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SSS_XXSSCONF	CONF reference to:		
_LEAV_002	TS 124 147 [19], clauses 5.2.1, 5.3.1.6		
TSS reference:	S SIP-SIP-SIP/Supplementary_Services/CONF	_LEAV	
Configuration:	CONF		
Selection criteria:	A participant leaves the conference. The conference	ence e	vent package is not subscribed.
Test purpose:	Ensure that, when User B sends a BYE request conference focus with request URI set to the co.		
	User B sends a 200 OK SIP response		
Precondition:	User A has created a conference by user		
	User A has invited User B to the confe	_	
	User B has joined the conference.		
SIP Parameter	Dial string parameters options=PIXIT		
values:	TYPE_SDP= PIXIT;		
Comments:			
SIP UA			SIP UA B
	Conference creation		
INVITE	→ INVITE		
200 OK (INVITE)	← 200 OK (INVITE)		
ACK	→ ACK		
	SIP UA B joining the confere	_	
REFER 1	→	→	REFER 1
202 Accepted	←	-	202 Accepted
	INVITE 2		INVITE 2
NOTIFY 1	←	←	NOTIFY 1
200 OK (NOTIFY 1)	→	→	200 OK (NOTIFY 1)
	200 OK (INVITE 2)		
	ACK		ACK
NOTIFY 2	←	←	NOTIFY 2
200 OK (NOTIFY 2)	→	→	200 OK (NOTIFY 2)
	Conference communication	n	
	Participant leaves the conference		
	BYE	_	BYE
	200 OK (BYE)	→	200 OK (BYE)

6.2.7.4 Removing a conference participant from a conference

SSS_XXSSCONF_	CONF reference to:			
REMOV_001	TS 124 147 [19], clauses 5.2.1, 5.3.1.6			
TSS reference:	SIP-SIP/Supplementary_Services/CONF_REMOV.			
Configuration:	CONF			
Selection criteria:	A participant removes another conference participant from the conference. The			
	conference event package is subscribed.			
Test purpose:	 Ensure that, when User A sends a REFER request to the conference focus with request URI set to the conference URI (previously stored) and Refer-To header set to the SIP URI of User B (the parameter "method" must be set to BYE): User A receives a 202 Accepted SIP response to the REFER request. User A receives a NOTIFY (on the same dialog of the REFER previously sent) with the Event header set to "refer" and the Content-Type header set to "message/sipfrag". The message/sipfrag body contains SIP/2.0 100 Trying. User A sends a 200 OK SIP response to the NOTIFY request. User B receives a BYE request from the conference focus to be removed from the conference. User B sends a 200 OK SIP response to the BYE request. User A receives a NOTIFY (on the same dialog of the REFER previously sent) with the Event header set to "refer" and the Content-Type header set to "message/sipfrag". The message/sipfrag body contains SIP/2.0 200 OK. User A sends a 200 OK SIP response to the NOTIFY request. User A receives a NOTIFY request (on the same dialog of the SUBSCRIBE previously sent) with the Event header set to "conference". User A sends a 200 OK SIP response to the NOTIFY request. 			
Precondition:	User A has created a conference by using a conference factory URI.			
	 User A has subscribed to the conference event package. 			
	User A has invited User B to the conference.			
	User B has joined the conference.			
SIP Parameter values:	Dial string parameters options=PIXIT TYPE_SDP= PIXIT; SIP header values: REFER 2: Request URI contains conference URI (previously stored). Refer-To header contains the URI of UA B; method=BYE. Referred-By header contains SIP URI of UA A. (This is not mandatory)			
	NOTIFY 4: Event header contains refer ; Subscription-State header contains active , Content-Type header contains "message/sipfrag", message/sipfrag body contains SIP/2.0 100 Trying . NOTIFY 5: Event header contains refer ; Subscription-State header contains terminated , Content-Type header contains "message/sipfrag", message/sipfrag body contains SIP/2.0 200 OK . NOTIFY 6: Event header contains conference ; Subscription-State header contains			
	active, Content-Type header contains "application/conference-info+xml".			

Focus		SIP UA B
		5
7.O.C		
NOTIFY		
	ce	
Jonning and John Olon	→	REFER 1
	_	202 Accepted
INVITE 2		INVITE 2
	-	NOTIFY 1
	_	200 OK (NOTIFY 1)
200 OK (INVITE 2)		200 OK (INVITE 2)
		ACK
	←	NOTIFY 2
	→	200 OK (NOTIFY 2)
NOTIFY 3		,
200 OK (NOTIFY 3)		
	n	
removes UA B from the co	nferen	ce
REFER 2		
202 Accepted		
NOTIFY 4		
200 OK (NOTIFY 4)		
` ´ BYE	→	BYE
200 OK (BYE)	←	200 OK (BYE)
NOTIFY 5		, ,
200 OK (NOTIFY 5)		
NOTIFY 6		
200 OK (NOTIFY 6)		
	INVITE 2 200 OK (INVITE 2) ACK NOTIFY 3 200 OK (NOTIFY 3) Conference communication removes UA B from the conference to the conference t	Conference creation INVITE 200 OK (INVITE) ACK NOTIFY 200 OK (NOTIFY) UA B joining the conference INVITE 2 INVITE 2 ACK 200 OK (INVITE 2) ACK NOTIFY 3 200 OK (NOTIFY 3) Conference communication removes UA B from the conference REFER 2 202 Accepted NOTIFY 4 200 OK (NOTIFY 4) BYE 200 OK (BYE) NOTIFY 5 200 OK (NOTIFY 5) NOTIFY 6

SSS_XXSSCONF_	CONF reference to:				
REMOV 002	TS 124 147 [19], clauses 5.2.1, 5.3.1.6				
TSS reference:	SIP-SIP/Supplementary_Services/CONF_REMOV.				
Configuration:	CONF				
Selection criteria:	A participant removes another conference participant from the conference. The				
	conference event package is not subscribed.				
Test purpose:	Ensure that, when User A sends a REFER request to the conference focus with				
	request URI set to the conference URI (previously stored) and Refer-To header set to				
	the SIP URI of User B (the parameter "method" must be set to BYE):				
	User A receives a 202 Accepted SIP response to the REFER request.				
	User A receives a NOTIFY (on the same dialog of the REFER previously with the French hands and the Contest Time hands at the contest to the contes				
	sent) with the Event header set to "refer" and the Content-Type header set to "message/sipfrag". The message/sipfrag body contains SIP/2.0 100 Trying.				
	 User A sends a 200 OK SIP response to the NOTIFY request. 				
	 User B receives a BYE request from the conference focus to be removed 				
	from the conference.				
	User B sends a 200 OK SIP response to the BYE request.				
	User A receives a NOTIFY (on the same dialog of the REFER previously)				
	sent) with the Event header set to "refer" and the Content-Type header set to				
	"message/sipfrag". The message/sipfrag body contains SIP/2.0 200 OK.				
	User A sends a 200 OK SIP response to the NOTIFY request.				
Precondition:	User A has created a conference by using a conference factory URI.				
	User A has invited User B to the conference.				
	User B has joined the conference.				
SIP Parameter values:					
	TYPE_SDP= PIXIT;				
	SIP header values:				
	REFER 2: Request URI contains conference URI (previously stored). Refer-To header contains the URI of UA B; method=BYE.				
	Referred-By header contains SIP URI of UA A. (This is not mandatory)				
	NOTIFY 3: Event header contains refer ; Subscription-State header contains active ,				
	Content-Type header contains "message/sipfrag", message/sipfrag body				
	contains SIP/2.0 100 Trying.				
	NOTIFY 4: Event header contains refer ; Subscription-State header contains				
	terminated, Content-Type header contains "message/sipfrag",				
Camananta	message/sipfrag body contains SIP/2.0 200 OK.				
Comments: SIP UA A	Focus SIP UA B				
SIF UA A	Conference creation				
INVITE	→ INVITE				
200 OK (INVITE)	← 200 OK (INVITE)				
ACK	→ ACK				
	UA B joining the conference				
REFER 1	→ REFER 1				
202 Accepted	← 202 Accepted				
NOTIFY 1	INVITE 2 ← INVITE 2 ← NOTIFY 1				
200 OK (NOTIFY 1)	→ 200 OK (NOTIFY 1)				
200 01 (10111 1 1)	200 OK (INVITE 2) → 200 OK (INVITE 2)				
	ACK ← ACK				
NOTIFY 2	← NOTIFY 2				
200 OK (NOTIFY 2)	→ 200 OK (NOTIFY 2)				
	Conference communication				
	IIA A removes IIA P from the conference				
REFER 2	UA A removes UA B from the conference → REFER 2				
202 Accepted	← 202 Accepted				
NOTIFY 3	NOTIFY 3				
200 OK (NOTIFY 3)	→ 200 OK (NOTIFY 3)				
-/	→ BYE				
	← 200 OK (BYE)				
NOTIFY 4	← NOTIFY 4				
200 OK (NOTIFY 4)	→ 200 OK (NOTIFY 4)				

SSS XXSSCONF		ONF reference to:	ı		
REMOV_003		[19], clauses 5.2.1, 5.3.1.6			
TSS reference:		pplementary_Services/CONF_R	 =M∩	V	
Configuration:	CONF	pplementary_Services/CONT_IN	LIVIO	v .	
Selection criteria:		owner releases the entire confer	once	by sending a BYE to the focus. The	
Selection criteria.		owner releases the entire comer it package is subscribed.	CIICE	by sending a BTE to the locus. The	
Test purpose:			to the	e conference focus with request URI set	
rest purpose.		e URI (previously stored):	.0	s conference locas with request orth set	
		receives a 200 OK SIP response	e to t	he BYE request	
				Iference focus to be removed from the	
	confere			more need to be removed from the	
	 User B 	sends a 200 OK SIP response to	o the	BYE request.	
		receives a NOTIFY request (on			
	previou	isly sent) with the Event header s	set to	conference".	
	 User A 	sends a 200 OK SIP response to	o the	NOTIFY request.	
Precondition:	 User A 	has created a conference by usi	ing a	conference factory URI.	
		has subscribed to the conference			
	 User A 	has invited User B to the confere	ence		
	 User B 	has joined the conference.			
SIP Parameter		neters options=PIXIT			
values:	TYPE_SDP= PIX	XIT;			
	SIP header valu				
		quest URI contains the conference			
				scription-State header contains active,	
	Con	tent-Type header contains "appl	icatio	on/conference-info+xml".	
Comments: SIP UA A		Focus		SIP UA B	
SIP UA A		Conference creation		SIP UA B	
INVITE	→	INVITE			
200 OK (INVITE)	É	200 OK (INVITE)			
ACK	→	ACK			
SUBSCRIBE	→	SUBSCRIBE			
200 OK (SUBSCRIBE)	(200 OK (SUBSCRIBE)			
NOTIFY	(NOTIFY			
200 OK (NOTIFY)	→	200 OK (NOTIFY)			
DEEED 4	_	UA B joining the conference		DEEED 4	
REFER 1	→		→	REFER 1	
202 Accepted	←	INVITE 2	+	202 Accepted INVITE 2	
NOTIFY 1	←	INVITE 2	-	NOTIFY 1	
200 OK (NOTIFY 1)	÷		÷	200 OK (NOTIFY 1)	
	-	200 OK (INVITE 2)		200 OK (INVITE 2)	
		ACK		ACK	
NOTIFY 2	←		←		
200 OK (NOTIFY 2)	→		→	200 OK (NOTIFY 2)	
NOTIFY 3		NOTIFY 3			
200 OK (NOTIFY 3)	→	200 OK (NOTIFY 3)	_		
		Conference communication	1		
		IA A releases the entire confer	once	<u>, </u>	
BYE	_	BYE	GIIC	•	
200 OK (BYE)	←	focus removes UA B from the conference			
200 OK (BYE)			fere	nce	
200 OK (BYE)			fere →	nce BYE	
		us removes UA B from the con			
200 OK (BYE) NOTIFY 4 200 OK (NOTIFY 4)			→	BYE	

SSS_XXSSCONF_	CO	NF reference to:		
REMOV_004		[19], clauses 5.2.1, 5.3.1.6		
TSS reference:		pplementary_Services/CONF	RE	MOV.
Configuration:	CONF	•		
Selection criteria:	The conference	owner releases the entire co	nfere	nce by sending a BYE to the focus.
	The conference	event package is not subscri	ibed.	
Test purpose:		en User A sends a BYE requ rence URI (previously stored)		the conference focus with request URI
		receives a 200 OK SIP resp		to the BYE request.
	User B			conference focus to be removed from
		sends a 200 OK SIP respon	se to	the BYE request.
Precondition:		has created a conference by		
		has invited User B to the co		
	 User B 	has joined the conference.		
SIP Parameter	Dial string paran	neters options=PIXIT		
values:	TYPE_SDP= PI			
	SIP header valu			
_	BYE: Requ	est URI contains the confere	nce l	JRI (previously stored).
Comments:		Focus		CIDILAD
SIP UA A		Conference creation		SIP UA B
INVITE	→	INVITE		
200 OK (INVITE)	É	200 OK (INVITE)		
ACK	→	ACK		
		UA B joining the confere	nce	
REFER 1	→	, ,	→	REFER 1
202 Accepted	←		←	202 Accepted
		INVITE 2	←	
NOTIFY 1	(+	NOTIFY 1
200 OK (NOTIFY 1)	→		→	200 OK (NOTIFY 1)
		200 OK (INVITE 2)	→	200 OK (INVITE 2) ACK
NOTIFY 2	+	ACK	-	NOTIFY 2
200 OK (NOTIFY 2)	→		→	200 OK (NOTIFY 2)
200 OK (NOTH 12)	•	Conference communicat	-	200 OK (NOTH 1 2)
	114	A A releases the entire con	foros	
BYE	→	BYE	eren	C C
200 OK (BYE)	-	200 OK (BYE)		
200 011 (012)	_	s removes UA B from the c	onfer	rence
		• • • • • • • • • • • • • • • • • • • •	→	BYE
			←	200 OK (BYE)

SSS_XXSSCONF_	CONF reference to:				
REMOV_005	TS 124 147 [19], clauses 5.2.1, 5.3.1.6				
TSS reference:	SIP-SIP-SIP/Supplementary_Services/CONF_REMOV.				
Configuration:	CONF				
Selection criteria:	The conference owner releases the entire conference by sending a REFER to the focus. The				
	conference event package is subscribed.				
Test purpose:	Ensure that, when User A sends a REFER request to the conference focus with request URI set to the <i>conference URI</i> (previously stored) and Refer-To header set to the <i>conference URI</i> (the parameter "method" must be set to BYE):				
	User A receives a 202 Accepted SIP response to the REFER request.				
	 User A receives a 202 Accepted SIF Tesponse to the KEPEK request. User A receives a BYE request from the conference focus to be removed from the conference. 				
	 User B receives a BYE request from the conference focus to be removed from the conference. 				
	User A receives a NOTIFY (on the same dialog of the REFER previously sent) with the Event header set to "refer" and the Content-Type header set to "message/sipfrag". The message/sipfrag body contains SIP/2.0 100 Trying.				
	User A sends a 200 OK SIP response to the NOTIFY request.				
	User A sends a 200 OK SIP response to the BYE request.				
	User B sends a 200 OK SIP response to the BYE request.				
	User A receives a NOTIFY (on the same dialog of the REFER previously sent) with				
	the Event header set to "refer" and the Content-Type header set to "message/sipfrag". The message/sipfrag body contains SIP/2.0 200 OK.				
	User A sends a 200 OK SIP response to the NOTIFY request. User A sends a 200 OK SIP response to the NOTIFY request.				
	 User A receives a NOTIFY request (on the same dialog of the SUBSCRIBE previously sent) with the Event header set to "conference". 				
D I''	User A sends a 200 OK SIP response to the NOTIFY request.				
Precondition:	User A has created a conference by using a conference factory URI.				
	User A has subscribed to the conference event package.				
	User A has invited User B to the conference.				
	User B has joined the conference.				
SIP Parameter	Dial string parameters options=PIXIT				
values:	TYPE_SDP= PIXIT;				
	SIP header values:				
	REFER 2: Request URI contains the conference URI (previously stored).				
	Refer-To header contains the conference URI; method=BYE.				
	Referred-By header contains SIP URI of UA A. (This is not mandatory)				
	NOTIFY 4: Event header contains refer ; Subscription-State header contains active ,				
	Content-Type header contains "message/sipfrag", message/sipfrag body contains SIP/2.0 100 Trying.				
	NOTIFY 5: Event header contains refer ; Subscription-State header contains terminated ,				
	Content-Type header contains "message/sipfrag", message/sipfrag body contains SIP/2.0 200 OK.				
	NOTIFY 6: Event header contains conference; Subscription-State header contains				
	terminated, Content-Type header contains "application/conference-info+xml".				

Comments:			
SIP UA A	Focus		SIP UA B
	Conference creation		
INVITE	→ INVITE		
200 OK (INVITE)	← 200 OK INVITE)		
ACK	→ ACK		
SUBSCRIBE	→ SUBSCRIBE		
200 OK (SUBSCRIBE)	← 200 OK (SUBSCRIBE)		
NOTIFY	← NOTIFY		
200 OK (NOTIFY)	→ 200 OK (NOTIFY)		
200 OK (NOTH 1)	UA B joining the conference		
REFER 1	→ OA B joining the contenence		REFER 1
1			
202 Accepted			202 Accepted
NOTIFY 4	INVITE 2		INVITE 2
NOTIFY 1	(NOTIFY 1
200 OK (NOTIFY 1)	→		200 OK (NOTIFY 1)
	200 OK (INVITE 2)		200 OK (INVITE 2)
	ACK		ACK
NOTIFY 2	←		NOTIFY 2
200 OK (NOTIFY 2)	→	→	200 OK (NOTIFY 2)
NOTIFY 3	← NOTIFY 3		
200 OK (NOTIFY 3)	→ 200 OK (NOTIFY 3)		
	Conference communication		
	JA A releases the entire confere	ence	
REFER 2	→ REFER 2		
202 Accepted	← 202 Accepted		
BYE	← BYE		
5.2	BYE	→	RYF
NOTIFY 4	← NOTIFY 4	-	
200 OK (NOTIFY 4)	→ 200 OK NOTIFY 4		
200 OK (NOTH 1 4)	→ 200 OK (BYE)		
200 011 (D12)	200 OK (BYE)	←	200 OK (BYE)
NOTIFY 5	← NOTIFY 5		()
200 OK (NOTIFY 5)	→ 200 OK (NOTIFY 5)		
NOTIFY 6	◆ NOTIFY 6		
200 OK (NOTIFY 6)	→ 200 OK (NOTIFY 6)		
200 01 (110 111 1 0)	200 OK (NOTH 1 0)		

SSS_XXSSCONF_	CONF reference to:				
REMOV_006	TS 124 147 [19], clauses 5.2.1, 5.3.1.6				
TSS reference:	SIP-SIP-SIP/Supplementary_Services/CONF_REMOV.				
Configuration:	CONF				
Selection criteria:	The conference owner releases the entire conference by sending a REFER to the focus. The conference event package is not subscribed.				
Test purpose:	Ensure that, when User A sends a REFER request to the conference focus with request URI set to the conference URI (previously stored) and Refer-To header set to the conference URI (the parameter "method" must be set to BYE): User A receives a 202 Accepted SIP response to the REFER request. User A receives a BYE request from the conference focus to be removed from the conference. User B receives a BYE request from the conference focus to be removed from the conference. User A receives a NOTIFY (on the same dialog of the REFER previously sent) with the Event header set to "refer" and the Content-Type header set to "message/sipfrag". The message/sipfrag body contains SIP/2.0 100 Trying. User A sends a 200 OK SIP response to the NOTIFY request. User B sends a 200 OK SIP response to the BYE request. User A receives a NOTIFY (on the same dialog of the REFER previously sent) with the Event header set to "refer" and the Content-Type header set to "message/sipfrag". The message/sipfrag body contains SIP/2.0 200 OK. User A sends a 200 OK SIP response to the NOTIFY request.				
Precondition:	User A has created a conference by using a conference factory URI.				
	User A has invited User B to the conference.				
	User B has joined the conference.				

SIP Parameter	Dial string parameters options=PIXIT				
values:	TYPE_SDP= PIXIT;				
	SIP header values: PEFER 2: Paguest LIPI contains the conference LIPI (previously stored)				
	REFER 2: Request URI contains the conference URI (previously stored). Refer-To header contains the conference URI; method=BYE.				
		Referred-By header contains SIP URI of UA A. (This is not mandatory)			
	NOTIFY 3:				State header contains active, Content-
		Type header contains "message/sipfrag", message/sipfrag body contains SIP/2.0			
	NOTIFY 4	100 Tryin		-4: (Ctata haaday aantaina tamminatad
	NOTIFY 4:				State header contains terminated , ipfrag", message/sipfrag body contains
		SIP/2.0 2		aye/Si	ipirag , message/sipirag body contains
Comments:	_		_		
SIP UA	. A		Focus Conference creation		SIP UA B
INVITE		→	INVITE		
200 OK (INVITE)		É	200 OK (INVITE)		
ACK `		→	ACK		
			A B joining the conference		
REFER 1		→		→	REFER 1
202 Accepted		←	INVITE 2	+	202 Accepted INVITE 2
NOTIFY 1		(IIIVII L	÷	NOTIFY 1
200 OK (NOTIFY 1)		→		→	200 OK (NOTIFY 1)
			200 OK (INVITE 2)	→	200 OK (INVITE 2)
NOTIFY			ACK	+	ACK
NOTIFY 2 200 OK (NOTIFY 2)		← →		←	NOTIFY 2 200 OK (NOTIFY 2)
200 OK (NOTH 1 2)		-	Conference communication	_	200 OK (NOTH 1 2)
REFER 2		UA A →	releases the entire conference REFER 2	ence	
202 Accepted		-	202 Accepted		
BYE		÷	BYE		
			BYE	→	BYE
NOTIFY 3		(NOTIFY 3		
200 OK (NOTIFY 3)		→ →	200 OK (NOTIFY 3)		
200 OK (BYE)		7	200 OK (BYE) 200 OK (BYE)	←	200 OK (BYE)
NOTIFY 4			NOTIFY 4	•	200 011 (D12)

6.2.8 Test purposes for Call Waiting

NOTIFY 4 200 OK (NOTIFY 4)

SSXXSSCW01	CW reference to:				
	TS 124 615 [21], clause 4.5.5.2				
TSS reference:	SIP-SIP-SIP/Supplementary_Service	es/CW.			
Configuration:	The user B has subscribed to CW				
Selection criteria:	CW and approaching NDUB condition	on supported,			
	NDUB status can be achieved for us	ser B.			
Test purpose:	Ensure that the SUT, when user A sends an INVITE towards user B which is in the approaching NDUB condition, delivers the INVITE to user B				
	containing a Content-Type header s				
	and containing a MIME body includi	ng a "call-waiting-indication" element.			
SIP Parameter values:	INVITE1 Dial string parameters options=PIXIT TYPE_SDP= PIXIT				
	INVITE2 Content-Type header application/vnd.3gpp.cw+xml MIME body with "call-waiting-indication" element				
Comments:	·				
SIP UA A	SIP UA A SUT SIP UA B				
UA I	UA B enters NDUB condition (e.g. by establishing a communication)				
INVITE1	→	→ INVITE2			

NOTIFY 4

200 OK (NOTIFY 4)

SSXXSSCW02	CW reference to:				
	TS 124 615 [21], clause 4.5.5.2				
TSS reference:	SIP-SIP-SIP/Supplementary_Service	ices/CW.			
Configuration:	The user B has subscribed to CW				
Selection criteria:	CW and approaching NDUB condition	tion supported,			
	NDUB status can be achieved for us	user B.			
Test purpose:		ered an INVITE indicating Call Waiting to user B which			
	is in the approaching NDUB condition	tion, on receipt of a 415 Unsupported Media Type from			
	user B,				
	sends a 486 Busy Here to user A.				
SIP Parameter values:	INVITE1				
	Dial string parameters options=PIXIT				
	TYPE_SDP= PIXIT				
	INDUITEO				
	INVITE2				
	Content-Type header application/vnd.3gpp.cw+xml				
Commente	MIME body with "call-waiting-indication" element				
Comments: SIP UA A	SUT	SIP UA B			
		• • • • • •			
INVITE1	B enters NDUB condition (e.g. by establishing a communication) → INVITE2				
11441121	€ 415 Unsupported Media Type				
486 Busy Here	← → ACK				
ACK	→				

SSXXSSCW03	CW reference to:		
	TS 124 615 [21], clause 4.5.5.2		
TSS reference:	SIP-SIP-SIP/Supplementary_Service	es/CW.	
Configuration:	The user B has subscribed to CW		
Selection criteria:	CW supported, Notification of calling user of CW sta	tus is supported.	
Test purpose:	Ensure that the SUT, having delivered an INVITE from user A to user B, on receipt of a 180 Ringing containing an Alert-Info header set to "urn:alert:service:call-waiting", delivers this 180 Ringing to user A and provides an announcement about the CW condition.		
SIP Parameter values:	Dial string parameters options=PIXIT TYPE_SDP= PIXIT 180 Ringing Alert-Info header set to "urn:alert:service:call-waiting"		
Comments:			
SIP UA A	SUT	SIP UA B	
INVITE	→	→ INVITE	
180 Ringing	← 180 Ringing		
Announcement to UE A			

SS XXSSCW04	CW reference to:				
	TS 124 615 [21], clause 4.5.5.3				
TSS reference:	SIP-SIP/Supplementary_Services/CW.				
Configuration:	The user B has subscribed to CW				
Selection criteria:	CW and approaching NDUB condition supported,				
	NDUB status can be achieved for us	ser B.			
Test purpose:		red an INVITE from user B, which is in the			
		er A containing a Content-Type header set to			
		user A leaves the NDUB condition and accepts the			
	waiting call,				
	handles the call with normal establis				
		on the media channels is performed correctly (e.g.			
	testing QoS parameters).				
SIP Parameter values:	INVITE1	I T			
	Dial string parameters options=PIXIT	II .			
	TYPE_SDP= PIXIT				
	INVITE2				
	Content-Type header application/vnd.3gpp.cw+xml				
	MIME body with "call-waiting-indication" element				
Comments:					
SIP UA A	SUT	SIP UA B			
UA B enter	UA B enters approaching NDUB condition (e.g. by establishing a communication)				
INVITE1	→ INVITE2				
	UA B leaves approaching NDUB condition (e.g. by releasing a communication)				
180 Ringing	← 180 Ringing				
200 OK INVITE	← 200 OK INVITE				
ACK	→ ACK				
DVE	Check media				
BYE	→ BYE				
200 OK BYE	← 200 OK BYE				

SS XXSSCW05	CW reference to:			
	TS 124 615 [21], clause 4.5.5.3			
TSS reference:	SIP-SIP/Supplementary_Services/CW.			
Configuration:	The user B has subscribed to CW			
Selection criteria:	CW supported,			
	Notification of calling user of CW st	atus is	supported.	
Test purpose:	Ensure that the SUT, having delive			
	to "urn:alert:service:call-waiting" fro	m user	B to user A, when	user B accepts the call by
	sending a 200OK,		4 mm = = = = = = = = = = = = = = = = = =	
	handles the call with normal establi Ensure that the voice/data transfer			porformed correctly (e.g.
	testing QoS parameters).	on the	media chamileis is	performed correctly (e.g.
SIP Parameter values:	Dial string parameters options=PIX	IT		
	TYPE_SDP= PIXIT			
	180 Ringing			
	Alert-Info header set to "urn:alert:service:call-waiting"			
Comments:				
SIP UA A	SUT		IN IV //TE	SIP UA B
INVITE	→ ←	→	INVITE	}
180 Ringing	← ← 180 Ringing Announcement to UE A			
200 OK INVITE	←	←	200 OK INVITE	
ACK	→ → ACK			
, tort	Check media			
BYE	→ BYE			
200 OK BYE	← 200 OK BYE			

6.2.9 Test purposes for Completion of Communications to Busy Subscriber

NOTE: The descriptions of invocation and operation of the CCBS service by the communication originating user are not yet fully described in TS 124 642 [22]. Therefore no test purposes have been defined for the current version of this document.

6.2.10 Test purposes for Completion of Communications by No Reply

NOTE: The descriptions of invocation and operation of the CCNR service by the communication originating user are not yet fully described in TS 124 642 [22]. Therefore no test purposes have been defined for the current version of this document.

6.2.11 Test purposes for Explicit Communication Transfer

NOTE: In this clause the following conventions apply:

• user A: transferee, user B: transferor (served user), user C: transfer target.

ECT reference to:		
TS 124 529 [23], clause 4.5.2		
SIP-SIP-SIP/Supplementary_Services/ECTD.		
The user B has subscribed to ECT		
ECT supported.		
 Blind/Assured transfer, served user B is callee in original communication Ensure that the SUT, when user B has established an original communication with user A and user B requests transfer of the communication towards user C by sending a REFER request to user A: delivers the REFER request to user A containing the ECT Session Identifier URI and when user A responds with a 202 Accepted delivers the 202 Accepted and a NOTIFY indicating 100 Trying to user B and when user A has held the original communication and sends a new INVITE to the ECT Session Identifier URI delivers the INVITE to user C and continues normal call establishment between user A and user C and when user B receives a NOTIFY indicating 200 OK and user B sends a BYE to release the original communication. delivers the BYE to user A and continues normal call release between user A and user B. Ensure that the voice/data transfer on the media channels of the transferred call (A-C) is performed correctly (e.g. testing QoS parameters). 		
REFER1 Request URI: contact URI of user A from original call Refer-To: public address of user C Referred-By: user B REFER2 Request URI: user A Refer-To: ECT Session Identifier Referred-By: user B NOTIFY1 body: 100 Trying INVITE1 Request URI: ECT Session Identifier INVITE2 Referred-By: user B		

Comments:			
SIP UA A	SUT	SIP UA B	SIP UA C
Origin	nal communication is esta	ablished from user A to user	В
REFER2	+ +	REFER1	
202 Accepted	→ →	202 Accepted	
·	→	NOTIFY1	
	(200 OK NOTIFY	
		rder of events, holding of the o	riginal communication A-B
could also take plac	e before answering to the I	REFER request.	
Re-INVITE (sendonly)	→ →	Re-INVITE (sendonly)	
200 OK INVITE (recvonly)	+ +	200 011	
		INVITE(recvonly)	
ACK	→ →	ACK	
	_		
INVITE1	→		→ INVITE2
180 Ringing	(← 180 Ringing
200 OK INVITE	(← 200 OK INVITE
ACK	→		→ ACK
	_		
	→		
	(200 OK NOTIFY	
BYE	+ +	BYE	
200 OK BYE	→ →	_ · _	
ZUU UK BTE	Check me		
BYE	→ Check inc	` '	→ BYE
	7 ←		
200 OK BYE	T		← 200 OK BYE

SSS_XXSSECT02	ECT reference to: TS 124 529 [23], clause 4.5.2
TSS reference:	SIP-SIP/Supplementary Services/ECTD.
Configuration:	The user B has subscribed to ECT
Selection criteria:	ECT supported.
Test purpose:	Blind/Assured transfer, served user B is caller in original communication Ensure that the SUT, when user B has established an original communication with user A and user B requests transfer of the communication towards user C by sending a REFER request to user A, • delivers the REFER request to user A containing the ECT Session Identifier URI and when user A responds with a 202 Accepted • delivers the 202 Accepted and a NOTIFY indicating 100 Trying to user B and when user A has held the original communication and sends a new INVITE to the ECT Session Identifier URI • delivers the INVITE to user C and continues normal call establishment between user A and user C and when user B receives a NOTIFY indicating 200 OK and user B sends a BYE to release the original communication • delivers the BYE to user A and continues normal call release between user A and user B. Ensure that the voice/data transfer on the media channels of the transferred call (A-C) is performed correctly (e.g. testing QoS parameters).

	-					
SIP Parameter values:						
Request URI: contact URI of user A from original call						
	Refer-To: public address of user C					
	Referred-By: user B					
	REFER2					
	Request URI: user A					
	Refer-To: ECT Session Identifier					
	Referred-By: user B					
	NOTIFY1					
	body: 100 Trying					
	INIVITE1					
	INVITE1 Request URI: ECT Session Identifier					
	rtoquoot orti. Eo i	Cooolon Idoniii	101			
	INVITE2					
	Referred-By: user	3				
	NOTIFY2					
Commontos	body: 20OK					
Comments: SIP UA A		SUT	SIP UA B	SIP UA C		
Oil OA A			lished from user B to			
REFER2	←	+	REFER1			
202 Accepted	→	→	202 Accepted			
·		→	NOTIFY1			
		←	200 OK NOTIFY			
NOTE: TO 404 FOO I	'001 alausa 4505 a	laaa mat amaaifu	the endened events by			
NOTE: TS 124 529 [23], clause 4.5.2.5 (loes not specify	the order of events, he answering to the REF	EP request		
Re-INVITE (sendonly)			Re-INVITE (sendonly	EN request.		
200 OK INVITE (recvon		-		,		
			INVITE(recvonly)			
ACK	→	→	ACK `			
l	_					
INVITE1)			→ INVITE2		
180 Ringing	(← 180 Ringing		
200 OK INVITE ACK	← →			← 200 OK INVITE→ ACK		
AUN	7			7 AUN		
		→	NOTIFY2			
		←	200 OK NOTIFY			
BYE	((BYE			
200 OK BYE	→	→	200 OK BYE			
BYE	→	Check med	ia (A-C)	→ BYE		
200 OK BYE	7			€ 200 OK BYE		

SSS_XXSSECT03	ECT reference to:				
	TS 124 529 [23], clause 4.5.2				
TSS reference:	SIP-SIP/Supplementary_Services/ECTD.				
Configuration:	The user B has subscribed to ECT				
Selection criteria:	ECT supported.				
Test purpose:	Consultative transfer, served user B is callee in original communication Ensure that the SUT, when user A has established an original communication with user B, user B has established a consultation communication with user C and user B requests transfer of the original communication towards user C by sending a REFER request to user A: • delivers the REFER request to user A containing the ECT Session Identifier URI				
	 and the call replacement data and when user A responds with a 202 Accepted delivers the 202 Accepted and a NOTIFY indicating 100 Trying to user A and when user A has held the original communication and sends a new INVITE to the ECT Session Identifier URI delivers the INVITE to user C and continues normal call establishment between user A and user C and when user C sends a BYE to release the consultation communication (B-C) delivers the BYE to user B and continues normal call release between user C and user B and when user B receives a NOTIFY indicating 200 OK and user B sends a BYE to release the original communication (A-B) 				
SIP Parameter values:	delivers the BYE to user A and continues normal call release between user A and user B. Ensure that the voice/data transfer on the media channels of the transferred call (A-C) is performed correctly (e.g. testing QoS parameters). REFER1				
SIF Parameter values.	Request URI: contact URI of user A from original call Refer-To: public address of user C, using Replaces: from-tag and to-tag of communication B-C Referred-By: user B REFER2 Request URI: user A Refer-To: ECT Session Identifier Referred-By: user B				
	NOTIFY1 body: 100 Trying INVITE1 Request URI: ECT Session Identifier INVITE2 Referred-By: user B				
	NOTIFY2 body: 200K				

Comments:						
SIP UA A		SUT		SIP UA B		SIP UA C
				lished from user A to use		
		ommunication i		ablished from user B to u	user	C
REFER2	(←	REFER1		
202 Accepted	→		→	202 Accepted		
			→			
			←	200 OK NOTIFY		
NOTE: TS 124 529 [23], cla	100 / 6	5 2 5 does not er	acify	the order of events, holdin	a of t	he original
				answering to the REFER i		
Re-INVITE (sendonly)	→ •	aloo tako piade b	→ ->	Re-INVITE (sendonly)	очис	
200 OK INVITE (recvonly)	-		←	200 OK		
(11 1),				INVITE(recvonly)		
ACK	→		→	ACK `		
INVITE1	→				→	INVITE2
180 Ringing	←				←	180 Ringing
200 OK INVITE	(←	200 0111111112
ACK	→				→	ACK
		BYE	←		4	BYE
		200 OK BYE			÷	200 OK BYE
			→	NOTIFY2		
			←	200 OK NOTIFY		
BYE	←		←	BYE		
200 OK BYE	→		→	200 OK BYE		
		Check	med	ia (A-C)		
BYE	→				→	BYE
200 OK BYE	+				+	200 OK BYE

SSS XXSSECT04	ECT reference to:			
	TS 124 529 [23], clause 4.5.2			
TSS reference:	SIP-SIP/Supplementary_Services/ECTD.			
Configuration:	The user B has subscribed to ECT			
Selection criteria:	ECT supported.			
Test purpose:	Consultative transfer, served user B is caller in original communication Ensure that the SUT, when user B has established an original communication with user A, user B has established a consultation communication with user C and user B requests transfer of the original communication towards user C by sending a REFER request to user A: • delivers the REFER request to user A containing the ECT Session Identifier URI and the call replacement data and when user A responds with a 202 Accepted • delivers the 202 Accepted and a NOTIFY indicating 100 Trying to user A and when user A has held the original communication and sends a new INVITE to the ECT Session Identifier URI • delivers the INVITE to user C and continues normal call establishment between user A and user C and when user C sends a BYE to release the consultation communication (B-C) • delivers the BYE to user B and continues normal call release between user C and user B and when user B receives a NOTIFY indicating 200 and user B sends a BYE to release the original communication (B-A) • delivers the BYE to user A and continues normal call release between user A and user B. Ensure that the voice/data transfer on the media channels of the transferred call (A-C) is performed correctly (e.g. testing QoS parameters).			

SIP Parameter values:	REFER1 Request URI: contact URI of user A from original call Refer-To: public address of user C, using Replaces: from-tag and to-tag of communication B-CReferred-By: user B REFER2 Request URI: user A Refer-To: ECT Session Identifier Referred-By: user B NOTIFY1 body: 100 Trying INVITE1 Request URI: ECT Session Identifier INVITE2 Referred-By: user B NOTIFY2					
Comments:	body: 20OK					
SIP UA A	Ontological	SUT		SIP UA B	4	SIP UA C
C	Original con Consultation c	munication is ommunication	estai	olished from user B to us tablished from user B to	er A user	С
REFER2	(←	REFER1		
202 Accepted	→		→ → ←	202 Accepted NOTIFY1 200 OK NOTIFY		
NOTE: TS 124 529 I	[22] 4 5 2 5 do	os not specify th	o ord	ler of events, holding of the	origi	nal communication A B
		e answering to t			ongi	nai communication A-D
Re-INVITE (sendonly)	→	g	→	Re-INVITE (sendonly)		
200 OK INVITE (recvon	nly) ←		←	200 OK		
ACK	→		→	INVITE(recvonly)		
AUN	7		7	ACK		
INVITE1	→				→	INVITE2
180 Ringing	←					180 Ringing
200 OK INVITE	(200 OK INVITE
ACK	→				7	ACK
		BYE	←		←	BYE
		200 OK BYE	→			200 OK BYE
				NOTIFYO		
			→	NOTIFY2 200 OK NOTIFY		
BYE	←		←	BYE		
200 OK BYE	→		→	200 OK BYE		
DVE	•	Check	mec	lia (A-C)	. •	DVE
BYE 200 OK BYE	→					BYE 200 OK BYE
ZOO ON DIE					_	200 ON DIE

Annex A (informative): Bibliography

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- IETF RFC 3891: "The Session Initiation Protocol (SIP) Replaces Header".
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