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Core Network and Interoperability Testing (INT); Completion of Communications to Busy Subscriber (CCBS) and Completion of Communications by No Reply (CCNR) using IP Multimedia (IM) Core Network (CN) subsystem; Conformance Test Specification (3GPP[™] Release 12); Part 2: Test Suite Structure and Test Purposes (TSS&TP) Reference RTS/INT-00149-2

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ETSI

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

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

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

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Foreword

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

The present document is part 2 of a multi-part deliverable covering Completion of Communications to Busy Subscriber (CCBS) and Completion of Communications by No Reply (CCNR) using IP Multimedia (IM) Core Network (CN) subsystem; Conformance Test Specification, as identified below:

- Part 1: "Protocol Implementation Conformance Statement (PICS)";
- Part 2: "Test Suite Structure and Test Purposes (TSS&TP)".

Modal verbs terminology

In the present document "shall", "shall not", "should", "should not", "may", "need not", "will", "will not", "can" and "cannot" are to be interpreted as described in clause 3.2 of the ETSI Drafting Rules (Verbal forms for the expression of provisions).

"must" and "must not" are NOT allowed in ETSI deliverables except when used in direct citation.

1 Scope

The present document specifies the test suite structure and test purposes of the Completion of Communications to Busy Subscriber (CCBS) service and the Completion of Communication on no Reply (CCNR) service, based on stage three of the IMS simulation services. Within the Next Generation Network (NGN) the stage 3 description is specified using the IP-Multimedia Call Control Protocol based on Session Initiation Protocol (SIP) and Session Description Protocol (SDP) as defined in ETSI TS 124 642 [1] in compliance with the relevant requirements.

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2 References

2.1 Normative references

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

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

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

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

- [1] ETSI TS 124 642: "Digital cellular telecommunications system (Phase 2+); Universal 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 Release 12)".
- [2] ETSI TS 101 588-1: "Core Network and Interoperability Testing (INT); Completion of Communications to Busy Subscriber (CCBS) and Completion of Communications by No Reply (CCNR) using IP Multimedia (IM) Core Network (CN) subsystem; Conformance Test Specification (3GPPTM Release 12); Part 1: Protocol Implementation Conformance Statement (PICS)".

2.2 Informative references

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

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

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

Not applicable.

3 Definitions, symbols and abbreviations

3.1 Definitions

For the purposes of the present document, the terms and definitions given in ETSI TS 124 642 [1] apply.

3.2 Symbols

For the purposes of the present document, the symbols given in ETSI TS 124 642 [1] apply.

3.3 Abbreviations

For the purposes of the present document, the abbreviations given in ETSI TS 124 642 [1] apply.

4 Test Suite Structure (TSS)

4.0 Table of Test Suite Structure

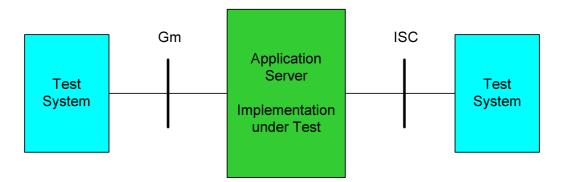
originating_AS	Invocation	CC_N01_xxx
	Revocation	CC_N02_xxx
	Operation	CC_N03_xxx
terminating_AS	possibleIndication	CC_N04_xxx
	Invocation	CC_N05_xxx
	Revocation	CC_N06_xxx
	CCOperation	CC_N07_xxx
Interaction	TIR	CC_N08_xxx
	CDIV	CC_N09_xxx

4.1 Configuration

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

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

Testing of the Application Server: This entity is responsible to perform the service. Hence the ISC interface is the appropriate access point. Figure 4-1 points to this.





If the ISC interface is not accessible it is also applicable to perform the test of the AS using any NNI (Mw, Mg, Mx) interface (consider figure 4-2). In case only the Gm interface is accessible this shall be used instead. In this case, be aware that the verification of several requirements is impeded.

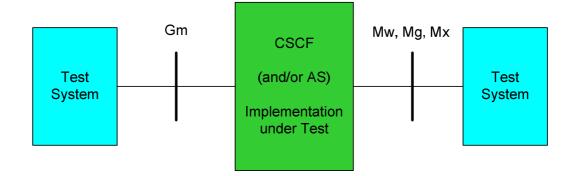


Figure 4-2: Applicable interfaces to test using the (generic) NNI interface

Testing of User Equipment: There are several requirements regarding to the end devices. Therefore, a special configuration appears.

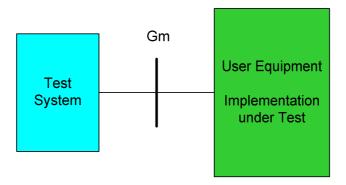


Figure 4-3: Applicable configuration to test the User Equipment

5 Test Purposes (TP)

5.1 Introduction

5.1.0 General treatment

For each test requirement a TP is defined.

5.1.1 TP naming convention

TPs are numbered, starting at 001, within each group. Groups are organized according to the TSS. Additional references are added to identify the actual test suite and whether it applies to the network or the user (see table 5-1).

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

Table 5-1: TP identifier naming convention scheme

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5.1.2 Test strategy

As the base standard ETSI TS 124 642 [1] contains no explicit requirements for testing, the TPs were generated as a result of an analysis of the base standard and the PICS specification ETSI TS 101 588-1 [2]. The criteria applied include the following:

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

5.2 Actions at the originating AS

5.2.1 CC Invocation

TSS		ТР	Ref	erence	Selection expression
CC/originating_AS/Invocation		CC_N01_001	4.5.	4.2.1.1.1,	PICS 4.7.1/9
			4.5.	4.2.1.1.3	
Test purpose					
Detecting CCNL is possible.					
Ensure that when an originating user	establishes	a session to a t	erminatir	na user not loa	nged in, a 183 (Session
Progress) response is forwarded to the					
The Application Server provides an a					
Preconditions:					
SIP header values:					
480 Temporarily Unavailable					
Call-Info: <sip:ue-b or="" t-as="">;put</sip:ue-b>	pose=call-co	mpletion;m=NL	_		
Comments:	•				
SIP 1 (Gm)		SUT		SIP 2 (ISC	;)
INVITÈ	→		→	INVITÈ	
			←	480 (Temp	oorarily Unavailable)
183 Session Progress	÷		→	ACK	,
Announcement that (CC is possib	le			
	Ā	oply post test	routine		

TSS		ТР	Refer	ence	Selection expression
CC/originating_AS/Invocation		CC_N01_002		2.1.1.1,	
5 5-				2.1.1.3	
lest purpose					
Detecting CCBS is possible.					
Ensure that when an originating u	ser establishes	a session to a ter	minating	user is busy, a	183 (Session Progress)
esponse is forwarded to the origi	nating user if a 4	486 (Busy Here) r	esponse	has been receive	ed. The Application Server
provides an announcement.					
Preconditions:					
SIP header values:					
486 Busy Here:					
Call-Info: <sip:ue-b or="" t-as=""></sip:ue-b>	;purpose=call-co	ompletion;m=BS			
Comments: SIP 1 (Gm)		SUT			
INVITE	→	501	→	SIP 2 (ISC) INVITE	
	7		7	486 (Busy Her)
183 Session Progress	←		→	ACK	-)
Announcement th	at CC is possit	ble	-		
		pply post test ro	utine		
TSS		P	Refer		Selection expression
CC/originating_AS/Invocation	C	C_N01_003		.2.1.1.1,	
			4.5.4.	2.1.1.3	
Test purpose					
Detecting CCNR is possible.					
	aan aatabliah aa				
Ensure that when an originating u					
reapenes is forwarded to the origi					
provides an announcement. The					
provides an announcement. The (Preconditions:					
response is forwarded to the origi provides an announcement. The (Preconditions: SIP header values: 180 Ringing 1					
provides an announcement. The (Preconditions: SIP header values: 180 Ringing 1	Call-Info header	is removed from			
orovides an announcement. The (Preconditions: SIP header values: 180 Ringing 1 Call-Info: <sip:ue-b or="" t-as=""></sip:ue-b>	Call-Info header	is removed from			
orovides an announcement. The (Preconditions: SIP header values: 180 Ringing 1 Call-Info: <sip:ue-b or="" t-as=""> Comments:</sip:ue-b>	Call-Info header	is removed from		(Ringing) sent to	
provides an announcement. The (Preconditions: SIP header values: 180 Ringing 1	Call-Info header	is removed from			
orovides an announcement. The (Preconditions: SIP header values: 180 Ringing 1 Call-Info: <sip:ue-b or="" t-as=""> Comments: SIP 1 (Gm)</sip:ue-b>	Call-Info header	is removed from	the 180	(Ringing) sent to SIP 2 (ISC) INVITE	the originating user.
orovides an announcement. The (Preconditions: SIP header values: 180 Ringing 1 Call-Info: <sip:ue-b or="" t-as=""> Comments: SIP 1 (Gm)</sip:ue-b>	Call-Info header	is removed from	the 180	(Ringing) sent to	the originating user.
orovides an announcement. The (Preconditions: SIP header values: 180 Ringing 1 Call-Info: <sip:ue-b or="" t-as=""> Comments: SIP 1 (Gm) NVITE</sip:ue-b>	Call-Info header ;purpose=call-cc → ←	is removed from ompletion;m=NR SUT Start CCNR-T5	the 180 / → ←	(Ringing) sent to SIP 2 (ISC) INVITE	the originating user.
orovides an announcement. The (Preconditions: SIP header values: I80 Ringing 1 Call-Info: <sip:ue-b or="" t-as=""> Comments: SIP 1 (Gm) NVITE</sip:ue-b>	Call-Info header ;purpose=call-co → €	is removed from ompletion;m=NR SUT Start CCNR-T5 Timeout CCNR-1	the 180 / → ←	(Ringing) sent to SIP 2 (ISC) INVITE	the originating user.

TSS	TP	Refer		Selection expression
CC/originating_AS/Invocation	CC_N01_00	4 4.5.4.2	2.1.1.3	PICS 4.7.1/9
Test purpose				
CCNL is possible hence not confirmed.				
Ensure that when the originating user does	not confirm the	CCNIL indication	to invoko the co	rvice a 186 (Rucy Hore) is
forwarded to the originating user when Ret			to invoke the se	Nice a 400 (Busy Field) is
Preconditions:				
SIP header values:				
480 Temporarily Unavailable 1				
Call-Info: <sip:ue-b or="" t-as="">;purpose</sip:ue-b>	call-completion	;m=NL		
Comments:	·			
SIP 1 (Gm)	S	JT	SIP 2 (ISC)	
NVITE	→	_	INVITE	
			480 (Temporari	y Unavailable) 1
183 Session Progress		CC-T1 →	ACK	
Announcement that CC	is possible			
480 (Temporarily Unavailable)	← Timeou	t CC-T1		
	 → 			
	=	t test routine		
	, ippi) pee			
TSS	TP	Refer		Selection expression
CC/originating_AS/Invocation	CC_N01_00	5 4.5.4.2	2.1.1.3	
CCBS is possible hence not confirmed.	and confirm the	CCPS indiantian	to invoka the ea	ruina a 196 (Pupu Hara) ia
CCBS is possible hence not confirmed.	s not confirm the	CCBS indication	to invoke the se	rvice a 486 (Busy Here) is
CCBS is possible hence not confirmed. Ensure that when the originating user does orwarded to the originating user when Ret	not confirm the ention timer CC	CCBS indication	to invoke the se	rvice a 486 (Busy Here) is
CCBS is possible hence not confirmed. Ensure that when the originating user does orwarded to the originating user when Ret Preconditions:	s not confirm the ention timer CC	CCBS indication •T1 is expired.	to invoke the se	rvice a 486 (Busy Here) is
CCBS is possible hence not confirmed. Ensure that when the originating user does forwarded to the originating user when Ret Preconditions: SIP header values:	s not confirm the ention timer CC	CCBS indication •T1 is expired.	to invoke the se	rvice a 486 (Busy Here) is
CCBS is possible hence not confirmed. Ensure that when the originating user does forwarded to the originating user when Ret Preconditions: SIP header values: 486 Busy Here:	ention timer CC	-T1 is expired.	to invoke the se	rvice a 486 (Busy Here) is
CCBS is possible hence not confirmed. Ensure that when the originating user does orwarded to the originating user when Ret Preconditions: SIP header values: 486 Busy Here: Call-Info: <sip:ue-b or="" t-as="">;purpose:</sip:ue-b>	ention timer CC	-T1 is expired.	to invoke the se	rvice a 486 (Busy Here) is
CCBS is possible hence not confirmed. Ensure that when the originating user does orwarded to the originating user when Ret Preconditions: SIP header values: 486 Busy Here: Call-Info: <sip:ue-b or="" t-as="">;purpose: Comments:</sip:ue-b>	ention timer CC	-T1 is expired.		rvice a 486 (Busy Here) is
Test purpose CCBS is possible hence not confirmed. Ensure that when the originating user does forwarded to the originating user when Ret Preconditions: SIP header values: 486 Busy Here: Call-Info: <sip:ue-b or="" t-as="">;purpose: Comments: SIP 1 (Gm) INVITE</sip:ue-b>	ention timer CC	-T1 is expired. ;m=BS JT	SIP 2 (ISC) INVITE	
CCBS is possible hence not confirmed. Ensure that when the originating user does forwarded to the originating user when Ret Preconditions: SIP header values: 486 Busy Here: Call-Info: <sip:ue-b or="" t-as="">;purpose: Comments: SIP 1 (Gm) NVITE</sip:ue-b>	ention timer CC =call-completion Si →	-T1 is expired. ;m=BS JT ✦	SIP 2 (ISC) INVITE 486 (Busy Here	
CCBS is possible hence not confirmed. Ensure that when the originating user does orwarded to the originating user when Ret Preconditions: SIP header values: I86 Busy Here: Call-Info: <sip:ue-b or="" t-as="">;purpose: Comments: SIP 1 (Gm) NVITE</sip:ue-b>	ention timer CC =call-completion → ← Start	-T1 is expired. ;m=BS JT ✦	SIP 2 (ISC) INVITE	
CCBS is possible hence not confirmed. Ensure that when the originating user does forwarded to the originating user when Ret Preconditions: SIP header values: 486 Busy Here: Call-Info: <sip:ue-b or="" t-as="">;purpose: Comments: SIP 1 (Gm) NVITE</sip:ue-b>	ention timer CC =call-completion → ← Start	-T1 is expired. ;m=BS JT ✦	SIP 2 (ISC) INVITE 486 (Busy Here	
CCBS is possible hence not confirmed. Ensure that when the originating user does forwarded to the originating user when Ret Preconditions: SIP header values: 486 Busy Here: Call-Info: <sip:ue-b or="" t-as="">;purpose: Comments: SIP 1 (Gm) INVITE 183 Session Progress Announcement that CC</sip:ue-b>	ention timer CC =call-completion Si → ← Start is possible	-T1 is expired. ;m=BS JT CC-T1 →	SIP 2 (ISC) INVITE 486 (Busy Here	
CCBS is possible hence not confirmed. Ensure that when the originating user does orwarded to the originating user when Ret Preconditions: SIP header values: 486 Busy Here: Call-Info: <sip:ue-b or="" t-as="">;purpose: Comments: SIP 1 (Gm) NVITE 183 Session Progress Announcement that CC 486 (Busy Here)</sip:ue-b>	ention timer CC =call-completion Si → ← Start is possible ← Timeou	-T1 is expired. ;m=BS JT ✦	SIP 2 (ISC) INVITE 486 (Busy Here	
CCBS is possible hence not confirmed. Ensure that when the originating user does forwarded to the originating user when Ret Preconditions: SIP header values: 486 Busy Here: Call-Info: <sip:ue-b or="" t-as="">;purpose: Comments: SIP 1 (Gm) INVITE 183 Session Progress</sip:ue-b>	ention timer CC =call-completion Si → € Start is possible € Timeou →	-T1 is expired. ;m=BS JT CC-T1 →	SIP 2 (ISC) INVITE 486 (Busy Here	

Apply post test routine

TSS	TF	0	Reference	Selection expression
CC/originating_AS/Invocation	C	C_N01_006	4.5.4.2.1.1.3	
Test purpose				
CCNR is possible hence not confirme	əd.			
		(; , , , , , , , , , , , , , , , , , , ,	O · · · · · · · · · · · · · · · · · · ·	
Ensure that when the originating user				service a 199 (Early Dialog
Terminated) is forwarded to the origin	lating use	r when Retention	umer CC-11 is expired.	
Preconditions:				
SIP header values:				
180 Ringing 1				
Call-Info: <sip:ue-b or="" t-as="">;pur</sip:ue-b>	pose=call	-completion;m=N	R	
Comments:				
SIP 1 (Gm)		SUT	SIP 2	(ISC)
INVITÈ	→		→ INVITE	
			← 180 (F	Ringing) 1
180 (Ringing)	←	Start CCNR-T		
		-		
		Timeout CC	NR-15	
Announcement	that CC	is possible		
		Timeout C	°C-T1	
199 (Early Dialog Terminated)	←	rineout C		
Terminated)	C	Apply post test	routine	

TSS	TP		Referen	ce	Selection expression
CC/originating_AS/Invocation	CC	_N01_007	4.5.4.2.1		NOT PICS 4.7.1/10 AND
			4.5.4.2.1	.1.6	NOT PICS 4.7.1/11
Test purpose					
Successful CCBS request.					
A 486 (Busy Here) is received from	the terminating AS	S containing :	a Call-Info h	leader field a	purpose parameter set to
call-completion and the m parameter					
Progress and starts to play an anno	uncement to inforr	m the origina	ting user tha	at Call Comp	letion is possible. The
originating user activates via inband					
SUBSCRIBE to the terminating AS.					
of the CC service. The Application S	Server confirms the	e successful	invocation to	o the originat	ting user by sending of a 486
(Busy Here) final response.					
Preconditions:					
SIP header values: 486 Busy Here 1:					
Call-Info: <sip:ue-b or="" t-as="">;pi</sip:ue-b>	Irpose=call-compl	etion m-RS			
		510H,HI=B0			
SUBSCRIBE sip: T-AS;m=BS					
From: <ue-a></ue-a>					
To: <ue-b></ue-b>					
Contact: <o-as></o-as>					
Call.Info: <ue-a>; purpose=ca</ue-a>	ll-completion;m=	=BS			
P-Assertd-Identity: UE-A					
Expires: CC-T3					
Event:call-completion					
NOTIFY					
Event:call-completion					
Content-Type: application/call-c	ompletion				
cc-state: queued					
Comments:					
SIP 1 (Gm)		SUT		IP 2 (ISC)	
INVITE	→			IVITE	
				86 (Busy He	re) 1
183 Session Progress	←	nt that CCP		CK	
Inband-interaction proce	Announceme		s is possib	le	
	dures for the CC	activation	→ s	UBSCRIBE	
			-		SRIBE
			- 2		
			← N	OTIFY	
			→ 2	00 OK NOTI	FY
	rm to the caller th	nat the invo	cation was	successful	
486 (Busy Here) 2	+				
ACK	→				
	Apply	post test ro	utine		

TSS	ТР	Reference	Selection expression
CC/originating_AS/Invocation	CC_N01_008	4.5.4.2.1.1.5,	PICS 4.7.1/10 AND PICS
		4.5.4.2.1.1.6	4.7.1/11
Test purpose			
Successful CCBS request.			
A 486 (Busy Here) is received from the te call-completion and the m parameter is se Progress and starts to play an announcer originating user activates via inband inter: SUBSCRIBE to the terminating AS. The to of the CC service. The Application Server (Busy Here) final response. Ensure that a body value are present in the 486 sent to Preconditions: SIP header values:	et to BS. Ensure that the nent to inform the original action the CCBS call com NOTIFY received from the confirms the successful Date header and a Cont	AS withholds the 486 ting user that Call Co pletion service. Ensu terminating AS conf nvocation to the orig	and sends a 183 Session mpletion is possible. The re that the AS sends a irms the successful invocation nating user by sending of a 486
486 Busy Here 1:			
Call-Info: <sip:ue-b or="" t-as="">;purpose</sip:ue-b>	e=call-completion;m=BS		
From: <ue-a> To:<ue-b> Contact:<o-as> Call.Info: <ue-a>; purpose=call-con P-Assertd-Identity: UE-A Expires: CC-T3 Event:call-completion NOTIFY Event:call-completion Content-Type: application/call-comple cc-state: queued</ue-a></o-as></ue-b></ue-a>			
486 Busy Here 2: Date: <current and="" date="" time=""> Content-Type: message/external-body</current>	/; access-type="URL"; UF	RL= < any url >	
Comments:	0.17		
SIP 1 (Gm) INVITE	SUT ➔	SIP 2 (ISC))
INVITE	7	← 486 (Busy	Here) 1
183 Session Progress	+	→ ACK	
	nnouncement that CCB	S is possible	
Inband-interaction procedure	s for the CC activation		
		 → SUBSCRIE ← 200 OK SL 	
		← NOTIFY	
		 → 200 OK NC 	DTIFY
Confirm to	the caller that the invoc		
486 (Busy Here) 2	+		
ACK	→		
ACK	-		

TSS	TP	Reference	Selection expression
CC/originating_AS/Invocation	CC_N01_009	4.5.4.2.1.1.1	• • • • •
Test purpose	·		
CCBS not possible, A CC queue	limit has been exceeded.		
	r the activation of the call complet	ion service if the user	A CCBS queue limit has been
exceeded. The 486 is passed thr			
Preconditions: CCBS queue lim	it exceeded		
SIP header values:			
486 Busy Here:			
Call-Info: <sip:ue-b>;purpose</sip:ue-b>	e=call-completion;m=BS		
Comments:			
SIP 1 (Gm)	SUT	SIP 2 (ISC)	
INVITE	Set the A queue to		
100 Trying	→ ←	 → INVITE ← 100 Trying 	
486 (Busy Here)	.	 ← 100 Hying ← 486 (Busy H 	Horo)
ACK	÷	→ ACK	lele)
	1	ACK	
TSS	ТР	Reference	Selection expression
	TP CC_N01_010	Reference 4.5.4.2.1.1.1	Selection expression NOT PICS 4.7.1/3
TSS CC/originating_AS/Invocation Test purpose			
CC/originating_AS/Invocation Test purpose		4.5.4.2.1.1.1	
CC/originating_AS/Invocation Test purpose CCBS invocation not possible, fu	CC_N01_010	4.5.4.2.1.1.1 ation parameters).	NOT PICS 4.7.1/3
CC/originating_AS/Invocation Fest purpose CCBS invocation not possible, fu Ensure that the AS does not offe	rther identical request (communic	4.5.4.2.1.1.1 ation parameters). ompletion service if a	NOT PICS 4.7.1/3
CC/originating_AS/Invocation Fest purpose CCBS invocation not possible, fu Ensure that the AS does not offer dentical communication, determi	CC_N01_010	4.5.4.2.1.1.1 ation parameters). ompletion service if a	NOT PICS 4.7.1/3
CC/originating_AS/Invocation Fest purpose CCBS invocation not possible, fu Ensure that the AS does not offe dentical communication, determi Preconditions:	rther identical request (communic	4.5.4.2.1.1.1 ation parameters). ompletion service if a	NOT PICS 4.7.1/3
CC/originating_AS/Invocation Fest purpose CCBS invocation not possible, fu Ensure that the AS does not offer dentical communication, determine Preconditions: SIP header values:	rther identical request (communic	4.5.4.2.1.1.1 ation parameters). ompletion service if a	NOT PICS 4.7.1/3
CC/originating_AS/Invocation Fest purpose CCBS invocation not possible, fu Ensure that the AS does not offer dentical communication, determine Preconditions: SIP header values: 186 Busy Here:	CC_N01_010 rther identical request (communic r the activation of the CCBS call c ned by the stored basic communi	4.5.4.2.1.1.1 ation parameters). ompletion service if a	NOT PICS 4.7.1/3
CC/originating_AS/Invocation Fest purpose CCBS invocation not possible, fu Ensure that the AS does not offer dentical communication, determine Preconditions: SIP header values: 486 Busy Here: Call-Info: <sip:ue-b>;purpose</sip:ue-b>	CC_N01_010 rther identical request (communic r the activation of the CCBS call c ned by the stored basic communi	4.5.4.2.1.1.1 ation parameters). ompletion service if a	NOT PICS 4.7.1/3
CC/originating_AS/Invocation Fest purpose CCBS invocation not possible, fu Ensure that the AS does not offer dentical communication, determine Preconditions: SIP header values: 186 Busy Here: Call-Info: <sip:ue-b>;purpose Comments:</sip:ue-b>	CC_N01_010 rther identical request (communic r the activation of the CCBS call of ned by the stored basic communi e=call-completion;m=BS	4.5.4.2.1.1.1 ation parameters). ompletion service if a cation information.	NOT PICS 4.7.1/3
CC/originating_AS/Invocation Fest purpose CCBS invocation not possible, fu Ensure that the AS does not offer dentical communication, determi Preconditions: SIP header values: 486 Busy Here: Call-Info: <sip:ue-b>;purpose Comments: SIP 1 (Gm)</sip:ue-b>	CC_N01_010 rther identical request (communic r the activation of the CCBS call o ned by the stored basic communi e=call-completion;m=BS SUT	4.5.4.2.1.1.1 ation parameters). ompletion service if a	NOT PICS 4.7.1/3
CC/originating_AS/Invocation Fest purpose CCBS invocation not possible, fu Ensure that the AS does not offer dentical communication, determi Preconditions: SIP header values: 186 Busy Here: Call-Info: <sip:ue-b>;purpose Comments: SIP 1 (Gm) A successful CCBS req</sip:ue-b>	CC_N01_010 rther identical request (communic r the activation of the CCBS call c ned by the stored basic communi ==call-completion;m=BS SUT uest is already invoked	4.5.4.2.1.1.1 ation parameters). ompletion service if a cation information. SIP 2 (ISC)	NOT PICS 4.7.1/3
CC/originating_AS/Invocation Fest purpose CCBS invocation not possible, fu Ensure that the AS does not offer dentical communication, determi Preconditions: SIP header values: 486 Busy Here: Call-Info: <sip:ue-b>;purpose Comments: SIP 1 (Gm) A successful CCBS req NVITE</sip:ue-b>	CC_N01_010 rther identical request (communic r the activation of the CCBS call of ned by the stored basic communi e=call-completion;m=BS SUT uest is already invoked →	4.5.4.2.1.1.1 ation parameters). ompletion service if a cation information. SIP 2 (ISC) → INVITE	NOT PICS 4.7.1/3
CC/originating_AS/Invocation Test purpose CCBS invocation not possible, fu Ensure that the AS does not offer dentical communication, determi Preconditions: SIP header values: 486 Busy Here: Call-Info: <sip:ue-b>;purpose Comments: SIP 1 (Gm) A successful CCBS req NVITE 100 Trying</sip:ue-b>	CC_N01_010 rther identical request (communic r the activation of the CCBS call of ned by the stored basic communi e=call-completion;m=BS SUT quest is already invoked → ←	4.5.4.2.1.1.1 ation parameters). ompletion service if a cation information. SIP 2 (ISC) → INVITE ← 100 Trying	NOT PICS 4.7.1/3
CC/originating_AS/Invocation Fest purpose CCBS invocation not possible, fu Ensure that the AS does not offer dentical communication, determi Preconditions: SIP header values: 186 Busy Here: Call-Info: <sip:ue-b>;purpose Comments: SIP 1 (Gm) A successful CCBS req NVITE</sip:ue-b>	CC_N01_010 rther identical request (communic r the activation of the CCBS call of ned by the stored basic communi e=call-completion;m=BS SUT uest is already invoked →	4.5.4.2.1.1.1 ation parameters). ompletion service if a cation information. SIP 2 (ISC) → INVITE	NOT PICS 4.7.1/3

TSS	TP		Referen	ice	Selection expression
CC/originating_AS/Invocation		N01_011	4.5.4.2.		
Test purpose					1
Unsuccessful CCBS request.					
Ensure when the originating user	invokes the CCBS s	ervice and th	e Applicatio	on Server rece	ives a 480 (Temporarily
Unavailable) to indicate short term	denial or a 403 (Fo	rbidden) to ir	dicate long	g term denial th	ne originating user receives
a confirmation that the CCBS requ	lest was not succes	sful.			
Preconditions:					
SIP header values:					
486 Busy Here 1:					
Call-Info: <sip:ue-b or="" t-as="">;</sip:ue-b>	purpose=call-comple	etion;m=BS			
SUBSCRIBE sip: T-AS; m=BS					
From: <ue-a></ue-a>					
To: <ue-b></ue-b>					
Contact: <o-as></o-as>					
Call.Info: <ue-a>; purpose=</ue-a>	call-completion;m=	=BS			
P-Assertd-Identity: UE-A					
Expires: CC-T3					
Event:call-completion					
Comments:		OUT			
SIP 1 (Gm)	•	SUT		SIP 2 (ISC)	
INVITE	→				
100 Occasion December				86 (Busy Here	9) 1
183 Session Progress	+		-	CK	
Inband-interaction pro	Announceme		5 is possid	bie	
Inpand-Interaction bro	cedures for the CC	activation	→ S	UBSCRIBE	
			7 3	ODSCIVIDE	
					ly Unavailable)
					ly Unavailable)
CASE A					ly Unavailable)
CASE A			← 4		
CASE A CASE B	rm to the caller tha	t the invoca	← 4← 4	80 (Temporari 03 (Forbidden)
CASE A CASE B Confi	rm to the caller tha ←	t the invoca	← 4← 4	80 (Temporari 03 (Forbidden)
CASE A CASE B		t the invoca	← 4← 4	80 (Temporari 03 (Forbidden)

TSS		ТР	Pof	erence	Selection expression
CC/originating_AS/Invocation		CC_N01_012		4.2.1.1.5	Selection expression
ee/onginating_Ao/invocation		00_101_012	4.8.		
Test purpose			4.0.	. I	
CCBS request. Timeout CC-T2.					
CCBS request. Timeout CC-12.					
Ensure that the CC request operat	ion timer CC.	.T2 is started after (CCBS	request is rece	aived from caller. When the
timer CC-T2 is expired because no					
request was successful at the term					
Preconditions:			Tejeette		
SIP header values:					
486 Busy Here:					
Call-Info: <sip:ue-b>;purpose=</sip:ue-b>	-call-completi	on·m=BS			
SUBSCRIBE sip:T-AS;m=BS	-our complet	011,111-20			
From: <ue-a></ue-a>					
To: <ue-b></ue-b>					
Contact: <o-as></o-as>					
Call.Info: <ue-a>; purpose=0</ue-a>	call-completi	on:m=BS			
P-Assertd-Identity: UE-A		0.1,11.20			
Expires: CC-T3					
Event:call-completion					
Comments:					
SIP 1 (Gm)		SUT		SIP 2 (ISC)
INVITE	→		→	INVITE	1
100 Trying	÷		÷	100 Trying	
	-		÷	486 (Busy	
183 Session Progress	←		÷	ACK	
	Annour	cement that CCB	Sispo		
Inband-interaction proc			0 10 pc		
			→	SUBSCRIE	3F
			÷	200 OK SL	
		Start Timer CC-1	-	200 0100	
		↓ J			
		Timeout Timer CC	:-T2		
Confir		er that the invoca		as not succes	ssful
486 (Busy Here)	+				
ACK	→				

TSS	ТР	Reference	Selection expression
CC/originating_AS/Invocation	CC_N01_013	4.5.4.2.1.1.5,	• • • • •
		4.5.4.2.1.1.6	
Test purpose			
CCNR successful request.			
A 100 (Dinging) is reactived from the termination		ll lafe beederfield e suu	
A 180 (Ringing) is received from the terminating			
call-completion and the m parameter is set to BS the Call-Info header to the originating user and s			
Completion is possible. The originating user acti			
that the AS sends a SUBSCRIBE to the termina			
successful invocation of the CC service. The Ap			
user by sending of a 480 (Temporarily Unavailal			5 5
Preconditions:			
SIP header values:			
180 Ringing 2:			
Call-Info: <sip:ue-b or="" t-as="">;purpose=call-</sip:ue-b>	completion;m=NR		
SUBSCRIBE sip: T-AS;m=NR From: <ue-a></ue-a>			
To: <ue-b></ue-b>			
Contact: <o-as></o-as>			
Call.Info: UE-A; purpose=call-completion	·m=NR		
P-Assertd-Identity: UE-A	,–		
Expires: CC-T3			
Event:call-completion			
Event:call-completion Content-Type: application/call-completion cc-state: queued 480 Temporarily Unavailable Date: <current and="" date="" time=""> Content-Type: message/external-body; acce</current>	ass-tune-"I IRI "· I IRI		
Comments:	SS-type= UKL , UKI		
SIP 1 (Gm)	SUT	SIP 2 (ISC)	
INVITE +		→ INVITE	
100 Trying 🗧 🗧		← 100 Trying	
		← 180 Ringing 1	
180 Ringing 2			
	cement that CCNR	is possible	
Inband-interaction procedures for the			
		→ SUBSCRIBE	BIRE
		← 200 OK SUBCS	
		NOTIFY	
		→ 200 OK NOTIF`	(
Confirm to the ca	aller that the invoca	ation was successful	•
		→ CANCEL	
		← 200 OK CANCE	
480 (Temporarily Unavailable)		← 487 Request Te	erminated
ACK -		→ ACK	

TSS	TP		erence	Selection expression
CC/originating_AS/Invocation	CC_N01_014	4.5.4	1.2.1	-
Test purpose	·			
CCNR not possible, A CC queue limit l	nas been exceeded.			
Ensure that the originating AS does no				
header with a purpose parameter set to	o call-completion and a m pa	aramete	r set to NR is rec	ceived and the CCBS queu
limit is exceeded. Preconditions: CCBS queue limit exce	adad			
SIP header values:	eeded			
180 Ringing 1:				
Call-Info: <sip:ue-b>;purpose=call-</sip:ue-b>	completion:m-NP			
Comments:	completion,m=NK			
SIP 1 (Gm)	SUT		SIP 2 (ISC)	
	Set the A queue to	limit	011 2 (100)	
INVITE	→	→	INVITE	
100 Trying	÷	÷	100 Trying	
180 Ringing 2	+	←	180 Ringing 1	
5 5			0.0	
CANCEL	→	→	CANCEL	
200 OK CANCEL	+	←	200 OK CANC	
487 Request Terminated	+	←	487 Request 7	Ferminated
ACK	→	→	ACK	
TSS	TP	Rofe	erence	Selection expression
CC/originating_AS/Invocation	CC_N01_015	4.5.4		NOT PICS 4.7.1/3
Test purpose		1.0.	1.2.1	
CCNR invocation not possible, further	identical request (communic	ation pa	arameters).	
,				
Ensure that the AS does not offer the a				quest was activated for an
identical communication, determined by	y the stored basic communi	cation ir	nformation.	
Preconditions:				
SIP header values:				
180 Ringing 1:				
Call-Info: <sip:ue-b>;purpose=call-</sip:ue-b>	completion;m=NR			
Comments:				
SIP 1 (Gm)	SUT	-	SIP 2 (ISC)	
	Iccessful CCNR request is			
	\rightarrow	→		
100 Trying	(÷	100 Trying	
180 Ringing 2	+		180 Ringing 1	
CANCEL	No offer to invoke →		CANCEL	
			CANCEL	
200 OK CANCEL	÷	÷	200 OK CANC	

← →

200 OK CANCEL 487 Request Terminated ACK

* + + *

CANCEL 200 OK CANCEL 487 Request Terminated ACK

700				
TSS CC/originating_AS/Invocation	TP CC_N01_016	-	erence 4.2.1.1.4	Selection expression PICS 4.7.1/12
Test purpose	·	•		
Communication to user B is cancelled when	CCNR is invoked b	y the origi	inating user.	
Ensure when the confirmation of the CCNR Server terminated the session with user B by				out CC-T1 the Application
Preconditions:	y sending a CANCE	Liequesi	IU USEI D.	
SIP header values: 180 Ringing 1:				
Call-Info: <sip:ue-b or="" t-as="">;purpose=c</sip:ue-b>	call-completion;m=N	R		
Comments:				
SIP 1 (Gm)	SUT	_	SIP 2 (ISC)	
INVITE		\rightarrow	INVITE	
100 Trying		+	100 Trying	
		+	180 Ringing 1	
180 Ringing 2				
	ouncement that CO		ssible	
Inband-interaction procedures for	or the CC activatio			
		→	CANCEL	
		←	200 OK CANC	
		+	487 Request T	erminated
		→	ACK	
	Apply post test	routine		
1	TP	Ref	erence	Selection expression
TSS				
CC/originating_AS/Invocation	CC_N01_017	4.5.	4.2.1.2	
CC/originating_AS/Invocation Test purpose		4.5.	4.2.1.2	
CC/originating_AS/Invocation	CC_N01_017			eives a 480 (Temporarily
CC/originating_AS/Invocation Test purpose Unsuccessful CCNR request. Ensure when the originating user invokes the Unavailable) to indicate short term denial or a confirmation that the CCBS request was no	CC_N01_017 e CCNR service and a 403 (Forbidden) to	the Appl	ication Server rec	
CC/originating_AS/Invocation Test purpose Unsuccessful CCNR request. Ensure when the originating user invokes the Unavailable) to indicate short term denial or a confirmation that the CCBS request was no Preconditions:	CC_N01_017 e CCNR service and a 403 (Forbidden) to	the Appl	ication Server rec	
CC/originating_AS/Invocation Test purpose Unsuccessful CCNR request. Ensure when the originating user invokes the Unavailable) to indicate short term denial or a confirmation that the CCBS request was no	CC_N01_017 e CCNR service and a 403 (Forbidden) to ot successful.	the Appl o indicate	ication Server rec	
CC/originating_AS/Invocation Test purpose Unsuccessful CCNR request. Ensure when the originating user invokes the Unavailable) to indicate short term denial or a confirmation that the CCBS request was no Preconditions: SIP header values: 180 Ringing 1: Call-Info: <sip:ue-b or="" t-as="">;purpose=c SUBSCRIBE sip: T-AS;m=NR From:<ue-a> To:<ue-b></ue-b></ue-a></sip:ue-b>	CC_N01_017 e CCNR service and a 403 (Forbidden) to ot successful.	the Appl o indicate	ication Server rec	
CC/originating_AS/Invocation Test purpose Unsuccessful CCNR request. Ensure when the originating user invokes the Unavailable) to indicate short term denial or a confirmation that the CCBS request was no Preconditions: SIP header values: 180 Ringing 1: Call-Info: <sip:ue-b or="" t-as="">;purpose=co SUBSCRIBE sip: T-AS;m=NR From:<ue-a></ue-a></sip:ue-b>	CC_N01_017 e CCNR service and a 403 (Forbidden) to ot successful.	the Appl o indicate	ication Server rec	
CC/originating_AS/Invocation Test purpose Unsuccessful CCNR request. Ensure when the originating user invokes the Unavailable) to indicate short term denial or a confirmation that the CCBS request was not Preconditions: SIP header values: 180 Ringing 1: Call-Info: <sip:ue-b or="" t-as="">;purpose=co SUBSCRIBE sip: T-AS;m=NR From:<ue-a> To:<ue-b> Contact:<o-as> Call.Info: <ue-a>; purpose=call-comp P-Assertd-Identity: UE-A Expires: CC-T3</ue-a></o-as></ue-b></ue-a></sip:ue-b>	CC_N01_017 e CCNR service and a 403 (Forbidden) to ot successful.	the Appl o indicate	ication Server rec	
CC/originating_AS/Invocation Test purpose Unsuccessful CCNR request. Ensure when the originating user invokes the Unavailable) to indicate short term denial or a confirmation that the CCBS request was no Preconditions: SIP header values: 180 Ringing 1: Call-Info: <sip:ue-b or="" t-as="">;purpose=c SUBSCRIBE sip: T-AS;m=NR From:<ue-a> To:<ue-b> Contact:<o-as> Call.Info: <ue-a>; purpose=call-comp P-Assertd-Identity: UE-A Expires: CC-T3 Event:call-completion</ue-a></o-as></ue-b></ue-a></sip:ue-b>	CC_N01_017 e CCNR service and a 403 (Forbidden) to ot successful.	the Appl o indicate	ication Server rec long term denial	
CC/originating_AS/Invocation Test purpose Unsuccessful CCNR request. Ensure when the originating user invokes the Unavailable) to indicate short term denial or a confirmation that the CCBS request was no Preconditions: SIP header values: 180 Ringing 1: Call-Info: <sip:ue-b or="" t-as="">;purpose=co SUBSCRIBE sip: T-AS;m=NR From:<ue-a> To:<ue-b> Contact:<o-as> Call.Info: <ue-a>; purpose=call-comp P-Assertd-Identity: UE-A Expires: CC-T3 Event:call-completion Comments:</ue-a></o-as></ue-b></ue-a></sip:ue-b>	CC_N01_017 e CCNR service and a 403 (Forbidden) to ot successful. call-completion;m=N letion;m=NR	the Appl o indicate	ication Server rec	
CC/originating_AS/Invocation Test purpose Unsuccessful CCNR request. Ensure when the originating user invokes the Unavailable) to indicate short term denial or a confirmation that the CCBS request was not Preconditions: SIP header values: 180 Ringing 1: Call-Info: <sip:ue-b or="" t-as="">;purpose=co SUBSCRIBE sip: T-AS;m=NR From:<ue-a> To:<ue-b> Contact:<o-as> Call.Info: <ue-a>; purpose=call-comp P-Assertd-Identity: UE-A Expires: CC-T3 Event:call-completion Comments: SIP 1 (Gm)</ue-a></o-as></ue-b></ue-a></sip:ue-b>	CC_N01_017 e CCNR service and a 403 (Forbidden) to ot successful. call-completion;m=N letion;m=NR	d the Appl o indicate	ication Server rec long term denial	
CC/originating_AS/Invocation Test purpose Unsuccessful CCNR request. Ensure when the originating user invokes the Unavailable) to indicate short term denial or a confirmation that the CCBS request was not Preconditions: SIP header values: 180 Ringing 1: Call-Info: <sip:ue-b or="" t-as="">;purpose=co SUBSCRIBE sip: T-AS;m=NR From:<ue-a> To:<ue-b> Contact:<o-as> Call.Info: <ue-a>; purpose=call-comp P-Assertd-Identity: UE-A Expires: CC-T3 Event:call-completion Comments: SIP 1 (Gm) INVITE</ue-a></o-as></ue-b></ue-a></sip:ue-b>	CC_N01_017 e CCNR service and a 403 (Forbidden) to ot successful. call-completion;m=N letion;m=NR SUT	d the Appl o indicate R	ication Server rec long term denial	
CC/originating_AS/Invocation Test purpose Unsuccessful CCNR request. Ensure when the originating user invokes the Unavailable) to indicate short term denial or a confirmation that the CCBS request was not preconditions: SIP header values: 180 Ringing 1: Call-Info: <sip:ue-b or="" t-as="">;purpose=c SUBSCRIBE sip: T-AS;m=NR From:<ue-a> To:<ue-b> Contact:<o-as> Call.Info: <ue-a>; purpose=call-comp P-Assertd-Identity: UE-A Expires: CC-T3 Event:call-completion Comments: SIP 1 (Gm) INVITE</ue-a></o-as></ue-b></ue-a></sip:ue-b>	CC_N01_017 e CCNR service and a 403 (Forbidden) to ot successful. call-completion;m=N letion;m=NR SUT	d the Appl o indicate R R →	ication Server rec long term denial SIP 2 (ISC) INVITE 180 Ringing 1	
CC/originating_AS/Invocation Test purpose Unsuccessful CCNR request. Ensure when the originating user invokes the Unavailable) to indicate short term denial or a confirmation that the CCBS request was not Preconditions: SIP header values: 180 Ringing 1: Call-Info: <sip:ue-b or="" t-as="">;purpose=co SUBSCRIBE sip: T-AS;m=NR From:<ue-a> To:<ue-b> Contact:<o-as> Call.Info: <ue-a>; purpose=call-comp P-Assertd-Identity: UE-A Expires: CC-T3 Event:call-completion Comments: SIP 1 (Gm) INVITE</ue-a></o-as></ue-b></ue-a></sip:ue-b>	CC_N01_017 e CCNR service and a 403 (Forbidden) to ot successful. call-completion;m=N letion;m=NR SUT cuncement that CC	d the Appl o indicate R R ★ €	ication Server rec long term denial SIP 2 (ISC) INVITE 180 Ringing 1	
CC/originating_AS/Invocation Test purpose Unsuccessful CCNR request. Ensure when the originating user invokes the Unavailable) to indicate short term denial or a confirmation that the CCBS request was not preconditions: SIP header values: 180 Ringing 1: Call-Info: <sip:ue-b or="" t-as="">;purpose=c SUBSCRIBE sip: T-AS;m=NR From:<ue-a> To:<ue-b> Contact:<o-as> Call.Info: <ue-a>; purpose=call-comp P-Assertd-Identity: UE-A Expires: CC-T3 Event:call-completion Comments: SIP 1 (Gm) INVITE 180 Ringing 2 4 Annot Inband-interaction procedures for</ue-a></o-as></ue-b></ue-a></sip:ue-b>	CC_N01_017 e CCNR service and a 403 (Forbidden) to ot successful. call-completion;m=N letion;m=NR SUT cuncement that CC	d the Appl o indicate R R ★ €	ication Server rec long term denial SIP 2 (ISC) INVITE 180 Ringing 1	
CC/originating_AS/Invocation Test purpose Unsuccessful CCNR request. Ensure when the originating user invokes the Unavailable) to indicate short term denial or a confirmation that the CCBS request was not Preconditions: SIP header values: 180 Ringing 1: Call-Info: <sip:ue-b or="" t-as="">;purpose=co SUBSCRIBE sip: T-AS;m=NR From:<ue-a> To:<ue-b> Contact:<o-as> Call.Info: <ue-a>; purpose=call-comp P-Assertd-Identity: UE-A Expires: CC-T3 Event:call-completion Comments: SIP 1 (Gm) INVITE</ue-a></o-as></ue-b></ue-a></sip:ue-b>	CC_N01_017 e CCNR service and a 403 (Forbidden) to ot successful. call-completion;m=N letion;m=NR SUT cuncement that CC	d the Appl o indicate R R ← CBS is po n	ication Server rec long term denial SIP 2 (ISC) INVITE 180 Ringing 1 SUBSCRIBE	
CC/originating_AS/Invocation Test purpose Unsuccessful CCNR request. Ensure when the originating user invokes the Unavailable) to indicate short term denial or a confirmation that the CCBS request was not Preconditions: SIP header values: 180 Ringing 1: Call-Info: <sip:ue-b or="" t-as="">;purpose=c SUBSCRIBE sip: T-AS;m=NR From:<ue-a> To:<ue-b> Contact:<o-as> Call.Info: <ue-a>; purpose=call-comp P-Assertd-Identity: UE-A Expires: CC-T3 Event:call-completion Comments: SIP 1 (Gm) INVITE 180 Ringing 2 (Anno- Inband-interaction procedures for CASE A</ue-a></o-as></ue-b></ue-a></sip:ue-b>	CC_N01_017 e CCNR service and a 403 (Forbidden) to ot successful. call-completion;m=N letion;m=NR SUT cuncement that CC	d the Appl o indicate R R CBS is po n →	ication Server rec long term denial SIP 2 (ISC) INVITE 180 Ringing 1 SUBSCRIBE	the originating user receives
CC/originating_AS/Invocation Test purpose Unsuccessful CCNR request. Ensure when the originating user invokes the Unavailable) to indicate short term denial or a confirmation that the CCBS request was not preconditions: SIP header values: 180 Ringing 1: Call-Info: <sip:ue-b or="" t-as="">;purpose=c SUBSCRIBE sip: T-AS;m=NR From:<ue-a> To:<ue-b> Contact:<o-as> Call.Info: <ue-a>; purpose=call-comp P-Assertd-Identity: UE-A Expires: CC-T3 Event:call-completion Comments: SIP 1 (Gm) INVITE 180 Ringing 2 4 Annot Inband-interaction procedures for</ue-a></o-as></ue-b></ue-a></sip:ue-b>	CC_N01_017 e CCNR service and a 403 (Forbidden) to ot successful. call-completion;m=N letion;m=NR SUT cuncement that CC	d the Appl o indicate R R CBS is po n →	ication Server rec long term denial SIP 2 (ISC) INVITE 180 Ringing 1 SUBSCRIBE	rily Unavailable)
CC/originating_AS/Invocation Test purpose Unsuccessful CCNR request. Ensure when the originating user invokes the Unavailable) to indicate short term denial or a confirmation that the CCBS request was not Preconditions: SIP header values: 180 Ringing 1: Call-Info: <sip:ue-b or="" t-as="">;purpose=c SUBSCRIBE sip: T-AS;m=NR From:<ue-a> To:<ue-b> Contact:<o-as> Call.Info: <ue-a>; purpose=call-comp P-Assertd-Identity: UE-A Expires: CC-T3 Event:call-completion Comments: SIP 1 (Gm) INVITE 180 Ringing 2 CASE A CASE B</ue-a></o-as></ue-b></ue-a></sip:ue-b>	CC_N01_017 e CCNR service and a 403 (Forbidden) to ot successful. call-completion;m=N letion;m=NR SUT cuncement that CC	d the Appl o indicate R R CBS is po n → ← ←	ication Server rec long term denial SIP 2 (ISC) INVITE 180 Ringing 1 SUBSCRIBE 480 (Tempora 403 (Forbidde	rily Unavailable)

TSS	TP	Pa	ference	Selection expression
CC/originating_AS/Invocation	CC_N01		5.4.2.1.1.5	Selection expression
		4.8		
Test purpose		1.0	5.1	
CCNR request. Timeout CC-T2.				
Ensure that the CC request operat				
timer CC-T2 is expired because no				
request was successful at the term	ninating AS the CCNR re	equest is rejec	ted. The caller	is informed.
Preconditions:				
SIP header values:				
180 Ringing 2:				
Call-Info: <sip:ue-b>;purpose=</sip:ue-b>	call-completion;m=NR			
SUBSCRIBE sip:T-AS;m=NR				
From: <ue-a></ue-a>				
To: <ue-b></ue-b>				
Contact: <o-as></o-as>				
Call.Info: <ue-a>; purpose=c</ue-a>	call-completion;m=NR			
P-Assertd-Identity: UE-A				
Expires: CC-T3 Event:call-completion				
Comments:				
SIP 1 (Gm)	SL	іт	SIP 2 (ISC)
INVITE	→	,, →)
100 Trying	é	÷	100 Trying	
loo riying	•	÷	180 Ringin	
180 Ringing 2	←	•	roo rangin	9 '
	Announcement th	at CCBS is p	ossible	
Inband-interaction proc				
•		→	SUBSCRIE	3E
		÷	200 OK SL	JBCSRIBE
	Start Tin	ner CC-T2		
		imer CC-T2		
	m to the caller that the			ssful
CANCEL	→	→	CANCEL	
200 OK CANCEL	+	÷	200 OK CA	
487 Request Terminated	+	+		est Terminated
ACK	→	→	ACK	

TSS CC/originating_AS/Invocation	TP CC_N01_019	Reference 4.5.4.2.1.1.5, 4.5.4.2.1.1.6	Selection expression PICS 4.7.1/9
Test purpose			
CCNL successful request.			
A 480 (Temporarily Unavailable) is rece parameter set to call-completion and the (Session Progress) to the originating us Completion is possible. The originating is that the AS sends a SUBSCRIBE to the successful invocation of the CC service. user by sending of a 480 (Temporarily L Preconditions:	e m parameter is set to NL er and starts to play an an user activates via inband ir terminating AS. The NOT . The Application Server co	Ensure that the Appli- nouncement to inform nteraction the CCNL ca IFY received from the ponfirms the successful	cation Server sends a 183 the originating user that Call all completion service. Ensure terminating AS confirms the
SIP header values:			
480 Temporarily Unavailable 1: Call-Info: <sip:ue-b or="" t-as="">;purpo</sip:ue-b>	se=call-completion;m=NL		
SUBSCRIBE sip: T-AS;m=NL From: <ue-a> To:<ue-b> Contact:<o-as> Call.Info: UE-A; purpose=call-com P-Assertd-Identity: UE-A Expires: CC-T3 Event:call-completion</o-as></ue-b></ue-a>	npletion;m=NL		
NOTIFY Event:call-completion Content-Type: application/call-comp cc-state: queued	letion		
480 Temporarily Unavailable 2 Date: <current and="" date="" time=""> Content-Type: message/external-bo</current>	dy; access-type="URL"; UI	RL= < any url >	
Comments:			
SIP 1 (Gm) INVITE	SUT →	SIP 2 (ISC) → INVITE ← 480 (Tempo → ACK	orarily Unavailable) 1
183 (Session Progress)	+		
Inband-interaction procedur	Announcement that CCN	R IS POSSIBLE	
		 → SUBSCRIBI ← 200 OK SUI 	
		← NOTIFY→ 200 OK NOT	
Confirm t 480 (Temporarily Unavailable) 2 ACK	to the caller that the invo ← →	cation was successfi	ul

TSS	TP	Refe	erence	Selection expression
CC/originating_AS/Invocation	CC_N01_020	4.5.4.2.1.1.1		PICS 4.7.1/9
Test purpose				
CCNL not possible, A CC queue limit has	been exceeded.			
Ensure that the AS does not offer the acti		tion serv	vice if the use	r A CCNL queue limit has beer
exceeded. The 480 (Temporarily Unavaila				
Preconditions: CCBS queue limit exceed	led			
SIP header values:				
480 Temporarily Unavailable 1:				
Call-Info: <sip:ue-b>;purpose=call-co</sip:ue-b>	mpletion;m=NL			
Comments:				
SIP 1 (Gm)	SUT		SIP 2 (ISC)
	Set the A queue t	o limit		
INVITE	→	→	INVITE	
100 Trying	÷	÷	100 Trying	
480 (Temporarily Unavailable)	÷	←		orarily Unavailable) 1
ACK	→	→	ACK	
TSS	ТР		erence	Selection expression
CC/originating_AS/Invocation	CC_N01_021	4.5.4	4.2.1.1.1	PICS 4.7.1/9 AND NOT PICS 4.7.1/3
Test purpose				
CCNL invocation not possible, further idea	ntical request (communic	cation pa	arameters).	
-		•	-	
Ensure that the AS does not offer the activ				
identical communication, determined by the	ne stored basic communi	cation ir	nformation. Th	he 480 (Temporarily

identical communication, determined	l by the stored basic comn	nunication i	information. The 480 (Temporarily
Unavailable) is passed through.			
Preconditions:			
SIP header values:			
480 Temporarily Unavailable 1:			
Call-Info: <sip:ue-b>;purpose=ca</sip:ue-b>	all-completion;m=NL		
Comments:			
SIP 1 (Gm)	SUT		SIP 2 (ISC)
A successful CCNL reques	st is already invoked		
INVITE	→	→	INVITE
100 Trying	+	←	100 Trying
480 (Temporarily Unavailable)	+	←	480 (Temporarily Unavailable) 1
ACK	→	→	ACK

TSS	TP		Reference	Selection expression
CC/originating_AS/Invocation	CC	_N01_022	4.5.4.2.1.2	PICS 4.7.1/9
Test purpose				
Unsuccessful CCNL request.				
· · · · · ·				
Ensure when the originating user	invokes the CCNL	service and th	e Application	Server receives a 480 (Temporarily
			ndicate long te	rm denial the originating user receives
a confirmation that the CCNL req	uest was not succes	ssful.		
Preconditions:				
SIP header values:				
480 Temporarily Unavailable 1:				
Call-Info: <sip:ue-b or="" t-as=""></sip:ue-b>	;purpose=call-comp	letion;m=NL		
SUBSCRIBE sip: T-AS;m=NL				
From: <ue-a></ue-a>				
To: <ue-b></ue-b>				
Contact: <o-as></o-as>				
Call.Info: <ue-a>; purpose=</ue-a>	call-completion;m	=NL		
P-Assertd-Identity: UE-A Expires: CC-T3				
Event:call-completion				
Comments:				
SIP 1 (Gm)		SUT	SIP	2 (ISC)
INVITE	→	001	→ INVI	
	2			(Temporarily Unavailable) 1
183 Session Progress	←		→ ACK	
	Announcem	ent that CCB	S is possible	-
Inband-interaction pro				
•			→ SUE	SCRIBE
CASE A				
			← 480	(Temporarily Unavailable)
CASE B				
				(Forbidden)
	irm to the caller the	at the invoca	tion was not s	successful
480 (Temporarily Unavailable) 2	+			
ACK	→			
		y post test ro		

TSS		ТР	Ref	erence	Selection expression
CC/originating_AS/Invocation		CC_N01_023	4.5. 4.8	.4.2.1.1.5	PICS 4.7.1/9
Test purpose					
CCNL request. Timeout CC-T2.					
Ensure that the CC request operation	ation timer CC	-T2 is started after (CCNL	request is rece	eived from caller. When the
timer CC-T2 is expired because i					
request was successful at the ter					
Preconditions:	0	ľ			
SIP header values:					
480 Temporarily Unavailable:					
Call-Info: <sip:ue-b>;purpose</sip:ue-b>	e=call-completi	ion:m=NL			
SUBSCRIBE sip:T-AS;m=NL		-)			
From: <ue-a></ue-a>					
To: <ue-b></ue-b>					
Contact: <o-as></o-as>					
Call.Info: <ue-a>; purpose:</ue-a>	-call-completi	on:m=NL			
P-Assertd-Identity: UE-A	•				
Expires: CC-T3					
Event:call-completion					
Comments:					
SIP 1 (Gm)		SUT		SIP 2 (ISC)
INVITÈ	→		→	INVITÈ	
100 Trying	+		←	100 Trying	
, .			-		
			←	480 (Temp	orarily Unavailable)
183 Session Progress	+		← →	480 (Temp ACK	orarily Unavailable)
183 Session Progress	-	ncement that CCB	→	ACK	orarily Unavailable)
183 Session Progress Inband-interaction pro	Annour	ncement that CCB he CC activation	→	ACK	orarily Unavailable)
J. J	Annour		→	ACK	
C C	Annour		→ S is po	ACK ossible	BE
J. J	Annour		→ Sispo → ←	ACK ossible SUBSCRIE	BE
J. J	Annour	he CC activation	→ Sispo → ←	ACK ossible SUBSCRIE	BE
183 Session Progress Inband-interaction pro	Annour ocedures for t	he CC activation	→ S is po → ←	ACK ossible SUBSCRIE	BE
Inband-interaction pro	Annour ocedures for t	he CC activation Start Timer CC-⊺ ↓	→ S is po → ← 12 :-T2	ACK ossible SUBSCRIE 200 OK SL	BE BCSRIBE
Inband-interaction pro	Annour ocedures for t	he CC activation Start Timer CC-ī ↓ Timeout Timer CC	→ S is po → ← 12 :-T2	ACK ossible SUBSCRIE 200 OK SL	BE BCSRIBE

5.2.2 CC Revocation

TSS	TP		Refere	200	Selection expression
CC/originating_AS/Revocation		N02_001	4.5.4.2		PICS 4.7.1/8
Test purpose	00	_1102_001	7.0.7.2		1100 4.7.170
CCBS revocation request receiv	ed from the user				
CODS revocation request receiv					
Ensure that the originating AS se	ends a SUBCRIBE re	quest and the	Expires	header is set t	o zero when the originating
user revokes the outstanding CC					
the Request URI is set to the ser					
Preconditions:					
SIP header values:					
INVITE: Request URI= Servic	e Code Command (revoke CCBS	s request)	
SUBSCRIBE sip:T-AS;m=BS				,	
Call.Info: UE-A (Public user	identity); purpose=ca	Ill-completion	m=BS		
P-Assertd-Identity: UE-A (F	Public user identity)				
Event:call-completion					
Expires=0					
NOTIFY sip:O-AS					
Event:call-completion					
Subscription-State: terminate	ed; reason=timeout				
Comments:		<u></u>			
SIP 1 (Gm)	() 0000	SUT		SIP 2 (ISC)	
Establish a su	ccessful CCBS requ	lest			
Revocation	request from the us	er			
INVITE	→	01			
200 OK INVITE	÷				
ACK	→				
			→	SUBSCRIBE	
			←	200 OK SUBC	SRIBE
				NOTIFY	
				200 OK NOTI	FY
	onfirm to the caller the	hat the revoo	ation wa	s successful	
BYE	→				
200 OK BYE	+				

TSS	TP		erence	Selection expression
CC/originating_AS/Revocation	CC_N02_002	4.5.4	4.2.2.1.2	PICS 4.7.1/8
Test purpose	d from the upor			
CCNR revocation request received	i nom me user.			
Ensure that the originating AS send	ds a SLIBCRIBE request and t	he Expire	s header is s	et to zero when the originating
user revokes the outstanding CCN				
the Request URI is set to the servious				
Preconditions:			•	
SIP header values:				
INVITE: Request URI= Service	Code Command (revoke CCI	NR reque	est)	
SUBSCRIBE sip:T-AS;m=NR				
Call.Info: UE-A (Public user id P-Assertd-Identity: UE-A (Pub	entity); purpose=call-completic	n;m=NR		
Event:call-completion	Sile user identity)			
Expires=0				
NOTIFY sip:O-AS				
Event:call-completion				
Subscription-State: terminated;	reason=timeout			
Comments: SIP 1 (Gm)	SUT		SIP 2 (ISC)
	cessful CCNR request		51P 2 (15C)
	essial contrequest			
Revocation ree	quest from the user			
INVITE	→			
200 OK INVITE	←			
ACK	→			
		``		
		→ ←	SUBSCRIE 200 OK SL	
		τ.	200 UN 31	JUGGRIDE
		←	NOTIFY	
		÷	200 OK NO	DTIFY
Conf	firm to the caller that the rev	ocation v	was success	ful
BYE	→			
200 OK BYE	+			

TSS	ТР	Refe	erence	Selection expression
CC/originating_AS/Revocation	CC_N02_003		4.2.2.1.2	PICS 4.7.1/8
•••,••••••••••••••••••••••••••••••••••				AND PICS 4.7.1/9
Test purpose				
CCNL revocation request received	from the user.			
Ensure that the originating AS send				
user revokes the outstanding CCNI the Request URI is set to the servic				request and the user part of
Preconditions:			quesi.	
SIP header values:				
INVITE: Request URI= Service (Code Command (revoke CCN	NL reque	st)	
			,	
SUBSCRIBE sip:T-AS; m=NL				
Call.Info: UE-A (Public user ide		n;m=NL		
P-Assertd-Identity: UE-A (Pub	lic user identity)			
Event:call-completion				
Expires=0				
NOTIFY sip:O-AS				
Event:call-completion				
Subscription-State: terminated;	reason=timeout			
Comments:				_
SIP 1 (Gm)	SUT		SIP 2 (ISC)
Establish a succ	essful CCNL request			
Revocation rec	uest from the user			
INVITE	→			
200 OK INVITE	+			
ACK	→			
		→ ←	SUBSCRIE	
		τ.	200 OK SL	JOUSKIDE
		←	NOTIFY	
		÷	200 OK NO	DTIFY
Confi	irm to the caller that the reve	ocation v	was success	ful
BYE	→			
200 OK BYE	+			

TSS	TP		rence	Selection expression
CC/originating_AS/Revocation	CC_N02_004	4.5.4	.2.2.1.3	
Test purpose				
CCBS revocation caused by timer expiry CC-T3.				
Ensure that the originating AS revokes the outsta	anding CCBS requ	lost if the	a CC service dura	ation timer CC-T3 expires
Preconditions:	anding CCBS req			auon americo-13 expires.
SIP header values:				
SUBSCRIBE sip:T-AS;m=BS				
Event:call-completion				
Call.Info: UE-A (Public user identity); purpos	e=call-completion	:m=NL		
P-Assertd-Identity: UE-A (Public user identi		,		
Expires=0				
NOTIFY sip:O-AS				
Event:call-completion				
Subscription-State: terminated; reason=timed	out			
Comments:	o			
SIP 1 (Gm)	SUT		SIP 2 (ISC)	
Establish a successful CCBS Start CC-T3	request			
Start CC-15				
Timeout CC-T3				
		→	SUBSCRIBE	
		←	200 OK SUBCS	SRIBE
		←	NOTIFY	
		→	200 OK NOTIF	Y
TSS	TP	Rofo	rence	Selection expression
CC/originating_AS/Revocation	CC_N02_005		.2.2.1.3	delection expression
Test purpose	00_1102_000	1.0.1		
CCNR revocation caused by timer expiry CC-T3				
Ensure that the originating AS revokes the outsta	anding CCNR req	uest if th	e CC service dura	ation timer CC-T3 expires.
Preconditions:				
SIP header values:				
SUBSCRIBE sip:T-AS;m=NR				
Call.Info: UE-A (Public user identity); purpos	se=call-completior	n;m=NR		
P-Assertd-Identity: UE-A (Public user ident	ity)			
Event:call-completion				
Expires=0				
NOTIFY sip:O-AS				
Event:call-completion				
	out			
Subscription-State: terminated; reason=timed	out			
Subscription-State: terminated; reason=timed			SIP 2 (ISC)	
Subscription-State: terminated; reason=timed Comments: SIP 1 (Gm)	SUT		SIP 2 (ISC)	
Subscription-State: terminated; reason=timed	SUT		SIP 2 (ISC)	
Subscription-State: terminated; reason=timed Comments: SIP 1 (Gm) Establish a successful CCBS	SUT		SIP 2 (ISC)	
Subscription-State: terminated; reason=timed Comments: SIP 1 (Gm) Establish a successful CCBS	SUT			
Subscription-State: terminated; reason=timed Comments: SIP 1 (Gm) Establish a successful CCBS Start CC-T3	SUT	→	SUBSCRIBE	
Subscription-State: terminated; reason=timed Comments: SIP 1 (Gm) Establish a successful CCBS Start CC-T3	SUT	→ ←		SRIBE

←

→

NOTIFY

200 OK NOTIFY

TSS	ТР	Ref	erence	Selection expression
CC/originating_AS/Revocation	CC_N02_006		4.2.2.1.3	PICS 4.7.1/9
Test purpose CCNL revocation caused by timer expiry CC-T				
Ensure that the originating AS revokes the outs	standing CCNL requ	uest if th	ne CC service c	luration timer CC-T3 expires.
Preconditions:				
SIP header values: SUBSCRIBE sip:T-AS Call.Info: UE-A (Public user identity); purp P-Assertd-Identity: UE-A (Public user iden Event:call-completion Expires=0		i;m=NL		
NOTIFY sip:O-AS Event:call-completion Subscription-State: terminated; reason=tim	eout			
Comments: SIP 1 (Gm) Establish a successful CCN Start CC-T3	SUT NL request		SIP 2 (ISC)	
Timeout CC-T3				
Timeout CC-13		→ ←	SUBSCRIBI 200 OK SUB	
		← →	NOTIFY 200 OK NO	TIFY
TSS	TP	Ref	erence	Selection expression
CC/originating_AS/Revocation	CC_N02_007	4.5.	4.2.2.2	
Test purpose CCBS revocation caused by terminating AS.				
Ensure that the originating AS revokes the outs terminating user and the Subscription-State he				
header field parameter set to "noresource".				-
Preconditions:				
SIP header values: NOTIFY sip:O-AS				
Event:call-completion Subscription-State: terminated; reason= no	resource			
Comments: SIP 1 (Gm)	SUT		SIP 2 (ISC)	
			J ()	

SIP 1 (GM)	SUI Establish a successful CCBS request		SIP 2 (ISC)	
		← →	NOTIFY 200 OK NOTIFY	

TSS	TP	Reference	Selection expression
CC/originating_AS/Revocation	CC_N02_008	4.5.4.2.2.2	-
Test purpose			
CCNR revocation caused by terminating AS.			
Ensure that the entries time AQ moved as the entropy			
Ensure that the originating AS revokes the outsta terminating user and the Subscription-State hea			
header field parameter set to "noresource".			le leason subscription-state
Preconditions:			
SIP header values:			
NOTIFY sip:O-AS			
Event:call-completion			
Subscription-State: terminated; reason= nore	esource		
Comments:			
SIP 1 (Gm)	SUT	SIP 2	(ISC)
Establish a successful CCNR	l request		
		← NOTI	
			PK NOTIFY
		- 200 C	
TSS	ТР	Reference	Selection expression
CC/originating_AS/Revocation	CC_N02_009	4.5.4.2.2.2	PICS 4.7.1/9
Test purpose			
CCNL revocation caused by terminating AS.			
Ensure that the originating AS revelues the outst	anding CCNIL rag	Loot if the AC rea	acives a NOTIEV request from the
Ensure that the originating AS revokes the outsta terminating user and the Subscription-State hea	der field set to "ter	minated": and th	e "reason" Subscription-State
header field parameter set to "noresource".			le reason oubscription-otate
Preconditions:			
SIP header values:			
NOTIFY sip:O-AS			
Event:call-completion			
Subscription-State: terminated; reason= nore	esource		
Comments:			
SIP 1 (Gm)	SUT	SIP 2	(ISC)
Establish a successful CCNL	. request		
		← NOTI	FY
			OK NOTIFY

5.2.3 CC Operation

TSS CC/originating_	AS/Operation	TP CC_N03_00)1	Refer 4.5.4.		Selection expression NOT PICS 4.7.1/4
Test purpose	<u></u>	[0010000		1	2.0.1	
	uccessful by sending	a REFER request to	the originat	ting use	er.	
						callee is available to recall
	NOTIFY request and the					
				Set to E	S In the INVITE	request sent to the callee
	the received INVITE	request from the call	er.			
Preconditions						
SIP header val						
	sip:O-AS					
	Event:call-completion					
C	Content-Type: applica	tion/call-completion				
	cc-state: ready					
	sip: UE A; m=BS					
	Refer-To; UE B; meth	od=INVITE				
	sip: UE B; m=BS					
-	From: UE A					
	To: UE B					
	Call-Info: <sip:ue-a>;</sip:ue-a>	purpose=call-comple	tion;m=BS			
	sip:O-AS					
	Event:call-completion					
-	Subscription-State: ter	minated; reason=tim	ieout			
Comments:						
SIP 1 (Gm)		SUT			SIP 2 (ISC)	
		BS request				
	CCBS request	confirmed by AS				
					er available for	recall
		000 (NOTIFY	÷	NOTIFY 1	
			OK NOTIFY	→	200 OK NOTIF	Ŷ
REFER	+	REFER	-			
200 OK SUBCS	SRIBE →	200 OK SUBCSRIE	3E			
	•					
NOTIFY (100)	→ →	NOTIFY (100)				
200 OK NOTIF	Y 🗲	200 OK NOTIFY				
	、					
INVITE	→	INVITE		``		
			INVITE 1	→		
180 Ringing	+			÷	180 Ringing	
				,		
		000 (-	NOTIFY 2	
200 OK INVITE		200 C	OK NOTIFY			
	E ← →			← →	200 OK INVITE ACK	
ACK	7			7	AUN	
NOTIFY (200)	L	NOTIFY (200)				
200 OK NOTIF	→ Y ←	200 OK NOTIFY				
	· ~		set toet rout	ino		
L		Арріу ро	ost test rout	iiie		

TSS			TP		Refer	ence	Selection expression
	g_AS/Operation			03_002	4.5.4.		NOT PICS 4.7.1/4
Test purpos						-	
		ending a	REFER requ	uest to the origina	ting us	er.	
							callee is available to recall
							to "ready". A REFER
	of the received I				Set to N	NR IN THE INVITE	request sent to the callee
Preconditio			quest nom tr				
SIP header	-						
NOTIFY 1	sip:O-AS						
	Event:call-com	oletion					
	Content-Type:		n/call-compl	etion			
	cc-state: re	ady					
REFER:	sip: UE A; m=N						
	Refer-To; UE E		=INVITE				
INVITE 1:	sip: UE B; m=N	IR					
	From: UE A To: UE B						
			rpose_call_c	ompletion;m=NR			
NOTIFY 2	sip:O-AS	J⊑-A>,pu	ipose_cai-c				
	Event:call-com	pletion					
	Subscription-S		inated; reaso	on=timeout			
Comments:							
SIP 1 (Gm)	· · ·			SUT		SIP 2 (ISC)	
			R request	46			
	CUNKIE	quest co	onfirmed by		tina us	er available for	recall
				NOTIFY	-		coan
				200 OK NOTIFY	-	200 OK NOTIFY	/
REFER		← R	EFER				
200 OK SUB	CSRIBE	→ 2	00 OK SUB	CSRIBE			
		• •		,			
NOTIFY (100			IOTIFY (100				
200 OK NOT	IFY	← 2	00 OK NOT	FY			
INVITE		→ IN	NVITE				
		- 11			→	INVITE 1	
180 Ringing		÷			←	180 Ringing	
				NOTIFY		NOTIFY 2	
				200 OK NOTIFY		200 OK NOTIFY	
200 OK INVI	IE	÷			÷	200 OK INVITE	
ACK		→			→	ACK	
NOTIFY (200))	→ N	IOTIFY (200)			
200 OK NOT			00 OK NOTI				
				oly post test rout	tine		

TOO		ТР	De		Coloction oversooien
TSS CC/originatin	g_AS/Operation	TP CC_N03_003	-	ference .4.2.3.1	Selection expression NOT PICS 4.7.1/4 AND PICS 4.7.1/9
Test purpos					•
CCNL Recall	successful by sending	a REFER request to the	e originating i	user.	
Encure that t	he originating AS starts	the CCNIL recall proceed	luro whon the	a indication that th	ne callee is available to recall
		the state header in the ca			
					E request sent to the callee
		request from the caller.			
Precondition	าร:				
SIP header v	/alues:				
NOTIFY 1	sip:O-AS				
	Event:call-completion				
	Content-Type: applica	ation/call-completion			
REFER:	cc-state: ready sip: UE A; m=NL				
NEFEN.	Refer-To; UE B; meth	od-INI/ITE			
INVITE 1:	sip: UE B; m=NL				
	From: UE A				
	To: UE B				
		;purpose=call-completior	n;m=NL		
NOTIFY 2	sip:O-AS				
	Event:call-completion	rminated; reason=timeo	.+		
Comments:	Subscription-State. te		u		
SIP 1 (Gm)		SUT		SIP 2 (ISC)	
	Invoke C	CNL request		0 ()	
		confirmed by AS			
			-	user available fo	or recall
REFER	L	200 OK I REFER	NOTIFY	200 OK NOTI	FY
200 OK SUB	CSRIBE →	200 OK SUBCSRIBE			
200 OR 30D		200 ON SUBCONIDE			
NOTIFY (100)) 🗕 🗲	NOTIFY (100)			
200 OK NOT		200 OK NOTIFY			
N N #==					
INVITE	→	INVITE			
180 Ringing	4) 4	 INVITE 1 180 Ringing 	
	X.	1	NOTIFY E	NOTIFY 2	
			NOTIFY -	200 OK NOTI	FY
200 OK INVI ⁻			+	200 OK INVIT	
ACK	→		→	ACK	
NOTIFY (200		NOTIFY (200) 200 OK NOTIFY			
200 OK NOT	IFY 🗲	Apply post 1	est routine		

TSS		TP	R	eference	e Selecti	on expression
CC/originating_AS/Operati	on	CC_N03_		5.4.2.3.1		
Test purpose CCBS Recall successful by	y using the	special REFER il	nterworking. Sendi	ng an IN	VITE request to the	e originating user.
Ensure that the originating indicated in a NOTIFY requirequest is sent to the caller the m parameter in the Reconnected.	uest and the	state header in session with the	the call-completior caller is answered	i MIME t I, an INV	oody is set to "read ITE request is sent	y". An INVITE to the callee and
Preconditions:						
SIP header values:						
NOTIFY 1 sip:O-AS Event:call-cc Content-Typ cc-state:	e: application	on/call-completion	n			
INVITE 2: sip: UE B; m From: UE A To: UE B	=BS					
NOTIFY 2 sip:O-AS Event:call-co	mpletion	irpose=call-comp inated; reason=r				
Comments:						
SIP 1 (Gm)		-	UT		SIP 2 (ISC)	
		CBS request				
CC	BS request	confirmed by A			ilahla far raaall	
			NOTIFY		ilable for recall NOTIFY 1	
			200 OK NOTIFY	-	200 OK NOTIFY	
INVITE 180 Ringing		NVITE 1 80 Ringing	200 01010111	2		
200 OK INVITE ACK		200 OK INVITE ACK		→ ←	INVITE 2 180 Ringing	
			NOTIFY 200 OK NOTIFY		NOTIFY 2 200 OK NOTIFY	
				← →	200 OK INVITE	

TSS		TP	R	Reference	ce	Selection expression	
CC/originating_/	AS/Operation	CC_N03_0		.5.4.2.3		PICS 4.7.1/4	
Test purpose	•		·				
CCNR Recall su	iccessful by using th	ne special REFER i	nterworking. Send	ding an l	NVITE requ	lest to the originating user.	
Encure that the	originating AC starts	the COND recall p	rooduro when th	a indiaa	tion that the	a collectic curvitable to recall	
						e callee is available to recall to "ready". An INVITE	
						st is sent to the callee and	
the m parameter	r in the Request line	is set to NR. When	the callee answe	ers the s	ession. call	er and callee are	
connected.					,		
Preconditions:							
SIP header valu							
	p:O-AS						
	vent:call-completion						
C	ontent-Type: applica	ation/call-completion	n				
	cc-state: ready						
	p: UE B; m=NR						
	om: UE A						
	o: UE B all-Info: <sip:ue-a>;</sip:ue-a>	nurnese-call comr	Notion-MP				
	p:O-AS	purpose=call-comp					
	vent:call-completion						
	ubscription-State: te		noresource				
Comments:	ł	,					
SIP 1 (Gm)		S	UT		SIP 2 (IS	C)	
		CCNR request					
	CCNR reque	est confirmed by A					
				Terminating user available for recall			
			NOTIFY		NOTIFY	-	
			200 OK NOTIFY	∕ →	200 OK N	IOTIFY	
INVITE	÷	INVITE 1					
180 Ringing	→	180 Ringing					
200 OK INVITE	→	200 OK INVITE		→	INVITE 2		
ACK	÷	ACK		÷	180 Ringi		
	-			-			
			NOTIFY	←	NOTIFY 2	2	
			200 OK NOTIFY	(→	200 OK N	IOTIFY	
				÷	200 OK II	NVITE	
				→	ACK		
		Apply p	post test routine				

TSS		TP		Reference	ce	Selection expression
CC/originating_AS/Operat	ion	CC_N03_		4.5.4.2.3		PICS 4.7.1/4 AND PICS 4.7.1/9
Test purpose						
CCNL Recall successful b	y using th	e special REFER i	nterworking. Sen	ding an li	NVITE requ	lest to the originating user.
Ensure that the originating	AS starts	the CCNI recall n	vrocedure when th	na indicat	tion that the	callee is available to recall
indicated in a NOTIFY requ						
						st is sent to the callee and
the m parameter in the Re	quest line	is set to NL. When	n the callee answ	ers the se	ession, calle	er and callee are
connected.						
Preconditions:						
SIP header values:						
NOTIFY 1 sip:O-AS Event:call-co	omplotion					
		tion/call-completio	n			
cc-state:						
INVITE 2: sip: UE B; m	,					
From: UE A						
To: UE B						
	ip:UE-A>;	purpose=call-comp	pletion;m=NL			
NOTIFY 2 sip:O-AS Event:call-co	ompletion					
		rminated; reason=i	noresource			
Comments:		,				
SIP 1 (Gm)			UT		SIP 2 (IS	C)
		CCNL request				
CC	NL reque	est confirmed by A			allahla far	"
			Terminating NOTIF		NOTIFY 2	
			200 OK NOTIF		200 OK N	
INVITE	←	INVITE 1	200 01010111		200 0101	
180 Ringing	→	180 Ringing				
200 OK INVITE	→	200 OK INVITE		→	INVITE 2	
ACK	+	ACK		+	180 Ringi	ng
			NOTIF	Y ←	NOTIFY 2	2
			200 OK NOTIF	-	200 OK N	
				÷	200 OK II	NVITE
		۸ م م ا	noot toot routing	` →	ACK	
		Арріу	post test routine	;		

c	7
J	1

TSS		TP	Refe	rence	Selection expression
CC/originatir	ng_AS/Operation	CC_N03_007	4.5.4	.2.3.2.1	
Test purpos CCBS Reca		nating user. CC-T4 expires.			
		kes the outstanding CCBS re e and the caller does not acc			
terminating A	AS and the Expires hea	ader is set to zero.			
Preconditio	ns:				
SIP header	values:				
NOTIFY 1	sip:O-AS Event:call-completion Content-Type: applic cc-state: ready				
REFER:	sip: UE A; m=BS				
INVITE:	Refer-To; UE B meth sip: UE A; m=BS				
		n the From header of original	communie	sation): nurnos	
	From: UE B	n me From neauer or onginal	communit	allon), puipose	
SUBSCRIBE					
		entity); purpose=call-completion	n·m-NI		
	td-Identity: UE-A (Public user lat		/i,iii=INL		
	Il-completion	die user identity)			
Expires=					
NOTIFY 2 si					
	Il-completion				
	tion-State: terminated;	reason=timeout			
Comments:		SUT			
SIP 1 (Gm)	Involta C	CBS request		SIP 2 (ISC)	
	CCBS reques	t confirmed by AS	inatina	ser available f	or rocall
			-		ULIEUAII
				NOTIFY 1	
		200 OK NOT	IFY 🗲	200 OK NOT	
		REFER			
REFER	+				
200 OK SUE		200 OK SUBCSRIBE Start Timer CC-T4			
		200 OK SUBCSRIBE			
CASE B	BCSRIBE →	200 OK SUBCSRIBE Start Timer CC-T4			
CASE B INVITE	BCSRIBE →	200 OK SUBCSRIBE Start Timer CC-T4			
CASE B INVITE	BCSRIBE →	200 OK SUBCSRIBE Start Timer CC-T4 INVITE 180 (Ringing)			
200 OK SUE CASE B INVITE 180 (Ringing	BCSRIBE →	200 OK SUBCSRIBE Start Timer CC-T4			
CASE B INVITE	BCSRIBE →	200 OK SUBCSRIBE Start Timer CC-T4 INVITE 180 (Ringing)			
CASE B INVITE	BCSRIBE →	200 OK SUBCSRIBE Start Timer CC-T4 INVITE 180 (Ringing) Start Timer CC-T4 ↓			
CASE B INVITE	BCSRIBE →	200 OK SUBCSRIBE Start Timer CC-T4 INVITE 180 (Ringing) Start Timer CC-T4 ↓ Timeout Timer CC-T4			
CASE B INVITE	BCSRIBE →	200 OK SUBCSRIBE Start Timer CC-T4 INVITE 180 (Ringing) Start Timer CC-T4 ↓ Timeout Timer CC-T4 SUBSCR			
CASE B INVITE	BCSRIBE →	200 OK SUBCSRIBE Start Timer CC-T4 INVITE 180 (Ringing) Start Timer CC-T4 ↓ Timeout Timer CC-T4		SUBSCRIBE 200 OK SUB	
CASE B INVITE	BCSRIBE →	200 OK SUBCSRIBE Start Timer CC-T4 INVITE 180 (Ringing) Start Timer CC-T4 ↓ Timeout Timer CC-T4 SUBSCR 200 OK SUBCSR	BE 🗲	200 OK SUB	
CASE B INVITE	BCSRIBE →	200 OK SUBCSRIBE Start Timer CC-T4 INVITE 180 (Ringing) Start Timer CC-T4 ↓ Timeout Timer CC-T4 SUBSCR 200 OK SUBCSR	IBE 🗲		CSRIBE

TSS		ТР	Refe	rence	Selection expression
CC/originating_AS/	Operation	CC_N03_008	4.5.4	.2.3.2.1	
Test purpose CCNR Recall not ad					
	callee is possible	tes the outstanding CCNR e and the caller does not a			
Preconditions:	the Expires hea				
SIP header values:					
NOTIFY 1 sip:O Event Conte	-AS t:call-completion	ation/call-completion			
REFER: sip: U	JE A; m=NR -To; UE B; meth	od=INVITE			
INVITE: sip: U Call.I From	IE A; m=NR nfo: UE-A (<i>from</i> : UE B	the From header of origin	al communic	<i>ation</i>);	call-completion;m=NR
P-Assertd-Iden Event:call-comp Expires=0	(Public user ide tity: UE-A (Publ letion	ntity); purpose=call-comple ic user identity)	etion;m=NL		
NOTIFY 2 sip:O-AS Event:call-comp Subscription-Sta	letion	reason=timeout			
Comments:		0.17			
SIP 1 (Gm)		SUT		SIP 2 (ISC)	
		CBS request			
	CCBS request	confirmed by AS			
			-	ser available for	recall
			DTIFY +	NOTIFY 1	N
CASE A		200 OK NO	OTIFY 🗲	200 OK NOTIF	ř
REFER 200 OK SUBCSRIB	€ →	REFER 200 OK SUBCSRIBE Start Timer CC-T4	ŀ		
CASE B INVITE 180 (Ringing)	← →	INVITE 180 (Ringing) Start Timer CC-T4	L		
		↓ Timeout Timer CC- SUBSC 200 OK SUBCS	CRIBE 🗕	SUBSCRIBE 200 OK SUBC	SRIBE
		NG 200 OK NG Apply post te	-	NOTIFY 2 200 OK NOTIF	Y

TSS CC/originativ	AS/Operation		TP CC_N03_009		rence	Selection expression PICS 4.7.1/9
Test purpos	ng_AS/Operation		LCC_1003_009	4.5.4	.2.3.2.1	FICO 4.1.1/9
	ll not accepted by	origina	ating user.			
Ensure that	the originating AS	revok	es the outstanding CCNL reque	st afte	r having receive	d the notification that the
			and the caller does not accept			
	AS and the Expire					
Preconditio	ons:					
SIP header	values:					
NOTIFY 1	sip:O-AS					
	Event:call-comp					
			tion/call-completion			
	cc-state: rea					
REFER: sip: UE A; m=NL Refer-To; UE B; method=INVITE						
INVITE:	sip: UE A; m=NI					
IINVIIC.			the From header of original cor	nmunir	cation): nurnee	=call-completion·m-NI
	From: UE B	UIUII	and i rom neader or original cor		anon, puipose	
SUBSCRIBE						
		er ider	itity);	n=NL		
	td-Identity: UE-A					
	Ill-completion		-			
Expires=						
NOTIFY 2 si						
	Ill-completion		<i></i>			
	tion-State: termina	ated; re	eason=timeout			
Comments: SIP 1 (Gm)			SUT			
	Invo	ke CC	BS request		SIP 2 (ISC)	
			confirmed by AS			
	0020100	14001		tina u	ser available fo	or recall
			NOTIFY	-	NOTIFY 1	
			200 OK NOTIFY	→	200 OK NOT	IFY
CASE A						
REFER		←	REFER			
200 OK SUE	BCSRIBE	→	200 OK SUBCSRIBE			
			Start Timer CC-T4			
		L				
INVITE 180 (Ringing	(1	← →	INVITE 180 (Ringing)			
	J/	7	Start Timer CC-T4			
			Ļ			
			Timeout Timer CC-T4			
			SUBSCRIBE	→	SUBSCRIBE	
			200 OK SUBCSRIBE	←	200 OK SUB	CSRIBE
				_		
					NOTIFY 2	
			200 OK NOTIFY Apply post test rou		200 OK NOT	IF Y

TSS CC/originatio	AS/Operation	TP CC_N03_010	Reference 4.5.4.2.3.2.2	Selection expression NOT PICS 4.7.1/4
	ng_AS/Operation	UU_1103_010	4.0.4.2.3.2.2	INUT FIUS 4.7.1/4
Fest purpos		n o CC rocall notification	has been received	
JCBS Caller	" Is found to be busy, whe	n a CC recall notification l	nas been received.	
Ensure that y	when the caller is found to	be busy, when a CCBS (CC recall notification ha	s been received then the
		equest until the caller bec		
				closed". The originating AS
				status set to "open" when the
caller is no lo				
Preconditio				
SIP header				
NOTIFY 1	sip:O-AS			
	Event:call-completion			
	Content-Type: application	on/call-completion		
	cc-state: ready			
REFER:	sip: UE A; m=BS			
	Refer-To; UE B; method	d=INVITE		
NVITE:	sip: UE A; m=BS			
		he From header of origina	I communication); purpo	se=call-completion;m=BS
	From: UE B			
PUBLISH 1:				
		user identity); purpose=ca	all-completion;m=BS	
	P-Assertd-Identity: UE	A (Public user identity)		
	Expires=(> 0)			
	Event: presence	the sector ball a second l		
	Content-Type: applica			
	xml version="1.0" end</td <td>coding= UTF-8 ?></td> <td></td> <td></td>	coding= UTF-8 ?>		
	<presence <tuple :<="" id=" any uri " td=""><td></td><td></td><td></td></tuple></presence 			
	<status></status>			
	<status> <basic>close</basic></status>	d-/basic>		
NOTIFY 2 si				
	I-completion			
	Type: application/call-com	npletion		
	ate: queued			
PUBLISH 2:				
	To: UE B			
		user identity); purpose=ca	all-completion;m=BS	
	P-Assertd-Identity: UE	A (Public user identity)		
	Expires=(> 0)			
	Event: presence	(in a latif, and i		
	Content-Type: applica			
	xml version="1.0" end</td <td>couing= UTF-8"?></td> <td></td> <td></td>	couing= UTF-8"?>		
	<presence <tuple_id=" "="" opv_uri=""></tuple_id="></presence 			
	<tuple :<="" id=" any uri " td=""><td>></td><td></td><td></td></tuple>	>		
	<status> <basic>open</basic></status>			
		~/D0310>		

Comments:	0.17		
SIP 1 (Gm)	SUT		SIP 2 (ISC)
	CBS request		
CCB5 request	confirmed by AS		ar available for recall
	NOTIFY 1		ser available for recall NOTIFY 1
	200 OK NOTIFY		
Establish a session to SI		7	
CASE A	r 2 (make OL A busy)		
REFER C	REFER		
486 (Busy Here) →	486 (Busy Here)		
	PUBLISH 1	→	PUBLISH
	200 OK PUBLISH	←	200 OK PUBLISH
	NOTIFY 1	←	NOTIFY 2
	200 OK NOTIFY	→	200 OK NOTIFY
CASE B			
INVITE +	INVITE		
486 (Busy Here) →	486 (Busy Here)	_	
	PUBLISH 1		PUBLISH
	200 OK PUBLISH	÷	200 OK PUBLISH
	NOTIFY 1		NOTIFY 2
	200 OK NOTIFY		-
Disconnect session to SIP		7	200 OK NOTIFT
	PUBLISH 2	→	PUBLISH
	200 OK PUBLISH		
		•	
	NOTIFY 1	←	NOTIFY 2
	200 OK NOTIFY		200 OK NOTIFY
	Apply post test rout	ine	

TSS		TP	Reference	Selection expression
CC/originating	g_AS/Operation	CC_N03_011	4.5.4.2.3.2.2	NOT PICS 4.7.1/4
Test purpos				
CCNR Caller	is found to be busy, when	n a CC recall notification	has been received.	
				s been received, then the
	S shall suspend the CC re			
PUBLISH rec	luest to the terminating A	S containing a presence	XML body status set to '	closed". The originating AS
		erminating AS containing	a presence XML body s	status set to "open" when the
caller is no lo				
Precondition				
SIP header v				
NOTIFY 1	sip:O-AS			
	Event:call-completion			
	Content-Type: application	on/call-completion		
	cc-state: ready			
REFER:	sip: UE A; m=NR			
INVITE:	Refer-To; UE B; method			
INVIIE.	sip: UE A; m=NR	e From header of origina	al communication): purpo	se=call-completion;m=NR
	From: UE B	le i font neader of origina	<i>a communication</i> , purpo	
PUBLISH 1:	sip T-AS			
ODEIGH I.		user identity); purpose=c	all-completion·m=NR	
	P-Assertd-Identity: UE			
	Expires=(> 0)			
	Event: presence			
	Content-Type: application	on/pidf+xml		
	xml version="1.0" end</td <td></td> <td></td> <td></td>			
	<presence< td=""><td></td><td></td><td></td></presence<>			
	<tuple id=" any uri "></tuple>	•		
	<status></status>			
	<basic>close</basic>	d		
NOTIFY 2 sip				
	-completion			
	ype: application/call-com	pletion		
cc-sta	te: queued			
PUBLISH 2:				
ODLIGH Z.	To: UE B			
		user identity); purpose=c	all-completion·m=NR	
	P-Assertd-Identity: UE			
	Expires=(> 0)			
	Event: presence			
	Content-Type: applicatio	on/pidf+xml		
	xml version="1.0" end</td <td>oding="UTF-8"?></td> <td></td> <td></td>	oding="UTF-8"?>		
	<presence< td=""><td>0</td><td></td><td></td></presence<>	0		
	<tuple id=" any uri "></tuple>	•		
	<status></status>			

Comments:	OUT			
SIP 1 (Gm)	SUT		SIP 2 (ISC)	
	CNR request			
CCNR request	confirmed by AS			
			ser available for recall	
	NOTIFY 1			
	200 OK NOTIFY	→	200 OK NOTIFY	
Establish a session to SI	P 2 (make UE A busy)			
CASE A REFER ←	DEFED			
	REFER			
486 (Busy Here) →	486 (Busy Here) PUBLISH 1	~	PUBLISH	
	200 OK PUBLISH			
	200 OK PUBLISH	T	200 OK FUBLISH	
	NOTIFY 1	4	NOTIFY 2	
	200 OK NOTIFY	-	-	
CASE B	200 01(101111	-	200 0101101111	
INVITE +	INVITE			
486 (Busy Here) →	486 (Busy Here)			
	PUBLISH 1	→	PUBLISH	
	200 OK PUBLISH			
	NOTIFY 1	←	NOTIFY 2	
	200 OK NOTIFY	→	200 OK NOTIFY	
Disconnect session to SIP	2 (make UE A available)			
	PUBLISH 2	→	PUBLISH	
	200 OK PUBLISH	←	200 OK PUBLISH	
	NOTIFY 1	←	NOTIFY 2	
	200 OK NOTIFY	→	200 OK NOTIFY	
	Apply post test rout	ine		

TSS CC/originatin	g_AS/Operation	TP CC_N03_012	Reference 4.5.4.2.3.2.2	Selection expression NOT PICS 4.7.1/4PICS 4.7.1/9
Test purpos CCNL Caller	e is found to be busy, when	a CC recall notification	has been received.	
originating AS PUBLISH rec shall send a l	DUBLISH request to the te	quest until the caller bec containing a presence	comes not busy. The orig XML body status set to "	
caller is no lo				
Precondition				
SIP header v NOTIFY 1	values: sip:O-AS Event:call-completion Content-Type: applicatio cc-state: ready	n/call-completion		
REFER:	sip: UE A; m=NL			
INVITE:	· ·		al communication); purpo	se=call-completion;m=NL
Content-1	Call.Info: UE-A (Public of P-Assertd-Identity: UE Expires=(> 0) Event: presence Content-Type: applicatio xml version="1.0" enc<br <presence <tuple id=" any uri "> <status> <basic>closed</basic></status></tuple></presence 	A (Public user identity) n/pidf+xml oding="UTF-8"?>	all-completion;m=NL	
PUBLISH 2:	sip T-AS To: UE B Call.Info: UE-A (Public of P-Assertd-Identity: UE Expires=(> 0) Event: presence Content-Type: applicatio xml version="1.0" enc<br <presence <tuple id=" any uri "> <status> <basic>open</basic></status></tuple></presence 	A (Public user identity) n/pidf+xml oding="UTF-8"?>	all-completion;m=NL	

Comments:				
SIP 1 (Gm)	SUT		SIP 2 (ISC)	
CCN	Invoke CCNL request L request confirmed by AS			
	L request commet by AS	Terminating	user available for recall	
		NOTIFY 1 🗲		
	200	OK NOTIFY →	➤ 200 OK NOTIFY	
Establish a ses	sion to SIP 2 (make UE A bu	sy)		
CASE A	-			
REFER	← REFER			
486 (Busy Here)	→ 486 (Busy Here)			
	200 (PUBLISH 1 →)K PUBLISH ←	➢ PUBLISH ► 200 OK PUBLISH	
	200 C		200 OK FUBLISH	
		NOTIFY 1 🗲	NOTIFY 2	
	200		➤ 200 OK NOTIFY	
CASE B				
INVITE				
486 (Busy Here)	→ 486 (Busy Here)			
	200 (➢ PUBLISH ► 200 OK PUBLISH	
	200 C			
		NOTIFY 1	NOTIFY 2	
	200	OK NOTIFY ->	> 200 OK NOTIFY	
Disconnect sessi	on to SIP 2 (make UE A avai	able)		
			PUBLISH	
	200 C	K PUBLISH 🗲	200 OK PUBLISH	
		NOTIFY 1 🗲	NOTIFY 2	
	200		→ 200 OK NOTIFY	
		ost test routine		

TSS	ТР	Refe	rence	Selection expression
CC/originating_AS/Operation	CC_N03_013	4.5.4	.2.3.2.3	NOT PICS 4.7.1/3
Test purpose				
The caller initiates another communication				e CC service CCBS again.
The two communications are identical. The	he AS discards the current r	eques	t.	
Ensure that the caller initiates another co	mmunication to the same de	estinat	ion B and activate	es the same CC service
(CCBS) again then the originating AS ret	ains the original request and	l disca	ards the current re	quest and informs the
caller that the request has not been acce	pted because a CC request	had a	Iready been store	d against the requested
callee.				
Preconditions:				
SIP header values:				
486 Busy Here:				
Call-Info: <sip:ue-b>;purpose=call-co</sip:ue-b>	ompletion;m=BS			
Comments:				
SIP 1 (Gm)	SUT		SIP 2 (ISC)	
Invoke CCBS	-			
CCBS request conf	firmed by AS	_		
INVITE -		→	INVITE	
100 Trying 🗧 🗧	· · · · · · · · · · · · · · · · · · ·	÷		
	486 (Busy Here)		486 (Busy Here)
	Session Progress	→	ACK	
	nnouncement that CCBS i	s pos	sible	
Inband-interaction procedure	s for the CC activation			
An	nouncement that CCBS is	not ir	voked	
	Apply post test rout	ine		

TSS		ТР		erence	Selection expression
CC/originating_AS/Operation	n	CC_N03_014	4.5.4	1.2.3.2.3	NOT PICS 4.7.1/3
Test purpose					
The caller initiates another c					ame CC service CCNR agai
The two communications are	e identical.	The AS discards the curr	rent reque	st.	
Ensure that the caller initiate	s another o	communication to the sar	ne destina	tion B and activ	vates the same CC service
(CCNR) again then the origin					
caller that the request has no					
callee.					
Preconditions:					
SIP header values:					
180 Ringing 2:					
Call-Info: <sip:ue-b>;pu</sip:ue-b>	rpose=call-	completion;m=NR			
Comments:					
SIP 1 (Gm)		SUT		SIP 2 (ISC)	
	voke CCNF				
	equest co	nfirmed by AS			
INVITE	→		→	INVITE	
100 Trying	÷		+	100 Trying	
			+	180 Ringing	1
180 Ringing 2	÷				
		Announcement that CC		ssible	
Inband-interaction	n procedu	res for the CC activation	n		
	Δ	nnouncement that CCE	BS is not i	nvoked	
CANCEL	→ ``		→	CANCEL	
200 OK CANCEL	←		←	200 OK CAN	ICEL
487 Request Terminated	←		←	487 Request	t Terminated
ACK	→		→	ACK	
		Apply post test	routine		
TSS		TP		Reference	Selection expression
CC/originating_AS/Operation	n	CC_N03_015		4.5.4.2.3.2.3	PICS 4.7.1/9 AND
					NOT PICS 4.7.1/3
Test purpose				•	
		tion to the same destinati			

Ensure that the caller initiates another communication to the same destination B and activates the same CC service (CCNL) again then the originating AS retains the original request and discards the current request and informs the caller that the request has not been accepted because a CC request had already been stored against the requested callee.

Preconditions: SIP header values: 480 Temporarily Unavailable: Call-Info: <sip:UE-B>;purpose=call-completion;m=NL Comments: SIP 1 (Gm) SUT SIP 2 (ISC) Invoke CCBS request **CCBS request confirmed by AS** INVITE INVITE ÷ → 100 Trying ← 100 Trying ← 480 (Temporarily Unavailable) ← 480 (Temporarily Unavailable)

 183 Session Progress
 → ACK

 Announcement that CCBS is possible

 Inband-interaction procedures for the CC activation

Announcement that CCBS is not invoked

Apply post test routine

TSS		TP	Ref	ference	Selection expression
CC/originating_AS/Operation	on	CC_N03_016		.4.2.3.2.3	PICS 4.7.1/3
Test purpose	-		_		
	communication i	o the same destination B	and a	activates the s	ame CC service CCBS again.
The two communications a					Ŭ
					ivates the same CC service
(CCBS) again, the originati	ng AS shall treat	this as a new CC request	, A S	UBSCRIBE re	equest is sent to the terminating
AS indicating a CCBS requ	iest - a m parame	eter set to "BS" is attached	l at th	ne Request lin	е.
Preconditions:					
SIP header values:					
486 Busy Here:					
Call-Info: <sip:ue-b>;p</sip:ue-b>		pletion;m=BS			
SUBSCRIBE sip:T-AS;m=E	BS				
From: <ue-a></ue-a>					
To: <ue-b></ue-b>					
Contact: <o-as></o-as>					
Call.Info: <ue-a>; pur</ue-a>		oletion;m=BS			
P-Assertd-Identity: UE	:-A				
Expires: CC-T3					
Event:call-completion					
NOTIFY sip:O-AS					
Event:call-completion		_			
Content-Type: applicati	on/call-completic	n			
cc-state: queued					
Comments:		CUT			
SIP 1 (Gm)	nvoke CCBS red	SUT		SIP 2 (ISC)	
	request confirm				
	-	lied by AS	->		
INVITE	→ ←				
100 Trying	T	496 (Pupy Hore)		100 Trying	Horo)
192 Section Brogress	← 183 Ses	486 (Busy Here)		486 (Busy H ACK	here)
183 Session Progress		sion Progress	-		
Inband_interactiv		ouncement that CCBS is or the CC activation	s pos	2006	
inpand-interaction	on procedures i	or the CC activation			
			→	SUBSCRIB	F
			7	200 OK SU	—
				200 OK 30	DOGRIDE
			←	NOTIFY	
			7	200 OK NO	TIEV
	Confirm to th	e caller that the invocat	ion w		
		Apply post test routi	ne		

TSS		ТР	Ref	erence	Selection expression
CC/originating_AS/Op	eration	CC_N03_017		4.2.3.2.3	PICS 4.7.1/4
Test purpose			1.101		
	other communica	tion to the same destinati	on B and a	ctivates the s	ame CC service CCNR again.
		The AS treat this as a ne			
Ensure that the caller i	nitiates another	communication to the san	ne destinati	on B and act	ivates the same CC service
(CCNR) again, the orig	ginating AS shall	treat this as a new CC re	quest, A Sl	JBSCRIBE re	equest is sent to the
terminating AS indicati	ing a CCBS requ	est - a m parameter set to	"NR" is at	tached at the	Request line.
Preconditions:					
SIP header values:					
180 Ringing 2:					
Call-Info: <sip:ue-i< td=""><td>B>;purpose=call-</td><td>completion;m=NR</td><td></td><td></td><td></td></sip:ue-i<>	B>;purpose=call-	completion;m=NR			
SUBSCRIBE sip:T-AS		•			
From: <ue-a></ue-a>					
To: <ue-b></ue-b>					
Contact: <o-as></o-as>					
Call.Info: <ue-a></ue-a>	; purpose=call-c	completion;m=NR			
P-Assertd-Identity	/: UE-A				
Expires: CC-T3					
Event:call-completi	on				
NOTIFY sip:O-AS					
Event:call-completi					
Content-Type: app	•	oletion			
cc-state: queue	d				
Comments:		<u></u>			
SIP 1 (Gm)		SUT		SIP 2 (ISC)	
0	Invoke CCN				
	CNR request co	nfirmed by AS			
	→ ←			INVITE	
100 Trying	~		←	100 Trying	- 1
190 Dinging 2	←		~	180 Ringing	j 1
180 Ringing 2	_	Announcement that CC		sible	
Inband_inter		res for the CC activation		Sible	
inpanu-inter	action procedu		1		
			→	SUBSCRIB	F
				200 OK SU	
			×.	200 01 30	DOUNDL
			+	NOTIFY	
			-	-	
				200 (18 10)	
	Confirm	to the caller that the inv	→ vocation w	200 OK NO	

TSS	TP	Refe	erence	Selection expression
CC/originating_AS/Operation	CC_N03_018		4.2.3.2.3	PICS 4.7.1/3 AND PICS 4.7.1/9
Test purpose	·			
The caller initiates another commu				me CC service CCNL again.
The two communications are identi-	ical. The AS treats this as a new	CC request.		
Ensure that the caller initiates anot	her communication to the same	destination E	3 and activ	ates the same CC service
(CCNL) again, the originating AS s	hall treat this as a new CC reque	st, A SUBS	CRIBE req	uest is sent to the terminating
AS indicating a CCNL request - a n	n parameter set to "NL" is attach	ed at the Re	quest line.	5
Preconditions:				
SIP header values:				
480 Temporarily Unavailable:				
Call-Info: <sip:ue-b>;purpose=</sip:ue-b>	call-completion;m=NL			
SUBSCRIBE sip:T-AS;m=NL	· · · · · · · · · · · · · · · · · · ·			
From: <ue-a></ue-a>				
To: <ue-b></ue-b>				
Contact: <o-as></o-as>				
Call.Info: <ue-a>; purpose=c</ue-a>	all-completion;m=NL			
P-Assertd-Identity: UE-A	•			
Expires: CC-T3				
Event:call-completion				
NOTIFY sip:O-AS				
Event:call-completion				
Content-Type: application/call-c	completion			
cc-state: queued				
Comments:				
SIP 1 (Gm)	SUT		SIP 2 (IS	C)
	CCBS request			
CCBS reque	est confirmed by AS			
INVITE 🔶			INVITE	
100 Trying 🗧 🗲			100 Tryin	
	480 (Temporarily Unava	ilable) 🗲	480 (Tem	porarily Unavailable)
183 Session Progress	183 Session Progress		ACK	
	Announcement that CCBS	is possible	e	
Inband-interaction pro	ocedures for the CC activation			
		→	SUBSCR	IBF
		÷		UBCSRIBE
		+	NOTIFY	
		→	200 OK N	÷ · · · ·
Conf	irm to the caller that the invoc	ation was s	uccessful	
	Apply post test ro	utine		

5.3 Actions at the terminating AS

5.3.1 CC possible indication

TSS	ТР	Reference	Selection expression
CC/terminating_AS/possibleIndication	CC_N04_001	4.5.4.3.1.1	Selection expression
	00_1004_001	4.5.4.5.1.1	
lest purpose	day in the 100 final year	no no no no invo di fuerro the	
The terminating AS inserts a Call-Info head			<u> </u>
insure that the terminating AS inserts a Ca			
parameter is set to BS in the 486 (Busy He	ere) received from the	callee and forwards to t	ne onginating AS.
Preconditions:			
SIP header values:			
l86 (Busy Here) 1:			
Call-Info: <sip:ue-b>;purpose=call-con</sip:ue-b>	npletion;m=BS		
Comments:			
SIP 1 (ISC)	SUT	SIP 2 (Gm)	
NVITÈ	→	→ INVITÈ	
100 Trying	÷	← 100 Trying	
186 (Busy Here) 1	←	← 486 (Busy H	Here)
ACK	→	→ ACK	
	=		
	Apply post test	routine	
rss	TP	Reference	Selection expression
CC/terminating_AS_AS/possibleIndication	CC_N04_002	4.5.4.3.1.1	
fest purpose	i	•	
The terminating AS inserts a Call-Info head	der in the 486 final res	ponse in case of NDUB	
-nours that the terminating AC in appendix	NDUR condo o 496 (R	unu Hara) containing a	Call Info booder and the
Ensure that the terminating AS in case of Nourpose parameter is set to call-completion	n and the m parameter		
purpose parameter is set to call-completion Preconditions: Callee is network determin	n and the m parameter		
ourpose parameter is set to call-completion	n and the m parameter		
purpose parameter is set to call-completion Preconditions: Callee is network determin	n and the m parameter		
Durpose parameter is set to call-completion Preconditions: Callee is network determin SIP header values:	n and the m parameter ned user busy		
burpose parameter is set to call-completion Preconditions: Callee is network determin SIP header values: 186 (Busy Here) 1: Call-Info: <sip:ue-b>;purpose=call-com</sip:ue-b>	n and the m parameter ned user busy		
burpose parameter is set to call-completion Preconditions: Callee is network determin SIP header values: 186 (Busy Here) 1: Call-Info: <sip:ue-b>;purpose=call-con Comments:</sip:ue-b>	n and the m parameter ned user busy npletion;m=BS	is set to BS to the origi	nating AS.
burpose parameter is set to call-completion Preconditions: Callee is network determin SIP header values: 486 (Busy Here) 1: Call-Info: <sip:ue-b>;purpose=call-con Comments: SIP 1 (ISC)</sip:ue-b>	n and the m parameter ned user busy npletion;m=BS SUT		nating AS.
burpose parameter is set to call-completion Preconditions: Callee is network determin SIP header values: 486 (Busy Here) 1: Call-Info: <sip:ue-b>;purpose=call-con Comments: SIP 1 (ISC) NVITE</sip:ue-b>	n and the m parameter ned user busy npletion;m=BS SUT →	is set to BS to the origi	nating AS.
burpose parameter is set to call-completion Preconditions: Callee is network determin SIP header values: 486 (Busy Here) 1: Call-Info: <sip:ue-b>;purpose=call-con Comments: SIP 1 (ISC) NVITE 100 Trying</sip:ue-b>	n and the m parameter ned user busy npletion;m=BS SUT ✦	is set to BS to the origi	nating AS.
purpose parameter is set to call-completion Preconditions: Callee is network determin SIP header values: I86 (Busy Here) 1: Call-Info: <sip:ue-b>;purpose=call-con Comments: SIP 1 (ISC) NVITE 100 Trying I86 (Busy Here) 1</sip:ue-b>	n and the m parameter ned user busy npletion;m=BS SUT ✦ ✦	is set to BS to the origi	nating AS.
purpose parameter is set to call-completion Preconditions: Callee is network determin SIP header values: 186 (Busy Here) 1: Call-Info: <sip:ue-b>;purpose=call-con Comments: SIP 1 (ISC) NVITE 00 Trying 186 (Busy Here) 1</sip:ue-b>	n and the m parameter ned user busy npletion;m=BS SUT → ← ← →	SIP 2 (Gm)	nating AS.
purpose parameter is set to call-completion Preconditions: Callee is network determin SIP header values: 186 (Busy Here) 1: Call-Info: <sip:ue-b>;purpose=call-con Comments: SIP 1 (ISC) NVITE 00 Trying 186 (Busy Here) 1</sip:ue-b>	n and the m parameter ned user busy npletion;m=BS SUT ✦ ✦	SIP 2 (Gm)	nating AS.
purpose parameter is set to call-completion Preconditions: Callee is network determin SIP header values: 186 (Busy Here) 1: Call-Info: <sip:ue-b>;purpose=call-com Comments: SIP 1 (ISC) NVITE 100 Trying 186 (Busy Here) 1 ACK</sip:ue-b>	n and the m parameter ned user busy npletion;m=BS SUT → ← ← ← → Apply post test	SIP 2 (Gm)	nating AS.
purpose parameter is set to call-completion Preconditions: Callee is network determin SIP header values: 186 (Busy Here) 1: Call-Info: <sip:ue-b>;purpose=call-com Comments: SIP 1 (ISC) NVITE 00 Trying 186 (Busy Here) 1 ACK</sip:ue-b>	n and the m parameter ned user busy npletion;m=BS SUT → ← ← → Apply post test	SIP 2 (Gm)	nating AS.
Preconditions: Callee is network determine Preconditions: Callee is network determine SIP header values: 86 (Busy Here) 1: Call-Info: <sip:ue-b>;purpose=call-con Comments: SIP 1 (ISC) NVITE 00 Trying 86 (Busy Here) 1 ACK SS CC/terminating_AS_AS/possibleIndication</sip:ue-b>	n and the m parameter ned user busy npletion;m=BS SUT → ← ← ← → Apply post test	SIP 2 (Gm)	nating AS.
purpose parameter is set to call-completion Preconditions: Callee is network determin SIP header values: 186 (Busy Here) 1: Call-Info: <sip:ue-b>;purpose=call-com Comments: SIP 1 (ISC) NVITE 00 Trying 186 (Busy Here) 1 ACK TSS CC/terminating_AS_AS/possibleIndication Test purpose</sip:ue-b>	n and the m parameter ned user busy npletion;m=BS SUT CC_N04_003	SIP 2 (Gm)	nating AS.
purpose parameter is set to call-completion Preconditions: Callee is network determin SIP header values: 186 (Busy Here) 1: Call-Info: <sip:ue-b>;purpose=call-com Comments: SIP 1 (ISC) NVITE 00 Trying 186 (Busy Here) 1 ACK TSS CC/terminating_AS_AS/possibleIndication Test purpose</sip:ue-b>	n and the m parameter ned user busy npletion;m=BS SUT CC_N04_003	SIP 2 (Gm)	nating AS.
purpose parameter is set to call-completion Preconditions: Callee is network determin SIP header values: 186 (Busy Here) 1: Call-Info: <sip:ue-b>;purpose=call-com Comments: SIP 1 (ISC) NVITE 00 Trying 186 (Busy Here) 1 ACK TSS C2/terminating_AS_AS/possibleIndication Test purpose The terminating AS inserts a Call-Info head</sip:ue-b>	n and the m parameter ned user busy npletion;m=BS SUT CC_N04_003 der in the 180 provisio	SIP 2 (Gm) routine Reference 4.5.4.3.1.1 nal response.	Selection expression
Surpose parameter is set to call-completion Preconditions: Callee is network determin SIP header values: :86 (Busy Here) 1: Call-Info: <sip:ue-b>;purpose=call-com Comments: SIP 1 (ISC) NVITE 00 Trying :86 (Busy Here) 1 ACK SS :C/terminating_AS_AS/possibleIndication Test purpose The terminating AS inserts a Call-Info head Ensure that the terminating AS inserts a Call</sip:ue-b>	n and the m parameter ned user busy npletion;m=BS SUT → ← ← → Apply post test TP CC_N04_003 der in the 180 provisio all-Info header in the 1	SIP 2 (Gm) routine Reference 4.5.4.3.1.1 nal response. 80 (Ringing) and the pu	Selection expression
purpose parameter is set to call-completion Preconditions: Callee is network determin SIP header values: 186 (Busy Here) 1: Call-Info: <sip:ue-b>;purpose=call-com Comments: SIP 1 (ISC) NVITE 00 Trying 186 (Busy Here) 1 ACK TSS C2/terminating_AS_AS/possibleIndication Test purpose The terminating AS inserts a Call-Info head Ensure that the terminating AS inserts a Call-Info head call-completion and the m parameter is set</sip:ue-b>	n and the m parameter ned user busy npletion;m=BS SUT → ← ← → Apply post test TP CC_N04_003 der in the 180 provisio all-Info header in the 1	SIP 2 (Gm) routine Reference 4.5.4.3.1.1 nal response. 80 (Ringing) and the pu	Selection expression
purpose parameter is set to call-completion Preconditions: Callee is network determin SIP header values: 186 (Busy Here) 1: Call-Info: <sip:ue-b>;purpose=call-com Comments: SIP 1 (ISC) NVITE 100 Trying 186 (Busy Here) 1 ACK TSS CC/terminating_AS_AS/possibleIndication Test purpose The terminating AS inserts a Call-Info head Ensure that the terminating AS inserts a Call-Info head call-completion and the m parameter is set Preconditions:</sip:ue-b>	n and the m parameter ned user busy npletion;m=BS SUT → ← ← → Apply post test TP CC_N04_003 der in the 180 provisio all-Info header in the 1	SIP 2 (Gm) routine Reference 4.5.4.3.1.1 nal response. 80 (Ringing) and the pu	Selection expression
Durpose parameter is set to call-completion Preconditions: Callee is network determining Pheader values: 186 (Busy Here) 1: Call-Info: <sip:ue-b>;purpose=call-com Comments: SIP 1 (ISC) NVITE 00 Trying 186 (Busy Here) 1 ACK TSS CC/terminating_AS_AS/possibleIndication Test purpose The terminating AS inserts a Call-Info head Ensure that the terminating AS inserts a Call-Info head Preconditions: SIP header values:</sip:ue-b>	n and the m parameter ned user busy npletion;m=BS SUT → ← ← → Apply post test TP CC_N04_003 der in the 180 provisio all-Info header in the 1	SIP 2 (Gm) routine Reference 4.5.4.3.1.1 nal response. 80 (Ringing) and the pu	Selection expression
purpose parameter is set to call-completion Preconditions: Callee is network determin SIP header values: I86 (Busy Here) 1: Call-Info: <sip:ue-b>;purpose=call-com Comments: SIP 1 (ISC) NVITE 100 Trying I86 (Busy Here) 1 ACK TSS CC/terminating_AS_AS/possibleIndication Test purpose The terminating AS inserts a Call-Info head Ensure that the terminating AS inserts a Call-Info head Preconditions: SIP header values: I80 (Ringing) 1:</sip:ue-b>	n and the m parameter ned user busy mpletion;m=BS SUT + + + + + Apply post test TP CC_N04_003 der in the 180 provisio all-Info header in the 1 t to NR received from the 1	SIP 2 (Gm) routine Reference 4.5.4.3.1.1 nal response. 80 (Ringing) and the pu	Selection expression
Suppose parameter is set to call-completion Preconditions: Callee is network determining SIP header values: 186 (Busy Here) 1: Call-Info: <sip:ue-b>;purpose=call-com Comments: SIP 1 (ISC) NVITE 00 Trying 186 (Busy Here) 1 ACK SS C2/terminating_AS_AS/possibleIndication Test purpose The terminating AS inserts a Call-Info head Ensure that the terminating AS inserts a Call-Info head Preconditions: SIP header values: 80 (Ringing) 1: Call-Info: <sip:ue-b>;purpose=call-con</sip:ue-b></sip:ue-b>	n and the m parameter ned user busy mpletion;m=BS SUT + + + + + Apply post test TP CC_N04_003 der in the 180 provisio all-Info header in the 1 t to NR received from the 1	SIP 2 (Gm) routine Reference 4.5.4.3.1.1 nal response. 80 (Ringing) and the pu	Selection expression
Durpose parameter is set to call-completion Preconditions: Callee is network determining SIP header values: 186 (Busy Here) 1: Call-Info: <sip:ue-b>;purpose=call-com Comments: SIP 1 (ISC) NVITE 00 Trying 186 (Busy Here) 1 ACK TSS CC/terminating_AS_AS/possibleIndication Test purpose The terminating AS inserts a Call-Info head Ensure that the terminating AS inserts a Call-Info head SIP header values: 80 (Ringing) 1: Call-Info: <sip:ue-b>;purpose=call-com</sip:ue-b></sip:ue-b>	n and the m parameter ned user busy npletion;m=BS SUT + + + + + Apply post test TP CC_N04_003 der in the 180 provision all-Info header in the 1 t to NR received from the 1 t to NR received from the 1 t to NR received from the 1	SIP 2 (Gm) routine Reference 4.5.4.3.1.1 nal response. 80 (Ringing) and the pu he callee and forwards	Selection expression
Suppose parameter is set to call-completion Preconditions: Callee is network determining SIP header values: 186 (Busy Here) 1: Call-Info: <sip:ue-b>;purpose=call-com Comments: SIP 1 (ISC) NVITE 00 Trying 186 (Busy Here) 1 ACK SS C2/terminating_AS_AS/possibleIndication Test purpose The terminating AS inserts a Call-Info head Ensure that the terminating AS inserts a Call-Info head Preconditions: SIP header values: 80 (Ringing) 1: Call-Info: <sip:ue-b>;purpose=call-con</sip:ue-b></sip:ue-b>	n and the m parameter ned user busy mpletion;m=BS SUT + + + + + Apply post test TP CC_N04_003 der in the 180 provisio all-Info header in the 1 t to NR received from the 1	SIP 2 (Gm) routine Reference 4.5.4.3.1.1 nal response. 80 (Ringing) and the pu he callee and forwards	Selection expression
Durpose parameter is set to call-completion Preconditions: Callee is network determining SIP header values: 186 (Busy Here) 1: Call-Info: <sip:ue-b>;purpose=call-com Comments: SIP 1 (ISC) NVITE 00 Trying 186 (Busy Here) 1 ACK TSS CC/terminating_AS_AS/possibleIndication Test purpose The terminating AS inserts a Call-Info head Ensure that the terminating AS inserts a Calal-completion and the m parameter is set Preconditions: SIP header values: 80 (Ringing) 1: Call-Info: <sip:ue-b>;purpose=call-com Comments: SIP header values: 80 (Ringing) 1: Call-Info: <sip:ue-b>;purpose=call-com</sip:ue-b></sip:ue-b></sip:ue-b>	n and the m parameter ned user busy npletion;m=BS SUT + + + + + Apply post test TP CC_N04_003 der in the 180 provision all-Info header in the 1 t to NR received from the 1 t to NR received from the 1 t to NR received from the 1	SIP 2 (Gm) routine Reference 4.5.4.3.1.1 nal response. 80 (Ringing) and the pu	Selection expression
Durpose parameter is set to call-completion Preconditions: Callee is network determining SIP header values: 186 (Busy Here) 1: Call-Info: <sip:ue-b>;purpose=call-com Comments: SIP 1 (ISC) NVITE 00 Trying 186 (Busy Here) 1 ACK TSS CC/terminating_AS_AS/possibleIndication Test purpose The terminating AS inserts a Call-Info head Ensure that the terminating AS inserts a Calal-completion and the m parameter is set Preconditions: SIP header values: 80 (Ringing) 1: Call-Info: <sip:ue-b>;purpose=call-com Comments: SIP 1 (ISC) NVITE</sip:ue-b></sip:ue-b>	n and the m parameter ned user busy npletion;m=BS SUT → ← ← → Apply post test TP CC_N04_003 der in the 180 provisio all-Info header in the 1 t to NR received from the 1 mpletion;m=NR SUT →	SIP 2 (Gm) routine Reference 4.5.4.3.1.1 nal response. 80 (Ringing) and the pu he callee and forwards SIP 2 (Gm) INVITE	Selection expression
Durpose parameter is set to call-completion Preconditions: Callee is network determining SIP header values: 186 (Busy Here) 1: Call-Info: <sip:ue-b>;purpose=call-com Comments: SIP 1 (ISC) NVITE 00 Trying 186 (Busy Here) 1 ACK TSS CC/terminating_AS_AS/possibleIndication Test purpose The terminating AS inserts a Call-Info head Ensure that the terminating AS inserts a Calal-completion and the m parameter is set Preconditions: SIP header values: 80 (Ringing) 1: Call-Info: <sip:ue-b>;purpose=call-com Comments: SIP header values: 80 (Ringing) 1: Call-Info: <sip:ue-b>;purpose=call-com</sip:ue-b></sip:ue-b></sip:ue-b>	n and the m parameter ned user busy npletion;m=BS SUT CC_N04_003 der in the 180 provision all-Info header in the 1 t to NR received from the 1 mpletion;m=NR SUT	SIP 2 (Gm) Reference 4.5.4.3.1.1 nal response. 80 (Ringing) and the pu he callee and forwards SIP 2 (Gm)	Selection expression Irpose parameter is set to to the originating AS.

TSS	TP	Reference	Selection expression
CC/terminating_AS/possibleIndication	CC_N04_004	4.5.4.3.1.1	PICS 4.7.1/9
Test purpose			
The terminating AS inserts a Call-Info hea	ader in the 480 final resp	onse if the terminatir	ng user is not logged-in.
Ensure that the terminating AS inserts a C parameter is set to NL in the 480 (Tempor			
originating AS.	, , , , , , , , , , , ,	3	
Preconditions:			
SIP header values:			
480 Temporarily Unavailable:			
Call-Info: <sip:ue-b>;purpose=call-co</sip:ue-b>	mpletion;m=NL		
Comments:			
SIP 1 (ISC)	SUT	SIP 2 (Gn	n)
INVITE	→		
100 Trying	÷		
480 (Temporarily Unavailable)	÷		
ACK	→		
	Apply post test r	outine	

TSS	TP	Reference	Selection expression
CC/terminating_AS_AS/possibleIndication	CC_N04_005	4.5.4.3.1.1	
Test purpose	·	·	
Terminating user does not subscribe to the	CCBS service. No Cal	ll-Info header field ind	cluded.
Ensure that no Call-Info header is included i possible on destination B (callee).	n the 486 (Busy Here)	If the terminating AS	S knows that the CC is not
Preconditions: Terminating user does not s	subscribe to the CC se	ervice	
SIP header values:			
486 (Busy Here) 1:			
Call-Info not included			
Comments:			
SIP 1 (ISC)	SUT	SIP 2 (Gn	n)
	→	→ INVITÈ	
100 Trying		← 100 Trying	q
		← 486 (Busy	v Here)
ACK	>	→ ACK	,

TSS		TP	Ref	erence	Selection expression
CC/terminating_AS_AS/possibleInd	ication	CC_N04_006	4.5.	4.3.1.1	-
Test purpose					
Terminating user does not subscrib	e to the CCN	R service. No Cal	-Info h	eader field ind	cluded.
Ensure that no Call-Info header is ir	cluded in the	e 180 (Ringing) If t	he term	ninating AS ki	nows that the CC is not possible
on destination B (callee).				-	
Preconditions: Terminating user d	oes not subs	cribe to the CC se	rvice		
SIP header values:					
180 (Ringing) 1:					
Call-Info not included					
Comments:					
SIP 1 (ISC)		SUT		SIP 2 (Gn	n)
INVITE	→		→	INVITE	
100 Trying	÷		÷	100 Trying	r
180 (Ringing) 1	÷		È	180 (Ring	
	-	Apply post test ro	-		

TSS	TP	Reference	Selection expression
CC/terminating_AS_AS/possibleIndication	CC_N04_007	4.5.4.3.1.1	PICS 4.7.1/9
Test purpose	·	·	
Terminating user does not subscribe to the C	CNL service. No Call	-Info header field inc	cluded.
Ensure that no Coll Info header is included in	the 490 (Temperarily	(Linevoileble) if the t	torminating AC knows that the
Ensure that no Call-Info header is included in			terminating AS knows that the
CC is not possible on destination B (callee) a			
Preconditions: Terminating user does not se	ubscribe to the CC se	rvice	
SIP header values:			
480 Temporarily Unavailable:			
Call-Info not included			
Comments:			
SIP 1 (ISC)	SUT	SIP 2 (Gn	n)
INVITÈ 🧴 🗕	•	•	
100 Trying 🗧			
480 (Temporarily Unavailable)			
ACK	,		
	Apply post test ro	outine	

5.3.2 CC Invocation

TSS	TP	Reference	Selection expression
CC/terminating_AS/Invocation	CC_N05_001	4.5.4.7.1	Selection expression
Test purpose	00_100_001		
CCBS service invocation successful at th	ne terminating AS.		
	J		
Ensure that the terminating AS is able to	queue the CCBS reques	st received in a SUBS	CRIBE request from the
originating AS and responds with a NOT	FY request. In the NOTI	FY request the state	header of the call-completion
MIME body is set to queued.			
Preconditions:			
SIP header values:			
486 (Busy Here) 1:			
Call-Info: <sip:ue-b>;purpose=call-co</sip:ue-b>	ompletion;m=BS		
SUBSCRIBE sip:T-AS;m=BS			
From: <ue-a></ue-a>			
To: <ue-b></ue-b>			
Contact: <o-as></o-as>			
Call.Info: <ue-a>; purpose=call-com</ue-a>	oletion;m=BS		
P-Assertd-Identity: UE-A			
Expires: CC-T3			
Event:call-completion			
200 OK SUBCSRIBE			
Expires: ≤ value received in SUBSCF	IBE		
NOTIFY sip:O-AS From: <ue-b></ue-b>			
To: <ue-a></ue-a>			
Event:call-completion			
Subscription-State: active;expires:	- any value >		
Content-Type: application/call-com			
cc-state: queued	piction		
Comments:			
SIP 1 (ISC)	SUT	SIP 2 (Gr	n)
INVITE	→		,
100 Trying	÷	← 100 Tryin	a
486 (Busy Here) 1	+	← 486 (Busy	
ACK	→	→ ACK	/
SUBSCRIBE	→		
200 OK SUBCSRIBE	+		
NOTIFY	÷		
200 OK NOTIFY	→		
	Apply post test r	outine	

TSS	TP	Reference	Selection expression
CC/terminating_AS/Invocation	CC_N05_002	4.5.4.7.1	Selection expression
Test purpose	00_1100_002	1.0.1.7.1	
CCNR service invocation successful at the	e terminating AS.		
	, torrining , tor		
Ensure that the terminating AS is able to c	ueue the CCNR reque	st received in a SUE	SCRIBE request from the
originating AS and responds with a NOTIF			
MIME body is set to queued.		,	· ·
Preconditions:			
SIP header values:			
180 Ringing 1:			
Call-Info: <sip:ue-b>;purpose=call-cor</sip:ue-b>	npletion;m=NR		
SUBSCRIBE sip:T-AS;m=NR			
From: <ue-a></ue-a>			
To: <ue-b></ue-b>			
Contact: <o-as></o-as>			
Call.Info: <ue-a>; purpose=call-compl</ue-a>	etion;m=NR		
P-Assertd-Identity: UE-A			
Expires: CC-T3			
Event:call-completion			
200 OK SUBCSRIBE			
Expires: ≤ value received in SUBSCRI	BE		
NOTIFY sip:O-AS			
From: <ue-b></ue-b>			
To: <ue-a></ue-a>			
Event:call-completion			
Subscription-State: active;expires=			
Content-Type: application/call-comp	Dietion		
cc-state: queued Comments:			
SIP 1 (ISC)	SUT	SIP 2 (G	(m)
INVITE	→	→ INVITE	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
100 Trying	,	← 100 Tryi	ng
180 Ringing 1	+	← 180 Ring	
	•		Jun J
SUBSCRIBE	→		
200 OK SUBCSRIBE	÷		
	-		
NOTIFY	÷		
200 OK NOTIFY	→		
-	Apply post test r	autina	

TSS	TP	Reference	se Selection expression
CC/terminating_AS/Invocation	CC_N05_003	4.5.4.7.1	PICS 4.7.1/9
Test purpose		-	
CCNL service invocation successful at the	terminating AS.		
	J		
Ensure that the terminating AS is able to q	ueue the CCNL reques	st received in a	a SUBSCRIBE request from the
originating AS and responds with a NOTIF			
MIME body is set to queued.	- 1		· ····· · · · · · · · · · · · · · · ·
Preconditions:			
SIP header values:			
480 (Temporarily Unavailable) 1:			
Call-Info: <sip:ue-b>;purpose=call-cor</sip:ue-b>	npletion:m=NL		
SUBSCRIBE sip:T-AS;m=NL			
From: <ue-a></ue-a>			
To: <ue-b></ue-b>			
Contact: <o-as></o-as>			
Call.Info: <ue-a>; purpose=call-comple</ue-a>	etion:m=NI		
P-Assertd-Identity: UE-A			
Expires: CC-T3			
Event:call-completion			
200 OK SUBCSRIBE			
Expires: ≤ value received in SUBSCRII	3E		
NOTIFY sip:O-AS			
From: <ue-b></ue-b>			
To: <ue-a></ue-a>			
Event:call-completion			
Subscription-State: active;expires=<	any value >		
Content-Type: application/call-comp			
cc-state: queued			
Comments:			
SIP 1 (ISC)	SUT	SI	P 2 (Gm)
INVITE	→	→ IN	VITE
100 Trying	+		0 Trying
480 (Temporarily Unavailable) 1	←	← 48	0 (Temporarily Unavailable)
ACK	→	→ AC	CK .
SUBSCRIBE	→		
200 OK SUBCSRIBE	←		
NOTIFY	←		
200 OK NOTIFY	→		
	Apply post test i	outine	

TSS	ТР	Reference	Selection expression
CC/terminating_AS/Invocation	CC_N05_004	4.5.4.3.2.2	
Test purpose			
CCBS service invocation unsuccessf	ul at the terminating AS. Ma	ximum number of que	ue entries is reached.
Ensure that the terminating AS respo	ade to the SURSCRIPE road	lost containing the CC	BS invoke received from the
originating AS with a 480 (Temporari	ly Unavailable) if the callee's	B queue limit is reach	ied.
Preconditions:		2 queue mintre reacti	
SIP header values:			
SUBSCRIBE sip:T-AS;m=BS			
From: <ue-a></ue-a>			
To: <ue-b> Call.Info: <ue-a>; purpose=call-c</ue-a></ue-b>	completion m=BS		
P-Assertd-Identity: UE-A			
Expires: CC-T3			
Contact: <o-as></o-as>			
Event:call-completion			
Comments: SIP 1 (ISC)	SUT	SIP 2 (Gm)
		•	,
	Set the B queue	to limit	
INVITE	→	→ INVITE	
100 Trying	÷	 100 Trying 	
486 (Busy Here)	+	← 486 (Busy	Here)
ACK	→	→ ACK	
SUBSCRIBE	→		
480 Temporarily Unavailable	+		
480 Temporarily Unavailable	← Apply post test r	outine	
480 Temporarily Unavailable	-	outine	
	Apply post test r	outine Reference	Selection expression
TSS CC/terminating_AS/Invocation	Apply post test r		Selection expression
TSS CC/terminating_AS/Invocation Test purpose	Apply post test r TP CC_N05_005	Reference 4.5.4.3.2.2	
TSS CC/terminating_AS/Invocation Test purpose	Apply post test r TP CC_N05_005	Reference 4.5.4.3.2.2	
TSS CC/terminating_AS/Invocation Test purpose CCBS service invocation unsuccessf	Apply post test r TP CC_N05_005 ul at the terminating AS. No	Reference 4.5.4.3.2.2 CC queue for the term	ninating user available.
TSS CC/terminating_AS/Invocation Test purpose CCBS service invocation unsuccessf Ensure that the terminating AS respo priginating AS with a 403 Forbidden i	Apply post test r TP CC_N05_005 ul at the terminating AS. No nds to the SUBSCRIBE required	Reference 4.5.4.3.2.2 CC queue for the term uest containing the CC	ninating user available.
TSS CC/terminating_AS/Invocation Fest purpose CCBS service invocation unsuccessf Ensure that the terminating AS respo originating AS with a 403 Forbidden i he terminating user.	Apply post test r TP CC_N05_005 ul at the terminating AS. No nds to the SUBSCRIBE required	Reference 4.5.4.3.2.2 CC queue for the term uest containing the CC	ninating user available.
TSS CC/terminating_AS/Invocation Test purpose CCBS service invocation unsuccessf Ensure that the terminating AS respo originating AS with a 403 Forbidden i the terminating user. Preconditions:	Apply post test r TP CC_N05_005 ul at the terminating AS. No nds to the SUBSCRIBE required	Reference 4.5.4.3.2.2 CC queue for the term uest containing the CC	ninating user available.
TSS CC/terminating_AS/Invocation Test purpose CCBS service invocation unsuccessf Ensure that the terminating AS respo originating AS with a 403 Forbidden i the terminating user. Preconditions: SIP header values:	Apply post test r TP CC_N05_005 ul at the terminating AS. No nds to the SUBSCRIBE required	Reference 4.5.4.3.2.2 CC queue for the term uest containing the CC	ninating user available.
TSS CC/terminating_AS/Invocation Test purpose CCBS service invocation unsuccessf Ensure that the terminating AS respo originating AS with a 403 Forbidden i the terminating user. Preconditions: SIP header values: SUBSCRIBE sip:T-AS;m=BS	Apply post test r TP CC_N05_005 ul at the terminating AS. No nds to the SUBSCRIBE required	Reference 4.5.4.3.2.2 CC queue for the term uest containing the CC	ninating user available.
TSS CC/terminating_AS/Invocation Test purpose CCBS service invocation unsuccessf Ensure that the terminating AS respo originating AS with a 403 Forbidden i the terminating user. Preconditions: SIP header values:	Apply post test r TP CC_N05_005 ul at the terminating AS. No nds to the SUBSCRIBE required	Reference 4.5.4.3.2.2 CC queue for the term uest containing the CC	ninating user available.
TSS CC/terminating_AS/Invocation Test purpose CCBS service invocation unsuccessf Ensure that the terminating AS respo originating AS with a 403 Forbidden i the terminating user. Preconditions: SIP header values: SUBSCRIBE sip:T-AS;m=BS From: <ue-a> To:<ue b=""> Call.Info: <ue-a>; purpose=call-o</ue-a></ue></ue-a>	TP CC_N05_005 ful at the terminating AS. No nds to the SUBSCRIBE required f no CC queue is available for	Reference 4.5.4.3.2.2 CC queue for the term uest containing the CC	ninating user available.
TSS CC/terminating_AS/Invocation Test purpose CCBS service invocation unsuccessf Ensure that the terminating AS respo originating AS with a 403 Forbidden i the terminating user. Preconditions: SIP header values: SUBSCRIBE sip:T-AS;m=BS From: <ue-a> To:<ue b=""> Call.Info: <ue-a>; purpose=call-o P-Assertd-Identity: UE-A</ue-a></ue></ue-a>	Apply post test r TP CC_N05_005 ful at the terminating AS. No inds to the SUBSCRIBE required f no CC queue is available for	Reference 4.5.4.3.2.2 CC queue for the term uest containing the CC	ninating user available.
TSS CC/terminating_AS/Invocation Test purpose CCBS service invocation unsuccessf Ensure that the terminating AS respo originating AS with a 403 Forbidden i the terminating user. Preconditions: SIP header values: SUBSCRIBE sip:T-AS;m=BS From: <ue-a> To:<ue b=""> Call.Info: <ue-a>; purpose=call-c P-Assertd-Identity: UE-A Expires: CC-T3</ue-a></ue></ue-a>	Apply post test r TP CC_N05_005 ful at the terminating AS. No inds to the SUBSCRIBE required f no CC queue is available for	Reference 4.5.4.3.2.2 CC queue for the term uest containing the CC	ninating user available.
TSS CC/terminating_AS/Invocation Test purpose CCBS service invocation unsuccessf Ensure that the terminating AS respo originating AS with a 403 Forbidden i the terminating user. Preconditions: SIP header values: SUBSCRIBE sip:T-AS;m=BS From: <ue-a> To:<ue b=""> Call.Info: <ue-a>; purpose=call-co P-Assertd-Identity: UE-A Expires: CC-T3 Contact:<o-as></o-as></ue-a></ue></ue-a>	Apply post test r TP CC_N05_005 ful at the terminating AS. No inds to the SUBSCRIBE required f no CC queue is available for	Reference 4.5.4.3.2.2 CC queue for the term uest containing the CC	ninating user available.
TSS CC/terminating_AS/Invocation Test purpose CCBS service invocation unsuccessf Ensure that the terminating AS respond originating AS with a 403 Forbidden in the terminating user. Preconditions: SIP header values: SUBSCRIBE sip:T-AS;m=BS From: <ue-a> To:<ue-a> To:<ue b=""> Call.Info: <ue-a>; purpose=call-of P-Assertd-Identity: UE-A Expires: CC-T3 Contact:<o-as> Event:call-completion</o-as></ue-a></ue></ue-a></ue-a>	Apply post test r TP CC_N05_005 ful at the terminating AS. No inds to the SUBSCRIBE required f no CC queue is available for	Reference 4.5.4.3.2.2 CC queue for the term uest containing the CC	ninating user available.
TSS CC/terminating_AS/Invocation Test purpose CCBS service invocation unsuccessf Ensure that the terminating AS respondent originating AS with a 403 Forbidden in the terminating user. Preconditions: SIP header values: SUBSCRIBE sip:T-AS;m=BS From: <ue-a> To:<ue b=""> Call.Info: <ue-a>; purpose=call-condition P-Assertd-Identity: UE-A Expires: CC-T3 Contact:<o-as> Event:call-completion Comments: SIP 1 (ISC)</o-as></ue-a></ue></ue-a>	Apply post test r TP CC_N05_005 Cul at the terminating AS. No inds to the SUBSCRIBE requ f no CC queue is available for completion;m=BS SUT	Reference 4.5.4.3.2.2 CC queue for the term uest containing the CC or the requested CC so SIP 2 (Gm	ninating user available. CBS invoke received from the ervice at the terminating AS for
TSS CC/terminating_AS/Invocation Test purpose CCBS service invocation unsuccessf Ensure that the terminating AS respondent originating AS with a 403 Forbidden in the terminating user. Preconditions: SIP header values: SUBSCRIBE sip:T-AS;m=BS From: <ue-a> To:<ue b=""> Call.Info: <ue-a>; purpose=call-content P-Assertd-Identity: UE-A Expires: CC-T3 Contact:<o-as> Event:call-completion Comments: SIP 1 (ISC) INVITE</o-as></ue-a></ue></ue-a>	Apply post test r TP CC_N05_005 Cul at the terminating AS. No inds to the SUBSCRIBE requ f no CC queue is available for completion;m=BS SUT →	Reference 4.5.4.3.2.2 <i>CC queue for the term</i> uest containing the CC or the requested CC so SIP 2 (Gm INVITE	ninating user available.
TSS CC/terminating_AS/Invocation Test purpose CCBS service invocation unsuccessf Ensure that the terminating AS respondent briginating AS with a 403 Forbidden in the terminating user. Preconditions: SIP header values: SUBSCRIBE sip:T-AS;m=BS From: <ue-a> To:<ue-a> To:<ue-a> To:<ue-a>; purpose=call-completion P-Assertd-Identity: UE-A Expires: CC-T3 Contact:<o-as> Event:call-completion Comments: SIP 1 (ISC) INVITE 100 Trying</o-as></ue-a></ue-a></ue-a></ue-a>	Apply post test r TP CC_N05_005 Cul at the terminating AS. No inds to the SUBSCRIBE requ f no CC queue is available for completion;m=BS SUT €	Reference 4.5.4.3.2.2 <i>CC queue for the term</i> uest containing the CC or the requested CC so SIP 2 (Gm → INVITE 100 Trying	ninating user available.
TSS CC/terminating_AS/Invocation Test purpose CCBS service invocation unsuccessf Ensure that the terminating AS respondent originating AS with a 403 Forbidden in the terminating user. Preconditions: SIP header values: SUBSCRIBE sip:T-AS;m=BS From: <ue-a> To:<ue b=""> Call.Info: <ue-a>; purpose=call-completion P-Assertd-Identity: UE-A Expires: CC-T3 Contact:<o-as> Event:call-completion Comments: SIP 1 (ISC) INVITE 100 Trying 486 (Busy Here)</o-as></ue-a></ue></ue-a>	Apply post test r TP CC_N05_005 Cul at the terminating AS. No inds to the SUBSCRIBE requ f no CC queue is available for completion;m=BS SUT →	Reference 4.5.4.3.2.2 CC queue for the term uest containing the CC or the requested CC set SIP 2 (Gm → INVITE ← 100 Trying € 486 (Busy	ninating user available.
TSS CC/terminating_AS/Invocation Test purpose CCBS service invocation unsuccessf Ensure that the terminating AS respondent briginating AS with a 403 Forbidden in the terminating user. Preconditions: SIP header values: SUBSCRIBE sip:T-AS;m=BS From: <ue-a> To:<ue-b> Call.Info: <ue-a>; purpose=call-completion P-Assertd-Identity: UE-A Expires: CC-T3 Contact:<o-as> Event:call-completion Comments: SIP 1 (ISC) INVITE 100 Trying</o-as></ue-a></ue-b></ue-a>	Apply post test r TP CC_N05_005 Cul at the terminating AS. No inds to the SUBSCRIBE requ f no CC queue is available for completion;m=BS SUT	Reference 4.5.4.3.2.2 CC queue for the term uest containing the CC or the requested CC set SIP 2 (Gm → INVITE ← 100 Trying € 486 (Busy	ninating user available.
TSS CC/terminating_AS/Invocation Test purpose CCBS service invocation unsuccessf Ensure that the terminating AS respondent beterminating user. Preconditions: SIP header values: SUBSCRIBE sip:T-AS;m=BS From: <ue-a> To:<ue-a> To:<ue b=""> Call.Info: <ue-a>; purpose=call-completion P-Assertd-Identity: UE-A Expires: CC-T3 Contact:<o-as> Event:call-completion Comments: SIP 1 (ISC) NVITE 100 Trying 486 (Busy Here)</o-as></ue-a></ue></ue-a></ue-a>	Apply post test r TP CC_N05_005 Cul at the terminating AS. No inds to the SUBSCRIBE requ f no CC queue is available for completion;m=BS SUT	Reference 4.5.4.3.2.2 CC queue for the term uest containing the CC or the requested CC set SIP 2 (Gm → INVITE ← 100 Trying € 486 (Busy	ninating user available.

TSS	TP	Reference	Selection expression
CC/terminating_AS/Invocation	CC_N05_006	4.5.4.3.2.2	
Fest purpose			
CCNR service invocation unsuccessful	at the terminating AS. Max	kimum number of q	queue entries is reached.
Ensure that the terminating AS respond	to the SUBSCRIBE requ	est containing the	CCNR invoke received from the
originating AS with a 480 (Temporarily			
Preconditions:	,	•	
SIP header values:			
SUBSCRIBE sip:T-AS;m=NR			
From: <ue-a></ue-a>			
To: <ue-b></ue-b>			
Call.Info: <ue-a>; purpose=call-cor</ue-a>	mpletion;m=BS		
P-Assertd-Identity: UE-A Expires: CC-T3			
Contact: <o-as></o-as>			
Event:call-completion			
Comments:			
SIP 1 (ISC)	SUT	SIP 2 (0	Gm)
		·	
	Set the B queue t	o limit	
INVITE	→	→ INVITE	
100 Trying	+	← 100 Try	
180 Ringing 1	+	← 180 Rin	iging
SUBSCRIBE	→		
480 Temporarily Unavailable	+ +		
	Apply post test re	outine	
TSS	TP	Reference	Selection expression
CC/terminating_AS/Invocation	CC_N05_007	4.5.4.3.2.2	•
Test purpose			· · · · · · · · · · · · · · · · · · ·
CCNR service invocation unsuccessful	at the terminating AS. No	CC queue for the t	erminating user available.
Ensure that the terminating AS respond			
originating AS with a 403 Forbidden if r	to CC queue is available to	or the requested CC	service at the terminating AS.
Preconditions: SIP header values:			
SUBSCRIBE sip:T-AS;m=NR			
From: <ue-a></ue-a>			
To: <ue b=""></ue>			
Call.Info: <ue-a>; purpose=call-cor</ue-a>	mpletion:m=BS		
P-Assertd-Identity: UE-A			

Expires: CC-T3 Contact:<O-AS> Event:call-completion

Comments:

SIP 1 (ISC)

100 Trying 180 (Ringing)

SUBSCRIBE

403 Forbidden

INVITÈ

SUT

Apply post test routine

→ ←

←

→

÷

SIP 2 (Gm) INVITE

100 Trying 180 (Ringing)

TSS	TP	Reference	Selection expression
CC/terminating_AS/Invocation	CC_N05_008	4.5.4.3.2.2	PICS 4.7.1/9
Test purpose CCNL service invocation unsuccessful a	C C		
Ensure that the terminating AS responds originating AS with a 480 (Temporarily U			
Preconditions:			
SIP header values: SUBSCRIBE sip:T-AS;m=NL			
From: <ue-a></ue-a>			
To: <ue-b></ue-b>			
Call.Info: <ue-a>; purpose=call-com</ue-a>	pletion;m=NL		
P-Assertd-Identity: UE-A			
Expires: CC-T3			
Contact: <o-as></o-as>			
Event:call-completion			
Comments: SIP 1 (ISC)	SUT	SIP 2 (Gn	1)
	Set the B queue	to limit	
INVITE	→		
100 Trying	+	← 100 Trying	1
486 (Busy Here)	÷	← 486 (Busy	
ACK	→	→ ACK	
SUBSCRIBE	→		
480 Temporarily Unavailable	→ ←		
		routine	
	Apply post test	routine	
TSS	Apply post test	Reference	Selection expression
TSS CC/terminating_AS/Invocation	Apply post test		Selection expression PICS 4.7.1/9
TSS	Apply post test TP CC_N05_009	Reference 4.5.4.3.2.2	PICS 4.7.1/9
TSS CC/terminating_AS/Invocation Test purpose CCNL service invocation unsuccessful a Ensure that the terminating AS responds	TP CC_N05_009 t the terminating AS. No to the SUBSCRIBE red	Reference 4.5.4.3.2.2 • CC queue for the terr quest containing the C0	PICS 4.7.1/9 ninating user available. CNL invoke received from the
TSS CC/terminating_AS/Invocation Test purpose CCNL service invocation unsuccessful a Ensure that the terminating AS responds originating AS with a 403 Forbidden if no	TP CC_N05_009 t the terminating AS. No to the SUBSCRIBE red	Reference 4.5.4.3.2.2 • CC queue for the terr quest containing the C0	PICS 4.7.1/9 ninating user available. CNL invoke received from the
TSS CC/terminating_AS/Invocation Test purpose CCNL service invocation unsuccessful a Ensure that the terminating AS responds originating AS with a 403 Forbidden if no the terminating user.	TP CC_N05_009 t the terminating AS. No to the SUBSCRIBE red	Reference 4.5.4.3.2.2 • CC queue for the terr quest containing the C0	PICS 4.7.1/9 ninating user available. CNL invoke received from the
TSS CC/terminating_AS/Invocation Test purpose CCNL service invocation unsuccessful a Ensure that the terminating AS responds originating AS with a 403 Forbidden if no the terminating user. Preconditions:	TP CC_N05_009 t the terminating AS. No to the SUBSCRIBE red	Reference 4.5.4.3.2.2 • CC queue for the terr quest containing the C0	PICS 4.7.1/9 ninating user available. CNL invoke received from the
TSS CC/terminating_AS/Invocation Test purpose CCNL service invocation unsuccessful a Ensure that the terminating AS responds originating AS with a 403 Forbidden if no the terminating user. Preconditions: SIP header values:	TP CC_N05_009 t the terminating AS. No to the SUBSCRIBE red	Reference 4.5.4.3.2.2 • CC queue for the terr quest containing the C0	PICS 4.7.1/9 ninating user available. CNL invoke received from the
TSS CC/terminating_AS/Invocation Test purpose CCNL service invocation unsuccessful a Ensure that the terminating AS responds originating AS with a 403 Forbidden if no the terminating user. Preconditions: SIP header values: SUBSCRIBE sip:T-AS;m=BS	TP CC_N05_009 t the terminating AS. No to the SUBSCRIBE red	Reference 4.5.4.3.2.2 • CC queue for the terr quest containing the C0	PICS 4.7.1/9 ninating user available. CNL invoke received from the
TSS CC/terminating_AS/Invocation Test purpose CCNL service invocation unsuccessful a Ensure that the terminating AS responds originating AS with a 403 Forbidden if no the terminating user. Preconditions: SIP header values:	TP CC_N05_009 t the terminating AS. No to the SUBSCRIBE red	Reference 4.5.4.3.2.2 • CC queue for the terr quest containing the C0	PICS 4.7.1/9 ninating user available. CNL invoke received from the
TSS CC/terminating_AS/Invocation Test purpose CCNL service invocation unsuccessful a Ensure that the terminating AS responds originating AS with a 403 Forbidden if no the terminating user. Preconditions: SIP header values: SUBSCRIBE sip:T-AS;m=BS From: <ue-a></ue-a>	Apply post test TP CC_N05_009 t the terminating AS. No to the SUBSCRIBE red CC queue is available	Reference 4.5.4.3.2.2 • CC queue for the terr quest containing the C0	PICS 4.7.1/9 ninating user available. CNL invoke received from the
TSS CC/terminating_AS/Invocation Test purpose CCNL service invocation unsuccessful a Ensure that the terminating AS responds originating AS with a 403 Forbidden if no the terminating user. Preconditions: SIP header values: SUBSCRIBE sip:T-AS;m=BS From: <ue-a> To:<ue a=""> Call.Info: <ue-a>; purpose=call-com P-Assertd-Identity: UE-A</ue-a></ue></ue-a>	Apply post test TP CC_N05_009 t the terminating AS. No to the SUBSCRIBE red CC queue is available	Reference 4.5.4.3.2.2 • CC queue for the terr quest containing the C0	PICS 4.7.1/9 ninating user available. CNL invoke received from the
TSS CC/terminating_AS/Invocation Test purpose CCNL service invocation unsuccessful a Ensure that the terminating AS responds originating AS with a 403 Forbidden if no the terminating user. Preconditions: SIP header values: SUBSCRIBE sip:T-AS;m=BS From: <ue-a> To:<ue a=""> Call.Info: <ue-a>; purpose=call-com P-Assertd-Identity: UE-A Expires: CC-T3</ue-a></ue></ue-a>	Apply post test TP CC_N05_009 t the terminating AS. No to the SUBSCRIBE red CC queue is available	Reference 4.5.4.3.2.2 • CC queue for the terr quest containing the C0	PICS 4.7.1/9 ninating user available. CNL invoke received from the
TSS CC/terminating_AS/Invocation Test purpose CCNL service invocation unsuccessful a Ensure that the terminating AS responds originating AS with a 403 Forbidden if no the terminating user. Preconditions: SIP header values: SUBSCRIBE sip:T-AS;m=BS From: <ue-a> To:<ue-a> To:<ue b=""> Call.Info: <ue-a>; purpose=call-com P-Assertd-Identity: UE-A Expires: CC-T3 Contact:<o-as></o-as></ue-a></ue></ue-a></ue-a>	Apply post test TP CC_N05_009 t the terminating AS. No to the SUBSCRIBE red CC queue is available	Reference 4.5.4.3.2.2 • CC queue for the terr quest containing the C0	PICS 4.7.1/9 ninating user available. CNL invoke received from the
TSS CC/terminating_AS/Invocation Test purpose CCNL service invocation unsuccessful a Ensure that the terminating AS responds originating AS with a 403 Forbidden if no the terminating user. Preconditions: SIP header values: SUBSCRIBE sip:T-AS;m=BS From: <ue-a> To:<ue b=""> Call.Info: <ue-a>; purpose=call-com P-Assertd-Identity: UE-A Expires: CC-T3 Contact:<o-as> Event:call-completion</o-as></ue-a></ue></ue-a>	Apply post test TP CC_N05_009 t the terminating AS. No to the SUBSCRIBE red CC queue is available	Reference 4.5.4.3.2.2 • CC queue for the terr quest containing the C0	PICS 4.7.1/9 ninating user available. CNL invoke received from the
TSS <u>CC/terminating_AS/Invocation</u> Test purpose <i>CCNL service invocation unsuccessful a</i> Ensure that the terminating AS responds originating AS with a 403 Forbidden if no the terminating user. Preconditions: SIP header values: SUBSCRIBE sip:T-AS;m=BS From: <ue-a> To:<ue b=""> Call.Info: <ue-a>; purpose=call-com P-Assertd-Identity: UE-A Expires: CC-T3 Contact:<o-as> Event:call-completion Comments:</o-as></ue-a></ue></ue-a>	TP CC_N05_009 t the terminating AS. Notest the subscribution of the subscributicin of the s	Reference 4.5.4.3.2.2	PICS 4.7.1/9 ninating user available. CNL invoke received from the ervice at the terminating AS for
TSS <u>CC/terminating_AS/Invocation</u> Test purpose <i>CCNL service invocation unsuccessful a</i> Ensure that the terminating AS responds originating AS with a 403 Forbidden if no the terminating user. Preconditions: SIP header values: SUBSCRIBE sip:T-AS;m=BS From: <ue-a> To:<ue b=""> Call.Info: <ue-a>; purpose=call-com P-Assertd-Identity: UE-A Expires: CC-T3 Contact:<o-as> Event:call-completion Comments: SIP 1 (ISC)</o-as></ue-a></ue></ue-a>	Apply post test TP CC_N05_009 t the terminating AS. No to the SUBSCRIBE red CC queue is available pletion;m=BS SUT	Reference 4.5.4.3.2.2 CC queue for the terr quest containing the CC for the requested CC s SIP 2 (Gn	PICS 4.7.1/9 ninating user available. CNL invoke received from the ervice at the terminating AS for
TSS <u>CC/terminating_AS/Invocation</u> Test purpose <i>CCNL service invocation unsuccessful a</i> Ensure that the terminating AS responds originating AS with a 403 Forbidden if no the terminating user. Preconditions: SIP header values: SUBSCRIBE sip:T-AS;m=BS From: <ue-a> To:<ue b=""> Call.Info: <ue-a>; purpose=call-com P-Assertd-Identity: UE-A Expires: CC-T3 Contact:<o-as> Event:call-completion Comments: SIP 1 (ISC) INVITE</o-as></ue-a></ue></ue-a>	TP CC_N05_009 t the terminating AS. Notest the subscribution of the subscributicin of the s	Reference 4.5.4.3.2.2 a CC queue for the terr quest containing the CC for the requested CC s SIP 2 (Grr INVITE	PICS 4.7.1/9 ninating user available. CNL invoke received from the ervice at the terminating AS for
TSS CC/terminating_AS/Invocation Test purpose CCNL service invocation unsuccessful a Ensure that the terminating AS responds originating AS with a 403 Forbidden if no the terminating user. Preconditions: SIP header values: SUBSCRIBE sip:T-AS;m=BS From: <ue-a> To:<ue b=""> Call.Info: <ue-a>; purpose=call-com P-Assertd-Identity: UE-A Expires: CC-T3 Contact:<o-as> Event:call-completion Comments: SIP 1 (ISC) INVITE 100 Trying</o-as></ue-a></ue></ue-a>	Apply post test TP CC_N05_009 t the terminating AS. No to the SUBSCRIBE red CC queue is available pletion;m=BS SUT	Reference 4.5.4.3.2.2 a CC queue for the terr quest containing the CC for the requested CC s SIP 2 (Gn INVITE	PICS 4.7.1/9 ninating user available. CNL invoke received from the ervice at the terminating AS for
TSS <u>CC/terminating_AS/Invocation</u> Test purpose <i>CCNL service invocation unsuccessful a</i> Ensure that the terminating AS responds originating AS with a 403 Forbidden if no the terminating user. Preconditions: SIP header values: SUBSCRIBE sip:T-AS;m=BS From: <ue-a> To:<ue b=""> Call.Info: <ue-a>; purpose=call-com P-Assertd-Identity: UE-A Expires: CC-T3 Contact:<o-as> Event:call-completion Comments:</o-as></ue-a></ue></ue-a>	Apply post test TP CC_N05_009 t the terminating AS. No to the SUBSCRIBE red CC queue is available pletion;m=BS SUT ★	Reference 4.5.4.3.2.2 a CC queue for the terr quest containing the CC for the requested CC s SIP 2 (Gn INVITE 100 Trying	PICS 4.7.1/9 ninating user available. CNL invoke received from the ervice at the terminating AS for
TSS CC/terminating_AS/Invocation Test purpose CCNL service invocation unsuccessful a Ensure that the terminating AS responds originating AS with a 403 Forbidden if no the terminating user. Preconditions: SIP header values: SUBSCRIBE sip:T-AS;m=BS From: <ue-a> To:<ue b=""> Call.Info: <ue-a>; purpose=call-com P-Assertd-Identity: UE-A Expires: CC-T3 Contact:<o-as> Event:call-completion Comments: SIP 1 (ISC) INVITE 100 Trying 486 (Busy Here) ACK</o-as></ue-a></ue></ue-a>	Apply post test	Reference 4.5.4.3.2.2 a CC queue for the terr quest containing the CC for the requested CC s SIP 2 (Gn → INVITE ← 100 Trying € 486 (Busy	PICS 4.7.1/9 ninating user available. CNL invoke received from the ervice at the terminating AS for
TSS CC/terminating_AS/Invocation Test purpose CCNL service invocation unsuccessful a Ensure that the terminating AS responds originating AS with a 403 Forbidden if no he terminating user. Preconditions: SUBSCRIBE sip:T-AS;m=BS From: <ue-a> To:<ue b=""> Call.Info: <ue-a>; purpose=call-com P-Assertd-Identity: UE-A Expires: CC-T3 Contact:<o-as> Event:call-completion Comments: SIP 1 (ISC) NVITE 100 Trying 486 (Busy Here)</o-as></ue-a></ue></ue-a>	Apply post test TP CC_N05_009 t the terminating AS. No to the SUBSCRIBE red CC queue is available pletion;m=BS SUT ★ ★	Reference 4.5.4.3.2.2 a CC queue for the terr quest containing the CC for the requested CC s SIP 2 (Gn → INVITE ← 100 Trying 486 (Busy	PICS 4.7.1/9 ninating user available. CNL invoke received from the ervice at the terminating AS for

TSS	ТР	Referen	<u></u>	Selection expression
CC/terminating_AS/Invocation	CC_N05_010	4.5.4.7.1		PICS 4.7.1/2
Test purpose				
CCBS service invocation successful at the term	inating AS. Retain	option supp	orted.	
Ensure that the terminating AS is able to queue				
originating AS and responds with a NOTIFY req				er of the call-completion
MIME body is set to queued and the service-ret	ention header is pr	esent and s	et to 'true'.	
Preconditions:				
SIP header values:				
486 (Busy Here) 1:	on-m_BS			
Call-Info: <sip:ue-b>;purpose=call-completi SUBSCRIBE sip:T-AS;m=BS</sip:ue-b>	00,00=05			
From: <ue-a></ue-a>				
To: <ue-b></ue-b>				
Call.Info: <ue-a>; purpose=call-completion;</ue-a>	m-BS			
P-Assertd-Identity: UE-A	m=00			
Expires: CC-T3				
Contact: <o-as></o-as>				
Event:call-completion				
NOTIFY sip:O-AS				
From: <ue-b></ue-b>				
To: <ue-a></ue-a>				
Event:call-completion				
Subscription-State: active;expires=< any	value >			
Event:call-completion				
Content-Type: application/call-completion				
cc-state: queued				
cc-service-retention: true				
Comments:	0.117	~		
SIP 1 (ISC) INVITE →	SUT		IP 2 (Gm) IVITE	
INVITE → 100 Trying ←			00 Trying	
486 (Busy Here) 1			86 (Busy Here	۸ ۱
			CK	1
		• A		
NOTIFY 🗲				
200 OK NOTIFY →				
	Apply post test ro	outine		

TSS	TP	Refe	rence	Selection expression
CC/terminating_AS/Invocation	CC_N05_0011	4.5.4	1.7.1	NOT PICS 4.7.1/2
Test purpose				
CCNR service invocation successful at the term	ninating AS. Retain	option r	not supported.	
Ensure that the terminating AS is able to queue				
originating AS and responds with a NOTIFY rec				ler of the call-completion
MIME body is set to queued and the service-ret	ention header is no	ot prese	nt.	
Preconditions:				
SIP header values:				
486 Busy Here 1:				
Call-Info: <sip:ue-b>;purpose=call-completi</sip:ue-b>	ion;m=BS			
SUBSCRIBE sip:T-AS;m=BS				
From: <ue-a></ue-a>				
To: <ue-b></ue-b>	50			
Call.Info: <ue-a>; purpose=call-completion;</ue-a>	,m=85			
P-Assertd-Identity: UE-A				
Expires: CC-T3 Contact: <o-as></o-as>				
Event:call-completion				
NOTIFY sip:O-AS				
From: <ue-b></ue-b>				
To: <ue-a></ue-a>				
Event:call-completion				
Subscription-State: active;expires=< any	value >			
Event:call-completion				
Content-Type: application/call-completion				
cc-state: queued				
Comments:				
SIP 1 (ISC)	SUT		SIP 2 (Gm)	
INVITÈ		→	INVITÈ	
100 Trying 🗧 🗧		←	100 Trying	
486 (Busy Here) 1		←	486 (Busy Her	re)
ACK 🗕		→	ACK	
SUBSCRIBE -				
200 OK SUBCSRIBE				
200 OK NOTIFY	Amelian and the state			
L	Apply post test ro	utine		

TSS	ТР	Reference	Selection expression
CC/terminating_AS/Invocation	CC_N05_012	4.5.4.7.1	PICS 4.7.1/2
Test purpose			
CCNR service invocation successful at the	terminating AS. Retain	option supported.	
Ensure that the terminating AS is able to qu			
originating AS and responds with a NOTIF			
MIME body is set to queued and the service	e-retention header is pr	resent and set to 'tru	le'.
Preconditions: SIP header values:			
180 Ringing 1: Call-Info: <sip:ue-b>;purpose=call-com</sip:ue-b>	nlation:m_NP		
SUBSCRIBE sip:T-AS;m=NR	ipietion,m=NK		
From: <ue-a></ue-a>			
To: <ue-b></ue-b>			
Call.Info: <ue-a>; purpose=call-comple</ue-a>	etion:m=NR		
P-Assertd-Identity: UE-A			
Expires: CC-T3			
Contact: <o-as></o-as>			
Event:call-completion			
NOTIFY sip:O-AS			
From: <ue-b></ue-b>			
To: <ue-a></ue-a>			
Event:call-completion			
Subscription-State: active;expires=<	any value >		
Event:call-completion Content-Type: application/call-completion	<u></u>		
cc-state: queued	UII		
cc-service-retention: true			
Comments:			
SIP 1 (ISC)	SUT	SIP 2 (G	m)
	→	→ INVITÈ	,
100 Trying	÷	 100 Tryin 	Ig
180 Ringing 1	←	← 180 Ring	ing
COBCOLUBE	→		
200 OK SUBCSRIBE	÷		
NOTIFY	←		
	< →		
	-		

TSS	TP	Refe	erence	Selection expression
CC/terminating_AS/Invocation	CC_N05_0013	4.5.4		NOT PICS 4.7.1/2
Test purpose				
CCNR service invocation successful at the ter	rminating AS. Retair	n option r	not supported.	
	C C			
Ensure that the terminating AS is able to queu				
originating AS and responds with a NOTIFY re				ader of the call-completion
MIME body is set to queued and the service-re	etention header is n	ot prese	nt.	
Preconditions:				
SIP header values:				
180 Ringing 1:				
Call-Info: <sip:ue-b>;purpose=call-comple</sip:ue-b>	etion;m=NR			
SUBSCRIBE sip:T-AS;m=NR				
From: <ue-a></ue-a>				
To: <ue-b></ue-b>				
Call.Info: <ue-a>; purpose=call-completio P-Assertd-Identity: UE-A</ue-a>	n;m=NR			
Expires: CC-T3				
Contact: <o-as></o-as>				
Event:call-completion				
NOTIFY sip:O-AS				
From: <ue-b></ue-b>				
To: <ue-a></ue-a>				
Event:call-completion				
Subscription-State: active;expires=< an	y value >			
Event:call-completion	-			
Content-Type: application/call-completion				
cc-state: queued				
Comments:				
SIP 1 (ISC)	SUT	_	SIP 2 (Gm)	
INVITE		→	INVITE	
100 Trying		÷	100 Trying	
180 Ringing 1		÷	180 Ringing	
SUBSCRIBE				
200 OK SUBCSRIBE				
NOTIFY 🗲				
200 OK NOTIFY				
	Apply post test r	outine		

TSS CC/terminating_AS/Invocation	TP CC_N05_014	Reference 4.5.4.7.1	Selection expression PICS 4.7.1/2 AND PICS 4.7.1/9
Test purpose			
CCNL service invocation successful at th	e terminating AS. Retain	option supported.	
Ensure that the terminating AS is able to			
originating AS and responds with a NOTI			
MIME body is set to queued and the serv Preconditions:	ice-retention neader is p	resent and set to t	rue.
SIP header values:			
480 Temporarily Unavailable 1:			
Call-Info: <sip:ue-b>;purpose=call-co</sip:ue-b>	moletion:m-NI		
SUBSCRIBE sip:T-AS;m=NL			
From: <ue-a></ue-a>			
To: <ue-b></ue-b>			
Call.Info: <ue-a>; purpose=call-comp</ue-a>	pletion:m=NL		
P-Assertd-Identity: UE-A			
Expires: CC-T3			
Contact: <o-as></o-as>			
Event:call-completion			
NOTIFY sip:O-AS			
From: <ue-b></ue-b>			
To: <ue-a></ue-a>			
Event:call-completion			
Subscription-State: active;expires=	< any value >		
Event:call-completion	tion		
Content-Type: application/call-comple cc-state: queued	euon		
cc-service-retention: true			
Comments:			
SIP 1 (ISC)	SUT	SIP 2 (0	Gm)
INVITE	→	→ INVITE	
100 Trying	+	← 100 Try	ina
480 (Temporarily Unavailable) 1	+		mporarily Unavailable)
ACK	→	→ ACK	
SUBSCRIBE	→		
200 OK SUBCSRIBE	÷		
NOTIFY	÷		
200 OK NOTIFY	→		
	Apply post test r	outine	

TSS CC/terminating_AS/Invocation	TP CC_N05_0015	Reference 4.5.4.7.1	Selection expression NOT PICS 4.7.1/2 AND PICS 4.7.1/9
Test purpose CCNL service invocation successful at the	terminating AS. Retain	option not supporte	nd.
Ensure that the terminating AS is able to q originating AS and responds with a NOTIF MIME body is set to queued and the service	Y request. In the NOTI	FY request the state	
Preconditions:			
SIP header values: 480 Temporarily Unavailable 1: Call-Info: <sip:ue-b>;purpose=call-cor SUBSCRIBE sip:T-AS;m=NL From:<ue-a> To:<ue-b> Call.Info: <ue-a>; purpose=call-comple P-Assertd-Identity: UE-A Expires: CC-T3 Contact:<o-as> Event:call-completion NOTIFY sip:O-AS From:<ue-b> To:<ue-a> Event:call-completion Subscription-State: active;expires=< Event:call-completion Content-Type: application/call-completin cc-state: queued</ue-a></ue-b></o-as></ue-a></ue-b></ue-a></sip:ue-b>	etion;m=NL < any value >		
Comments: SIP 1 (ISC) INVITE 100 Trying 480 (Temporarily Unavailable) 1 ACK	SUT → ← →	SIP 2 (Gi → INVITE ← 100 Tryin ← 480 (Tem → ACK	
SUBSCRIBE 200 OK SUBCSRIBE	→ ←		
NOTIFY 200 OK NOTIFY	← → Apply post test r	outine	

TSS	TP	Reference	Selection expression
CC/terminating_AS/Revocation	CC_N06_001	4.5.4.3.3.1	<u> </u>
Test purpose			
CCBS service revocation successful at the termi	nating AS.		
Ensure that the terminating AS is able to respond			
terminated and the reason parameter is set to tin	neout for a CCBS qu	ueue entry if a SUBSCR	IBE request is received
and the Expires header is set to '0'.			
Preconditions:			
SIP header values:			
SUBSCRIBE sip:T-AS;m=BS			
From: <ue-a></ue-a>			
To: <ue-b></ue-b>			
Contact: <o-as></o-as>			
Call.Info: <ue-a>; purpose=call-completion;n</ue-a>	n=BS		
P-Assertd-Identity: UE-A			
Expires: CC-T3			
Event:call-completion			
Expires=0			
NOTIFY sip:O-AS			
From: <ue-b></ue-b>			
To: <ue-a></ue-a>			
Event:call-completion			
Subscription-State: terminated; reason=tin	meout		
Comments:			
SIP 1 (ISC)	SUT	SIP 2 (Gm)	
Invoke CCBS request			
200 OK SUBCSRIBE			
NOTIFY +			
200 OK NOTIFY			
200 011101111	Apply post test rout	tine	
L,			

T22	TD	Deference	Coloction oversector
TSS CC/terminating_AS/Revocation	TP CC_N06_002	Reference 4.5.4.3.3.1	Selection expression
Test purpose	00_100_002	1.0.1.0.0.1	I
CCNR service revocation successful at the ter	rminating AS.		
Ensure that the terminating AS is able to response terminated and the reason parameter is set to and the Expires header is set to '0'.			
Preconditions:			
SIP header values: SUBSCRIBE sip:T-AS;m=NR From: <ue-a> To:<ue-b> Call.Info: <ue-a>; purpose=call-completion P-Assertd-Identity: UE-A Expires: CC-T3 Event:call-completion Expires=0 NOTIFY sip:O-AS Event:call-completion Subscription-State: terminated; reason=tim Comments: SIP 1 (ISC) Invoke CCBS request SUBSCRIBE → 200 OK SUBCSRIBE ←</ue-a></ue-b></ue-a>		SIP 2 (Gm)	
200 OK NOTIFY			
1	Annly nost test ro	utine	
	Apply post test ro	outine	
<u> </u>			
TSS	ТР	Reference	Selection expression
CC/terminating_AS/Revocation			Selection expression PICS 4.7.1/9
CC/terminating_AS/Revocation Test purpose <i>CCNL service revocation successful at the termination successful at the termination</i> Ensure that the terminating AS is able to response terminated and the reason parameter is set to and the Expires header is set to '0'.	TP CC_N06_003 minating AS.	Reference 4.5.4.3.3.1 st and the Subscription	PICS 4.7.1/9
CC/terminating_AS/Revocation Test purpose <i>CCNL service revocation successful at the terminated and the terminating AS is able to response terminated and the reason parameter is set to and the Expires header is set to '0'.</i> Preconditions:	TP CC_N06_003 minating AS.	Reference 4.5.4.3.3.1 st and the Subscription	PICS 4.7.1/9
CC/terminating_AS/Revocation Test purpose CCNL service revocation successful at the term Ensure that the terminating AS is able to respon terminated and the reason parameter is set to and the Expires header is set to '0'. Preconditions: SIP header values: SUBSCRIBE sip:T-AS;m=NL From: <ue-a> To:<ue-b> Call.Info: <ue-a>; purpose=call-completion P-Assertd-Identity: UE-A Expires: CC-T3 Event:call-completion Expires=0 NOTIFY sip:O-AS Event:call-completion Subscription-State: terminated; reason=tim</ue-a></ue-b></ue-a>	TP CC_N06_003 minating AS. ond a NOTIFY reque timeout for a CCNL	Reference 4.5.4.3.3.1 st and the Subscription	PICS 4.7.1/9
CC/terminating_AS/Revocation Test purpose CCNL service revocation successful at the term Ensure that the terminating AS is able to respon terminated and the reason parameter is set to and the Expires header is set to '0'. Preconditions: SUBSCRIBE sip:T-AS;m=NL From: <ue-a> To:<ue-b> Call.Info: <ue-a>; purpose=call-completion P-Assertd-Identity: UE-A Expires: CC-T3 Event:call-completion Expires=0 NOTIFY sip:O-AS Event:call-completion Subscription-State: terminated; reason=tim Comments:</ue-a></ue-b></ue-a>	TP CC_N06_003 minating AS. ond a NOTIFY reque timeout for a CCNL	Reference 4.5.4.3.3.1 st and the Subscription queue entry if a SUBSO	PICS 4.7.1/9
CC/terminating_AS/Revocation Test purpose CCNL service revocation successful at the term Ensure that the terminating AS is able to respon terminated and the reason parameter is set to and the Expires header is set to '0'. Preconditions: SIP header values: SUBSCRIBE sip:T-AS;m=NL From: <ue-a> To:<ue-b> Call.Info: <ue-a>; purpose=call-completion P-Assertd-Identity: UE-A Expires: CC-T3 Event:call-completion Expires=0 NOTIFY sip:O-AS Event:call-completion Subscription-State: terminated; reason=tim Comments: SIP 1 (ISC)</ue-a></ue-b></ue-a>	TP CC_N06_003 minating AS. ond a NOTIFY reque timeout for a CCNL	Reference 4.5.4.3.3.1 st and the Subscription	PICS 4.7.1/9
CC/terminating_AS/Revocation Test purpose CCNL service revocation successful at the term Ensure that the terminating AS is able to respon terminated and the reason parameter is set to and the Expires header is set to '0'. Preconditions: SIP header values: SUBSCRIBE sip:T-AS;m=NL From: <ue-a> To:<ue-b> Call.Info: <ue-a>; purpose=call-completion P-Assertd-Identity: UE-A Expires: CC-T3 Event:call-completion Expires=0 NOTIFY sip:O-AS Event:call-completion Subscription-State: terminated; reason=tim Comments: SIP 1 (ISC) Invoke CCBS request</ue-a></ue-b></ue-a>	TP CC_N06_003 minating AS. ond a NOTIFY reque timeout for a CCNL	Reference 4.5.4.3.3.1 st and the Subscription queue entry if a SUBSO	PICS 4.7.1/9
CC/terminating_AS/Revocation Test purpose CCNL service revocation successful at the term Ensure that the terminating AS is able to respon terminated and the reason parameter is set to and the Expires header is set to '0'. Preconditions: SIP header values: SUBSCRIBE sip:T-AS;m=NL From: <ue-a> To:<ue-b> Call.Info: <ue-a>; purpose=call-completion P-Assertd-Identity: UE-A Expires: CC-T3 Event:call-completion Expires=0 NOTIFY sip:O-AS Event:call-completion Subscription-State: terminated; reason=tim Comments: SIP 1 (ISC)</ue-a></ue-b></ue-a>	TP CC_N06_003 minating AS. ond a NOTIFY reque timeout for a CCNL	Reference 4.5.4.3.3.1 st and the Subscription queue entry if a SUBSO	PICS 4.7.1/9
CC/terminating_AS/Revocation Test purpose CCNL service revocation successful at the term Ensure that the terminating AS is able to respon terminated and the reason parameter is set to and the Expires header is set to '0'. Preconditions: SIP header values: SUBSCRIBE sip:T-AS;m=NL From: <ue-a> To:<ue-b> Call.Info: <ue-a>; purpose=call-completion P-Assertd-Identity: UE-A Expires: CC-T3 Event:call-completion Expires=0 NOTIFY sip:O-AS Event:call-completion Subscription-State: terminated; reason=tim Comments: SIP 1 (ISC) Invoke CCBS request</ue-a></ue-b></ue-a>	TP CC_N06_003 minating AS. ond a NOTIFY reque timeout for a CCNL	Reference 4.5.4.3.3.1 est and the Subscription queue entry if a SUBSC	PICS 4.7.1/9

TSS	TP	Reference	Selection expression
C/terminating_AS/Revocation	CC_N06_004	4.5.4.3.3.2	-
est purpose			
CBS service revocation at the termination	ting AS. CC-T7 expires.		
Ensure that the terminating AS is able to	o revoke a CCBS queue en	trv if the CC service d	uration timer CC-T7 expires.
NOTIFY request is sent to the originating			
neader is set to "noresource".	5		
Preconditions:			
SIP header values:			
NOTIFY sip:O-AS			
Event:call-completion			
Subscription-State: terminated; rease	on=noresource		
Comments:			
SIP 1 (ISC)	SUT	SIP 2 (Gm)	
Invoke CCBS req			
	Start CC-T7		
NOTIFY	CC-T7 expires ←		
200 OK NOTIFY	× →		
	Apply post test ro	utine	
TSS	TP	Reference	Selection expression
CC/terminating_AS/Revocation	CC_N06_005	4.5.4.3.3.2	
Test purpose			
CCNR service revocation at the termina	ting AS. CC-T7 expires.		
Ensure that the terminating AS is able to			
NOTIFY request is sent to the originating	g AS and the Subscription-	State header is set to	"terminated" and the reason
neader is set to "noresource". Preconditions:			
NOTIFY sip:O-AS Event:call-completion			

Event:call-completion

Subscription-St	tate: terminated; reason=nore	esource		
Comments: SIP 1 (ISC)		SUT	SIP 2 (Gm)	
SIF I (130)	Invoke CCNR request	301	3F 2 (611)	
		Start CC-T7		
		\downarrow		
		CC-T7 expires		
NOTIFY	+			
200 OK NOTIFY	→			
		Apply post test routine)	

TSS	TP	Reference	Selection expression
CC/terminating_AS/Revocation	CC_N06_006	4.5.4.3.3.2	PICS 4.7.1/9

CCNL service revocation at the terminating AS. CC-T7 expires.

Ensure that the terminating AS is able to revoke a CCNL queue entry if the CC service duration timer CC-T7 expires. A NOTIFY request is sent to the originating AS and the Subscription-State header is set to "terminated" and the reason header is set to "noresource".

Preconditions: SIP header values: NOTIFY sip:O-AS Event:call-completion Subscription-State: terminated; reason=noresource Comments: SIP 2 (Gm) SIP 1 (ISC) SUT Invoke CCNR request Start CC-T7 ↓ **CC-T7** expires NOTIFY ← 200 OK NOTIFY → Apply post test routine

5.3.4 CC Operation

TSS	TP	Rof	erence	Selection expression
CC/terminating AS/CCOperation	CC_N07_001		.4.3.4.1.1,	Selection expression
	00_107_001		.4.3.4.1.2	
Test purpose		1.10		
Callee becomes not busy, CCBS recal	ll procedure performed.			
Ensure that the terminating AS starts the	he call completion recall p	rocedure	if the callee be	ecomes not busy. The
terminating AS starts the Destination B				
sent to the originating AS. The state he				
Preconditions:				
SIP header values:				
NOTIFY sip:O-AS				
From: UE B				
To: UE A				
Event:call-completion				
Subscription-State: active; expires=				
Content-Type: application/call-com	pletion			
cc-state: ready				
Comments:				
SIP 1 (ISC)	SUT		SIP 2 (Gm)	
Invoke CCBS re	•			
	Callee is bu	lsy	DVE	
BYE	÷	÷	BYE	
200 OK BYE	→	, →	200 OK BY	E
	Start CC-T	8		
	CC-T8 expir	06		
NOTIFY	€	63		
200 OK NOTIFY	→			

		Reference	Selection expression
CC/terminating_AS/CCOperation	CC_N07_002	4.5.4.3.4.1.1,	
-		4.5.4.3.4.1.2	
Test purpose			
Callee becomes not busy after having initiated a	an activity, CCNR r	ecall procedure performe	d.
			in a latit to do a solid to The
Ensure that the terminating AS starts the call co	mpletion recall pro	cedure if the callee is have	ing initiated an activity. The
terminating AS starts the Destination B idle gua			
sent to the originating AS. The state header in t	ne call-completion	VIIVE body is set to "read	dy".
Preconditions:			
SIP header values:			
NOTIFY sip:O-AS			
From: UE B			
To: UE A			
Event:call-completion			
Subscription-State: active; expires=< any va	alue >		
Content-Type: application/call-completion			
cc-state: ready			
Comments:	0.UT		
SIP 1 (ISC)	SUT	SIP 2 (Gm)	
Invoke CCNR request	Colles is idle		
	Callee is idle		
INVITE ← 486 Busy Here →		 ← INVITE → 486 Busy Here 	
486 Busy Here → ACK ←		 ✓ 400 Busy Here ✓ ACK 	
	Start CC-T8	ACK	
	CC-T8 expires		
NOTIFY 🗲	CC-10 expires		
200 OK NOTIFY			
	Apply post test ro	utine	
	Apply post test ro	utine	
	Apply post test ro	utine	
TSS	Apply post test ro		Selection expression
TSS		utine Reference 4.5.4.3.4.1.1,	Selection expression PICS 4.7.1/9
	ТР	Reference	
TSS CC/terminating_AS/CCOperation	ТР	Reference 4.5.4.3.4.1.1,	
TSS	TP CC_N07_003	Reference 4.5.4.3.4.1.1, 4.5.4.3.4.1.2	
TSS CC/terminating_AS/CCOperation Test purpose	TP CC_N07_003	Reference 4.5.4.3.4.1.1, 4.5.4.3.4.1.2	
TSS CC/terminating_AS/CCOperation Test purpose	TP CC_N07_003	Reference 4.5.4.3.4.1.1, 4.5.4.3.4.1.2 e performed.	PICS 4.7.1/9
TSS CC/terminating_AS/CCOperation Test purpose Callee becomes not busy after is logged-in, CC	TP CC_N07_003	Reference 4.5.4.3.4.1.1, 4.5.4.3.4.1.2 e performed. cedure if the callee is have	PICS 4.7.1/9
TSS CC/terminating_AS/CCOperation Test purpose Callee becomes not busy after is logged-in, CC Ensure that the terminating AS starts the call cc terminating AS starts the Destination B idle gua sent to the originating AS. The state header in t	TP CC_N07_003	Reference 4.5.4.3.4.1.1, 4.5.4.3.4.1.2 e performed. cedure if the callee is have nen the timer CC-T8 expi	PICS 4.7.1/9 ving initiated an activity. The res, a NOTIFY request is
TSS CC/terminating_AS/CCOperation Test purpose Callee becomes not busy after is logged-in, CC Ensure that the terminating AS starts the call co terminating AS starts the Destination B idle gua	TP CC_N07_003	Reference 4.5.4.3.4.1.1, 4.5.4.3.4.1.2 e performed. cedure if the callee is have nen the timer CC-T8 expi	PICS 4.7.1/9 ving initiated an activity. The res, a NOTIFY request is
TSS CC/terminating_AS/CCOperation Test purpose Callee becomes not busy after is logged-in, CC Ensure that the terminating AS starts the call co terminating AS starts the Destination B idle gua sent to the originating AS. The state header in t	TP CC_N07_003	Reference 4.5.4.3.4.1.1, 4.5.4.3.4.1.2 e performed. cedure if the callee is have nen the timer CC-T8 expi	PICS 4.7.1/9 ving initiated an activity. The res, a NOTIFY request is
TSS CC/terminating_AS/CCOperation Test purpose Callee becomes not busy after is logged-in, CC Ensure that the terminating AS starts the call cc terminating AS starts the Destination B idle gua sent to the originating AS. The state header in t Preconditions: SIP header values:	TP CC_N07_003	Reference 4.5.4.3.4.1.1, 4.5.4.3.4.1.2 e performed. cedure if the callee is have nen the timer CC-T8 expi	PICS 4.7.1/9 ving initiated an activity. The res, a NOTIFY request is
TSS CC/terminating_AS/CCOperation Test purpose Callee becomes not busy after is logged-in, CC Ensure that the terminating AS starts the call cc terminating AS starts the Destination B idle gua sent to the originating AS. The state header in t Preconditions: SIP header values:	TP CC_N07_003	Reference 4.5.4.3.4.1.1, 4.5.4.3.4.1.2 e performed. cedure if the callee is have nen the timer CC-T8 expi	PICS 4.7.1/9 ving initiated an activity. The res, a NOTIFY request is
TSS CC/terminating_AS/CCOperation Test purpose Callee becomes not busy after is logged-in, CC Ensure that the terminating AS starts the call cc terminating AS starts the Destination B idle gua sent to the originating AS. The state header in t Preconditions: SIP header values: NOTIFY sip:O-AS	TP CC_N07_003	Reference 4.5.4.3.4.1.1, 4.5.4.3.4.1.2 e performed. cedure if the callee is have nen the timer CC-T8 expi	PICS 4.7.1/9 ving initiated an activity. The res, a NOTIFY request is
TSS CC/terminating_AS/CCOperation Test purpose Callee becomes not busy after is logged-in, CC Ensure that the terminating AS starts the call cc terminating AS starts the Destination B idle gua sent to the originating AS. The state header in t Preconditions: SIP header values: NOTIFY sip:O-AS From: UE B To: UE A Event:call-completion	TP CC_N07_003	Reference 4.5.4.3.4.1.1, 4.5.4.3.4.1.2 e performed. cedure if the callee is have nen the timer CC-T8 expi	PICS 4.7.1/9 ving initiated an activity. The res, a NOTIFY request is
TSS CC/terminating_AS/CCOperation Test purpose Callee becomes not busy after is logged-in, CC Ensure that the terminating AS starts the call cc terminating AS starts the Destination B idle gua sent to the originating AS. The state header in t Preconditions: SIP header values: NOTIFY sip:O-AS From: UE B To: UE A Event:call-completion Subscription-State: active; expires=< any values	TP CC_N07_003	Reference 4.5.4.3.4.1.1, 4.5.4.3.4.1.2 e performed. cedure if the callee is have nen the timer CC-T8 expi	PICS 4.7.1/9 ving initiated an activity. The res, a NOTIFY request is
TSS CC/terminating_AS/CCOperation Test purpose Callee becomes not busy after is logged-in, CC Ensure that the terminating AS starts the call cc terminating AS starts the Destination B idle gua sent to the originating AS. The state header in t Preconditions: SIP header values: NOTIFY sip:O-AS From: UE B To: UE A Event:call-completion Subscription-State: active; expires=< any va Content-Type: application/call-completion	TP CC_N07_003	Reference 4.5.4.3.4.1.1, 4.5.4.3.4.1.2 e performed. cedure if the callee is have nen the timer CC-T8 expi	PICS 4.7.1/9 ving initiated an activity. The res, a NOTIFY request is
TSS CC/terminating_AS/CCOperation Test purpose Callee becomes not busy after is logged-in, CC Ensure that the terminating AS starts the call co terminating AS starts the Destination B idle gua sent to the originating AS. The state header in t Preconditions: SIP header values: NOTIFY sip:O-AS From: UE B To: UE A Event:call-completion Subscription-State: active; expires=< any va Content-Type: application/call-completion cc-state: ready	TP CC_N07_003	Reference 4.5.4.3.4.1.1, 4.5.4.3.4.1.2 e performed. cedure if the callee is have nen the timer CC-T8 expi	PICS 4.7.1/9 ving initiated an activity. The res, a NOTIFY request is
TSS CC/terminating_AS/CCOperation Test purpose Callee becomes not busy after is logged-in, CC Ensure that the terminating AS starts the call co terminating AS starts the Destination B idle gua sent to the originating AS. The state header in t Preconditions: SIP header values: NOTIFY sip:O-AS From: UE B To: UE A Event:call-completion Subscription-State: active; expires=< any va Content-Type: application/call-completion cc-state: ready Comments:	TP CC_N07_003	Reference 4.5.4.3.4.1.1, 4.5.4.3.4.1.2 e performed. cedure if the callee is have nen the timer CC-T8 expi MIME body is set to "read	PICS 4.7.1/9 ving initiated an activity. The res, a NOTIFY request is
TSS CC/terminating_AS/CCOperation Test purpose Callee becomes not busy after is logged-in, CC Ensure that the terminating AS starts the call co terminating AS starts the Destination B idle gua sent to the originating AS. The state header in t Preconditions: SIP header values: NOTIFY sip:O-AS From: UE B To: UE A Event:call-completion Subscription-State: active; expires=< any va Content-Type: application/call-completion cc-state: ready Comments: SIP 1 (ISC)	TP CC_N07_003	Reference 4.5.4.3.4.1.1, 4.5.4.3.4.1.2 e performed. cedure if the callee is have nen the timer CC-T8 expi	PICS 4.7.1/9 ving initiated an activity. The res, a NOTIFY request is
TSS CC/terminating_AS/CCOperation Test purpose Callee becomes not busy after is logged-in, CC Ensure that the terminating AS starts the call co terminating AS starts the Destination B idle gua sent to the originating AS. The state header in t Preconditions: SIP header values: NOTIFY sip:O-AS From: UE B To: UE A Event:call-completion Subscription-State: active; expires=< any va Content-Type: application/call-completion cc-state: ready Comments:	TP CC_N07_003 INL recall procedure ompletion recall pro ind timer CC-T8. Wh the call-completion in alue >	Reference 4.5.4.3.4.1.1, 4.5.4.3.4.1.2 e performed. cedure if the callee is haven the timer CC-T8 expi MIME body is set to "read SIP 2 (Gm)	PICS 4.7.1/9 ving initiated an activity. The res, a NOTIFY request is
TSS CC/terminating_AS/CCOperation Test purpose Callee becomes not busy after is logged-in, CC Ensure that the terminating AS starts the call co terminating AS starts the Destination B idle gua sent to the originating AS. The state header in t Preconditions: SIP header values: NOTIFY sip:O-AS From: UE B To: UE A Event:call-completion Subscription-State: active; expires=< any va Content-Type: application/call-completion cc-state: ready Comments: SIP 1 (ISC)	TP CC_N07_003 INL recall procedure ompletion recall pro ind timer CC-T8. Wh he call-completion in alue > SUT Callee is logged	Reference 4.5.4.3.4.1.1, 4.5.4.3.4.1.2 e performed. cedure if the callee is haven the timer CC-T8 expi MIME body is set to "read SIP 2 (Gm)	PICS 4.7.1/9 ving initiated an activity. The res, a NOTIFY request is
TSS CC/terminating_AS/CCOperation Test purpose Callee becomes not busy after is logged-in, CC Ensure that the terminating AS starts the call co terminating AS starts the Destination B idle gua sent to the originating AS. The state header in t Preconditions: SIP header values: NOTIFY sip:O-AS From: UE B To: UE A Event:call-completion Subscription-State: active; expires=< any va Content-Type: application/call-completion cc-state: ready Comments: SIP 1 (ISC)	TP CC_N07_003 INL recall procedure ompletion recall pro ind timer CC-T8. Wh he call-completion in alue > SUT Callee is logged Start CC-T8	Reference 4.5.4.3.4.1.1, 4.5.4.3.4.1.2 e performed. cedure if the callee is haven the timer CC-T8 expi MIME body is set to "read SIP 2 (Gm)	PICS 4.7.1/9 ving initiated an activity. The res, a NOTIFY request is
TSS CC/terminating_AS/CCOperation Test purpose Callee becomes not busy after is logged-in, CC Ensure that the terminating AS starts the call co terminating AS starts the Destination B idle gua sent to the originating AS. The state header in t Preconditions: SIP header values: NOTIFY sip:O-AS From: UE B To: UE A Event:call-completion Subscription-State: active; expires=< any va Content-Type: application/call-completion cc-state: ready Comments: SIP 1 (ISC)	TP CC_N07_003 NL recall procedure ompletion recall pro ind timer CC-T8. Wh he call-completion in alue > SUT Callee is logged Start CC-T8 ↓	Reference 4.5.4.3.4.1.1, 4.5.4.3.4.1.2 e performed. cedure if the callee is haven the timer CC-T8 expi MIME body is set to "read SIP 2 (Gm)	PICS 4.7.1/9 ving initiated an activity. The res, a NOTIFY request is
TSS CC/terminating_AS/CCOperation Test purpose Callee becomes not busy after is logged-in, CC Ensure that the terminating AS starts the call co terminating AS starts the Destination B idle gua sent to the originating AS. The state header in t Preconditions: SIP header values: NOTIFY sip:O-AS From: UE B To: UE A Event:call-completion Subscription-State: active; expires=< any va Content-Type: application/call-completion cc-state: ready Comments: SIP 1 (ISC) Invoke CCNL request	TP CC_N07_003 INL recall procedure ompletion recall pro ind timer CC-T8. Wh he call-completion in alue > SUT Callee is logged Start CC-T8	Reference 4.5.4.3.4.1.1, 4.5.4.3.4.1.2 e performed. cedure if the callee is haven the timer CC-T8 expi MIME body is set to "read SIP 2 (Gm)	PICS 4.7.1/9 ving initiated an activity. The res, a NOTIFY request is
TSS CC/terminating_AS/CCOperation Test purpose Callee becomes not busy after is logged-in, CC Ensure that the terminating AS starts the call cc terminating AS starts the Destination B idle gua sent to the originating AS. The state header in t Preconditions: SIP header values: NOTIFY sip:O-AS From: UE B To: UE A Event:call-completion Subscription-State: active; expires=< any va Content-Type: application/call-completion cc-state: ready Comments: SIP 1 (ISC) NOTIFY ◆	TP CC_N07_003 NL recall procedure ompletion recall pro ind timer CC-T8. Wh he call-completion in alue > SUT Callee is logged Start CC-T8 ↓	Reference 4.5.4.3.4.1.1, 4.5.4.3.4.1.2 e performed. cedure if the callee is haven the timer CC-T8 expi MIME body is set to "read SIP 2 (Gm)	PICS 4.7.1/9 ving initiated an activity. The res, a NOTIFY request is
TSS CC/terminating_AS/CCOperation Test purpose Callee becomes not busy after is logged-in, CC Ensure that the terminating AS starts the call co terminating AS starts the Destination B idle gua sent to the originating AS. The state header in t Preconditions: SIP header values: NOTIFY sip:O-AS From: UE B To: UE A Event:call-completion Subscription-State: active; expires=< any va Content-Type: application/call-completion cc-state: ready Comments: SIP 1 (ISC) NOTIFY \$\$	TP CC_N07_003 NL recall procedure ompletion recall pro ind timer CC-T8. Wh he call-completion in alue > SUT Callee is logged Start CC-T8 ↓	Reference 4.5.4.3.4.1.1, 4.5.4.3.4.1.2 <i>e performed.</i> cedure if the callee is have the timer CC-T8 expinition MIME body is set to "read SIP 2 (Gm) I-in	PICS 4.7.1/9 ving initiated an activity. The res, a NOTIFY request is

TSS CC/terminating_AS/CCOperation	TP CC	_N07_004	4.5.4	rence .3.4.1.3, .3.4.1.4	Selection expression
Test purpose CCBS: An INVITE request received v	while a CC recall	is processor		l indicator proson	t in the Pequest line
CCBS. All INVITE request received	while a CC recall	is processed	. CC cai	i mulcator present	i in the Request line.
Ensure that when an INVITE request					
the m parameter is present set to "BS					
processed to the callee. An INVITE is 180 (Ringing) is received from the ca					
is set to "terminated" and the reason				nginating AS and	Subscription-State header
Preconditions:					
SIP header values:					
NOTIFY 1 sip:O-AS					
From: UE B					
To: UE A					
Subscription-State: active; expire	s=< any value >				
Event:call-completion					
Content-Type: application/call-con	npletion				
cc-state: ready INVITE 1: sip: UE B; m=BS					
Call-Info: <sip:ue-a>;purpose=ca</sip:ue-a>	ull-completion·m-	-BS			
NOTIFY 2 sip:O-AS		-00			
Event:call-completion					
Subscription-State: terminated	; reason=nores	ource			
Comments:					
SIP 1 (ISC)		SUT		SIP 2 (Gm)	
Invoke CCBS I					
		allee is bus		DVE	
BYE	÷		÷	BYE	
200 OK BYE	→		→	200 OK BYE	
NOTIFY 1	÷				
200 OK NOTIFY	→				
INVITE 1	→		→	INVITE	
180 Ringing	+		←	180 Ringing	
	L				
NOTIFY 2 200 OK NOTIFY	← →				
	7				
200 OK INVITE	÷		←	200 OK INVITE	
ACK	→		→	ACK	
	Apply	post test ro	utine		

TSS CC/terminating_AS/CCOperat	ion	TP CC_N07_005	4.5.4	rence .3.4.1.3, .3.4.1.4	Selection expression
Test purpose CCNR: An INVITE request rec	eived while a CC	recall is processed	l. CC ca	ll indicator prese	nt in the Request line.
Ensure that when an INVITE r the m parameter is present se processed to the callee. An IN 180 (Ringing) is received from is set to "terminated" and the r	equest is received t to "NR" and a Ca VITE is sent to the the callee a NOTI	from the origination II-Info header is p callee and the m FY request is sen	ng AS wh resent th paramet t to the o	nile CC-T9 is run e m parameter is ter is not present	ning and in the Request line s set to 'NR', this INVITE is in the Request line. When a
Preconditions:					
NOTIFY 2 sip:O-AS Event:call-completion Subscription-State: term	call-completion E-A>;purpose=cal	I-completion;m=N	R		
Comments: SIP 1 (ISC)		SUT		SIP 2 (Gm)	
	CNR request	301		31F 2 (GIII)	
	ontroquoot	Callee is idle	•		
INVITE	+		÷	INVITE	
486 Busy Here	→ ←		→ ←	486 Busy Here ACK	
ACK	T		T	ACK	
NOTIFY 1	+				
200 OK NOTIFY	→				
INVITE 1	→		→	INVITE	
180 Ringing	+		←	180 Ringing	
NOTIFY 2	←				
200 OK NOTIFY	÷				
200 OK INVITE	←		←	200 OK INVITE	:
ACK	→ →		÷	ACK	-
-	A	Apply post test ro	outine		

700	TD	Deferre	
TSS CC/terminating_AS/CCOperation	TP CC_N07_006	Reference 4.5.4.3.4.1.3,	Selection expression PICS 4.7.1/9
Conterminating_AC/CCOperation	00_1107_000	4.5.4.3.4.1.4	1100 4.7.175
Test purpose			
CCNL: An INVITE request received while a	CC recall is processed	I. CC call indicator pre	sent in the Request line.
Ensure that when an INVITE request is rece	ived from the originati	ng AS while CC-T9 is i	running and in the Request line
the m parameter is present set to "NL" and a			
processed to the callee. An INVITE is sent to			
180 (Ringing) is received from the callee a N	NOTIFY request is sen	t to the originating AS	and Subscription-State header
is set to "terminated" and the reason header	r is set to "noresource"		
Preconditions:			
SIP header values:			
NOTIFY 1 sip:O-AS			
From: UE B			
To: UE A			
Subscription-State: active; expires=< any	y value >		
Event:call-completion			
Content-Type: application/call-completion	n		
cc-state: ready			
INVITE 1: sip: UE B; m=NL	and completions. N	I	
Call-Info: <sip:ue-a>;purpose</sip:ue-a>	=call-completion;m=in	L	
NOTIFY 2 sip:O-AS Event:call-completion			
Subscription-State: terminated; reaso	n-norecource		
Comments:			
SIP 1 (ISC)	SUT	SIP 2 (Gm)	
Invoke CCNL request			
	Callee is logged	d-in	
NOTIFY 1	÷		
INVITE 1	▶	→ INVITE	
		✓ 180 Ringing	1
	-		
NOTIFY 2	F		
-	•		
	<u> </u>	← 200 OK INV	UTE
200 OK INVITE			11
	>	→ ACK	

TSS CC/terminating_AS/CCOperation	TP CC_N07_007	Refer 4.5.4.	ence 3.4.1.3,	Selection expression
			3.4.1.4	
Test purpose	·			
CCBS: An INVITE request received while				
Service requirements and destination se	election information are I	not identical	to the store	d values. The call is rejected.
		0000		
Ensure that the terminating AS has sent call-completion MIME body was set to "re				
parameter in the Request line and no Ca				
the call.		t the m para		The, the terminating AO rejects
Preconditions:				
SIP header values:				
NOTIFY sip:O-AS				
From: UE B				
To: UE A				
Subscription-State: active; expires=<	any value >			
Event:call-completion	- 4'			
Content-Type: application/call-comple cc-state: ready	etion			
INVITE: sip: UE B				
destination selection information a	and Service requireme	nts not ider	ntical as used	d in the dialogue as CCBS was
requested				
486 Busy Here				
Call-Info: <sip:ue-b>;purpose=call-c</sip:ue-b>	ompletion;m=BS			
Comments:				
SIP 1 (ISC)	SUT		SIP 2 (Gm)	
Invoke CCBS requ	Callee is b			
BYE	€	usy ←	BYE	
200 OK BYE	\rightarrow	À	200 OK BY	Έ
	-	2	200 010 01	-
NOTIFY 1	←			
200 OK NOTIFY	→			
	-			
INVITE 486 (Busy Here)	→ ←			
ACK	← →			

	TP	Reference	Selection expression
CC/terminating_AS/CCOperation	CC_N07_008	4.5.4.3.4.1.3	
		4.5.4.3.4.1.4	1
Test purpose			
CCNR: An INVITE request received while			
Service requirements and destination sele	ection information are no	t identical to the	stored values. The call is rejected.
Ensure that the terminating AS has sent a			
call-completion MIME body was set to "read		g AS receives a	n INVITE request and there is no 'm'
parameter in the Request line the termina	ting AS rejects the call.		
Preconditions:			
SIP header values:			
NOTIFY sip:O-AS			
From: UE B			
To: UE A			
Subscription-State: active; expires=< a	any value >		
Event:call-completion Content-Type: application/call-comple	4		
Content-Lype: application/call-complet	tion		
cc-state: ready			
cc-state: ready INVITE: sip: UE B		e not identical a	s used in the dialogue as CCNP
cc-state: ready INVITE: sip: UE B destination selection information ar		s not identical a	is used in the dialogue as CCNR
cc-state: ready INVITE: sip: UE B destination selection information ar was requested		s not identical a	is used in the dialogue as CCNR
cc-state: ready INVITE: sip: UE B destination selection information ar was requested 486 Busy Here	nd Service requirement	s not identical a	is used in the dialogue as CCNR
cc-state: ready INVITE: sip: UE B destination selection information ar was requested 486 Busy Here Call-Info: <sip:ue-b>;purpose=call-co</sip:ue-b>	nd Service requirement	s not identical a	is used in the dialogue as CCNR
cc-state: ready INVITE: sip: UE B destination selection information ar was requested 486 Busy Here Call-Info: <sip:ue-b>;purpose=call-co Comments:</sip:ue-b>	nd Service requirement		
cc-state: ready INVITE: sip: UE B destination selection information ar was requested 486 Busy Here Call-Info: <sip:ue-b>;purpose=call-co Comments:</sip:ue-b>	nd Service requirement mpletion;m=BS SUT		as used in the dialogue as CCNR
cc-state: ready INVITE: sip: UE B destination selection information ar was requested 486 Busy Here Call-Info: <sip:ue-b>;purpose=call-co Comments: SIP 1 (ISC)</sip:ue-b>	nd Service requirement mpletion;m=BS SUT	SIP 2	
cc-state: ready INVITE: sip: UE B destination selection information ar was requested 486 Busy Here Call-Info: <sip:ue-b>;purpose=call-co Comments: SIP 1 (ISC) Invoke CCNR reque</sip:ue-b>	nd Service requirement mpletion;m=BS SUT est	SIP 2	2 (Gm)
cc-state: ready INVITE: sip: UE B destination selection information ar was requested 486 Busy Here Call-Info: <sip:ue-b>;purpose=call-co Comments: SIP 1 (ISC) Invoke CCNR reque</sip:ue-b>	nd Service requirement mpletion;m=BS SUT est Callee is idle	SIP 2 • • INVIT	2 (Gm)
cc-state: ready INVITE: sip: UE B destination selection information ar was requested 486 Busy Here Call-Info: <sip:ue-b>;purpose=call-co Comments: SIP 1 (ISC) Invoke CCNR reque INVITE 486 Busy Here</sip:ue-b>	nd Service requirement mpletion;m=BS SUT est Callee is idle	SIP 2 • • INVIT	2 (Gm) TE Busy Here
cc-state: ready INVITE: sip: UE B destination selection information ar was requested 486 Busy Here Call-Info: <sip:ue-b>;purpose=call-co Comments: SIP 1 (ISC) Invoke CCNR reque INVITE 486 Busy Here ACK</sip:ue-b>	nd Service requirement mpletion;m=BS SUT est Callee is idle ÷ ÷	SIP 2 ← INVI → 486 E	2 (Gm) TE Busy Here
cc-state: ready INVITE: sip: UE B destination selection information ar was requested 486 Busy Here Call-Info: <sip:ue-b>;purpose=call-co Comments: SIP 1 (ISC) Invoke CCNR reque INVITE 486 Busy Here ACK NOTIFY 1</sip:ue-b>	nd Service requirement mpletion;m=BS SUT est Callee is idle + + +	SIP 2 ← INVI → 486 E	2 (Gm) TE Busy Here
cc-state: ready INVITE: sip: UE B destination selection information ar was requested 486 Busy Here Call-Info: <sip:ue-b>;purpose=call-co Comments: SIP 1 (ISC) Invoke CCNR reque INVITE 486 Busy Here ACK</sip:ue-b>	nd Service requirement mpletion;m=BS SUT est Callee is idle ÷ ÷	SIP 2 ← INVI → 486 E	2 (Gm) TE Busy Here
cc-state: ready INVITE: sip: UE B destination selection information ar was requested 486 Busy Here Call-Info: <sip:ue-b>;purpose=call-co Comments: SIP 1 (ISC) Invoke CCNR reque INVITE 486 Busy Here ACK NOTIFY 1 200 OK NOTIFY</sip:ue-b>	nd Service requirement mpletion;m=BS SUT est Callee is idle ÷ ÷ ÷	SIP 2 ← INVI → 486 E	2 (Gm) TE Busy Here
cc-state: ready INVITE: sip: UE B destination selection information ar was requested 486 Busy Here Call-Info: <sip:ue-b>;purpose=call-co Comments: SIP 1 (ISC) Invoke CCNR reque INVITE 486 Busy Here ACK NOTIFY 1 200 OK NOTIFY INVITE</sip:ue-b>	nd Service requirement mpletion;m=BS SUT est Callee is idle + + + + +	SIP 2 ← INVI → 486 E	2 (Gm) TE Busy Here
cc-state: ready INVITE: sip: UE B destination selection information ar was requested 486 Busy Here Call-Info: <sip:ue-b>;purpose=call-co Comments: SIP 1 (ISC) Invoke CCNR reque INVITE 486 Busy Here ACK NOTIFY 1 200 OK NOTIFY</sip:ue-b>	nd Service requirement mpletion;m=BS SUT est Callee is idle ÷ ÷ ÷	SIP 2 ← INVI → 486 E	2 (Gm) TE Busy Here

TSS		ТР	Reference	Selection expression
CC/terminating_AS/CCOp	eration	CC_N07_009	4.5.4.3.4.1.3,	PICS 4.7.1/9
			4.5.4.3.4.1.4	
Test purpose				
				t present in the Request line.
Service requirements and	destination selection	information are not	identical to the store	d values. The call is rejected.
Ensure that the terminating	g AS has sent a NOTI	FY request to a CO	CNL entry and the sta	te parameter in the
call-completion MIME body	y was set to "ready" a	fter the terminating	AS receives an INVI	TE request and there is no 'm'
parameter in the Request				
Preconditions:				
SIP header values:				
NOTIFY sip:O-AS				
From: UE B				
To: UE A				
Subscription-State: act	ive; expires=< any va	lue >		
Event:call-completion				
Content-Type: applicat	ion/call-completion			
cc-state: ready				
INVITE: sip: UE B				
	information and Ser	vice requirements	s not identical as used	d in the dialogue as CCNL
was requested				
486 Busy Here				
Call-Info: <sip:ue-b>;p</sip:ue-b>	ourpose=call-completion	on;m=BS		
Comments:				
SIP 1 (ISC)		SUT	SIP 2 (Gm)	
Invol	ke CCNR request			
		Callee is logged	i-in	
NOTIFY 1	+			
200 OK NOTIFY	→			
N N // * -	-			
	→			
486 (Busy Here)	+			
ACK	→			
		Apply post test ro	utine	

TSS	TP	Ref	ference	Selection expression
CC/terminating_AS/CCOperation	CC_N07_010	4.5	.4.3.4.2 a)	_
Test purpose				
CCBS: Terminating user becomes busy v	vhile CC-T8 is running.			
If in case of CCBS, upon expiry of the de				
initiated an outgoing communication), the				
the callee becomes not busy again. After	the callee is not busy, th	ie termi	nating AS starts	the recall procedure again.
Preconditions:				
SIP header values:				
NOTIFY sip:O-AS				
From: UE B				
To: UE A (S2) Subscription-State: active; expires=<				
Event:call-completion	ally value >			
Content-Type: application/call-comple	tion			
cc-state: ready				
Comments:				
SIP 1 (ISC)	SUT		SIP 2 (Gm)	
Invoke CCBS requ	est		. ,	
	Callee is bus	sy		
BYE	+	÷	BYE	
200 OK BYE	→	→	200 OK BYE	
	Start CC-T8			
	_ ↓	_		
INVITE (S1)	+	÷	INVITE	
200 OK INVITE	→ ←	→ ←	200 OK INVI	IE
ACK	CC-T8 expires	-	ACK	
BYE	€ CC-18 expires	` ←	BYE	
200 OK BYE	→	÷	200 OK BYE	
	Start CC-T8		200 OR DIE	
	CC-T8 expires	S		
NOTIFY	←	-		
200 OK NOTIFY	→			
	Apply post test r	outine		

ETSI

TSS		TP		erence	Selection expression
CC/terminating_AS/CCOperation		CC_N07_011	4.5.	4.3.4.2 a)	
Test purpose					
CCNR: Terminating user becomes	busy while C	C-T8 is running.			
If in case of CCNR, upon expiry of	the destination	n B idle guard time	r CC-1	F8, the callee is	busy (e.g. the callee has
initiated an outgoing communication	on), then the te	rminating AS shall	defer	servicing of the	destination B CC queue until
the callee becomes not busy agair	 After the call 	ee is not busy, the	termir	nating AS starts	the recall procedure again.
Preconditions:					
SIP header values:					
NOTIFY sip:O-AS					
From: UE B					
To: UE A (S2)					
Subscription-State: active; exp	res=< any valu	re >			
Event:call-completion					
Content-Type: application/call-	completion				
cc-state: ready					
Comments:					
SIP 1 (ISC)	_	SUT		SIP 2 (Gm)	
Invoke CCN	R request				
		Callee is idle			
INVITE	(÷	INVITE	
486 Busy Here	→		→	486 Busy He	ere
ACK	+	01 - m 00 T0	÷	ACK	
		Start CC-T8			
		\checkmark	,	INVITE	
INVITE (S1) 200 OK INVITE	 ← → 		← →	200 OK INVI	
ACK			7 (ACK	11 E
ACK	T	CC TO ovniros	~	ACK	
BYE	←	CC-T8 expires	←	BYE	
200 OK BYE	+		₹ →	200 OK BYE	-
200 OR BTE	7	Start CC-T8	7	200 OK DIL	-
		v CC-T8 expires			
NOTIFY	+	CC-10 explies			
200 OK NOTIFY					
	-	pply post test rou	itino		

TSS	TP	Pof	erence	Selection expression
CC/terminating_AS/CCOperation	CC_N07_012		4.3.4.2 a)	PICS 4.7.1/9
Test purpose	00_1107_012	4.0.	(4.0.4.2 u)	1100 4.7.175
CCNL: Terminating user becomes busy while	e CC-T8 is running			
	0 00 10 10 10 10 10 10 10 10 10 10 10 10			
If in case of CCNL, upon expiry of the destination	ation B idle quard time	· CC-T	8. the callee is	busy (e.g. the callee has
initiated an outgoing communication), then the				
the callee becomes not busy again. After the				
Preconditions:	•			· · · · · ·
SIP header values:				
NOTIFY 1 sip:O-AS				
From: UE B				
To: UE A (S2)				
Subscription-State: active; expires=< any	value >			
Event:call-completion				
Content-Type: application/call-completior	ו			
cc-state: ready				
Comments:	0.117			
SIP 1 (ISC) Invoke CCNL request	SUT		SIP 2 (Gm)	
invoke CONL request	Callee is logged	in		
	Start CC-T8	-111		
INVITE (S1)	•	←	INVITE	
200 OK INVITE		→	200 OK IN\	/ITE
ACK	•	←	ACK	
	CC-T8 expires			
BYE +	-	←	BYE	
200 OK BYE -		→	200 OK BY	E
	Start CC-T8			
	↓			
	CC-T8 expires			
NOTIFY				
200 OK NOTIFY →		.41		
	Apply post test ro	line		

200					
TSS				rence	Selection expression
CC/terminating_AS/CCOpe	ration	CC_N07_013	4.5.4	.3.4.2 c)	NOT PICS 4.7.1/2
CCBS: The callee is busy u	upon arrival of the CC	call. Retain option	not sup	ported.	
					orted at the terminating AS,
					ll send a 486 (Busy Here)
response with a Call-Info	header field with a "	purpose" header fie	eld para	meter set to "cal	ll-completion" and a m
parameter set to "BS" to th	e originating AS. The	CC request is can	celled.		
Preconditions:					
SIP header values: NOTIFY sip:O-AS					
From: UE B					
To: UE A					
Subscription-State: acti	ve: expires=< anv val	lue >			
Event:call-completion	, , , , , , , , , , , , , , , , , , ,				
Content-Type: applicati	on/call-completion				
cc-state: ready					
INVITE 1: sip: UE B; m=BS					
Call-Info: <sip:ue-a>;p</sip:ue-a>	urpose=call-completion	on;m=BS			
486 (Busy Here): Call-Info: <sip:ue-b>;p</sip:ue-b>	urnana_aall aamplatii	n.m_BS			
NOTIFY 2 sip:O-AS	Jipose=cali-completit	511,111=05			
Event:call-completion					
Subscription-State: te		oresource			
Comments:	i				
SIP 1 (ISC)		SUT		SIP 2 (Gm)	
Invo	oke CCBS request	Calles is hus			
BYE	+	Callee is busy	′ ←	BYE	
200 OK BYE	↓		× →	200 OK BYE	
	-		-	200 ON DIE	
NOTIFY 1	+				
200 OK NOTIFY	→				
	_		_		
INVITE	+		÷		_
200 OK INVITE	→ ←		→ ←	200 OK INVIT	E
ACK	•		~	ACK	
INVITE 1 (S2)	→		→	INVITE	
486 (Busy Here)	,		÷	486 (Busy Her	re)
ACK	→ →		→		-,
NOTIFY 2	+				
200 OK NOTIFY	→				
DVE				DVE	
BYE	← →		+ →	BYE	
200 OK BYE	7		7	200 OK BYE	

TOO		ТО	Defe		Coloction oversocion
TSS CC/terminating_AS/C	COncration	TP CC_N07_014		ence 3.4.2 c)	Selection expression NOT PICS 4.7.1/2
	Coperation	00_107_014	4.5.4	3.4.2 0)	NOT FICS 4.7.1/2
Test purpose CCNR: The callee is I	busy upon arrival of the Co	C call. Retain option	n not sup	ported.	
Ensure that if the calle	e is busy upon arrival of t	he CC call and the	retain op	tion is not su	pported at the terminating AS,
					hall send a 486 (Busy Here)
	-Info header field with a			meter set to "	call-completion" and a m
parameter set to "BS"	to the originating AS. The	CC request is can	celled.		
Preconditions:					
SIP header values:					
NOTIFY sip:O-AS					
From: UE B					
To: UE A					
	: active; expires=< any va	lue >			
Event:call-complet					
	blication/call-completion				
cc-state: ready					
INVITE 1: sip: UE B; r					
486 (Busy Here):	A>;purpose=call-completi	on,m=NR			
	B>;purpose=call-completi	on·m-BS			
NOTIFY 2 sip:O-AS		011,111 – 00			
Event:call-compl	etion				
	te: terminated; reason=r	oresource			
Comments:					
SIP 1 (ISC)		SUT		SIP 2 (Gm)	
- ()	Invoke CCNR request			- (-)	
	-	Callee is idle	•		
INVITE	+		←	INVITE	
486 Busy Here	→		→	486 Busy H	ere
ACK	+		+	ACK	
	-				
NOTIFY 1	÷				
200 OK NOTIFY	→				
	L		L	INVITE (S1)	
INVITE 200 OK INVITE	<i>←</i> →		+ →	200 OK INV	
ACK	4			ACK	
ACK	C		x	ACK	
INVITE 1 (S2)	→		→	INVITE	
486 (Busy Here)	÷		÷	486 (Busy H	Here)
ACK	÷		→	ACK	/
				-	
NOTIFY 2	+				
200 OK NOTIFY	→				
BYE	+		+	BYE	
200 OK BYE	→		→	200 OK BY	

TSS		ТР	Referer		Selection expression
CC/terminating_AS/	CCOperation	CC_N07_015	4.5.4.3.		NOT PICS 4.7.1/2 AND PICS 4.7.1/9
Test purpose					
	busy upon arrival of the C	C call. Retain optio	n not suppo	rted.	
					oported at the terminating AS,
the terminating AS s	shall cancel the correspond all-Info header field with a	ing CCNR request;	the termin	ating AS sh	hall send a 486 (Busy Here)
	S" to the originating AS. Th				an-completion and a m
Preconditions:	5 to the originating AS: Th		icelleu.		
SIP header values:	· · · · · · · · · · · · · · · · · · ·				
NOTIFY sip:O-AS					
From: UE B					
To: UE A					
Subscription-Sta	te: active; expires=< any va	alue >			
Event:call-comp					
	pplication/call-completion				
cc-state: read					
INVITE 1: sip: UE B					
	E-A>;purpose=call-complet	tion;m=NL			
486 (Busy Here):					
NOTIFY 2 sip:0-AS	E-B>;purpose=call-complet	uon,m=b3			
Event:call-com					
	tate: terminated; reason=	noresource			
Comments:					
SIP 1 (ISC)		SUT	5	6IP 2 (Gm)	
	Invoke CCNL request				
		Callee is logge	d-in		
	_				
NOTIFY 1	÷				
200 OK NOTIFY	→				
INVITE	+		_ 1	NVITE (S1)	
200 OK INVITE	× ×			200 OK INVI	TE
ACK	+				12
	-		• •		
INVITE 1 (S2)	→		→ /	NVITE	
486 (Busy Here)	+		€ 4	186 (Busy H	ere)
ACK	→			ACK	
NOTIFY 2	+				
200 OK NOTIFY	→				
	-				
BYE 200 OK BYE	← →			3YE 200 OK BYE	

T00	ТО	Defe		Coloction ownroadion
TSS	TP		rence	Selection expression
CC/terminating_AS/CCOperation	CC_N07_016	4.5.4	.3.4.2 c)	PICS 4.7.1/2
Test purpose CCBS: The callee is busy upon arrival of the CC	call. Retain option s	uppor	ted.	
Ensure that if the callee is busy upon arrival of th	e CC call and the re	tain or	otion is supported	at the terminating AS the
terminating AS shall retain the original CCBS re				
monitor destination B, shall not restart the timer (
response with a Call-Info header field with a "p	ournose" header fiel	d nara	meter set to "call	-completion" and the m
parameter set to "BS" to the originating AS. After				
Preconditions:	the callee becomes	not b	usy, the recail pro	Scedure is started again.
SIP header values:				
NOTIFY sip:O-AS				
From: UE B				
To: UE A				
	10.5			
Subscription-State: active; expires=< any valu	le >			
Event:call-completion				
Content-Type: application/call-completion				
cc-state: ready				
INVITE 1: sip: UE B; m=BS				
Call-Info: <sip:ue-a>;purpose=call-completio</sip:ue-a>	n;m=BS			
486 (Busy Here):				
Call-Info: <sip:ue-b>;purpose=call-completio</sip:ue-b>	n;m=BS			
Comments:	0.UT			
SIP 1 (ISC)	SUT		SIP 2 (Gm)	
Invoke CCBS request	Callee is busy			
BYE 🗲	Callee 15 Dusy	←	BYE	
200 OK BYE		À	200 OK BYE	
		7	200 OK DIL	
NOTIFY 1				
200 OK NOTIFY				
		←	INVITE (S1)	
200 OK INVITE		÷	200 OK INVITE	
ACK +		÷	ACK	-
		-	/ OIX	
INVITE 1 (S2) →		→	INVITE	
486 (Busy Here)		÷	486 (Busy Here	<u>,</u>)
ACK -		÷	ACK	
			//0//	
BYE 🗲		←	BYE	
200 OK BYE		÷	200 OK BYE	
	Start CC-T8	-		
	CC-T8 expires			
NOTIFY 1	CO-10 expires			
200 OK NOTIFY				
	pply post test rout	ino		
A	ppiy post test iout			

C/terminating_AS/CCOperation C st purpose St purpose CNR: The callee is busy upon arrival of the CC calls C sure that if the callee is busy upon arrival of the minating AS shall retain the original CCNR require C pointor destination B, shall not restart the timer CC C sponse with a Call-Info header field with a "purpose" The caller is busy upon arrival of the cC sponse with a Call-Info header field with a "purpose" The conditions:	<u>CC_N07_017</u> all. Retain option s CC call and the ref quest in the queue; CBS-T7, shall stop rpose" header field	tain op in this timer d para	3.4.2 c) ted. otion is supported s case the termina CC-T9 and shall meter set to "call-	ating AS shall continue to send a 486 (Busy Here)
st purpose CNR: The callee is busy upon arrival of the CC ca sure that if the callee is busy upon arrival of the minating AS shall retain the original CCNR req onitor destination B, shall not restart the timer CC sponse with a Call-Info header field with a "pu rameter set to "BS" to the originating AS. After the econditions:	all. Retain option s CC call and the ret quest in the queue; CBS-T7, shall stop rpose" header field	tain op in this timer d para	ted. otion is supported s case the termin CC-T9 and shall meter set to "call-	at the terminating AS, the ating AS shall continue to send a 486 (Busy Here)
CNR: The callee is busy upon arrival of the CC ca sure that if the callee is busy upon arrival of the minating AS shall retain the original CCNR req onitor destination B, shall not restart the timer CC sponse with a Call-Info header field with a "pu rameter set to "BS" to the originating AS. After the econditions:	CC call and the ret quest in the queue; CBS-T7, shall stop rpose" header field	tain op in this timer d parai	otion is supported case the termina CC-T9 and shall meter set to "call-	ating AS shall continue to send a 486 (Busy Here)
minating AS shall retain the original CCNR required on the original CCNR required on the start the timer CC sponse with a Call-Info header field with a "purameter set to "BS" to the originating AS. After the conditions:	quest in the queue; CBS-T7, shall stop rpose" header field	in this timer d parai	s case the termina CC-T9 and shall meter set to "call-	ating AS shall continue to send a 486 (Busy Here)
ponitor destination B, shall not restart the timer CC sponse with a Call-Info header field with a "pu rameter set to "BS" to the originating AS. After the econditions:	CBS-T7, shall stop rpose" header field	timer d parai	CC-T9 and shall meter set to "call-	send a 486 (Busy Here)
sponse with a Call-Info header field with a "pu rameter set to "BS" to the originating AS. After the econditions:	rpose" header field	d parai	meter set to "call-	
rameter set to "BS" to the originating AS. After the conditions:				
econditions:	he callee becomes	not bu		
			usy, the recall pro	cedure is started again.
P header values:				
DTIFY sip:O-AS				
From: UE B				
To: UE A				
Subscription-State: active; expires=< any value	>			
Event:call-completion				
Content-Type: application/call-completion cc-state: ready				
/ITE 1: sip: UE B; m=NR				
Call-Info: <sip:ue-a>;purpose=call-completion;</sip:ue-a>	m_ND			
6 (Busy Here):				
Call-Info: <sip:ue-b>;purpose=call-completion;</sip:ue-b>	m-BS			
mments:	m=00			
P 1 (ISC)	SUT		SIP 2 (Gm)	
Invoke CCNR request	001			
	Callee is idle			
/ITE 🗲		←	INVITE	
6 Busy Here →		→	486 Busy Here	
к –		←	ACK	
DTIFY 1				
0 OK NOTIFY →				
VITE +		←	INVITE (S1)	
0 OK INVITE →		→	200 OK INVITE	
K 🗲		÷	ACK	
✓ITE 1 (S2) →		→ ∽	INVITE	
6 (Busy Here) ←		<i>←</i> →		ク
K →		7	ACK	
E 🗲		←	BYE	
		÷	200 OK BYE	
	Start CC-T8	7	200 ON DIE	
	CC-T8 expires			
DTIFY 1				
0 OK NOTIFY				
	ply post test routi	ine		

CC/terminating_AS/CCOperation CC_N07_018 4.5.4.3.4.2 c) PICS 4.7.1/2 AND PICS 4.7.1/2	TSS		TP	Refe	rence	Selection expression
CCML: The callee is busy upon arrival of the CC call. Retain option supported. Ensure that if the callee is busy upon arrival of the CC call and the retain option is supported at the terminating AS shall continue to imonitor desination B, shall not restart the timer CCBS-T7, shall stop timer CC-T9 and shall send a 486 (Busy Here) response with a Call-Info header field with a "purpose" header field parameter set to "call-completion" and the minor contract to "BS" to the originating AS. After the callee becomes not busy, the recall procedure is started again. Preconditions: SiP header values: NOTIFY sip: C-AS From: UE B To: UE A Subscription-State: active; expires=< any value > Event coall-completion costate: ready NUTTE 1: Sip: UE B; meNL Call-Info: <sip: b,="" menl<="" td="" ue=""> Call-Info: <sip: b;="" menl<="" td="" ue=""> Calle is idle K86 (Busy Here): Calle is idle Comments: SUT SIP 2 (Gm) INVITE 4: \$</sip:></sip:>						PICS 4.7.1/2 AND
Ensure that if the callee is busy upon arrival of the CC call and the retain option is supported at the terminating AS the terminating AS shall retain the original CCNL request in the queue; in this case the terminating AS shall continue to monitor destination B, shall not restart the timer CCB3-T7, shall stop timer CC-T3 and shall send a 486 (Busy Here) response with a Call-Info header field with a "purpose" header field parameter set to "BS" to the originating AS. After the callee becomes not busy, the recall procedure is started again. Preconditions: SIP header values: NOTIFY sip:O-AS From: UE B To: UE A To: UE A Subscription-State: active; expires=< any value > Event.call-completion costate: ready Call-Info: <sip:ue-a;purpose=call-completion;m=nl 486 (Busy Here): Call-Info: <sip:ue-a;purpose=call-completion;m=bs Comments: SIP 1 (ISC) SUT SIP 2 (Gm) Invoke CCNR request INVITE 486 Busy Here ACK Callee is idle INVITE 486 Busy Here ACK Calle is idle INVITE 486 Busy Here ACK CACK NOTIFY 1 Call-Info: <sip:ue-a;purpose=call-completion;m=bs Comments: SIP 1 (ISC) Invoke CCNR request INVITE 486 Busy Here ACK Callee is idle INVITE Calle is idle Calle is idle Calle is idle Calle is idle Calle is idle Calle is idle Calle is idl</sip:ue-a;purpose=call-completion;m=bs </sip:ue-a;purpose=call-completion;m=bs </sip:ue-a;purpose=call-completion;m=nl 						
terminating AS shall retain the original CCNL request in the queue; in this case the terminating AS shall confune to monitor destination B, shall not restart the timer CCBS-T7, shall stop timer CC-T9 and shall send a 486 (Busy Here) response with a Call-Info header field with a "purpose" header field parameter set to "call-completion" and the m parameter set to "bS" to the originating AS. After the callee becomes not busy, the recall procedure is started again. Preconditions: SIP header values: NOTIFY sip:O-AS From: UE B To: UE A Subscription-State: active; expires=< any value > Event:call-completion Content-Type: application/call-completion;m=NL Call-Info: <sip:ue-a>;purpose=call-completion;m=NL Calle-Info: <sip:ue-a>;purpose=call-completion;m=NL Calle is idle INVITE Kall for sip:UE-B>;purpose=call-completion;m=BS Comments: SUT SIP 2 (Gm) Invoke CCNR request Callee is idle INVITE Calle is idle INVITE ACK K NOTIFY 1 Calle Signer S</sip:ue-a></sip:ue-a>	CCNL: The callee is busy upon arrive	al of the CC	call. Retain option	support	ted.	
Preconditions: SIP header values: NOTIFY Sip-OAS From: UE B To: UE A Subscription-State: active; expires=< any value > Event:call-completion Content-Type: application/call-completion cc-state: ready INVITE 1: sip: UE B; m=NL Call-Info: <sip:ue-a; purpose="call-completion;m=NL<br">486 (Busy Here): Call-Info: <sip:ue-a; purpose="call-completion;m=BS<br">Comments: SIP 1 (ISC) SUT SIP 2 (Gm) Invoke CCNR request Callee is idle (NVITE ¢ 486 Busy Here ACK ¢ ACK NOTIFY 1 ¢ NVITE ¢ ACK NOTIFY 1 ¢ INVITE ¢ ACK NOTIFY 1 ¢ INVITE ¢ ACK NOTIFY 1 ¢ INVITE ¢ ACK NOTIFY 1 ¢ INVITE ¢ ACK NOTIFY 1 ¢ Suf INVITE ACK NOTIFY 1 ¢ NVITE 1 (S2) ACK ACK BYE 200 OK BYE Start CC-T8 CC-T8 expires NOTIFY 1 ¢</sip:ue-a;></sip:ue-a;>	terminating AS shall retain the origi monitor destination B, shall not resta response with a Call-Info header fi	inal CCNL re rt the timer (i eld with a "p	equest in the queue CCBS-T7, shall stop purpose" header fie	; in this timer ld para	case the terr CC-T9 and sl meter set to "	minating AS shall continue to hall send a 486 (Busy Here) call-completion" and the m
NOTIFY sip:O-AS From: UE A Subscription-State: active; expires=< any value > Event:call-completion content-Type: application/call-completion;m=NL Call-Info: <sip:ue-a-s;purpose=call-completion;m=nl Call-Info: <sip:ue-a-s;purpose=call-completion;m=bs Comments: SIP 1 (ISC) SUT SIP 2 (Gm) Invoke CCNR request Callee is idle INVITE ¢ ¢ 486 Busy Here ACK ¢ ACK NOTIFY 1 ¢ 200 OK NOTIFY ÷ ACK ¢ ACK INVITE ¢ ACK NOTIFY 1 ¢ ACK ¢ ACK INVITE 0 0 OK INVITE ACK ¢ ACK INVITE 1 (S2) † 7 / INVITE ACK ¢ ACK INVITE 1 (S2) † 7 / INVITE ACK ¢ ACK Start CC-T8 expires NOTIFY 1 ¢</sip:ue-a-s;purpose=call-completion;m=bs </sip:ue-a-s;purpose=call-completion;m=nl 		0				
Comments: SUT SIP 2 (Gm) Invoke CCNR request Callee is idle INVITE VITE É INVITE 486 Busy Here Hack Hack ACK É INVITE 200 OK NOTIFY Hack Hack NOTIFY 1 É INVITE (S1) 200 OK INVITE Hack Hack ACK É INVITE (S1) 200 OK INVITE Hack Hack ACK É ACK INVITE 1 (S2) Hack Hack ACK Hack Hack BYE Hack Hack 200 OK BYE Hack Hack BYE Hack Hack NOTIFY 1 Hack Hack	NOTIFY sip:O-AS From: UE B To: UE A Subscription-State: active; expire Event:call-completion Content-Type: application/call-co cc-state: ready INVITE 1: sip: UE B; m=NL Call-Info: <sip:ue-a>;purpose=ca 486 (Busy Here):</sip:ue-a>	mpletion all-completio	n;m=NL			
SIP 1 (ISC) SUT SIP 2 (Gm) INVITE 486 Busy Here ACK É Callee is idle * 486 Busy Here ACK INVITE * 486 Busy Here ACK NOTIFY 1 200 OK NOTIFY É INVITE (S1) 200 OK INVITE ACK 200 OK INVITE * ACK INVITE 1 (S2) 486 (Busy Here) ACK INVITE (S1) 200 OK INVITE ACK INVITE (S1) 200 OK INVITE * ACK INVITE 1 (S2) 486 (Busy Here) ACK INVITE * ACK INVITE * ACK BYE 200 OK BYE É E BYE 200 OK BYE É E NOTIFY 1 É E		all-completio	n,m=d3			
Invoke CCNR request Callee is idle INVITE 486 Busy Here ACK ACK NOTIFY 1 200 OK NOTIFY INVITE 200 OK INVITE ACK K INVITE 200 OK INVITE ACK K INVITE 200 OK INVITE ACK K ACK K </td <td></td> <td></td> <td>SUT</td> <td></td> <td>SIP 2 (Gm)</td> <td></td>			SUT		SIP 2 (Gm)	
INVITE 486 Busy Here ACK NOTIFY 1 200 OK NOTIFY INVITE 200 OK INVITE ACK INVITE (S1) 200 OK INVITE ACK INVITE 1 (S2) 486 (Busy Here) ACK BYE 200 OK BYE NOTIFY 1 487 (Busy Here) ACK CC-T8 expires NOTIFY 1 (INVITE (INVITE (S1) 200 OK INVITE ACK (INVITE S1) 200 OK INVITE ACK (INVITE ACK (INVITE ACK (IN		R request				
486 Busy Here ACK → 486 Busy Here ← NOTIFY 1 200 OK NOTIFY ← ACK INVITE 200 OK INVITE ACK ← INVITE (S1) 200 OK INVITE ▲ ACK INVITE 1 (S2) 486 (Busy Here) ACK ← # INVITE 1 (S2) 486 (Busy Here) ACK → # INVITE 486 (Busy Here) ACK → # BYE 200 OK BYE ★ ★ NOTIFY 1 ← *			Callee is idle			
ACK ← ACK NOTIFY 1 200 OK NOTIFY INVITE 200 OK INVITE ACK ← INVITE (S1) 200 OK INVITE ACK ← ACK INVITE 1 (S2) 486 (Busy Here) ACK ← ACK INVITE 486 (Busy Here) ACK ← ACK BYE 200 OK BYE Start CC-T8 CC-T8 expires						
NOTIFY 1 200 OK NOTIFY INVITE 200 OK INVITE ACK INVITE 1 (S2) 486 (Busy Here) ACK BYE 200 OK BYE NOTIFY 1 CC-T8 expires NOTIFY 1						ele
200 OK NOTIFY → INVITE 200 OK INVITE ACK ← INVITE (S1) 200 OK INVITE ACK ← ACK INVITE 1 (S2) 486 (Busy Here) ACK → INVITE 486 (Busy Here) ACK ← 486 (Busy Here) ACK → ACK BYE 200 OK BYE Start CC-T8 expires NOTIFY 1 ←		-		•	Alon	
200 OK INVITE ACK INVITE 1 (S2) 486 (Busy Here) ACK BYE 200 OK INVITE 486 (Busy Here) ACK BYE 200 OK BYE NOTIFY 1 \leftarrow \leftarrow \leftarrow \leftarrow \leftarrow \leftarrow \leftarrow \leftarrow	-					
200 OK INVITE ACK INVITE 1 (S2) 486 (Busy Here) ACK BYE 200 OK INVITE 486 (Busy Here) ACK BYE 200 OK BYE NOTIFY 1 \leftarrow \leftarrow \leftarrow \leftarrow \leftarrow \leftarrow \leftarrow \leftarrow	INVITE	←		←	INVITE (S1)
INVITE 1 (S2) 486 (Busy Here) ACK BYE 200 OK BYE NOTIFY 1 ↓ NOTIFY 1 ↓ INVITE 486 (Busy Here) ACK ↓ ACK BYE ↓ CC-T8 expires		→				
486 (Busy Here) ACK BYE 200 OK BYE NOTIFY 1 ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★	ACK	+		←	ACK	
486 (Busy Here) ACK BYE 200 OK BYE NOTIFY 1 ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★						
ACK → ACK BYE 200 OK BYE ← BYE 200 OK BYE → 200 OK BYE Start CC-T8 ↓ CC-T8 expires NOTIFY 1 ←				オム		Hore
BYE 200 OK BYE NOTIFY 1 BYE ← BYE → → 200 OK BYE ↓ CC-T8 expires						
200 OK BYE → 200 OK BYE Start CC-T8 ↓ CC-T8 expires NOTIFY 1 ←		-			,	
Start CC-T8 ↓ CC-T8 expires NOTIFY 1 ←	BYE	←		←	BYE	
↓ CC-T8 expires NOTIFY 1 ←	200 OK BYE	→		→	200 OK BY	E
CC-T8 expires						
NOTIFY 1			•			
			CC-T8 expires			
	NOTIFY 1 200 OK NOTIFY	← →				
Apply post test routine			nnly nost test rou	tine		

TSS		ТР	Refe	rence	Selection expression
CC/terminating_AS/	CCOperation	CC_N07_019	4.5.4	.3.4.2 d)	•
Test purpose	·	•			
	not apply, CC-T9 expires.				
					s expired. The terminating AS
		and the Subscription-	State h	neader is set to	o "terminated" and the reason
header is set to "reje	ected".				
Preconditions:					
SIP header values:					
NOTIFY 1 sip:O-AS					
From: UE B					
To: UE A					
	ite: active; expires=< any va	lue >			
Event:call-comp					
	pplication/call-completion				
cc-state: rea					
NOTIFY 2 sip:O-AS					
From: UE B					
To: UE A					
Event:call-comp					
	te: terminated; reason=reje	cted			
Comments:					
SIP 1 (ISC)		SUT		SIP 2 (Gm)	
	Invoke CCBS request	.			
	-	Callee is busy	-		
BYE	÷		÷	BYE	
200 OK BYE	→		→	200 OK BYE	-
		Start CC-T8			
		↓ .			
	-	CC-T8 expires			
NOTIFY 1	+				
200 OK NOTIFY	→				
		Start CC-T9			
		• • • ·			
	-	CC-T9 expires			
NOTIFY 2	+				
200 OK NOTIFY	→ →				

TSS		ТР	Refe	rence	Selection expression
CC/terminating_AS/CCOperation		CC_N07_020	4.5.4	.3.4.2 d)	
Test purpose		•		•	·
CCNR: Recall does not apply, CC	-T9 expires.				
Ensure that the terminating AS rev	okes the CCN	NR request after the	e Recall	timer. CC-T9 is	s expired. The terminating AS
sends a NOTIFY request to the or	iginating AS a	nd the Subscription	n-State ł	neader is set to	"terminated" and the reason
parameter is set to "rejected".					
Preconditions:					
SIP header values:					
NOTIFY sip:O-AS					
From: UE B					
To: UE A					
Subscription-State: active; exp	ires=< any va	lue >			
Event:call-completion	-				
Content-Type: application/call-	completion				
cc-state: ready					
NOTIFY 2 sip:O-AS					
From: UE B					
To: UE A					
Event:call-completion					
Subscription-State: terminated	; reason=rejec	cted			
Comments:					
SIP 1 (ISC)		SUT		SIP 2 (Gm)	
Invoke CC	NR request				
	_	Callee is idle			
INVITE	+		÷	INVITE	
486 Busy Here	→		→	486 Busy He	re
ACK	+		+	ACK	
		Start CC-T8			
		••••• ·			
		CC-T8 expires			
	÷				
200 OK NOTIFY	→				
		Start CC-T9			
		CC-T9 expires			
NOTIFY 2	← →				
200 OK NOTIFY	7				

CC/terminating_AS/CCOperation Test purpose CCNL: Recall does not apply, CC-T9 e. Ensure that the terminating AS revokes tends a NOTIFY request to the originate parameter is set to "rejected". Preconditions: SIP header values: NOTIFY sip:O-AS	xpires. the CCNL re ting AS and t 	he Subscription	Recall 1	.3.4.2 d) timer. CC-T9 is e leader is set to "t	PICS 4.7.1/9 expired. The terminating A erminated" and the reason
CCNL: Recall does not apply, CC-T9 e. Ensure that the terminating AS revokes ends a NOTIFY request to the originat parameter is set to "rejected". Preconditions: SIP header values:	ting AS and t	he Subscription	Recall f	timer. CC-T9 is e header is set to "t	expired. The terminating A rerminated" and the reason
Ensure that the terminating AS revokes ends a NOTIFY request to the originat parameter is set to "rejected". Preconditions: SIP header values:	ting AS and t	he Subscription	Recall f	timer. CC-T9 is e neader is set to "t	expired. The terminating A terminated" and the reason
ends a NOTIFY request to the originat parameter is set to "rejected". Preconditions: SIP header values:	ting AS and t	he Subscription	Recall t	timer. CC-T9 is e leader is set to "t	expired. The terminating A erminated" and the reason
ends a NOTIFY request to the originat parameter is set to "rejected". Preconditions: SIP header values:	ting AS and t	he Subscription	State h	header is set to "t	erminated" and the reaso
Preconditions: SIP header values:	< any value :				
Preconditions: SIP header values:	-	>			
SIP header values:	-	>			
	-	>			
	-	>			
From: UE B	-	>			
To: UE A	-	>			
Subscription-State: active; expires=	-				
Event:call-completion	oletion				
Content-Type: application/call-comp					
cc-state: ready					
IOTIFY 2 sip:O-AS					
From: UE B					
To: UE A					
Event:call-completion					
Subscription-State: terminated; reas	son=rejected				
Comments:					
SIP 1 (ISC)		SUT		SIP 2 (Gm)	
Invoke CCNR r	equest				
		Callee is idle			
NVITE	(+	INVITE	
86 Busy Here	→ ←		→ ←	486 Busy Here ACK	
ACK	•	Start CC-T8	~	ACK	
NOTIFY 1		CC-T8 expires			
200 OK NOTIFY	← →				
	7	Start CC-T9			
		Start CC-19			
		•			
NOTIFY 2	←	CC-T9 expires			
200 OK NOTIFY	← →				
	7				
-66	т	В	Pofo		Selection expression

TSS	TP	Reference	Selection expression
CC/terminating_AS/CCOperation	CC_N07_022	4.5.4.3.3.2	_
Test purpose			
CCBS: Service duration timer, CC-T7 expires.			
Ensure that the terminating AS revokes the CCB			
NOTIFY is sent to the originating AS and the Sub	scription-State head	der is set to "terminated	and the reason parameter
is set to "noresource".			
Preconditions:			
SIP header values:			
NOTIFY 2 sip:O-AS			
From: UE B			
To: UE A			
Event:call-completion			
Subscription-State: terminated; reason= nore	source		
Comments:			
SIP 1 (ISC)	SUT	SIP 2 (Gm)	
Invoke CCBS request			
	Start CC-T7		
	Callee is busy		
	↓ ·		
	CC-T7 expires		
NOTIFY 2	•		
200 OK NOTIFY			

TSS		ТР	Reference	Selection expression
CC/terminating_AS/CC	Operation	CC_N07_023	4.5.4.3.3.2	
Test purpose CCNR: Service duratior	n timer, CC-T7 expires.			
Ensure that the termina NOTIFY is sent to the o				er CC-T7 expires. A " and the reason parameter
is set to "noresource".	0 0	·		·
Preconditions:				
SIP header values:				
NOTIFY 1 sip:O-AS				
From: UE B				
To: UE A				
Event:call-completio	n			
	terminated; reason= no	oresource		
Comments:	· · · ·			
SIP 1 (ISC)		SUT	SIP 2 (Gm)	
	Invoke CCNR request		()	
		Start CC-T7		
		Callee is idle		
		\downarrow		
		CC-T7 expires		
NOTIFY 1	+	•		
200 OK NOTIFY	→			
TSS		TP	Reference	Selection expression
CC/terminating_AS/CC	Operation	CC_N07_024	4.5.4.3.3.2	PICS 4.7.1/9
Test purpose				•
CCNIL · Sonvice duretier	n timer, CC-T7 expires.			
CONL. SERVICE QUIATION				
CONL. Service duration				
Ensure that the termina	ting AS revokes the CO	CNL request after the (CC service duration time	er CC-T7 expires. A
Ensure that the termina				
Ensure that the termina				
Ensure that the termina NOTIFY is sent to the o is set to "noresource".				
Ensure that the termina NOTIFY is sent to the o is set to "noresource". Preconditions:				
Ensure that the termina NOTIFY is sent to the o is set to "noresource". Preconditions: SIP header values:				
Ensure that the termina NOTIFY is sent to the o is set to "noresource". Preconditions: SIP header values:				
Ensure that the termina NOTIFY is sent to the o is set to "noresource". Preconditions: SIP header values: NOTIFY 1 sip:O-AS				
Ensure that the termina NOTIFY is sent to the o is set to "noresource". Preconditions: SIP header values: NOTIFY 1 sip:O-AS From: UE B	riginating AS and the S			
Ensure that the termina NOTIFY is sent to the o is set to "noresource". Preconditions: SIP header values: NOTIFY 1 sip:O-AS From: UE B To: UE A Event:call-completio	riginating AS and the S	Subscription-State hea		
Ensure that the termina NOTIFY is sent to the o is set to "noresource". Preconditions: SIP header values: NOTIFY 1 sip:O-AS From: UE B To: UE A Event:call-completio Subscription-State: t	riginating AS and the S	Subscription-State hea		
Ensure that the termina NOTIFY is sent to the o is set to "noresource". Preconditions: SIP header values: NOTIFY 1 sip:O-AS From: UE B To: UE A Event:call-completio Subscription-State: f Comments: SIP 1 (ISC)	originating AS and the S	Subscription-State hea		er CC-T7 expires. A " and the reason parameter
Ensure that the termina NOTIFY is sent to the o is set to "noresource". Preconditions: SIP header values: NOTIFY 1 sip:O-AS From: UE B To: UE A Event:call-completio Subscription-State: f Comments: SIP 1 (ISC)	riginating AS and the S	Subscription-State hea	der is set to "terminatec	
Ensure that the termina NOTIFY is sent to the o is set to "noresource". Preconditions: SIP header values: NOTIFY 1 sip:O-AS From: UE B To: UE A Event:call-completio Subscription-State: f Comments: SIP 1 (ISC)	originating AS and the S	Subscription-State hea	der is set to "terminatec	
Ensure that the termina NOTIFY is sent to the o is set to "noresource". Preconditions: SIP header values: NOTIFY 1 sip:O-AS From: UE B To: UE A Event:call-completio Subscription-State: f Comments: SIP 1 (ISC)	originating AS and the S	Subscription-State hea	der is set to "terminatec	
Ensure that the termina NOTIFY is sent to the o is set to "noresource". Preconditions: SIP header values: NOTIFY 1 sip:O-AS From: UE B To: UE A Event:call-completio Subscription-State: t Comments: SIP 1 (ISC)	originating AS and the S	Subscription-State hea	der is set to "terminatec	
Ensure that the termina NOTIFY is sent to the o is set to "noresource". Preconditions: SIP header values: NOTIFY 1 sip:O-AS From: UE B To: UE A Event:call-completio Subscription-State: f Comments: SIP 1 (ISC)	originating AS and the S	Subscription-State hea	der is set to "terminatec	

TSS		ТР	Rofo	rence	Selection expression
CC/terminating	_AS/CCOperation	CC_N07_025		.3.4.1.5	Selection expression
Test purpose	becomes busy while CC recall p	•			
	e terminating AS after the origina				
	e MIME body contains the state r expiry of the B idle guard timer				
	nger busy. A NOTIFY is sent an				
Preconditions					
SIP header va					
NOTIFY 1 sip:(From: UE E					
To: UE A					
Subscriptio	n-State: active; expires=< any va	alue >			
Event:call-c	completion pe: application/call-completion				
cc-state					
PUBLISH 1 s	sip:T-AS				
	Event: presence	ml			
	Content-Type: application/pidf+x xml version="1.0" encoding="l</td <td>JTF-8"?></td> <td></td> <td></td> <td></td>	JTF-8"?>			
	<presence< td=""><td></td><td></td><td></td><td></td></presence<>				
	<status> <basic>closed</basic></status>				
PUBLISH 2 s	sip:T-AS				
E	Event: presence				
	Content-Type: application/pidf+x xml version="1.0" encoding="l</td <td></td> <td></td> <td></td> <td></td>				
	<presence< pre=""></presence<>	511-0 ?>			
	<status></status>				
	<basic>open</basic>				
NOTIEY 2 sin.					
NOTIFY 2 sip:0 From: UE E	D-AS				
From: UE E To: UE A	D-AS				
From: UE E To: UE A Subscription	D-AS 3 n-State: active; expires=< any va	alue >			
From: UE E To: UE A Subscriptio Event:call-c	D-AS 3 n-State: active; expires=< any va	alue >			
From: UE E To: UE A Subscriptio Event:call-c Content-Ty cc-state	D-AS 3 n-State: active; expires=< any va completion	alue >			
From: UE E To: UE A Subscriptio Event:call-c Content-Ty cc-state Comments:	D-AS 3 n-State: active; expires=< any va completion pe: application/call-completion			SIP 2 (Gm)	
From: UE E To: UE A Subscriptio Event:call-c Content-Ty cc-state	D-AS 3 n-State: active; expires=< any va completion pe: application/call-completion	alue > SUT		SIP 2 (Gm)	
From: UE E To: UE A Subscriptio Event:call-c Content-Ty cc-state Comments: SIP 1 (ISC)	D-AS n-State: active; expires=< any vaccompletion pe: application/call-completion :: queued Invoke CCBS request				
From: UE E To: UE A Subscriptio Event:call-c Content-Ty cc-state Comments: SIP 1 (ISC) BYE	D-AS n-State: active; expires=< any vaccompletion pe: application/call-completion :: queued Invoke CCBS request	SUT	+	BYE	
From: UE E To: UE A Subscriptio Event:call-c Content-Ty cc-state Comments: SIP 1 (ISC)	D-AS n-State: active; expires=< any vaccompletion pe: application/call-completion :: queued Invoke CCBS request	SUT	+ >		
From: UE E To: UE A Subscriptio Event:call-c Content-Typ cc-state Comments: SIP 1 (ISC) BYE 200 OK BYE NOTIFY 1	D-AS n-State: active; expires=< any vacuum completion pe: application/call-completion r: queued Invoke CCBS request + + +	SUT Callee is busy		BYE	
From: UE E To: UE A Subscriptio Event:call-c Content-Typ cc-state Comments: SIP 1 (ISC) BYE 200 OK BYE	D-AS n-State: active; expires=< any vacuum completion pe: application/call-completion r: queued Invoke CCBS request + + +	SUT Callee is busy		BYE	
From: UE E To: UE A Subscriptio Event:call-c Content-Typ cc-state Comments: SIP 1 (ISC) BYE 200 OK BYE NOTIFY 1	D-AS n-State: active; expires=< any vacuum completion pe: application/call-completion r: queued Invoke CCBS request + + +	SUT Callee is busy		BYE	
From: UE E To: UE A Subscriptio Event:call-C Content-Ty cc-state Comments: SIP 1 (ISC) BYE 200 OK BYE NOTIFY 1 200 OK NOTIF	D-AS n-State: active; expires=< any vacuum completion pe: application/call-completion r queued Invoke CCBS request ← → ↔	SUT Callee is busy NOTIFY 1 200 OK NOTIFY	→	BYE	
From: UE E To: UE A Subscription Event:call-c Content-Ty cc-state Comments: SIP 1 (ISC) BYE 200 OK BYE NOTIFY 1 200 OK NOTIF PUBLISH 200 OK PUBLI	D-AS n-State: active; expires=< any vacuum completion pe: application/call-completion r queued Invoke CCBS request + + + + SH +	SUT Callee is busy NOTIFY 1 200 OK NOTIFY PUBLISH 200 OK PUBLISH	→	BYE	
From: UE E To: UE A Subscription Event:call-c Content-Ty cc-state Comments: SIP 1 (ISC) BYE 200 OK BYE NOTIFY 1 200 OK NOTIF PUBLISH	D-AS n-State: active; expires=< any vacuum completion pe: application/call-completion r queued Invoke CCBS request + + + + SH + + +	SUT Callee is busy NOTIFY 1 200 OK NOTIFY PUBLISH	→	BYE	
From: UE E To: UE A Subscription Event:call-c Content-Ty cc-state Comments: SIP 1 (ISC) BYE 200 OK BYE NOTIFY 1 200 OK NOTIF PUBLISH 200 OK PUBLI NOTIFY 2	D-AS n-State: active; expires=< any vacuum completion pe: application/call-completion r queued Invoke CCBS request + + + + SH + + +	SUT Callee is busy NOTIFY 1 200 OK NOTIFY PUBLISH 200 OK PUBLISH NOTIFY 2	→	BYE	
From: UE E To: UE A Subscription Event:call-c Content-Ty cc-state Comments: SIP 1 (ISC) BYE 200 OK BYE NOTIFY 1 200 OK NOTIF PUBLISH 200 OK PUBLI NOTIFY 2 200 OK NOTIF	D-AS n-State: active; expires=< any vacuum completion pe: application/call-completion r queued Invoke CCBS request + + + + + SH + + + + + + + + + + + + +	SUT Callee is busy NOTIFY 1 200 OK NOTIFY PUBLISH 200 OK PUBLISH NOTIFY 2 200 OK NOTIFY	→	BYE	
From: UE E To: UE A Subscription Event:call-c Content-Ty cc-state Comments: SIP 1 (ISC) BYE 200 OK BYE NOTIFY 1 200 OK NOTIF PUBLISH 200 OK PUBLI NOTIFY 2	D-AS n-State: active; expires=< any vacuum completion pe: application/call-completion r queued Invoke CCBS request + + + + SH + + + - - - - - - - - - - - - -	SUT Callee is busy NOTIFY 1 200 OK NOTIFY PUBLISH 200 OK PUBLISH NOTIFY 2	→	BYE	
From: UE E To: UE A Subscriptio Event:call-c Content-Ty cc-state Comments: SIP 1 (ISC) BYE 200 OK BYE NOTIFY 1 200 OK NOTIF PUBLISH 200 OK PUBLI NOTIFY 2 200 OK NOTIF PUBLISH 200 OK PUBLI	D-AS n-State: active; expires=< any vacuum completion pe: application/call-completion r queued Invoke CCBS request SH SH SH SH CY SH CY SH CY SH CY SH CY SH CY SH CY SH CY SH CY CY CY CY CY CY CY CY CY CY	SUT Callee is busy NOTIFY 1 200 OK NOTIFY PUBLISH 200 OK PUBLISH 200 OK NOTIFY PUBLISH 200 OK PUBLISH	→	BYE	
From: UE E To: UE A Subscriptio Event:call-c Content-Ty cc-state Comments: SIP 1 (ISC) BYE 200 OK BYE NOTIFY 1 200 OK NOTIF PUBLISH 200 OK PUBLI NOTIFY 2 200 OK NOTIF PUBLISH 200 OK PUBLI NOTIFY 2	D-AS n-State: active; expires=< any vacuum completion pe: application/call-completion r queued Invoke CCBS request SH SH SH SH CY SH CY SH CY SH CY SH CY SH CY CY CY CY CY CY CY CY CY CY	SUT Callee is busy NOTIFY 1 200 OK NOTIFY PUBLISH 200 OK PUBLISH NOTIFY 2 200 OK NOTIFY PUBLISH 200 OK PUBLISH 200 OK PUBLISH	→	BYE	
From: UE E To: UE A Subscriptio Event:call-c Content-Ty cc-state Comments: SIP 1 (ISC) BYE 200 OK BYE NOTIFY 1 200 OK NOTIF PUBLISH 200 OK PUBLI NOTIFY 2 200 OK NOTIF PUBLISH 200 OK PUBLI	D-AS n-State: active; expires=< any vacuum completion pe: application/call-completion r queued Invoke CCBS request SH SH SH SH CY SH CY SH CY SH CY SH CY SH CY CY CY CY CY CY CY CY CY CY	SUT Callee is busy NOTIFY 1 200 OK NOTIFY PUBLISH 200 OK PUBLISH 200 OK NOTIFY PUBLISH 200 OK PUBLISH	→	BYE	
From: UE E To: UE A Subscriptio Event:call-c Content-Ty cc-state Comments: SIP 1 (ISC) BYE 200 OK BYE NOTIFY 1 200 OK NOTIF PUBLISH 200 OK PUBLI NOTIFY 2 200 OK NOTIF PUBLISH 200 OK PUBLI NOTIFY 2	D-AS n-State: active; expires=< any vacuum completion pe: application/call-completion r queued Invoke CCBS request SH SH SH SH CY SH CY SH CY SH CY SH CY SH CY CY CY CY CY CY CY CY CY CY	SUT Callee is busy NOTIFY 1 200 OK NOTIFY PUBLISH 200 OK PUBLISH NOTIFY 2 200 OK NOTIFY PUBLISH 200 OK PUBLISH NOTIFY 2 200 OK NOTIFY Start CC-T8	→	BYE	
From: UE E To: UE A Subscriptio Event:call-c Content-Ty cc-state Comments: SIP 1 (ISC) BYE 200 OK BYE NOTIFY 1 200 OK NOTIF PUBLISH 200 OK PUBLI NOTIFY 2 200 OK NOTIF PUBLISH 200 OK PUBLI NOTIFY 2 200 OK NOTIF	D-AS n-State: active; expires=< any vacuum completion pe: application/call-completion r queued Invoke CCBS request TY SH TY	SUT Callee is busy NOTIFY 1 200 OK NOTIFY PUBLISH 200 OK PUBLISH NOTIFY 2 200 OK NOTIFY PUBLISH 200 OK PUBLISH NOTIFY 2 200 OK NOTIFY Start CC-T8 ↓ CC-T8 expires	→	BYE	
From: UE E To: UE A Subscriptio Event:call-c Content-Ty cc-state Comments: SIP 1 (ISC) BYE 200 OK BYE NOTIFY 1 200 OK NOTIF PUBLISH 200 OK PUBLI NOTIFY 2 200 OK NOTIF PUBLISH 200 OK PUBLI NOTIFY 2	D-AS n-State: active; expires=< any vacuum completion pe: application/call-completion requeued Invoke CCBS request SH SH SH SH SH CY SH CY SH CY SH CY CY CY CY CY CY CY CY CY CY	SUT Callee is busy NOTIFY 1 200 OK NOTIFY PUBLISH 200 OK PUBLISH NOTIFY 2 200 OK NOTIFY PUBLISH 200 OK PUBLISH NOTIFY 2 200 OK NOTIFY Start CC-T8	→	BYE	

700		Deferrer	
TSS CC/terminating_AS/CCOperation	TP CC_N07_026	Reference 4.5.4.3.4.1.5	Selection expression
Test purpose CCNR: Caller becomes busy while CC recall p			
Ensure that the terminating AS after the original request and the MIME body contains the state	parameter set to 'qu	eued'. When the origina	ting AS resumes the CC call
procedure after expiry of the B idle guard timer indicates no longer busy. A NOTIFY is sent an			
Preconditions:			
SIP header values: NOTIFY 1 sip:O-AS From: UE B To: UE A Subscription-State: active; expires=< any v Event:call-completion	alue >		
Content-Type: application/call-completion cc-state: ready			
PUBLISH 1 sip:T-AS Event: presence Content-Type: application/pidf+x xml version="1.0" encoding="1<br <presence <status> <basic>closed</basic></status></presence 			
PUBLISH 2 sip:T-AS Event: presence Content-Type: application/pidf+x xml version="1.0" encoding="l<br <presence <status> <basic>open</basic></status></presence 			
NOTIFY 2 sip:O-AS From: UE B To: UE A Subscription-State: active; expires=< any v Event:call-completion Content-Type: application/call-completion cc-state: queued	alue >		
Comments:			
SIP 1 (ISC)	SUT	SIP 2 (Gm)	
Invoke CCNR request	lee is available for		
NOTIFY 1 ← 200 OK NOTIFY →	NOTIFY 1 200 OK NOTIFY		
PUBLISH → 200 OK PUBLISH ←	PUBLISH 200 OK PUBLIS	н	
NOTIFY 2 ← 200 OK NOTIFY →	NOTIFY 2 200 OK NOTIFY		
PUBLISH → 200 OK PUBLISH ←	PUBLISH 200 OK PUBLIS	н	
NOTIFY 2 ← 200 OK NOTIFY →	NOTIFY 2 200 OK NOTIFY Start CC-T8 ↓		
NOTIFY 1 ← 200 OK NOTIFY →	CC-T8 expires NOTIFY 1 200 OK NOTIFY Apply post test ro		

TSS		TP	Reference	Selection expression
	_AS/CCOperation	CC_N07_027	4.5.4.3.4.1.5	PICS 4.7.1/9
Test purpose	becomes busy while CC reca		·	
request and the		ate parameter set to	queued'. When the orig	inating AS resumes the CC call
	r expiry of the B idle guard tir			
Preconditions	nger busy. A NOTIFY is sent	an den MINE body d	ontains the state param	leter set to "queued".
SIP header va				
NOTIFY 1 sip: From: UE E To: UE A	O-AS			
Subscriptio Event:call-c		-		
Content-Ty cc-state	pe: application/call-completic e: ready	n		
PUBLISH 1 s	sip:T-AS Event: presence			
	Content-Type: application/pid xml version="1.0" encoding</td <td></td> <td></td> <td></td>			
	<presence <status></status></presence 			
	<basic>closed</basic> sip:T-AS	>		
	Event: presence Content-Type: application/pid	lf+xml		
	xml version="1.0" encoding</td <td></td> <td></td> <td></td>			
	<status></status>			
NOTIFY 2 sip:0 From: UE E To: UE A				
Event:call-c Content-Ty	n-State: active; expires=< an completion pe: application/call-completic e: queued	-		
Comments:				
SIP 1 (ISC)	Invoko CCNII. rogu	SUT	SIP 2 (Gm))
	Invoke CCNL reque	Callee is available fo	or CC recall	
NOTIFY 1		NOTIFY 1		
200 OK NOTIF	Ύ	→ 200 OK NOTIF →	Y	
PUBLISH 200 OK PUBLI		 PUBLISH 200 OK PUBLI 	SH	
NOTIFY 2		NOTIFY 2		
200 OK NOTIF	Y -	→ 200 OK NOTIF	Y	
PUBLISH 200 OK PUBLI		→ PUBLISH← 200 OK PUBLI	SH	
NOTIFY 2 200 OK NOTIF		 NOTIFY 2 200 OK NOTIF Start CC-TE 	3	
NOTIFY 1		CC-T8 expire NOTIFY 1	25	
200 OK NOTIF		➔ 200 OK NOTIF		
		Apply post test	routine	

5.4 Interaction of Call-Completion with other services

5.4.1 Terminating Identification Restriction (TIR)

TSS		TP		eferen	
CC/ Interaction/TIR		CC_N08_	001 4.	6.4	PICS 4.7.1/4
Test purpose CCBS, CCNR, CCNL Reca recall.	ll success	ful by using the s	pecial REFER inte	rworkin	g. TIR settings considered in the CC
privacy indicated, the P-Ass					DK INVITE from the originating user is ating user is also restricted.
Preconditions:					
SIP header values: 200 OK 1					
Privacy: id INVITE 2: sip: UE B; m= From: UE A To: UE B P-Asserted-I					
Privacy: id Call-Info: <sip< td=""><td>-</td><td></td><td>oletion;m=BS/NR/N</td><td>۱L</td><td></td></sip<>	-		oletion;m=BS/NR/N	۱L	
Comments: SIP 1 (Gm)			UT		SIP 2 (ISC)
CCE		CBS request t confirmed by /	A 6		
CCE	o reques	c commet by /		user av	ailable for recall
			NOTIFY		NOTIFY 1
INVITE 180 Ringing		INVITE 1 180 Ringing	200 OK NOTIFY	→	200 OK NOTIFY
200 OK INVITE 1 ACK		200 OK INVITE ACK		→ ←	INVITE 2 180 Ringing
			NOTIFY 200 OK NOTIFY		NOTIFY 2 200 OK NOTIFY
				←	200 OK INVITE

5.4.2 Communication diversion services (CDIV)

TSS		TP	Ref	ference	Selection expression
CC/Interaction/CDIV		CC_N09_001	4.6	.8.2	
Test purpose					
Detecting CCBS is possible.					
Ensure that when an originati	ng user establishes	s a session to Use	er B and	d the user B ha	as activated communication
diversion unconditional to use	r C, the terminating	g user C is busy, a	a 486 (E	Busy Here) res	sponse is sent to the originating
AS and the Call-Info header c	ontains the URI of	user C or the terr	ninating	JAS.	
Preconditions:					
SIP header values:					
486 Busy Here 1:					
Call-Info: <sip:ue-c or="" t-a<="" td=""><td>S>;purpose=call-</td><td>completion;m=BS</td><td></td><td></td><td></td></sip:ue-c>	S>;purpose=call-	completion;m=BS			
Comments:					
SIP 1 (ISC)		SUT		SIP 2 (Gm) UE C
INVITÈ	→		→	INVITÈ	
486 (Busy Here) 1	+		←	486 (Busy	Here)
ACK	→		→	ACK	
		Apply post test re			

TSS	ТР	Reference	Selection expression
CC/Interaction/CDIV	CC_N09_002	4.6.8.2	•
lest purpose			
Detecting CCNR is possible.			
Ensure that when an originating use			
diversion unconditional to user C, a contains the URI of user C or the te		it to the originating <i>i</i>	AS and the Call-Into header
Preconditions:	aminaling AS.		
SIP header values:			
180 Ringing 1:			
Call-Info: <sip:ue-c or="" t-as="">;p</sip:ue-c>	urpose=call-completion:m=NR		
Comments:			
SIP 1 (ISC)	SUT	SIP 2 (G	m) UE C
INVITE	→	→ INVITĚ	
180 (Ringing) 1	+	🗲 180 (Rin	ging)
	Apply post test r	outine	
rss	ТР	Reference	Selection expression
CC/Interaction/CDIV	CC_N09_003	4.6.8.2	PICS 4.7.1/9
Test purpose	00_100_000	1.0.0.2	1100 1.1.1/0
Detecting CCNL is possible.			
3			
Ensure that when an originating use			
	- A summit a still a sum a sum O to such that		
diversion unconditional to user C, the			
diversion unconditional to user C, the sent to the originating AS and the C			
diversion unconditional to user C, the sent to the originating AS and the Correction of the Correction of the Correction of the sentence of th			
diversion unconditional to user C, the sent to the originating AS and the C Preconditions: SIP header values:			
diversion unconditional to user C, the sent to the originating AS and the C Preconditions: SIP header values: 180 Temporarily Unavailable 1:	Call-Info header contains the U	RI of user C or the t	
diversion unconditional to user C, th sent to the originating AS and the C Preconditions: SIP header values: 180 Temporarily Unavailable 1: Call-Info: <sip:ue-c or="" t-as="">;p</sip:ue-c>	Call-Info header contains the U	RI of user C or the t	
diversion unconditional to user C, th sent to the originating AS and the C Preconditions: SIP header values: 480 Temporarily Unavailable 1: Call-Info: <sip:ue-c or="" t-as="">;p Comments:</sip:ue-c>	Call-Info header contains the U	RI of user C or the t	erminating AS.
diversion unconditional to user C, th sent to the originating AS and the C Preconditions: SIP header values: 480 Temporarily Unavailable 1: Call-Info: <sip:ue-c or="" t-as="">;p Comments: SIP 1 (ISC)</sip:ue-c>	Call-Info header contains the U urpose=call-completion;m=NL SUT	RI of user C or the t	erminating AS.
diversion unconditional to user C, th sent to the originating AS and the C Preconditions: SIP header values: 480 Temporarily Unavailable 1: Call-Info: <sip:ue-c or="" t-as="">;p Comments: SIP 1 (ISC) NVITE</sip:ue-c>	Call-Info header contains the U urpose=call-completion;m=NL SUT →	RI of user C or the t SIP 2 (G → INVITE	m) UE C
diversion unconditional to user C, th sent to the originating AS and the C Preconditions: SIP header values: 480 Temporarily Unavailable 1: Call-Info: <sip:ue-c or="" t-as="">;p Comments: SIP 1 (ISC)</sip:ue-c>	Call-Info header contains the U urpose=call-completion;m=NL SUT	RI of user C or the t SIP 2 (G → INVITE	erminating AS.

TSS			TP	Refe	erence	Selection expression
CC/Interact	tion/CDIV		CC_N09_004	4.6.8	3.2	· · · · · ·
Test purpo	se					· ·
CCBS Rec	all is given to the	CC serv	/ed user after CFU was a	ctivated.		
				• • •		
	ser A instead of fo			A activates	CFU to user	C. Ensure that the CCBS recall
Preconditi		Jiwalue				
SIP header						
NOTIFY sip						
	From: UE B					
	To: UE A					
1	Event:call-con	•				
			tive; expires=< any value	>		
	cc-state: re		tion/call-completion			
REFER:	sip: UE A; m=	,				
	Refer-To; UE		d=INVITE			
INVITE:	sip: UE A; m=					
	Call.Info: UE-/	A; purpo	se=call-completion;m=BS			
Comments						
SIP 1 (Gm)			SUT		SIP 2 (ISC	;)
			ssful CCBS request FU to user C			
	ACI	Ivale C		rminating u	ser available	e for recall
				DTIFY 🗲	NOTIFY 1	
			200 OK NO	OTIFY →	200 OK N	OTIFY
CASE A						
REFER		÷	REFER			
200 OK SU	BCSRIBE	→	200 OK SUBCSRIBE			
CASE B						
INVITE		←	INVITE			
180 (Ringin	na)	÷	180 (Ringing)			
- ()	0,		Apply post te	st routine		

TSS		ТР	Reference	e	Selection expression
CC/Interaction/CDIV		CC_N09_005	4.6.8.2		
Test purpose					
CCNR Recall is given a	to the CC serv	/ed user after CFU was ac	tivated.		
Liser A invokes a CCN	P request to u	ser B. subsequently user A	activates CELL	to user C Er	sure that the CONP recall
is sent to user A instea				to user C. LI	
Preconditions:					
SIP header values:					
NOTIFY sip:O-AS					
From: UI					
To: UE A	-				
	Il-completion	tive; expires=< any value >			
		tion/call-completion			
	ate: ready				
REFER: sip: UE A	,				
	; UE B metho	d=INVITE			
INVITE: sip: UE A					
	UE-A; purpos	se=call-completion;m=NR			
Comments: SIP 1 (Gm)		SUT	91	P 2 (ISC)	
	lish a succes	ssful CCNR request		2 (100)	
_014		FU to user C			
		Tern	ninating user a	available for	recall
				DTIFY 1	
0.0 - .		200 OK NOT	TIFY → 20	0 OK NOTIFY	(
CASE A REFER	←	REFER			
200 OK SUBCSRIBE	←	200 OK SUBCSRIBE			
	,				
CASE B					
INVITE	+	INVITE			
180 (Ringing)	→	180 (Ringing)			
		Apply post test	routine		

TSS		ТР	Bo	ference	Selection expression
CC/Interaction	n/CDIV	CC_N09_00		.8.2	PICS 4.7.1/9
Test purpose		00_100_00	0 1.0	.0.2	
		erved user after CFU w	vas activated.		
User A invoke	s a CCNL request to	user B subsequently	user A activates	s CEU to user	C. Ensure that the CCBS recall
	A instead of forward				
Precondition	s:				
SIP header va	alues:				
NOTIFY sip:C					
	From: UE B				
	To: UE A				
	Event:call-completic				
		active; expires=< any v	alue >		
		cation/call-completion			
REFER:	cc-state: ready sip: UE A; m=NL				
	Refer-To; UE B met	hod-INI/ITE			
INVITE:	sip: UE A; m=NL				
	• •	ose=call-completion;m	n=NL		
Comments:	· • •				
SIP 1 (Gm)		SUT		SIP 2 (IS	C)
		cessful CCNL request	:		
	Activate	CFU to user C			
			Terminating		
		200.0			•
CASE A		200 C	K NOTIFY	200 OK N	IOTIFY
REFER	+	REFER			
200 OK SUBC	-	200 OK SUBCSRIB	F		
			· L		
CASE B					
INVITE	+	INVITE			
180 (Ringing)	→	180 (Ringing)			
		Apply po	st test routine		

TSS	TP	Reference	Selection expression
CC/Interaction/CDIV	CC_N09_007	4.6.8.2	_
Test purpose			
CCBS revocation after terminating user has	s activated.		
Ensure that the terminating AS revokes the after the originating user has established Corequest to the originating AS and the Subsc State header field parameter set to "noreso	CBS on the terminatin cription-State header f	g user B. The terminat	ing AS sends a NOTIFY
Preconditions:			
SIP header values:			
NOTIFY sip:O-AS			
From: <ue-b></ue-b>			
To: <ue-a></ue-a>			
Event:call-completion			
Subscription-State: terminated; reason=	noresource		
Comments:			
SIP 1 (ISC)	SUT	SIP 2 (Gm)	User B
Establish a successful C	CBS request		
	-	Activate CFU t	o user C
NOTIFY	F		
200 OK NOTIFY	→		

TSS	TP	Reference	Selection expression
CC/Interaction/CDIV	CC_N09_008	4.6.8.2	
Test purpose CCNR revocation after terminating user has activ	/ated.		
Ensure that the terminating AS revokes the outst	anding CCNR req	uest if the terminating use	er activates CFU to user C
after the originating user has established CCNR			
request to the originating AS and the Subscription		d set to "terminated"; and	the "reason" Subscription-
State header field parameter set to "noresource".			
Preconditions:			
SIP header values:			
NOTIFY sip:O-AS			
From: <ue-b></ue-b>			
To: <ue-a> Event:call-completion</ue-a>			
Subscription-State: terminated; reason= nore	source		
Comments:			
SIP 1 (ISC)	SUT	SIP 2 (Gm) Use	er B
Establish a successful CCNR	request	- (-)	
	-	Activate CFU to us	ser C
NOTIFY +			
200 OK NOTIFY →			
TSS	TP	Reference	Selection expression
CC/Interaction/CDIV	CC_N09_009	4.6.8.2	PICS 4.7.1/9
Test purpose			
CCNL revocation after terminating user has activ	rated.		
Ensure that the terminating AS revokes the outst after the originating user has established CCNL of request to the originating AS and the Subscription State header field parameter set to "noresource".	on the terminating n-State header fiel	user B. The terminating A	S sends a NOTIFY
Preconditions:			
SIP header values:			
NOTIFY sip:O-AS			
From: <ue-b></ue-b>			
To: <ue-a></ue-a>			
Event:call-completion			
Subscription-State: terminated; reason= nore	source		
Comments:	.		_
SIP 1 (ISC)	SUT	SIP 2 (Gm) Use	er B
Establish a successful CCNL	request	Activate CFU to us	ser C
NOTIFY +			

TSS	ТР	Reference	Selection expression
CC/Interaction/CDIV	CC_N09_010	4.6.8.3	
Test purpose CCBS indication is sent if th	he original call is diverted on	n Busy.	
User C and the callee has s	subscribed the call completic	case of a callee is busy the con on service, ensure that terminati	
	erted-to user UE C if busy o		
	ation Forwarding Busy is ac	tivated	
SIP header values: 486 Busy Here 1: Call-Info: <sip:ui< td=""><td>E C>;purpose=call-completic</td><td>on;m=BS</td><td></td></sip:ui<>	E C>;purpose=call-completic	on;m=BS	
486 Busy Here 2: Call-Info: <sip: u<br="">Comments:</sip:>	IE B>;purpose=call-completi	ion;m=BS	
SIP 1 (ISC)	SUT	SIP 2 (Gm) UE B	SIP 3 (Gm) UE C
INVITE	\rightarrow \rightarrow \leftarrow	INVITE 486 (Busy Here)	
		ACK	1
CASE A	CFI	B applies	
486 (Busy Here) 1	÷		 ✓ 486 (Busy Here)
ACK	→		→ ACK
CASE B			
486 (Busy Here) 2 ACK	← →		 ← 486 (Busy Here) → ACK
ACK	=	oost test routine	
TSS		Reference	Selection expression
CC/Interaction/CDIV	CC_N09_0011	4.6.8.3	
Test purpose CCNR indication is sent if t	he original call was diverted	on Busy.	
	ctivated the CENR service 1	In case of a callee is busy the co	ommunication is forwarded to
		on service, ensure that terminati	ng AS inform the caller that
User C and the callee has s	subscribed the call completion	on service, ensure that termination or at the communication or at the	
User C and the callee has s CCNR is possible at the div Preconditions:	subscribed the call completion		
User C and the callee has s CCNR is possible at the div Preconditions: SIP header values: 180 Ringing 1:	subscribed the call completion verted-to user UE C if not an	swer the communication or at the	
User C and the callee has s CCNR is possible at the div Preconditions: SIP header values: 180 Ringing 1: Call-Info: <sip:ue-c>;pu</sip:ue-c>	subscribed the call completion	swer the communication or at the	
User C and the callee has s <u>CCNR is possible at the div</u> Preconditions: SIP header values: 180 Ringing 1: Call-Info: <sip:ue-c>;pu 486 Busy Here 1</sip:ue-c>	subscribed the call completion verted-to user UE C if not an	nswer the communication or at the	
User C and the callee has s <u>CCNR is possible at the div</u> Preconditions: SIP header values: 180 Ringing 1: Call-Info: <sip:ue-c>;pu 486 Busy Here 1 Call-Info: <sip:ue-b: Comments:</sip:ue-b: </sip:ue-c>	subscribed the call completio /erted-to user UE C if not an urpose=call-completion;m=N >;purpose=call-completion;r	NR n=BS	ne callee UE B.
User C and the callee has s <u>CCNR is possible at the div</u> Preconditions: SIP header values: 180 Ringing 1: Call-Info: <sip:ue-c>;pu 486 Busy Here 1 <u>Call-Info: <sip:ue-b:< u=""> Comments: SIP 1 (ISC)</sip:ue-b:<></u></sip:ue-c>	subscribed the call completio /erted-to user UE C if not an urpose=call-completion;m=N >;purpose=call-completion;r SUT	NR n=BS SIP 2 (Gm) UE B	
User C and the callee has s <u>CCNR is possible at the div</u> <u>Preconditions:</u> SIP header values: 180 Ringing 1: Call-Info: <sip:ue-c>;pu 486 Busy Here 1 Call-Info: <sip:ue-b: Comments:</sip:ue-b: </sip:ue-c>	subscribed the call completion /erted-to user UE C if not an urpose=call-completion;m=N >;purpose=call-completion;r SUT → → →	NR n=BS SIP 2 (Gm) UE B INVITE	ne callee UE B.
User C and the callee has s <u>CCNR is possible at the div</u> Preconditions: SIP header values: 180 Ringing 1: Call-Info: <sip:ue-c>;pu 486 Busy Here 1 <u>Call-Info: <sip:ue-b:< u=""> Comments: SIP 1 (ISC)</sip:ue-b:<></u></sip:ue-c>	subscribed the call completion verted-to user UE C if not an urpose=call-completion;m=N >;purpose=call-completion;r SUT ←	NR n=BS SIP 2 (Gm) UE B	ne callee UE B.
User C and the callee has s <u>CCNR is possible at the div</u> Preconditions: SIP header values: 180 Ringing 1: Call-Info: <sip:ue-c>;pu 486 Busy Here 1 <u>Call-Info: <sip:ue-b:< u=""> Comments: SIP 1 (ISC)</sip:ue-b:<></u></sip:ue-c>	subscribed the call completion verted-to user UE C if not an urpose=call-completion;m=N >;purpose=call-completion;r SUT → ← →	NR m=BS SIP 2 (Gm) UE B INVITE 486 (Busy Here)	SIP 3 (Gm) UE C
User C and the callee has s <u>CCNR is possible at the div</u> <u>Preconditions:</u> <u>SIP header values:</u> 180 Ringing 1: Call-Info: <sip:ue-c>;pu 486 Busy Here 1 <u>Call-Info: <sip:ue-b< u="">: <u>Comments:</u> <u>SIP 1 (ISC)</u> INVITE CASE A</sip:ue-b<></u></sip:ue-c>	subscribed the call completion verted-to user UE C if not an urpose=call-completion;m=N >;purpose=call-completion;n → SUT → ← → CFI	NR m=BS SIP 2 (Gm) UE B INVITE 486 (Busy Here) ACK	ne callee UE B. SIP 3 (Gm) UE C → INVITE
User C and the callee has s <u>CCNR is possible at the div</u> <u>Preconditions:</u> <u>SIP header values:</u> 180 Ringing 1: Call-Info: <sip:ue-c>;pu 486 Busy Here 1 Call-Info: <sip:ue-b: <u>Comments:</u> <u>SIP 1 (ISC)</u> INVITE CASE A</sip:ue-b: </sip:ue-c>	subscribed the call completion verted-to user UE C if not an urpose=call-completion;m=N >;purpose=call-completion;r SUT → ← →	NR m=BS SIP 2 (Gm) UE B INVITE 486 (Busy Here) ACK	SIP 3 (Gm) UE C
User C and the callee has s <u>CCNR is possible at the div</u> <u>Preconditions:</u> <u>SIP header values:</u> 180 Ringing 1: Call-Info: <sip:ue-c>;pu 486 Busy Here 1 Call-Info: <sip:ue-b: <u>Comments:</u> <u>SIP 1 (ISC)</u> INVITE CASE A 180 (Ringing) 1</sip:ue-b: </sip:ue-c>	subscribed the call completion verted-to user UE C if not an urpose=call-completion;m=N >;purpose=call-completion;n → SUT → ← → CFI	NR m=BS SIP 2 (Gm) UE B INVITE 486 (Busy Here) ACK	Ne callee UE B. SIP 3 (Gm) UE C → INVITE ← 180 (Ringing)
User C and the callee has s <u>CCNR is possible at the div</u> <u>Preconditions:</u> <u>SIP header values:</u> 180 Ringing 1: Call-Info: <sip:ue-c>;pu 486 Busy Here 1 <u>Call-Info: <sip:ue-b< u="">: <u>Comments:</u> <u>SIP 1 (ISC)</u> INVITE CASE A</sip:ue-b<></u></sip:ue-c>	subscribed the call completion verted-to user UE C if not an urpose=call-completion;m=N >;purpose=call-completion;n → SUT → ← → CFI	NR m=BS SIP 2 (Gm) UE B INVITE 486 (Busy Here) ACK	 SIP 3 (Gm) UE C INVITE ★ INVITE ★ 180 (Ringing)
User C and the callee has s <u>CCNR is possible at the div</u> <u>Preconditions:</u> <u>SIP header values:</u> 180 Ringing 1: Call-Info: <sip:ue-c>;pu 486 Busy Here 1 Call-Info: <sip:ue-b: <u>Comments:</u> <u>SIP 1 (ISC)</u> INVITE <u>CASE A</u> 180 (Ringing) 1 <u>CASE B</u></sip:ue-b: </sip:ue-c>	subscribed the call completion verted-to user UE C if not an urpose=call-completion;m=N >;purpose=call-completion;r > SUT >	NR m=BS SIP 2 (Gm) UE B INVITE 486 (Busy Here) ACK	 SIP 3 (Gm) UE C NVITE ♦ INVITE ♦ INVITE

TSS	ТР	Reference	Selection expression
CC/Interaction/CDIV	CC_N09_0012	4.6.8.3	PICS 4.7.1/9
Test purpose		·	·
CCNL indication is sent if the origina	al call was diverted o	n Busy.	
The terminating user has activated t			
User C and the callee has subscribe			ting AS inform the caller that
CCNL is possible at the diverted-to	user UE C if not logg	ed-in or at the callee UE B.	
Preconditions:			
SIP header values:			
480 Temporarily Unavailable 1:			
Call-Info: <sip:ue-c>;purpose=c</sip:ue-c>	all-completion;m=NL	_	
486 (Busy Here) 1			
Call-Info: <sip:ue-b>;purpos</sip:ue-b>	e=call-completion;m	=BS	
Comments:			
SIP 1 (ISC)	SUT	SIP 2 (Gm) UE B	SIP 3 (Gm) UE C
INVITE	→ -	► INVITE	
		486 (Busy Here)	
	-	ACK ACK	
		CFB applies	
CASE A			UE C is not logged-in
480 (Temporarily Unavailable) 1	÷		
	→		
CASE B			
486 (Busy Here) 1	÷		
	→		
	Apply po	ost test routine	

o	ο.
J	3

TSS			Reference	Selection expression
CC/Interaction/CDIV		CC_N09_013	4.6.8.3	
Test purpose CCBS recall after the	callee activates CF	B. Recall is considered	d as being busy.	
		ser A has activated C	CBS on User B. The C	C recall from user A encounters a
busy condition at use	[.] В:			
		C recall to a busy cal	lee and the AS indicate	es CCBS is possible to the
originating A	S			
or				
	rds the communica	ion to User C.		
Preconditions:				
SIP header values:				
NOTIFY 1 sip:O-AS				
From: UE-B				
To: UE-A Event:call-complet	lion			
	blication/call-comple	tion		
cc-state: ready				
486 Busy Here 1				
	B>;purpose=call-co	mpletion:m=BS		
Comments:	4 1			
SIP 1 (ISC)	SU	۲ SIP 2	(Gm) UE B	SIP 2 (Gm) UE C
Invoke	CCBS request			
		Termina User B becomes	ting user activates Cl available	FB
NOTIFY	← NOTIFY 1			
200 OK NOTIFY	 ← NOTIFY 1 → 200 OK NOT 	IEV		
	200 OK NOT		I	I
INVITE	÷	← INVITI	=	
200 OK INVITE	→	→ 200 O	K INVITE	
ACK	÷	← ACK		
INVITE	→			
CASE A		<u>-</u>	_	
400 (Duess Lleve) 4	← →	← 486 (E → ACK	Busy Here)	
486 (Busy Here) 1				
486 (Busy Here) 1 ACK	7			
	7			
ACK	→			→ INVITE + 180 (Ringing)

TSS CC/Interaction/CDIV		TP CC_N09_014	Reference 4.6.8.3	Selection expression
Test purpose		00_1009_014	4.0.0.0	
	callee activates	CFB. Recall is conside	ered as being busy.	
		er User A has activated	I CCNR on User B. The CC	C recall from user A encounters a
busy condition at user				
 the terminatin originating At or 		s a CC recall to a busy	callee and the AS indicates	s CCBS is possible to the
 the AS forward 	rds the commur	nication to User C.		
Preconditions:				
SIP header values:				
NOTIFY 1 sip:O-AS				
From: UE-B				
To: UE-A	ion			
Event:call-complet Content-Type: app		aplation		
cc-state: ready		npiellon		
486 Busy Here 1				
	B>:purpose=ca	II-completion;m=BS		
Comments:	<u>_</u> ,puipeee eu			
SIP 1 (ISC)		SUT SIF	2 (Gm) UE B	SIP 2 (Gm) UE C
	CCNR request			
			inating user activates CF	В
		User B becon	nes available	I
NOTIFY	← NOTIFY	1		
200 OK NOTIFY	→ 200 OK N			
INVITE	÷	← IN\		
200 OK INVITE	→		OK INVITE	
ACK	+	← AC	К	
INVITE	→			
CASE A				
		→ IN\		
486 (Busy Here) 1	+		6 (Busy Here)	
ACK	→	→ AC	К	
CASE B				
180 (Ringing)	÷			► INVITE 180 (Ringing)
		Apply post t	lost routing	I

101	
-----	--

TSS CC/Interaction/CDIV		TP CC_N09_015	Reference 4.6.8.3		Selection expression PICS 4.7.1/9
		CC_N09_015	4.0.0.3		PICS 4.7.1/9
Test purpose CCNL recall after the	callee activates CFB.	Recall is considered	as being busy.		
		er A has activated CC	NL on User B. The C	C reca	all from user A encounters a
busy condition at user					
		C recall to a busy calle	ee and the AS indicate	es CC	BS is possible to the
originating A	S				
Or the AC ferrur		an ta Llaar O			
the AS forwa Preconditions:	rds the communication	on to User C.			
SIP header values:					
NOTIFY 1 sip:O-AS					
From: UE-B					
To: UE-A					
Event:call-complet					
	plication/call-completion	on			
cc-state: ready 486 Busy Here 1					
	B>;purpose=call-com	nletion·m=BS			
Comments:					
SIP 1 (ISC)	SUT	SIP 2 (Gm) UE B	5	SIP 2 (Gm) UE C
Invoke	CCNL request		-		
			ing user activates C	FB	
		User B becomes	available	I	
NOTIFY	NOTIFY 1				
200 OK NOTIFY	→ 200 OK NOTIF	ΞY			
			'		
INVITE	+	← INVITE			
200 OK INVITE	→	→ 200 OK	(INVITE		
ACK	←	← ACK			
INVITE	→				
	-				
		→ INVITE			
486 (Busy Here) 1	+	🗲 486 (Bu	usy Here)		
ACK	→	→ ACK			
CASE B					
				→	NVITE
180 (Ringing)	←			← 1	180 (Ringing)
		Apply post test	_		

TSS	ТР	Reference	Selection expression
CC/Interaction/CDIV	CC_N09_016	4.6.8.4	
Test purpose CCBS: indication is sent if the ori		oly.	
In case of a diverted-to user after service, ensure that the terminatin • that CCBS is possible at or	ng AS informs the caller:	nd the callee has subscril	bed the call completion
 that CCNR is possible at 	t User B.		
Preconditions:			
SIP header values: 486 (Busy Here) 1: Call-Info: <sip:ue c="">;purpose 180 (Ringing) 1 Call-Info: <sip:ue b="">;purpose</sip:ue></sip:ue>			
Comments:	· · · · ·		
SIP 1 (ISC) INVITE 180 (Ringing) 1		SIP 2 (Gm) UE B INVITE 180 (Ringing)	SIP 3 (Gm) UE C
	CEND applies		
CASE A 486 (Busy Here) 1 ← ACK →	CFNR applies		 → INVITE ← 486 (Busy Here) → ACK
CASE B			 → INVITE ← 486 (Busy Here) → ACK
	Apply post test r	outine	
TSS CC/Interaction/CDIV	TP CC_N09_017	Reference 4.6.8.4	Selection expression
Test purpose			
CCNR: indication is sent if the ori	ginal call was diverted on no Re	ply.	
In case of a diverted-to user after has subscribed the call completio • that CCNR is possible a	n service, ensure that the termir		
or			
that CCNR is possible at	t User B.		
Preconditions:			
SIP header values: 180 Ringing 1: Call-Info: <sip:ue b="">;purpose 180 Ringing 2</sip:ue>	•		
Call-Info: <sip:ue c="">;purpose</sip:ue>	=call-completion;m=NR		
Comments: SIP 1 (ISC)	SUT		SIP 3 (Gm) UE C
INVITE +		SIP 2 (Gm) UE B	
180 (Ringing) 1		180 (Ringing)	
CASE A	CFNR applies		
180 (Ringing) 2			 → INVITE ← 180 (Ringing)
CASE B			
			✓ INVITE✓ 180 (Ringing)
	Apply post test r	outine	

TSS	TP	Reference	e Se	election expression
CC/Interaction/CDIV	CC_N09_	018 4.6.8.4	PI	CS 4.7.1/9
Test purpose				
CCNL: indication is sent if the	original call was div	verted on no Reply.		
n and of a diverted to upor a		ormodio potloggodio opo	the colles has a	hearibed the call
n case of a diverted-to user a completion service, ensure the			a the callee has st	ibscribed the call
 that CCNL is possible 		S moms me caller.		
	e al User C,			
	o ot Lloor P			
 that CCNR is possible Preconditions: 	e al USEI D.			
SIP header values:	4.			
180 Temporarily Unavailable		NII		
Call-Info: <sip:ue c="">;purp 180 (Ringing 1</sip:ue>	ose=call-completion	I,III=INL		
Call-Info: <sip: b="" ue="">;purp</sip:>	oose-call-completio	n·m-NP		
Comments:				
SIP 1 (ISC)	s	UT SIP 2 (Gn	n) UF B	SIP 3 (Gm) UE C
INVITE	→ °	→ INVITE	, 02 0	
180 (Ringing) 1	÷	← 180 (Ring	iina)	
		- ·····		
	CFNR app	olies		
CASE A			U	E C is not logged-in
480 (Temporarily Unavailable)1 🗲			
ACK	→			
CASE B				
	A	pply post test routine		

ETSI

TSS	TP	Reference	Selection expression
CC/Interaction/CDIV	CC_N09_019	4.6.8.4	
Test purpose			
CCBS: Recall after CFI	NR was activated.		
The terminating user ac	tivates CFNR after the orig	jinating user has requested the C	CBS service at the terminating user.
Ensure that the CC reca	all is:		
 applied as a C 	C recall;		
or			
 forwarded as a 	a normal call.		
Preconditions:			
SIP header values:			
NOTIFY 1 sip:O-AS			
From: UE-B			
To: UE-A			
Event:call-completion			
	cation/call-completion		
cc-state: ready	50		
INVITE 1: sip: UE-B; m:	=BS		
Comments: SIP 1 (ISC)	SUT		SIP 3 (Gm) UE C
	CCBS request	SIP 2 (Gm) UE B	SIP 3 (GIII) DE C
IIIVOKE		r B becomes available	1 1
NOTIFY 1	€	B becomes available	
200 OK NOTIFY	→ →		
	-	Callee activates C	CNR
INVITE 1	→		Í I
CASE A		→ INVITE	
180 Ringing	+	 180 Ringing 	
CASE B		→ INVITE	
180 Ringing	+	 180 Ringing 	
		CFNR is performed	L
			← 180 Ringing
180 Ringing	+		
<u> </u>	Ар	ply post test routine	

TSS	TP	Reference	Selection expression
CC/Interaction/CDIV	CC_N09_020	4.6.8.4	
Test purpose			
CCNR: Recall after CFNR	was activated.		
		inating user has requested the CC	NR service at the terminating
user. Ensure that the CC r			
 applied as a CC i 	recall;		
or			
 forwarded as a new 	ormal call.		
Preconditions:			
SIP header values:			
NOTIFY 1 sip:O-AS			
From: UE-B			
To: UE-A			
Event:call-completion	ion/call completion		
Content-Type: applicat cc-state: ready	ion/call-completion		
INVITE 1: sip: UE-B; m=N	D		
Comments:			
SIP 1 (ISC)	SUT	SIP 2 (Gm) UE B	SIP 3 (Gm) UE C
	NR request		
		B becomes available	
NOTIFY 1	÷		
200 OK NOTIFY	→		
		Callee activates CC	NR
INVITE 1	→		
CASE A		→ INVITE	
180 Ringing	+	 180 Ringing 	
CASE B	←	→ INVITE	
180 Ringing	τ	← 180 Ringing CFNR is performed	
180 Ringing	←		

	1				
TSS	TP		Reference		Selection expression
CC/Interaction/CDIV	CC_N09_021		4.6.8.4		PICS 4.7.1/9
Test purpose					
CCNL: Recall after CFNR wa	s activated.				
-					
	s CFNR after the or	ginating u	ser has requested the	CCNL	service at the terminating user.
Ensure that the CC recall is:	alli				
applied as a CC rec	all;				
 or forwarded as a norm 					
Iorwarded as a norm Preconditions:					
SIP header values:					
NOTIFY 1 sip:O-AS					
From: UE-B					
To: UE-A					
Event:call-completion					
Content-Type: application	/call-completion				
cc-state: ready	· · · · · ·				
INVITE 1: sip: UE-B; m=NL					
Comments:					
SIP 1 (ISC)	SUT		SIP 2 (Gm) UE B		SIP 3 (Gm) UE C
Invoke CCNL					
	Use	er B beco	mes available		
NOTIFY 1					
200 OK NOTIFY →					
			Callee activates	CCNR	1
INVITE 1 →		→	INVITE		
180 Ringing		7 4	180 Ringing		
		T	Tou Kinging		
CASE B		→	INVITE		
180 Ringing		é	180 Ringing		
•••••••••••••••••••••••••••••••••••••••		-	NR is performed	I	
				→	INVITE
180 Ringing 🗧 🗲				÷	180 Ringing
	A	pply post	test routine		

TSS	ТР	Reference	Selection expression
CC/Interaction/CDIV	CC_N09_022	4.6.8.5	_
Test nurnose			

CCBS: indication is sent if the original call was diverted on not logged-in.

In case of a diverted-to user after CFNL was performed is busy and the diverted-to user (User C) has subscribed the call completion service, ensure that the terminating AS inform the caller:

 that CCBS is possible at U 	ser C;			
or				
 that CCNL is possible at Us 	ser B.			
Preconditions:				
SIP header values:				
486 Busy Here 1:				
Call-Info: <sip:ue c="">;purpose=c</sip:ue>	all-completion;m=BS			
480 Temporarily Unavailable 1				
Call-Info: <sip: b="" ue="">;purpose=0</sip:>	call-completion;m=NL			
Comments:				
SIP 1 (ISC)	SUT	SIP 2 (Gm) UE B		SIP 3 (Gm) UE C
INVITE	→			
	CFNL applies			
CASE A			→	INVITE
486 (Busy Here) 1	÷		←	486 (Busy Here)
ACK	→		→	ACK
CASE B			→	INVITE
480 (Temporarily Unavailable) 1	+		÷	486 (Busy Here)
ACK	→		→	ACK
	Apply post t	test routine		

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TSS	ТР	Reference	Selection expression
CC/Interaction/CDIV	CC_N09_023	4.6.8.5	
Test purpose CCNR: indication is sent if the origi	nal call was diverted on n	not logged-in.	
In case of a diverted-to user after C to user (User C) has subscribed the			
 that CCNR is possible at L 	Jser C;		
or			
that CCNL is possible at U	ser B.		
Preconditions:			
SIP header values:			
180 Ringing1: Call-Info: <sip:ue c="">;purpose=</sip:ue>	all completion m-NP		
480 Temporarily Unavailable 1	call-completion,m=NR		
Call-Info: <sip: b="" ue="">;purpose=</sip:>	call-completion·m=NI		
Comments:			
SIP 1 (ISC)	SUT	SIP 2 (Gm) UE B	SIP 3 (Gm) UE C
INVITE	→		
	CFNL applies		
CASE A			
180 (Ringing) 1	÷		← 180 (Ringing)
CASE B			
480 (Temporarily Unavailable) 1	+		✓ INVITE ✓ 180 (Ringing)
ACK	→		
AOR	Apply post t	test routine	1 1
	, apply poor		
TSS	ТР	Reference	Selection expression
CC/Interaction/CDIV	CC_N09_024	4.6.8.5	PICS 4.7.1/9
Test purpose			
CCNL: indication is sent if the origin	nal call was diverted on n	ot logged-in.	
In appa of a diverted to upor offer C	TNI was parformed in pa	at logged in and the diverte	d to year (lloor C) has
In case of a diverted-to user after C subscribed the call completion serv			
 that CCNL is possible at L 		flating AS inform the caller	
	501 U,		
 that CCNL is possible at U 	lser B.		
Preconditions:			
SIP header values:			
480 (Temporarily Unavailable) 1:			
Call-Info: <sip:ue c="">;purpose=</sip:ue>	call-completion;m=NL		
480 Temporarily Unavailable 2			
Call-Info: <sip: b="" ue="">;purpose=</sip:>	call-completion;m=NL		
Comments:			
SIP 1 (ISC)	SUT	SIP 2 (Gm) UE B	SIP 3 (Gm) UE C
INVITE			UE C is not logged-in
CASE A	CFNL applies		
480 (Temporarily Unavailable) 1	÷		
ACK	→		
CASE B			
480 (Temporarily Unavailable) 2	+		
ACK	→		
	Apply post t	test routine	

TSS	ТР	Reference	Selection expression		
CC/Interaction/CDIV	CC_N09_025	4.6.8.6	_		
Test purpose					
CCBS: indication is sent if the original call was deflected.					
In case of a diverted-to user after	CD (alerting) was performed	is busy and the diverted-to	user has subscribed the call		
completion service, ensure that the	he terminating AS informs the	e caller that CCBS is possible	e at User C.		
Preconditions: SIP header values:					
486 (Busy Here) 1: Call-Info: <sip:ue c="">;purpose</sip:ue>	-call completion:m-BS				
Comments:					
SIP 1 (ISC)	SUT	SIP 2 (Gm) UE B	SIP 3 (Gm) UE C		
		INVITE			
180 (Ringing)		180 (Ringing)			
		302 (Moved Temporarily)			
		ACK			
	CD applies				
486 (Busy Here) 1					
ACK →	• • • • • •		→ ACK		
	Apply post te	st routine			
TSS	ТР	Reference	Selection expression		
CC/Interaction/CDIV	CC_N09_026	4.6.8.6	Selection expression		
Test purpose	00_1100_020	1.0.0.0			
CCNR: indication is sent if the ori	ainal call was deflected.				
	g				
In case of a diverted-to user after	CD (alerting) was performed	d does not answer the comm	unication request and the		
diverted-to user has subscribed th	ne call completion service, er	nsure that the terminating AS	informs the caller that		
CCNR is possible at User C.					
Preconditions:					
SIP header values:					
180 Ringing 1:					
Call-Info: <sip:ue c="">;purpose</sip:ue>	=call-completion;m=NR				
Comments:	SUIT.				
SIP 1 (ISC) INVITE →	SUT	SIP 2 (Gm) UE B INVITE	SIP 3 (Gm) UE C		
		180 (Ringing)			
180 (Ringing)		302 (Moved Temporarily)			
		ACK			
	CD applies				
180 (Ringing) 1					
	Apply post te	st routine			

TSS		P	Reference	<u>م</u>	Selection expression
CC/Interaction/CDIV		CC_N09_027	4.6.8.6		PICS 4.7.1/9
Test purpose		0_100_021	1.0.0.0		
CCNL: indication is sent i	f the original o	all was deflected			
CONE. Indication is sent i	i ine onginai ca	an was denected.			
In case of a diverted-to us	ser after CD (a	erting) was perfor	med is not loaged	l-in and the dive	erted-to user has subscribed
the call completion servic	e ensure that	the terminating AS	informs the calle	r that CCNL is i	nossible at User C
Preconditions:		and torrinnating / te			
SIP header values:					
480 Temporarily Unavaila	ble 1 [.]				
Call-Info: <sip:ue c="">;</sip:ue>		ompletion·m=NI			
Comments:					
SIP 1 (ISC)		SUT	SIP 2 (Gr	n) UF B	SIP 3 (Gm) UE C
INVITE	→	001	→ INVITE		
180 (Ringing)	÷			nina)	
	× ×			ed Temporarily	
			→ ACK	ca remporany,	/
	(D applies	AOR		UE C is not logged-in
480 (Temporarily Unavail		ob applies			
ACK	→				
	-	Apply pos	t test routine		1 1
		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,			
TSS	TP		Refer	ence	Selection expression
CC/Interaction/CDIV		09_028	4.6.8.		
Test purpose				-	
CCBS recall is not deflect	ted.				
Ensure that a CCBS reca	Il is not deflect	ed at the terminati	ng Application Se	rver.	
Preconditions:			• • •		
SIP header values:					
NOTIFY 1 sip:O-AS					
From: UE-B					
To: UE-A					
Event:call-completion					
Content-Type: applica	tion/call-comp	etion			
cc-state: ready		0			
INVITE 1: sip: UE B; r	m=BS				
From: UE A					
To: UE B	,				
	sip:UE-A>:nur	ose=call-completi	on:m=BS		
Comments:			e,m_20		
SIP 1 (ISC)		SUT		SIP 2 (Gm)	
Invoke CCB	S request	001	I		
		User B bec	omes available	I	
NOTIFY	← NOTIF				
200 OK NOTIFY		K NOTIFY			
	- 2000				
INVITE 1	→		→	INVITE	
180 (Ringing)	÷		÷	180 (Ringing)	
4xx	+		÷	302 (Moved Te	emporarily)
	-				-····F -······//
ACK	→		→	ACK	

TSS	TP	Reference	Selection expression
CC/Interaction/CDIV	CC_N09_029	4.6.8.6	
Test purpose CCNR recall is not deflected.			
Ensure that a CCNR recall is no	ot deflected at the terminating Applica	tion Server.	
Preconditions:	÷		
SIP header values:			
NOTIFY 1 sip:O-AS			
From: UE-B			
To: UE-A			
Event:call-completion			
Content-Type: application/c	all-completion		
cc-state: ready			
INVITE 1: sip: UE B; m=NR			
From: UE A			
To: UE B	As inurpage_call completion:m_NP		
Call-Into. <sip.0e< td=""><td>-A>;purpose=call-completion;m=NR</td><td></td><td></td></sip.0e<>	-A>;purpose=call-completion;m=NR		
SIP 1 (ISC)	SUT	SIP 2 (Gm)	
Invoke CCBS requ			
IIIVORE CCB3 Teq	User B becomes avai	lahle	
NOTIFY			
200 OK NOTIFY			
INVITE 1 →		→ INVITE	
180 (Ringing)		 180 (Ringing) 	
4xx 🗲		← 302 (Moved Te	mporarily)
ACK →		→ ACK	
	TP	Reference	Selection expression
CC/Interaction/CDIV	TP CC_N09_030	Reference 4.6.8.6	Selection expression PICS 4.7.1/9
CC/Interaction/CDIV Test purpose			
CC/Interaction/CDIV			
CC/Interaction/CDIV Test purpose CCNL recall is not deflected.	CC_N09_030	4.6.8.6	
CC/Interaction/CDIV Test purpose CCNL recall is not deflected. Ensure that a CCNL recall is not		4.6.8.6	
CC/Interaction/CDIV Test purpose CCNL recall is not deflected. Ensure that a CCNL recall is not Preconditions:	CC_N09_030	4.6.8.6	
CC/Interaction/CDIV Test purpose CCNL recall is not deflected. Ensure that a CCNL recall is not Preconditions: SIP header values:	CC_N09_030	4.6.8.6	
CC/Interaction/CDIV Test purpose CCNL recall is not deflected. Ensure that a CCNL recall is not Preconditions:	CC_N09_030	4.6.8.6	
CC/Interaction/CDIV Test purpose CCNL recall is not deflected. Ensure that a CCNL recall is not Preconditions: SIP header values: NOTIFY 1 sip:O-AS	CC_N09_030	4.6.8.6	
CC/Interaction/CDIV Test purpose CCNL recall is not deflected. Ensure that a CCNL recall is not Preconditions: SIP header values: NOTIFY 1 sip:O-AS From: UE-B	CC_N09_030	4.6.8.6	
CC/Interaction/CDIV Test purpose CCNL recall is not deflected. Ensure that a CCNL recall is not Preconditions: SIP header values: NOTIFY 1 sip:O-AS From: UE-B To: UE-A Event:call-completion Content-Type: application/ca	CC_N09_030	4.6.8.6	
CC/Interaction/CDIV Test purpose CCNL recall is not deflected. Ensure that a CCNL recall is not Preconditions: SIP header values: NOTIFY 1 sip:O-AS From: UE-B To: UE-A Event:call-completion Content-Type: application/ca cc-state: ready	CC_N09_030	4.6.8.6	
CC/Interaction/CDIV Test purpose CCNL recall is not deflected. Ensure that a CCNL recall is not Preconditions: SIP header values: NOTIFY 1 sip:O-AS From: UE-B To: UE-A Event:call-completion Content-Type: application/ca cc-state: ready INVITE 1: sip: UE B; m=NL	CC_N09_030	4.6.8.6	
CC/Interaction/CDIV Test purpose CCNL recall is not deflected. Ensure that a CCNL recall is not Preconditions: SIP header values: NOTIFY 1 sip:O-AS From: UE-B To: UE-A Event:call-completion Content-Type: application/ca cc-state: ready INVITE 1: sip: UE B; m=NL From: UE A	CC_N09_030	4.6.8.6	
CC/Interaction/CDIV Test purpose CCNL recall is not deflected. Ensure that a CCNL recall is not Preconditions: SIP header values: NOTIFY 1 sip:O-AS From: UE-B To: UE-A Event:call-completion Content-Type: application/ca cc-state: ready INVITE 1: sip: UE B; m=NL From: UE A To: UE B	CC_N09_030	4.6.8.6	
CC/Interaction/CDIV Test purpose CCNL recall is not deflected. Ensure that a CCNL recall is not Preconditions: SIP header values: NOTIFY 1 sip:O-AS From: UE-B To: UE-A Event:call-completion Content-Type: application/ca cc-state: ready INVITE 1: sip: UE B; m=NL From: UE A To: UE B Call-Info: <sip:ue< td=""><td>CC_N09_030</td><td>4.6.8.6</td><td></td></sip:ue<>	CC_N09_030	4.6.8.6	
CC/Interaction/CDIV Test purpose CCNL recall is not deflected. Ensure that a CCNL recall is not Preconditions: SIP header values: NOTIFY 1 sip:O-AS From: UE-B To: UE-A Event:call-completion Content-Type: application/ca cc-state: ready INVITE 1: sip: UE B; m=NL From: UE A To: UE B Call-Info: <sip:ue Comments:</sip:ue 	CC_N09_030	4.6.8.6 tion Server.	
CC/Interaction/CDIV Test purpose CCNL recall is not deflected. Ensure that a CCNL recall is not Preconditions: SIP header values: NOTIFY 1 sip:O-AS From: UE-B To: UE-A Event:call-completion Content-Type: application/ca cc-state: ready INVITE 1: sip: UE B; m=NL From: UE A To: UE B Call-Info: <sip:ue SIP 1 (ISC)</sip:ue 	CC_N09_030 t deflected at the terminating Applica all-completion -A>;purpose=call-completion;m=NL SUT	4.6.8.6	
CC/Interaction/CDIV Test purpose CCNL recall is not deflected. Ensure that a CCNL recall is not Preconditions: SIP header values: NOTIFY 1 sip:O-AS From: UE-B To: UE-A Event:call-completion Content-Type: application/ca cc-state: ready INVITE 1: sip: UE B; m=NL From: UE A To: UE B Call-Info: <sip:ue Comments:</sip:ue 	CC_N09_030 t deflected at the terminating Applica all-completion -A>;purpose=call-completion;m=NL SUT	4.6.8.6 tion Server.	
CC/Interaction/CDIV Test purpose CCNL recall is not deflected. Ensure that a CCNL recall is not Preconditions: SIP header values: NOTIFY 1 sip:O-AS From: UE-B To: UE-A Event:call-completion Content-Type: application/ca cc-state: ready INVITE 1: sip: UE B; m=NL From: UE A To: UE B Call-Info: <sip:ue SIP 1 (ISC)</sip:ue 	CC_N09_030 t deflected at the terminating Applica all-completion -A>;purpose=call-completion;m=NL SUT Jest	4.6.8.6 tion Server.	
CC/Interaction/CDIV Test purpose CCNL recall is not deflected. Ensure that a CCNL recall is not Preconditions: SIP header values: NOTIFY 1 sip:O-AS From: UE-B To: UE-A Event:call-completion Content-Type: application/ca cc-state: ready INVITE 1: sip: UE B; m=NL From: UE A To: UE B Call-Info: <sip:ue SIP 1 (ISC) Invoke CCBS required</sip:ue 	CC_N09_030 t deflected at the terminating Applica all-completion -A>;purpose=call-completion;m=NL SUT Juest User B becomes avai NOTIFY 1	4.6.8.6 tion Server.	
CC/Interaction/CDIV Test purpose CCNL recall is not deflected. Ensure that a CCNL recall is not Preconditions: SIP header values: NOTIFY 1 sip:O-AS From: UE-B To: UE-A Event:call-completion Content-Type: application/ca cc-state: ready INVITE 1: sip: UE B; m=NL From: UE A To: UE B Call-Info: <sip:ue SIP 1 (ISC) Invoke CCBS required NOTIFY ← 200 OK NOTIFY</sip:ue 	CC_N09_030 t deflected at the terminating Applica all-completion -A>;purpose=call-completion;m=NL SUT Jest User B becomes avai NOTIFY 1	4.6.8.6 tion Server. SIP 2 (Gm) lable	
CC/Interaction/CDIV Test purpose CCNL recall is not deflected. Ensure that a CCNL recall is not Preconditions: SIP header values: NOTIFY 1 sip:O-AS From: UE-B To: UE-A Event:call-completion Content-Type: application/ca cc-state: ready INVITE 1: sip: UE B; m=NL From: UE A To: UE B Call-Info: <sip:ue SIP 1 (ISC) Invoke CCBS required NOTIFY 200 OK NOTIFY INVITE 1</sip:ue 	CC_N09_030 t deflected at the terminating Application all-completion -A>;purpose=call-completion;m=NL SUT Juest User B becomes avai NOTIFY 1 200 OK NOTIFY	4.6.8.6 tion Server. SIP 2 (Gm) able → INVITE	
CC/Interaction/CDIV Test purpose CCNL recall is not deflected. Ensure that a CCNL recall is not Preconditions: SIP header values: NOTIFY 1 sip:O-AS From: UE-B To: UE-A Event:call-completion Content-Type: application/ca cc-state: ready INVITE 1: sip: UE B; m=NL From: UE A To: UE B Call-Info: <sip:ue SIP 1 (ISC) Invoke CCBS required NOTIFY 200 OK NOTIFY INVITE 1 → 180 (Ringing)</sip:ue 	CC_N09_030 t deflected at the terminating Application all-completion -A>;purpose=call-completion;m=NL SUT Juest User B becomes avai NOTIFY 1 200 OK NOTIFY	4.6.8.6 tion Server. 	PICS 4.7.1/9
CC/Interaction/CDIV Test purpose CCNL recall is not deflected. Ensure that a CCNL recall is not Preconditions: SIP header values: NOTIFY 1 sip:O-AS From: UE-B To: UE-A Event:call-completion Content-Type: application/ca cc-state: ready INVITE 1: sip: UE B; m=NL From: UE A To: UE B Call-Info: <sip:ue SIP 1 (ISC) Invoke CCBS required NOTIFY 200 OK NOTIFY INVITE 1</sip:ue 	CC_N09_030 t deflected at the terminating Application all-completion -A>;purpose=call-completion;m=NL SUT Juest User B becomes avai NOTIFY 1 200 OK NOTIFY	4.6.8.6 tion Server. SIP 2 (Gm) able → INVITE	PICS 4.7.1/9

TSS	ТР	Reference	Selection expression
CC/Interaction/CDIV	CC_N09_031	4.6.8.1	Selection expression
Test purpose	00_100_001	4.0.0.1	
CCBS recall is not forwarded.			
The originating user activates C(CBS. Before the terminating user bec	omes available the or	iginating user activates
	all is not forwarded if the originating u		
Preconditions:			
SIP header values:			
NOTIFY 1 sip:O-AS			
From: UE-B			
To: UE-A			
Event:call-completion			
Content-Type: application/ca	II-completion		
cc-state: ready	-		
REFER: sip: UE A; m=BS			
Refer-To; UE B; method=INV	ΊΤΕ		
INVITE 1: sip: UE B; m=BS			
From: UE A			
To: UE B			
Call-Info: <sip:ue-a>;purpos</sip:ue-a>	e=call-completion;m=BS		
Comments:	-		
SIP 1 (Gm) UE A	SUT	SIP 2 (ISC)	
Invoke CCBS requ			
Activate CFU to use	er C User B becomes avail	ahla	
	USER B becomes avail NOTIFY		
	200 OK NOTIFY	•	
	200 OK NOTIF	- 200 OK NOTI	- 1
CASE A			
	REFER		
200 OK SUBCSRIBE →			
CASE B			
INVITE ←	INVITE		
180 (Ringing) →	180 (Ringing)		
	Apply post test routi	ne	

TSS	ТР	Pof	erence	Selection expression
CC/Interaction/CDIV	CC_N09_032	4.6.8		Selection expression
Test purpose	00_1103_002	.0.1	0.1	
CCNR recall is not forward	ded			
	ied.			
The originating user activa	tes CCNR. Before the term	inating user becomes	available the or	iginating user activates
	IR recall is not forwarded if			
Preconditions:	in recail is not for warded in).
SIP header values:				
NOTIFY 1 sip:O-AS				
From: UE-B				
To: UE-A				
Event:call-completion				
Content-Type: applicat	ion/call-completion			
cc-state: ready	·			
REFER: sip: UE A; m=N	R			
Refer-To; UE B; metho	d=INVITE			
INVITE 1: sip: UE B; m	n=NR			
From: UE A				
To: UE B				
	ourpose=call-completion;m=	NR		
Comments:				
SIP 1 (Gm) UE A	SUT	•	SIP 2 (ISC)	
Invoke CCBS				
Activate CFU				
	User B	becomes available		
			NOTIFY 1	
		200 OK NOTIFY ->	200 OK NOTIF	Y
CASE A				
REFER	← REFER			
200 OK SUBCSRIBE	→ 200 OK SUBCSRIE	F		
		-		
CASE B				
INVITE	← INVITE			
180 (Ringing)	➔ 180 (Ringing)			
		post test routine		

TSS	ТР	Reference	Selection expression
CC/Interaction/CDIV	CC_N09_033	4.6.8.1	PICS 4.7.1/9
Test purpose	00_100_000	1.0.0.1	1100 11110
CCNL recall is not forwarded.			
The originating user activates C	CNL. Before the terminating user be	comes available the	originating user activates
	all is not forwarded if the originating		
Preconditions:			1 O.
SIP header values:			
NOTIFY 1 sip:O-AS			
From: UE-B			
To: UE-A			
Event:call-completion			
Content-Type: application/ca	all-completion		
cc-state: ready			
REFER: sip: UE A; m=NL			
Refer-To; UE B; method=IN	VITE		
INVITE 1: sip: UE B; m=NL			
From: UE A			
To: UE B			
Call-Info: <sip:ue-a>;purpos</sip:ue-a>	se=call-completion;m=NL		
Comments:	•		
SIP 1 (Gm) UE A	SUT	SIP 2 (ISC)	
Invoke CCBS requ	iest	· · · ·	
Activate CFU to us	er C		
	User B becomes ava	ailable	
	NOTIF	FY 🗲 NOTIFY 1	
	200 OK NOTIF	TY 🗲 200 OK NO	TIFY
CASE A			
	REFER		
200 OK SUBCSRIBE →	200 OK SUBCSRIBE		
CASE B			
	INVITE		
180 (Ringing) →	180 (Ringing)	utino	
<u>I</u>	Apply post test rou	line	

TSS	ТР	Reference	Selection expression			
CC/Interaction/CDIV	CC_N09_034	4.6.8.1				
Test purpose						
CCBS recall is not forwarded. Or	riginating user is not logged-in.					
The originating user activates CC						
CFU. Ensure that the CCBS reca	all is suspended if the originating	user has activated C	FU and is not logged-in.			
Preconditions:						
SIP header values:						
NOTIFY 1 sip:O-AS						
	From: UE-B					
To: UE-A						
Event:call-completion						
Content-Type: application/cal	ll-completion					
cc-state: ready						
PUBLISH: sip T-AS						
	irpose=call-completion;m=BS					
P-Assertd-Identity:	UE A					
Expires=(> 0)						
Event: presence						
Content-Type: app						
	0" encoding="UTF-8"?>					
<pre><pre>cecity control = control =</pre></pre>						
<tuple id=" any uri "></tuple>						
<status> <basic>closed</basic></status>						
<dasic></dasic>						
SIP 1 (Gm) UE A	SUT	SIP 2 (IS	C)			
Invoke CCBS reque		31F Z (13	C)			
Activate CFU to use						
Activate CFO to use	User B becomes	available				
		TIFY (NOTIFY '	1			
	200 OK NO		•			
	200 OK NO	111 - ZUU UK IV				
	PLIR	LISH 🗲 PUBLISH	I			
	200 OK PUB		-			
	Apply post test					

TSS	TP	Reference	Selection expression	
CC/Interaction/CDIV	CC_N09_035	4.6.8.1		
Test purpose				
CCNR recall is not forwarded.	Driginating user is not logged-in).		
The originating user activates C				
CFU. Ensure that the CCNR red	call is suspended if the originat	ng user has activated C	FU and is not logged-in.	
Preconditions:				
SIP header values:				
NOTIFY 1 sip:O-AS				
From: UE-B				
To: UE-A				
Event:call-completion				
Content-Type: application/ca cc-state: ready	all-completion			
PUBLISH: sip T-AS				
	urpose=call-completion;m=NR			
P-Assertd-Identity				
Expires=(> 0)				
Event: presence				
Content-Type: ap	plication/pidf+xml			
	.0" encoding="UTF-8"?>			
<pre>cpresence</pre>	g en en			
<pre><tuple id=" any uri "></tuple></pre>				
<status></status>				
<basic< td=""><td>>closed</td><td></td><td></td></basic<>	>closed			
Comments:				
SIP 1 (Gm) UE A	SUT	SIP 2 (IS	C)	
Invoke CCBS requ				
Activate CFU to us				
	User B become			
	-	IOTIFY 🗲 NOTIFY	-	
	200 OK N	IOTIFY 🗲 200 OK N	NOTIFY	
	5			
		JBLISH → PUBLISH	-	
		JBLISH 🗲 200 OK F	JURTI2H	
	Apply post tee	stroutine		

TSS	TP	Reference	Selection expression	
CC/Interaction/CDIV	CC_N09_036	4.6.8.1	PICS 4.7.1/9	
Test purpose				
CCNL recall is not forwarded.	Originating user is not logged-	in.		
	CCNL. Before the terminating			
	ecall is suspended if the origina	ting user has activated (CFU and is not logged-in.	
Preconditions:				
SIP header values:				
NOTIFY 1 sip:O-AS				
From: UE-B				
To: UE-A				
Event:call-completion				
Content-Type: application	call-completion			
cc-state: ready				
PUBLISH: sip T-AS				
	purpose=call-completion;m=N	L		
P-Assertd-Ident	lity: UE A			
Expires=(> 0)	_			
Event: presence				
	application/pidf+xml "1.0" encoding="UTF-8"?>			
	1.0 encoung= 01F-0 ?>			
<presence stuple id=" apy uri "></presence 				
<tuple id=" any uri "> <status></status></tuple>				
	ic>closed			
Comments:	000000000000000000000000000000000000000			
SIP 1 (Gm) UE A	SUT	SIP 2 (IS	(C)	
Invoke CCBS re			,	
Activate CFU to				
	User B becom	es available		
		NOTIFY - NOTIFY	1	
	200 OK	NOTIFY > 200 OK	NOTIFY	
	200 010			
	F	PUBLISH 🗲 PUBLISH	4	
	200 OK F	UBLISH 🗲 200 OK	PUBLISH	
	Apply post to	est routine		

History

Document history			
V5.1.1	October 2012	Publication	
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