

UA 1

SIP Registrar

UA 2

sip\_register\_call.pcap

**SIP REGISTER**

From	sip:pinot@10.10.3.109
To	sip:pinot@10.10.3.109
Call-ID	RHw.yfuADCU0hOqUnxyknqIHd5qf1Fz1
CSeq	13495 REGISTER
User-Agent	Telephone 0.14.3
Contact	"pinot" <sip:pinot@10.10.1.159:53382>
Expires	300

[Frame 1] SIP REGISTER binds a user's SIP URI (AOR) to the contact address where they can be reached; typically uses HTTP Digest authentication (401/407 challenge-response) and refreshes via Expires interval

**SIP 100 Trying**

From	sip:pinot@10.10.3.109
To	sip:pinot@10.10.3.109
Call-ID	RHw.yfuADCU0hOqUnxyknqIHd5qf1Fz1
CSeq	13495 REGISTER

Frame 2 | 2010-03-02T18:59:42.514451Z

**SIP 200 OK**

From	sip:pinot@10.10.3.109
To	sip:pinot@10.10.3.109
Call-ID	RHw.yfuADCU0hOqUnxyknqIHd5qf1Fz1
CSeq	13495 REGISTER
Expires	300
Contact	<sip:pinot@10.10.1.159:53382>;expires=300

[Frame 3] SIP 200 OK in response to INVITE carries the SDP answer (codec, IP, port) and completes the offer/answer negotiation; caller then sends ACK to finalize the dialog and RTP flows begin

**SIP REGISTER**

From	sip:carol@10.10.3.109
To	sip:carol@10.10.3.109
Call-ID	o0RV.tCDr-2Juw5h914qPJ5dPh7Pj6iv
CSeq	39803 REGISTER
User-Agent	Telephone 0.14.3
Contact	"carol" <sip:carol@10.10.1.203:53095>
Expires	300

[Frame 4] SIP REGISTER binds a user's SIP URI (AOR) to the contact address where they can be reached; typically uses HTTP Digest authentication (401/407 challenge-response) and refreshes via Expires interval

**SIP 100 Trying**

From	sip:carol@10.10.3.109
To	sip:carol@10.10.3.109
Call-ID	o0RV.tCDr-2Juw5h914qPJ5dPh7Pj6iv
CSeq	39803 REGISTER

Frame 5 | 2010-03-02T19:00:02.214037Z

**SIP 200 OK**

From	sip:carol@10.10.3.109
To	sip:carol@10.10.3.109
Call-ID	o0RV.tCDr-2Juw5h914qPJ5dPh7Pj6iv
CSeq	39803 REGISTER
Expires	300
Contact	<sip:carol@10.10.1.203:53095>;expires=300

[Frame 6] SIP 200 OK in response to INVITE carries the SDP answer (codec, IP, port) and completes the offer/answer negotiation; caller then sends ACK to finalize the dialog and RTP flows begin

**SIP 100 Trying**

From	sip:aptos@10.10.3.109
To	sip:aptos@10.10.3.109
Call-ID	8GTJITMzFL1.82DMKoa3QJTjWDXHYFim
CSeq	58368 REGISTER

Frame 7 | 2010-03-02T19:00:02.237566Z

**SIP 200 OK**

From	sip:aptos@10.10.3.109
To	sip:aptos@10.10.3.109
Call-ID	8GTJITMzFL1.82DMKoa3QJTjWDXHYFim
CSeq	58368 REGISTER
Expires	300
Contact	<sip:aptos@10.10.1.203:53095>;expires=300

[Frame 8] SIP 200 OK in response to INVITE carries the SDP answer (codec, IP, port) and completes the offer/answer negotiation; caller then sends ACK to finalize the dialog and RTP flows begin

**SIP 100 Trying**

From	sip:carol@10.10.3.109
To	sip:carol@10.10.3.109
Call-ID	o0RV.tCDr-2Juw5h914qPJ5dPh7Pj6iv

Frame 9 | 2010-03-02T19:00:02.249383Z

UA 1

SIP Registrar

UA 2

CSeq 39804 REGISTER

SIP 200 OK

From	sip:carol@10.10.3.109
To	sip:carol@10.10.3.109
Call-ID	o0RV.tCDr-2Juw5h914qPJ5dPh7Pj6iv
CSeq	39804 REGISTER
Expires	300
Contact	<sip:carol@10.10.1.203:53095>;expires=300

[Frame 10] SIP 200 OK in response to INVITE carries the SDP answer (codec, IP, port) and completes the offer/answer negotiation; caller then sends ACK to finalize the dialog and RTP flows begin

SIP INVITE

Via	SIP/2.0/UDP 10.10.1.203:53095;rport;branch=z9hG4bKpj8vmtfG67vq72q20EyZruh1wQl.mn9U5
Max-Forwards	70
From	sip:aptos@10.10.3.109
To	sip:pinot@10.10.3.109
Contact	"aptos" <sip:aptos@10.10.1.203:53095>
Call-ID	cdzRwcWOxQPqJuJ6GvA512m-SHOPLKRT
CSeq	32208 INVITE
User-Agent	Telephone 0.14.3
SDP-Owner	- 3476545211 3476545211 IN IP4 10.10.1.203
SDP-Session	pjmedia
SDP-Conn	IN IP4 10.10.1.203
Media	audio 4000 RTP/AVP 103 102 104 117 3 0 8 9 101
Media-Attr	rtcp:4001 IN IP4 10.10.1.203
Media-Attr	rtpmap:103 speex/16000
Media-Attr	rtpmap:102 speex/8000...
	10 more

[Frame 11] SIP INVITE carries an SDP offer describing media capabilities; the callee's 200 OK contains the SDP answer, completing the offer/answer negotiation for RTP media streams

SIP 100 Trying

From	sip:aptos@10.10.3.109
To	sip:pinot@10.10.3.109
Call-ID	cdzRwcWOxQPqJuJ6GvA512m-SHOPLKRT
CSeq	32208 INVITE

Frame 12 | 2010-03-02T19:00:11.960883Z

SIP INVITE

Via	SIP/2.0/UDP 10.10.3.109:5060;branch=z9hG4bK5c4b79af;rport
From	sip:aptos@10.10.3.109
To	sip:pinot@10.10.1.159:53382
Contact	<sip:aptos@10.10.3.109>
Call-ID	61616dd42673257c18a9c8595b9a391f@10.10.3.109
CSeq	102 INVITE
User-Agent	Asterisk PBX
Max-Forwards	70
SDP-Owner	root 20287 20287 IN IP4 10.10.3.109
SDP-Session	session
SDP-Conn	IN IP4 10.10.3.109
Media	audio 19694 RTP/AVP 0 3 8 112 5 10 7 117 111 101
Media-Attr	rtpmap:0 PCMU/8000
Media-Attr	rtpmap:3 GSM/8000
Media-Attr	rtpmap:8 PCMA/8000...
	12 more

[Frame 13] SIP INVITE carries an SDP offer describing media capabilities; the callee's 200 OK contains the SDP answer, completing the offer/answer negotiation for RTP media streams

SIP 100 Trying

Call-ID	61616dd42673257c18a9c8595b9a391f@10.10.3.109
From	sip:aptos@10.10.3.109
To	sip:pinot@10.10.1.159
CSeq	102 INVITE

Frame 14 | 2010-03-02T19:00:12.016034Z

SIP 180 Ringing

Call-ID	61616dd42673257c18a9c8595b9a391f@10.10.3.109
From	sip:aptos@10.10.3.109
To	sip:pinot@10.10.1.159
CSeq	102 INVITE

Frame 15 | 2010-03-02T19:00:12.687837Z

SIP 180 Ringing

Frame 16 | 2010-03-02T19:00:12.687995Z

UA 1

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UA 2

From	sip:aptos@10.10.3.109
To	sip:pinot@10.10.3.109
Call-ID	cdzRwcWOxQPqJuJ6GvA512m-SHOPLKRT
CSeq	32208 INVITE

RTCP SDES

SC	1
SDES-Type	CNAME (user and domain) (1)
SDES-Text	5c895@pj1ac7e9.org
SDES-Type	END (0)

SIP 200 OK

Call-ID	61616dd42673257c18a9c8595b9a391f@10.10.3.109
From	sip:aptos@10.10.3.109
To	sip:pinot@10.10.1.159
CSeq	102 INVITE
Contact	"pinot" <sip:pinot@10.10.1.159:53382>
SDP-Owner	- 3476545212 3476545213 IN IP4 10.10.1.159
SDP-Conn	IN IP4 10.10.1.159
SDP-Time	0 0
Media	audio 4000 RTP/AVP 0 101
Media-Attr	rtcp:4001 IN IP4 10.10.1.159
Media-Attr	rtpmap:0 PCMU/8000
Media-Attr	sendrecv
Media-Attr	rtpmap:101 telephone-event/8000
Media-Attr	fntp:101 0-15

SIP ACK

From	sip:aptos@10.10.3.109
To	sip:pinot@10.10.1.159:53382
Call-ID	61616dd42673257c18a9c8595b9a391f@10.10.3.109
CSeq	102 ACK

SIP 200 OK

From	sip:aptos@10.10.3.109
To	sip:pinot@10.10.3.109
Call-ID	cdzRwcWOxQPqJuJ6GvA512m-SHOPLKRT
CSeq	32208 INVITE
Contact	<sip:pinot@10.10.3.109>
SDP-Owner	root 20287 20287 IN IP4 10.10.3.109
SDP-Conn	IN IP4 10.10.3.109
SDP-Time	0 0
Media	audio 30654 RTP/AVP 3 0 8 102 117 9 101
Media-Attr	rtpmap:3 GSM/8000
Media-Attr	rtpmap:0 PCMU/8000
Media-Attr	rtpmap:8 PCMA/8000
Media-Attr	rtpmap:102 speex/8000
Media-Attr	rtpmap:117 iLBC/8000
Media-Attr	fntp:117 mode=30...
	6 more

SIP 200 OK

From	sip:aptos@10.10.3.109
To	sip:pinot@10.10.3.109
Call-ID	cdzRwcWOxQPqJuJ6GvA512m-SHOPLKRT
CSeq	32208 INVITE
Contact	<sip:pinot@10.10.3.109>
SDP-Owner	root 20287 20287 IN IP4 10.10.3.109
SDP-Conn	IN IP4 10.10.3.109
SDP-Time	0 0
Media	audio 30654 RTP/AVP 3 0 8 102 117 9 101
Media-Attr	rtpmap:3 GSM/8000
Media-Attr	rtpmap:0 PCMU/8000
Media-Attr	rtpmap:8 PCMA/8000
Media-Attr	rtpmap:102 speex/8000
Media-Attr	rtpmap:117 iLBC/8000

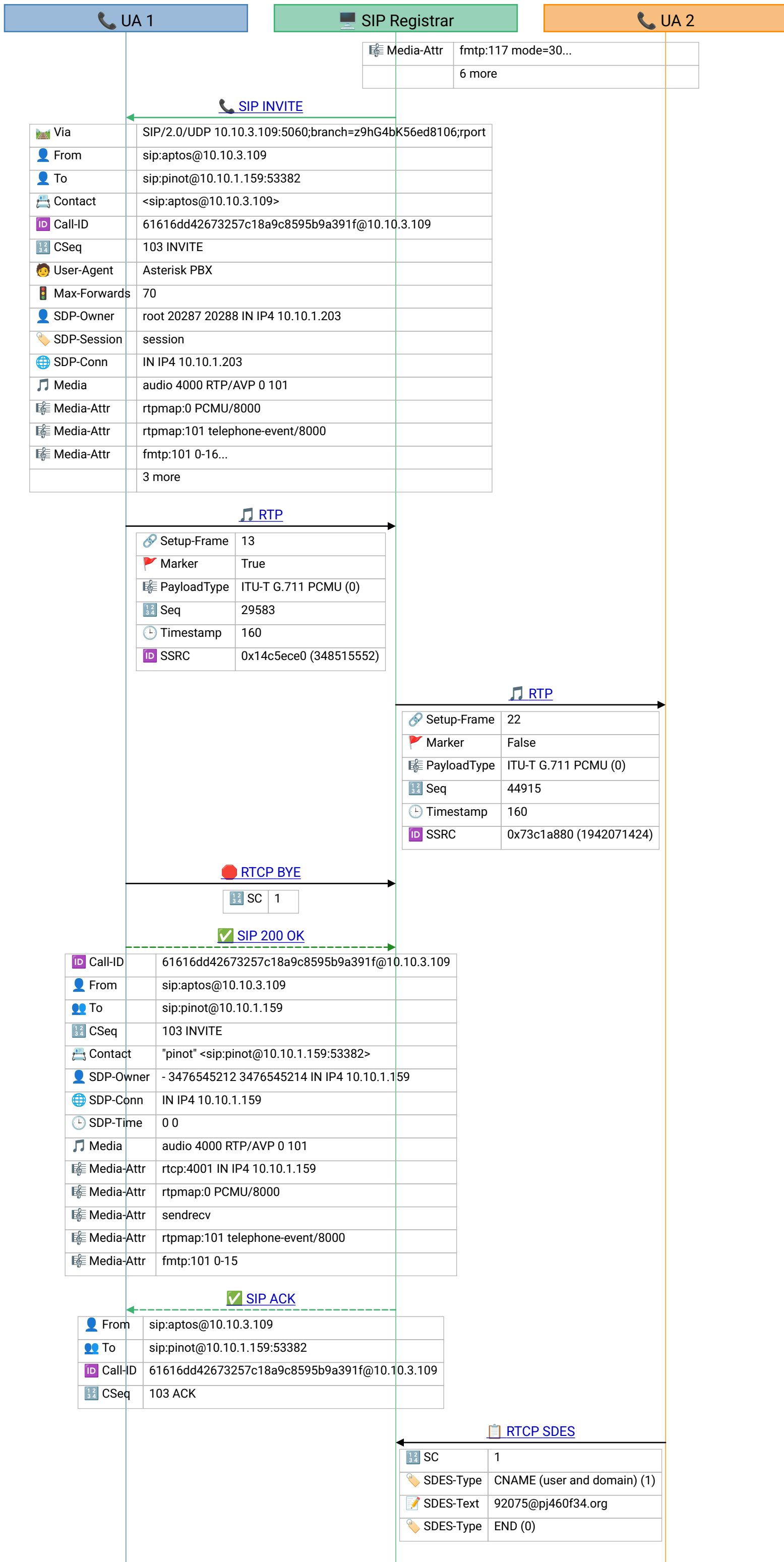
Frame 17 |  
2010-03-02T19:00:15.99858Z

[Frame 18] SIP 200 OK in response to INVITE carries the SDP answer (codec, IP, port) and completes the offer/answer negotiation; caller then sends ACK to finalize the dialog and RTP flows begin

Frame 19 |  
2010-03-02T19:00:15.999427Z

[Frame 20] SIP 200 OK in response to INVITE carries the SDP answer (codec, IP, port) and completes the offer/answer negotiation; caller then sends ACK to finalize the dialog and RTP flows begin

[Frame 21] SIP 200 OK in response to INVITE carries the SDP answer (codec, IP, port) and completes the offer/answer negotiation; caller then sends ACK to finalize the dialog and RTP flows begin



💡 [Frame 22] SIP INVITE carries an SDP offer describing media capabilities; the callee's 200 OK contains the SDP answer, completing the offer/answer negotiation for RTP media streams

Frame 23 | 2010-03-02T19:00:16.012527Z

Frame 24 | 2010-03-02T19:00:16.012589Z

Frame 25 | 2010-03-02T19:00:16.012735Z

💡 [Frame 26] SIP 200 OK in response to INVITE carries the SDP answer (codec, IP, port) and completes the offer/answer negotiation; caller then sends ACK to finalize the dialog and RTP flows begin

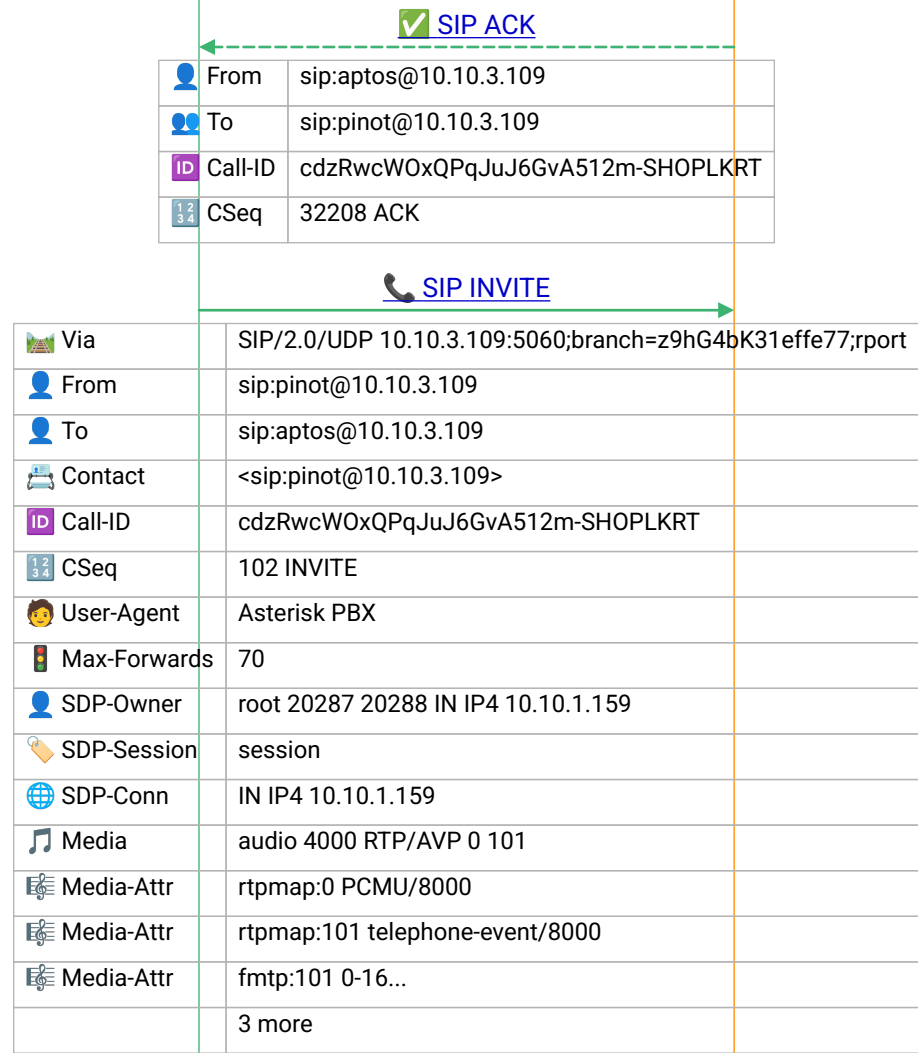
Frame 27 | 2010-03-02T19:00:16.013675Z

Frame 28 | 2010-03-02T19:00:16.044Z

UA 1

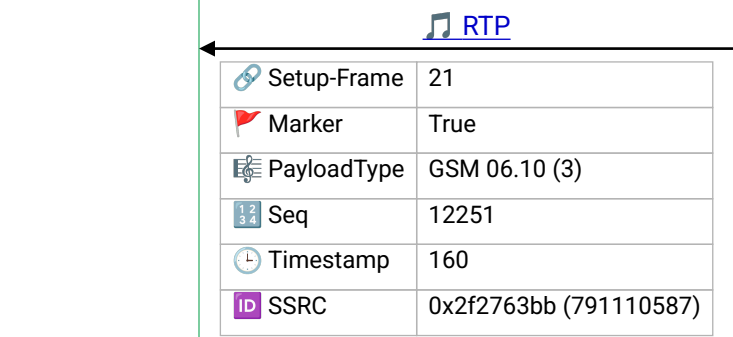
SIP Registrar

UA 2

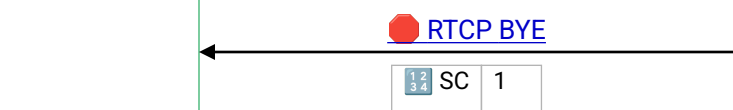


Frame 29 |  
2010-03-02T19:00:16.0448Z

[Frame 30] SIP INVITE carries an SDP offer describing media capabilities; the callee's 200 OK contains the SDP answer, completing the offer/answer negotiation for RTP media streams

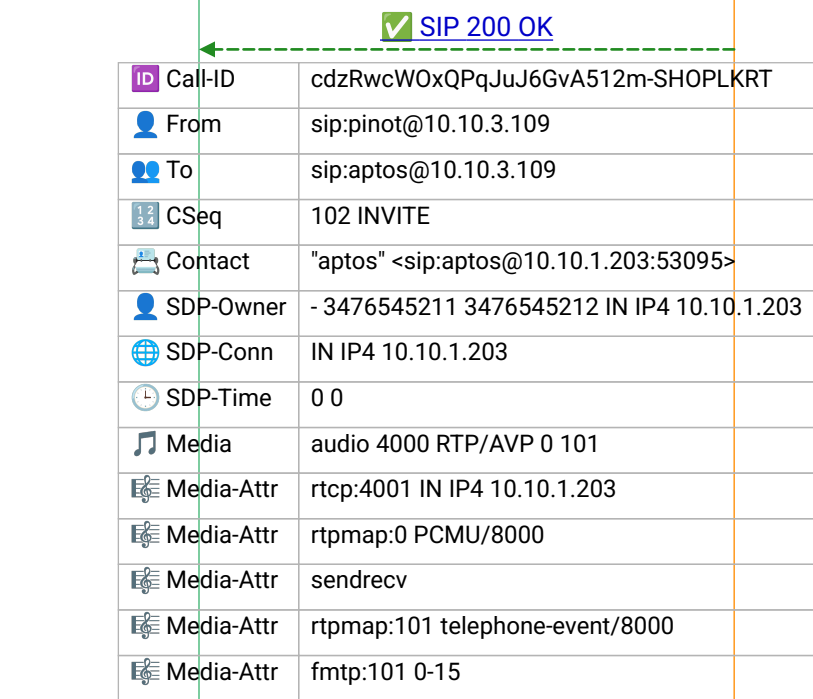


Frame 31 |  
2010-03-02T19:00:16.054484Z

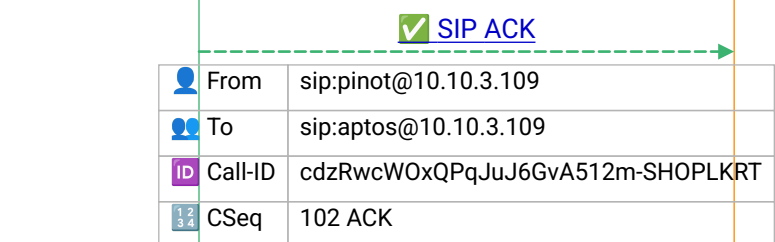


Frame 32 |  
2010-03-02T19:00:16.05626Z

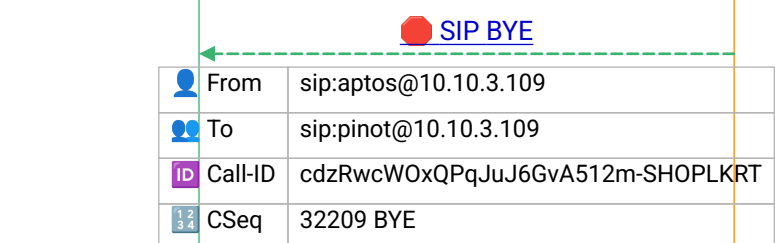
[Frame 33] SIP 200 OK in response to INVITE carries the SDP answer (codec, IP, port) and completes the offer/answer negotiation; caller then sends ACK to finalize the dialog and RTP flows begin



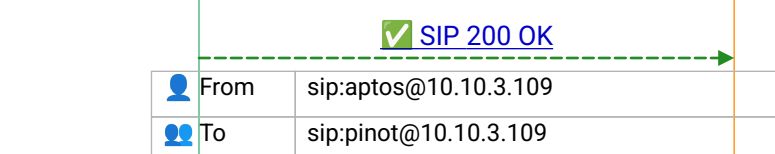
Frame 34 |  
2010-03-02T19:00:16.057179Z

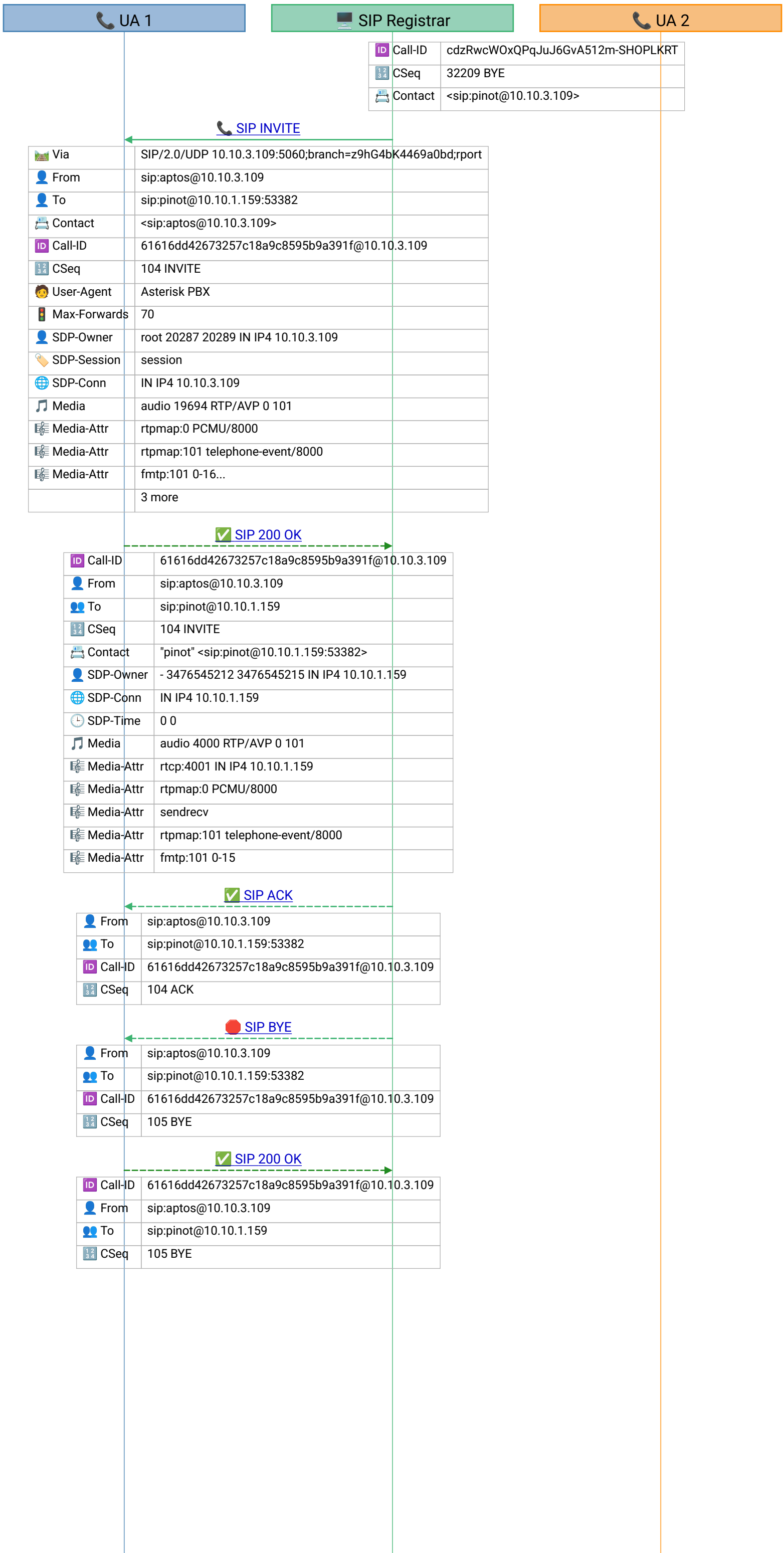


[Frame 35] SIP BYE terminates an established dialog; either party can send it, and the receiving side responds with 200 OK to confirm teardown of the RTP media streams and release resources



[Frame 36] SIP 200 OK in response to INVITE carries the SDP answer (codec, IP, port) and completes the offer/answer negotiation; caller then sends ACK to finalize the dialog and RTP flows





begin

💡 [Frame 37] SIP INVITE carries an SDP offer describing media capabilities; the callee's 200 OK contains the SDP answer, completing the offer/answer negotiation for RTP media streams

💡 [Frame 39] SIP 200 OK in response to INVITE carries the SDP answer (codec, IP, port) and completes the offer/answer negotiation; caller then sends ACK to finalize the dialog and RTP flows begin

Frame 40 | 2010-03-02T19:00:20.24922Z

💡 [Frame 41] SIP BYE terminates an established dialog; either party can send it, and the receiving side responds with 200 OK to confirm teardown of the RTP media streams and release resources

💡 [Frame 42] SIP 200 OK in response to INVITE carries the SDP answer (codec, IP, port) and completes the offer/answer negotiation; caller then sends ACK to finalize the dialog and RTP flows begin