

SIP Proxy

SIP Phone A

SIP Phone B

sip_hold_resume.pcapng

SIP INVITE

| | |
|------------------|---|
| Via | SIP/2.0/UDP 10.180.110.58:5060;branch=z9hG4bK226179E |
| Call-ID | 8E7E3172-6D0511E9-978DE3AD-C1443EBC@10.180.110.58 |
| UA | Cisco-SIPGateway/IOS-16.9.2 |
| CSeq | 101 INVITE |
| Max-Fwd | 70 |
| Contact | <sip:10.180.110.58:5060> |
| Owner | CiscoSystemsSIP-GW-UserAgent 8378 2639 IN IP4 10.180.110.58 |
| Session Name (s) | SIP Call |
| Connection | IN IP4 10.180.110.58 |
| Media | audio 8380 RTP/AVP 0 19 |
| Connection | IN IP4 10.180.110.58 |
| Attr | rtpmap:0 PCMU/8000 |
| Attr | rtpmap:19 CN/8000 |
| Attr | ptime:20 |

💡 SIP INVITE initiates a call – carries SDP offer with codec/media proposals; callee responds with 180 Ringing, then 200 OK with SDP answer

SIP 100 Trying

SIP 180 Ringing

SIP 200 OK

💡 100 Trying – proxy accepted the request and is searching for the callee; stops retransmission timer; no end-to-end significance

💡 180 Ringing – callee's phone is alerting; caller hears locally generated ringback; 183 with SDP offers early media (in-band ringback) instead

💡 200 OK – call answered (for INVITE) or registration accepted (for REGISTER); SDP answer completes codec negotiation; caller must send ACK to complete 3-way handshake

| | |
|------------|--|
| Contact | <sip:1234@10.180.110.48:5060>;+u.sipdevicename.ccm.cisco.com="SEP2C31246A214B" |
| Connection | IN IP4 10.10.214.57 |
| Media | audio 23890 RTP/AVP 0 101 |
| Attr | rtpmap:0 PCMU/8000 |
| Attr | rtpmap:101 telephone-event/8000 |
| Attr | fmp:101 0-15 |

SIP ACK

| | |
|---------|---|
| Call-ID | 8E7E3172-6D0511E9-978DE3AD-C1443EBC@10.180.110.58 |
| CSeq | 101 ACK |

Frame 5 | 2019-05-03T18:10:31.071987Z

RTP

| | |
|-----------------|----------------------|
| Setup frame | 1 |
| Marker | False |
| Codec | ITU-T G.711 PCMU (0) |
| Sequence number | 7352 |
| Timestamp | 257420775 |
| SSRC | 0x00007a8e (31374) |

Frame 6 | 2019-05-03T18:10:31.106989Z

RTP

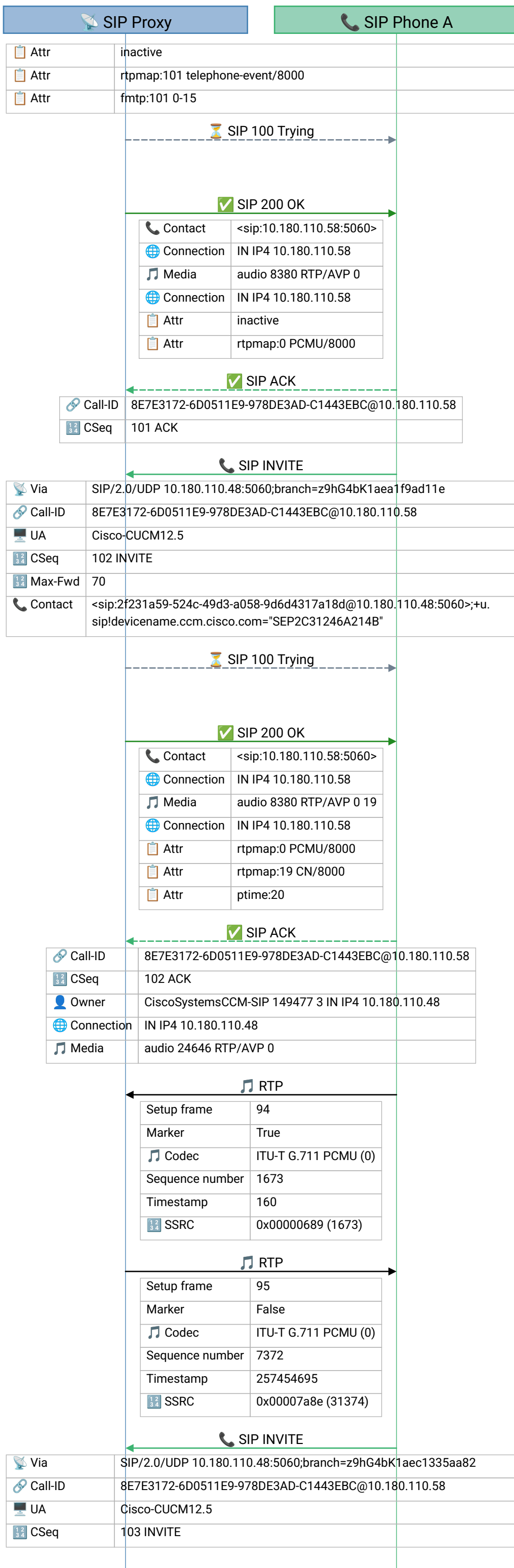
| | |
|-----------------|-------------------------|
| Setup frame | 1 |
| Marker | True |
| Codec | ITU-T G.711 PCMU (0) |
| Sequence number | 28462 |
| Timestamp | 3434449695 |
| SSRC | 0x637c9b68 (1669110632) |

Frame 13 | 2019-05-03T18:10:31.229983Z

SIP INVITE

| | |
|------------------|--|
| Via | SIP/2.0/UDP 10.180.110.48:5060;branch=z9hG4bK1ae83addf621 |
| Call-ID | 8E7E3172-6D0511E9-978DE3AD-C1443EBC@10.180.110.58 |
| UA | Cisco-CUCM12.5 |
| CSeq | 101 INVITE |
| Max-Fwd | 70 |
| Contact | <sip:2f231a59-524c-49d3-a058-9d6d4317a18d@10.180.110.48:5060>;+u.sipdevicename.ccm.cisco.com="SEP2C31246A214B" |
| Owner | CiscoSystemsCCM-SIP 149477 2 IN IP4 10.180.110.48 |
| Session Name (s) | SIP Call |
| Connection | IN IP4 0.0.0.0 |
| Media | audio 23890 RTP/AVP 0 101 |
| Attr | rtpmap:0 PCMU/8000 |

💡 SIP INVITE initiates a call – carries SDP offer with codec/media proposals; callee responds with 180 Ringing, then 200 OK with SDP answer



💡 100 Trying – proxy accepted the request and is searching for the callee; stops retransmission timer; no end-to-end significance

💡 200 OK – call answered (for INVITE) or registration accepted (for REGISTER); SDP answer completes codec negotiation; caller must send ACK to complete 3-way handshake

Frame 91 | 2019-05-03T18:10:32.486974Z

💡 SIP INVITE initiates a call – carries SDP offer with codec/media proposals; callee responds with 180 Ringing, then 200 OK with SDP answer

💡 100 Trying – proxy accepted the request and is searching for the callee; stops retransmission timer; no end-to-end significance

💡 200 OK – call answered (for INVITE) or registration accepted (for REGISTER); SDP answer completes codec negotiation; caller must send ACK to complete 3-way handshake

Frame 95 | 2019-05-03T18:10:32.512958Z

Frame 96 | 2019-05-03T18:10:32.513965Z

Frame 238 | 2019-05-03T18:10:35.346966Z

💡 SIP INVITE initiates a call – carries SDP offer with codec/media proposals; callee responds with 180 Ringing, then 200 OK with SDP answer

SIP Proxy **SIP Phone A**

| | |
|------------------|---|
| Max-Fwd | 70 |
| Contact | <sip:2f231a59-524c-49d3-a058-9d6d4317a18d@10.180.110.48:5060>;+u.sip!devicename.ccm.cisco.com="SEP2C31246A214B" |
| Owner | CiscoSystemsCCM-SIP 149477 4 IN IP4 10.180.110.48 |
| Session Name (s) | SIP Call |
| Connection | IN IP4 0.0.0.0 |
| Media | audio 24646 RTP/AVP 0 |
| Attr | X-cisco-media:umoh |
| Attr | ptime:20 |
| Attr | rtpmap:0 PCMU/8000 |
| Attr | inactive |

SIP 100 Trying

SIP 200 OK

| | |
|------------|--------------------------|
| Contact | <sip:10.180.110.58:5060> |
| Connection | IN IP4 10.180.110.58 |
| Media | audio 8380 RTP/AVP 0 |
| Connection | IN IP4 10.180.110.58 |
| Attr | inactive |
| Attr | rtpmap:0 PCMU/8000 |
| Attr | ptime:20 |

SIP ACK

| | |
|---------|---|
| Call-ID | 8E7E3172-6D0511E9-978DE3AD-C1443EBC@10.180.110.58 |
| CSeq | 103 ACK |

SIP INVITE

| | |
|---------|---|
| Via | SIP/2.0/UDP 10.180.110.48:5060;branch=z9hG4bK1aee121c926 |
| Call-ID | 8E7E3172-6D0511E9-978DE3AD-C1443EBC@10.180.110.58 |
| UA | Cisco-CUCM12.5 |
| CSeq | 104 INVITE |
| Max-Fwd | 70 |
| Contact | <sip:2f231a59-524c-49d3-a058-9d6d4317a18d@10.180.110.48:5060>;video;audio;+u.sip!devicename.ccm.cisco.com="SEP2C31246A214B" |

SIP 100 Trying

SIP 200 OK

| | |
|------------|--------------------------|
| Contact | <sip:10.180.110.58:5060> |
| Connection | IN IP4 10.180.110.58 |
| Media | audio 8380 RTP/AVP 0 19 |
| Connection | IN IP4 10.180.110.58 |
| Attr | rtpmap:0 PCMU/8000 |
| Attr | rtpmap:19 CN/8000 |
| Attr | ptime:20 |

SIP ACK

| | |
|------------|---|
| Call-ID | 8E7E3172-6D0511E9-978DE3AD-C1443EBC@10.180.110.58 |
| CSeq | 104 ACK |
| Owner | CiscoSystemsCCM-SIP 149477 5 IN IP4 10.180.110.48 |
| Connection | IN IP4 10.10.214.57 |
| Media | audio 23890 RTP/AVP 0 101 |

SIP BYE

| | |
|---------|---|
| Call-ID | 8E7E3172-6D0511E9-978DE3AD-C1443EBC@10.180.110.58 |
| CSeq | 105 BYE |
| Reason | Q.850;cause=16 |

SIP 200 OK

SIP Phone B

💡 100 Trying – proxy accepted the request and is searching for the callee; stops retransmission timer; no end-to-end significance

💡 200 OK – call answered (for INVITE) or registration accepted (for REGISTER); SDP answer completes codec negotiation; caller must send ACK to complete 3-way handshake

Frame 1193 | 2019-05-03T18:10:46.705957Z

💡 SIP INVITE initiates a call – carries SDP offer with codec/media proposals; callee responds with 180 Ringing, then 200 OK with SDP answer

💡 100 Trying – proxy accepted the request and is searching for the callee; stops retransmission timer; no end-to-end significance

💡 200 OK – call answered (for INVITE) or registration accepted (for REGISTER); SDP answer completes codec negotiation; caller must send ACK to complete 3-way handshake

Frame 1197 | 2019-05-03T18:10:46.715951Z

💡 SIP BYE terminates an established dialog – both sides send BYE to release media resources; Reason header explains why (e.g., user hangup)

💡 200 OK – call answered (for INVITE) or registration accepted (for REGISTER); SDP answer completes codec negotiation; caller must send ACK to complete 3-way handshake