

sip_dtmf_nte_rfc4733.pcapng

SIP INVITE

Via	SIP/2.0/UDP 10.180.110.58:5060;branch=z9hG4bK22A664
Call-ID	196B51FB-6D0C11E9-97A4E3AD-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 9721 2207 IN IP4 10.180.110.58
Session Name (s)	SIP Call
Connection	IN IP4 10.180.110.58
Media	audio 8384 RTP/AVP 0 101
Connection	IN IP4 10.180.110.58
Attr	rtpmap:0 PCMU/8000
Attr	rtpmap:101 telephone-event/8000
Attr	fmp:101 0-16
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 25126 RTP/AVP 0 101
Attr	rtpmap:0 PCMU/8000
Attr	rtpmap:101 telephone-event/8000
Attr	fmp:101 0-15

SIP ACK

Call-ID	196B51FB-6D0C11E9-97A4E3AD-C1443EBC@10.180.110.58
CSeq	101 ACK

Frame 5 | 2019-05-03T18:57:20.807956Z

DTMF

End	False
Duration	0

💡 DTMF digit sent as RTP Named Telephone Event (RFC 4733) – out-of-band signaling preserves digit accuracy across codec transcoding