

Troubleshooting habit

One hypothesis. One change.

Read one SIP leg at a time.

A 200 OK does not prove two-way audio.

Compare SDP addresses with the packets you see.

Revert if the symptom does not move.

Independent free learning-only student project. Trademarks belong to their owners. Not affiliated or endorsed. Contact: <https://cyphermonkeylabs.com/#contact>. Nothing is sold.

Sources and go deeper

Opened 2026-10. A row marked confirm has no link, because that page was not verified.

Cisco. System Configuration Guide for CUCM, Release 15.

https://www.cisco.com/c/en/us/td/docs/voice_ip_comm/cucm/admin/15/systemConfig/cucm_b_system-configuration-guide-15.html. last checked 2026-10

RFC. RFC 3261, SIP. <https://www.rfc-editor.org/rfc/rfc3261>. last checked 2026-10

Community. Cisco Community, Collaboration knowledge base.

<https://community.cisco.com/t5/collaboration-knowledge-base/tkb-p/4691-docs-collaboration-voice-video>. last checked 2026-10

Wikipedia. Session Initiation Protocol (Wikipedia).

https://en.wikipedia.org/wiki/Session_Initiation_Protocol. last checked 2026-10

Protocol and ports. CUCM 15 TCP and UDP port usage.

https://www.cisco.com/c/en/us/td/docs/voice_ip_comm/cucm/admin/15/systemConfig/cucm_b_system-configuration-guide-15/cucm_m_tcp-and-udp-port-usage-12-0.html. last checked 2026-10

RFC. RFC 3515, SIP REFER. <https://www.rfc-editor.org/rfc/rfc3515>. last checked 2026-10

RFC. RFC 3264, offer/answer. <https://www.rfc-editor.org/rfc/rfc3264>. last checked 2026-10

RFC. RFC 3550, RTP. <https://www.rfc-editor.org/rfc/rfc3550>. last checked 2026-10

Cisco. Cisco Unified Border Element product support.

<https://www.cisco.com/c/en/us/support/unified-communications/unified-border-element/series.html>. last checked 2026-10

Cisco. Understand IOS and IOS XE call routing.

<https://www.cisco.com/c/en/us/support/docs/voice/ip-telephony-voice-over-ip-voip/211306-In-Depth-Explanation-of-Cisco-IOS-and-IO.html>. last checked 2026-10

RFC. RFC 3711, SRTP. <https://www.rfc-editor.org/rfc/rfc3711>. last checked 2026-10

RFC. RFC 8445, ICE. <https://www.rfc-editor.org/rfc/rfc8445>. last checked 2026-10

Protocol and ports. Cisco Expressway IP port usage (X14.3 and X15.0).

https://www.cisco.com/c/en/us/td/docs/voice_ip_comm/expressway/config_guide/X15-0/ip-port/exwy_b_cisco-expressway-ip-port-usage-configuration-guide-x15.html. last checked 2026-10

Wikipedia. Real-time Transport Protocol (Wikipedia).

https://en.wikipedia.org/wiki/Real-time_Transport_Protocol. last checked 2026-10