Precision 60 Camera Auto Focus and SpeakerTrack Issues with Room Kit Pro

Contents

Issue

Cisco Precision 60 cameras connected to a Room Kit Pro experienced intermittent auto focus and SpeakerTrack functionality failures. During meetings, the auto focus would suddenly focus on someone who was not speaking, or would not work at all. The SpeakerTrack diagnostics showed faces predominantly in red squares (indicating no audio detection) rather than green squares (indicating proper audio detection). The issue was intermittent - sometimes working at the start of meetings then stopping, and sometimes not working from the beginning.

Additionally, the Room Kit Pro device would crash with watchdog reset errors when attempting to collect logs through either the Touch Panel **Send Logs** function or the Web GUI packet capture feature of the device. The system exhibited hardware watchdog timeout crashes with the error signature "Zenith: HWMON host watchdog (reason: unspecified)".

Environment

- Cisco Room Kit Pro (Serial: FDO2617J0BH)
- Two Cisco Precision 60 Cameras (CTS-CAM-P60 V02)
- SpeakerTrack 60 Microphone Array (CTS-ST-ARRAY60+)
- RoomOS version 11.30.1.8 initially, upgraded to 11.33.1.10
- Cisco Touch 10 control panel
- Samsung QM98N display
- Camera mounting height: 2 feet 5 inches
- Issue started around November 27th with no configuration changes

Resolution

The resolution involved multiple troubleshooting steps and hardware replacement.

Initial Troubleshooting Steps

- Step 1: Verify peripheral connectivity and software upgrade: Confirm that both Precision 60 cameras and SpeakerTrack 60 unit were properly connected and detected.

```
*s Peripherals ConnectedDevice 10354 Name: "SpeakerTrack 60"
*s Peripherals ConnectedDevice 10354 Status: Connected
*s Peripherals ConnectedDevice 10354 Type: SpeakerTracker

*s Peripherals ConnectedDevice 11122 Name: "Precision 60 Camera"
*s Peripherals ConnectedDevice 11122 Status: Connected
*s Peripherals ConnectedDevice 11122 Type: Camera

*s Peripherals ConnectedDevice 11123 Name: "Precision 60 Camera"
*s Peripherals ConnectedDevice 11123 Status: Connected
*s Peripherals ConnectedDevice 11123 Type: Camera
```

- Step 2: Upgrade RoomOS software: Upgrade the device from RoomOS 11.30.1.8 to 11.33.1.10 to address potential software-related issues.
- Step 3: Test multiple camera sets: Test with different Precision 60 camera sets to isolate hardware issues. The problem persisted across different camera hardware.

Hardware Replacement Resolution

- Step 4: Replace SpeakerTrack 60 Microphone Array: Based on engineering analysis showing audio detection issues (evidenced by predominantly red squares in SpeakerTrack diagnostics), replaced the CTS-ST-ARRAY60+ SpeakerTrack 60 Microphone Array unit through RMA process (RMA 804445297).
- Step 5: Verify installation and configuration: Confirmed the replacement SpeakerTrack unit was installed identically to the original unit and properly connected to the Room Kit Pro.

Additional Diagnostic Steps

- Step 6: Enable debugging for further analysis: When issues persisted after hardware replacement, enabled SpeakerTrack debugging.

```
log ctx moody debug 9
```

- Step 7: Collect comprehensive logs: Due to device crashes when collecting logs locally, collected logs from Control Hub using the Full Logs option to avoid triggering the watchdog reset issue.
- Step 8: Verify microphone array positioning: Confirmed that no part of the microphone array was obstructed by the display, with approximately 5-10 cm clearance between the top of the array and the bottom of the display.

Cause

The root cause was identified as hardware failure in the SpeakerTrack 60 Microphone Array. The audio detection component was malfunctioning, preventing proper speaker tracking and auto focus functionality. This was evidenced by:

- SpeakerTrack diagnostics consistently showing red squares instead of green squares for active speakers.
- Intermittent audio signal energy detection in logs.
- EDID SPA errors in the device logs indicating communication issues with the camera peripherals.

The secondary issue of device crashes during log collection was attributed to a hardware watchdog timeout condition (Cisco Bug ID: CSCvz85774), which was a separate hardware-related problem with the Room Kit Pro device itself.

Related Content

- Troubleshooting Board, Desk, and Room Series Devices
- SpeakerTrack 60 End-of-Life Notice
- Precision 60 Camera Based Bundles End-of-Life Notice