Troubleshoot Room Bar Functionality Limited by Third-Party USB-C

Contents

Issue

When connecting a laptop to a Cisco Room Bar via USB-C for BYOD functionality in a Zoom setup using an Eaton Tripp Lite USB-C to USB-C plenum rated fiber active optical cable, only the camera is detected by the laptop. The microphones, speakers, and screen/content sharing functionality do not work, preventing full BYOD audio/video and display/content sharing capabilities from the laptop to the Room Bar device.

Environment

- Cisco Room Bar device configured for Zoom for Cisco Rooms
- Eaton Tripp Lite USB-C to USB-C plenum rated fiber active optical cable (50 feet)
- Laptop attempting BYOD connection via USB-C
- Multiple Room Bar installations affected by the same cable type

Resolution

Step 1: Check the brand and type of USB-C cable. Issues are specifically seen with directional, fiber optic USB-C cables usually used for long runs.

Step 2: Ensure the cable is connected in the correct direction if it is uni-directional.

Step 3: Test with a validated USB-C cable, or a short, copper USB-C cable and confirm whether the issue is resolved.

If further troubleshooting is required, USB-C connection status can be monitored via SSH using these commands:

Enable USB-C monitor logging:

```
log ctx UsbcMonitor debug 9
```

Output logs directly to console:

```
log output on
```

Expected output from a full-featured USB-C cable with DisplayPort Alt-Mode and USB 3.1 data support:

```
UsbcMonitor[1]:  plug_present       1 (if USB-C cable is connected to Room Bar USB-C port, 0 if not)
UsbcMonitor[1]:  power_connection   1 (if USB-C cable is capable of power draw)
UsbcMonitor[1]:  power_contract     5/3000 (0/0 when no cable connected)
UsbcMonitor[1]:  power_direction    sink (source sends power, sink receives power)
UsbcMonitor[1]:  plug_orientation   upside_up (upside_down if USB-C plug orientation is flipped)
UsbcMonitor[1]:  vconn_enabled      0
UsbcMonitor[1]:  cable-info-valid   0
UsbcMonitor[1]:  dp_alt_mode connected true (false if dp_alt_mode is not detected - Room Bar will not b
UsbcMonitor[1]:  dp_alt_mode portrole UFP (Upstream Facing Port, acting as the sink or receiver of the
```

Disable USB-C monitor logging when complete:

```
log ctx UsbcMonitor debug 0
log output off
```

Recommended Solutions

Option 1: Use Cisco Validated Cables

Replace the Eaton cables with Cisco USB-C cables that support both DisplayPort Alt Mode and USB 3.1+ data transmission.

Option 2: Third-Party Cable Requirements

If using third-party USB-C cables for longer runs, ensure they meet these specifications:

- DisplayPort Alt Mode support

- USB 3.1 or USB 3.2 data support
- Validated compatibility with Cisco Room Bar devices
- Consider USB-C extension kits that use CAT-6 cabling with TX/RX devices for longer runs

Cause

The Eaton Tripp Lite USB-C to USB-C plenum rated fiber active optical cable is designed primarily for video transmission and does not provide the full USB data functionality required for Room Bar BYOD operation. Additionally, laptop speaker audio over USB-C is integrated into the DisplayPort Alt-Mode video output, so, if the laptop cannot properly detect the Room Bar as a display due to cable limitations, audio output to the Room Bar can also fail.

Related Content

- Call from Laptop Using your Cisco Device as a Web Camera
- Cisco USB-C Cables Datasheet
- Cisco Technical Support & Downloads