


AudioCodes RX-PAD Meeting Room Controller

Version 2.8.208



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Notice

Information contained in this document is believed to be accurate and reliable at the time of printing. However, due to ongoing product improvements and revisions, AudioCodes cannot guarantee accuracy of printed material after the Date Published nor can it accept responsibility for errors or omissions. Updates to this document can be downloaded from <https://www.audiocodes.com/library/technical-documents>.

This document is subject to change without notice.

Date Published: March-26-2025

Security Vulnerabilities

All security vulnerabilities should be reported to vulnerability@audiocodes.com.

WEEE EU Directive

Pursuant to the WEEE EU Directive, electronic and electrical waste must not be disposed of with unsorted waste. Please contact your local recycling authority for disposal of this product.

Customer Support

Customer technical support and services are provided by AudioCodes or by an authorized AudioCodes Service Partner. For more information on how to buy technical support for AudioCodes products and for contact information, please visit our website at <https://www.audiocodes.com/services-support/maintenance-and-support>.

Stay in the Loop with AudioCodes



Abbreviations and Terminology

Each abbreviation, unless widely used, is spelled out in full when first used.

Documentation Feedback

AudioCodes continually strives to produce high quality documentation. If you have any comments (suggestions or errors) regarding this document, please fill out the Documentation Feedback form on our Web site at <http://online.audiocodes.com/documentation-feedback>.

Related Documentation

Document Name
RXV81 RXV200 RX-PAD RX-PANEL Release Notes
RX-PAD Meeting Room Controller Quick Guide
Pairing RX-PAD with Teams Rooms on Android
RXV81 MTRA User & Admin Manual
RXV200 MTRA Compute User & Admin Manual
RXV200 Microsoft Teams Rooms on Android Compute Unit Quick Installation Guide
Device Manager User & Admin Manual

Document Revision Record

LTRT	Description
18320	Initial document release.
18321	Reset pinhole button
18322	HDMI In MTRA screen sharing Audio Notifications via MTRA Speakers
18323	Application launcher. Enrolling with Intune Policies. System State page.
18324	2.6. Wall mount installation.
18325	Camera Settings. PTZ adjusters. Downgrade block. Tracking Mode. Configuring Display.
18326	Updated to Version 2.8.208

1 Introduction

The AudioCodes RX-PAD Meeting Room Controller is a center-of-room intuitive touch controller that provides complete and straightforward access to AudioCodes meeting room solutions.

With its proximity sensor, ergonomic design and 8-inch high-resolution display, this high-quality controller enables simple and intuitive operation with extensive customization options.

RX-PAD Meeting Room Controller offers innovative features such as one-click-to join with an integrated calendar for simple collaboration initiation, smooth content sharing and easy camera adjustments, among others.

Part number: TEAMS-RX-PAD – MSRP

**Note:**

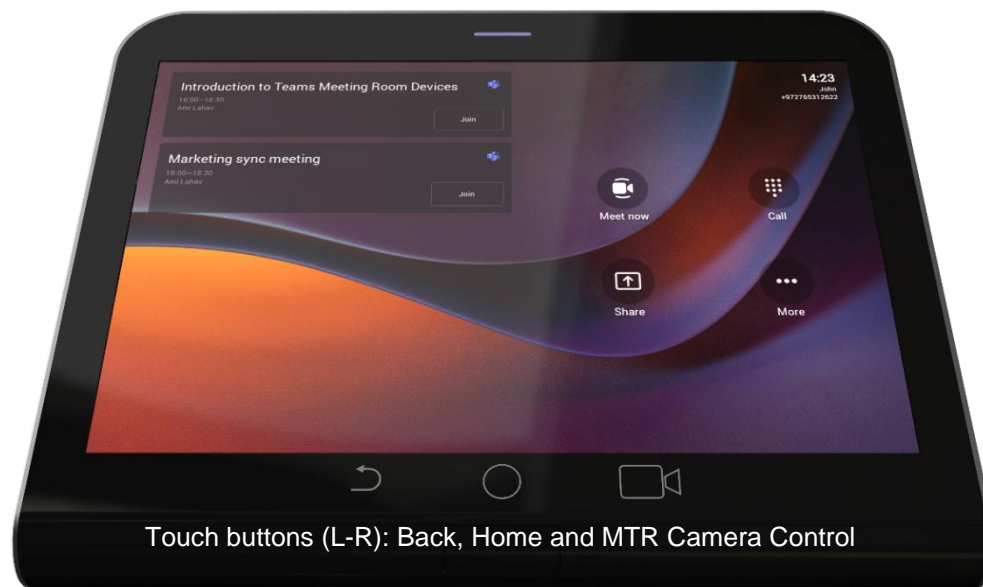
With this release, Microsoft Teams Android devices now utilize Intune Android Open Source Project (AOSP) device management. AOSP device management is a mobile device management (MDM) platform specifically designed for Teams devices. This update delivers more reliable user experience, an enhanced deployment process for administrators, and serves as the foundation for future innovations and advanced management capabilities for Microsoft Teams Android devices, including Teams Rooms, Teams panels, Teams phones, and Teams displays.

AOSP Device Management replaces the legacy Android Device Administrator solution previously used to manage Teams devices.

For detailed information on the AOSP migration process, please refer to the article [Moving Teams Android Devices to AOSP Device Management | Microsoft Community Hub](#).

1.1 Highlights

- Leverages plug-and-play simplicity to deliver a productive and familiar Microsoft Teams meeting experience requiring connection with just a PoE cable.
- Features functions that are readily accessible to all participants with easy access to camera settings via onscreen navigation buttons that put all AudioCodes meeting room solutions at your fingertips.
- Paired with the main MTR unit which runs the Teams Room application on Android
- Compatible with the AudioCodes RXV81 MTR on Android and RXV200 MTR on Android.
- High-resolution 8-inch touch LCD
- Supported by OVOC Device Manager, enabling monitoring/upgrading from anywhere.



	Speedy collaboration initiation. One-click-to-join for easy collaboration.
	An inbuilt calendar to quickly set or join meetings
	A single cable connection keeps your desk clean and tidy
	Innovative ergonomic design for seamless operation
	High-resolution, eight-inch touch LCD
	Human sensor
	Cable compartment
	POE or power enabled
	Dual-band Wi-Fi and Bluetooth support
	Android 12

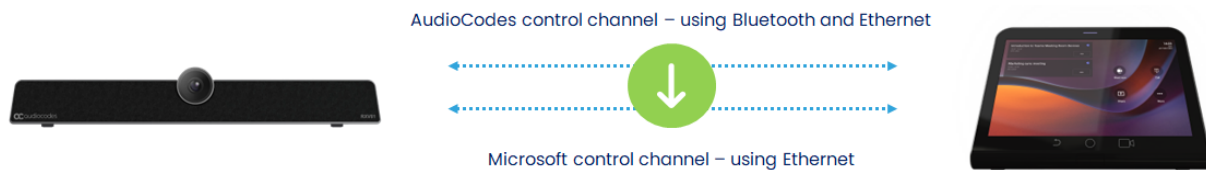
1.2 Specifications

See the [RX-PAD Datasheet](#) for more information.

1.3 Connectivity

RX-PAD must be paired with the 'main MTR unit', for example, RXV81 or RXV200, to be active. RXV81 | RXV200 is the Front of the Room MTR main unit.

- RX-PAD runs the main client and MTR processing (audio, video, sharing)
- The main unit (RXV81 | RXV200) can run as a standalone (using remote / keyboard / mouse) or paired with the controller
- Both RX-PAD and RXV81 | RXV200 share the same MTR license and account
- The user signs in on both RX-PAD and RXV81 | RXV200, to the same account
- Configuration is 'shared' between the Room Controller and the main unit



1.4 Managing RX-PAD

Admins can use AudioCodes Device Manager to manage RX-PAD. Management includes:

- Monitoring
- Firmware management / upgrade
- Alarm management



Note:

- Firmware *downgrade* is blocked as of version 2.6.280 to prevent a possible race condition (conflict) between Microsoft Teams admin center (TAC) and AudioCodes' OVOC | Device Manager.
- Downgrading an RXV200 peripheral device to a version older than the built-in release is restricted as of version 2.6.280. Peripheral devices include cameras (RXVCam50, RXVCam360, RXVCam70), audio devices (RX15 or RX40) and RX-PAD.

1.5 Audio Notifications via MTRA Speakers

RX-PAD triggers audio notifications via RXV81 and RXV200 MTRA speakers. Users hear audio notifications produced by RX-PAD directly through the MTRA. Crucial features such as Talkback accessibility, ensuring a more streamlined and accessible communication experience during meetings and collaboration sessions, are included. The capability leverages Front of Room devices (RXV81 | RXV200) to serve as the audio source for RX-PAD, enabling the utilization of accessibility features on RX-PAD.

1.6 Security Guidelines

For detailed security guidelines regarding AudioCodes Native Teams Android-based devices, refer to the document [Security Guidelines for AudioCodes Native Teams Android based Devices](#).

2 Getting Started

2.1 Setting up RX-PAD



Note: See *RX-PAD Meeting Room Controller Quick Guide* for information about shipped RX-PAD items, positioning, installing, cabling, and powering up.

2.2 Signing in to RX-PAD



Note: See the *Pairing RX-PAD with Teams Rooms on Android AudioCodes Devices* for information about how to sign in to your Microsoft Teams Account.

2.2.1 Configuring Admin Login Timeout

Admin login timeout can be configured using the following cfg configuration file parameter:
settings/admin_logout_timeout,values=3

- Default: 3 (minutes)
- Valid values: 1-10 (minutes)



Note:

- Timing begins when exiting the 'Device Settings' menu.
- When the timeout expires, the device logs out automatically.
- The functionality works for both registered and unregistered devices.

2.3 Pairing RX-PAD with MTR

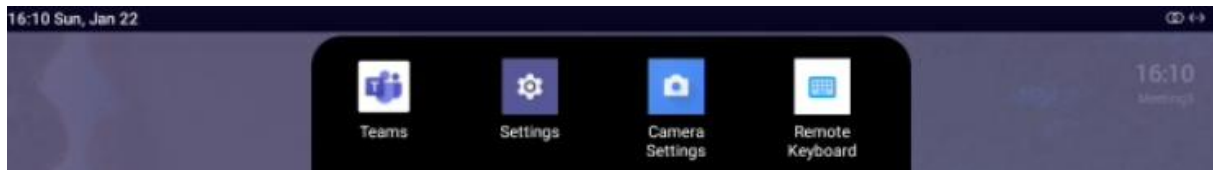
RX-PAD must be paired with the Microsoft Teams Room (MTR) on Android device (RXV81 | RXV200).



Note: See the *Pairing RX-PAD with Teams Rooms on Android AudioCodes Devices* for information about how to pair RX-PAD with RXV81 | RXV200.

2.4 After Pairing

After pairing RX-PAD with the MTR, scroll down in RX-PAD to this:

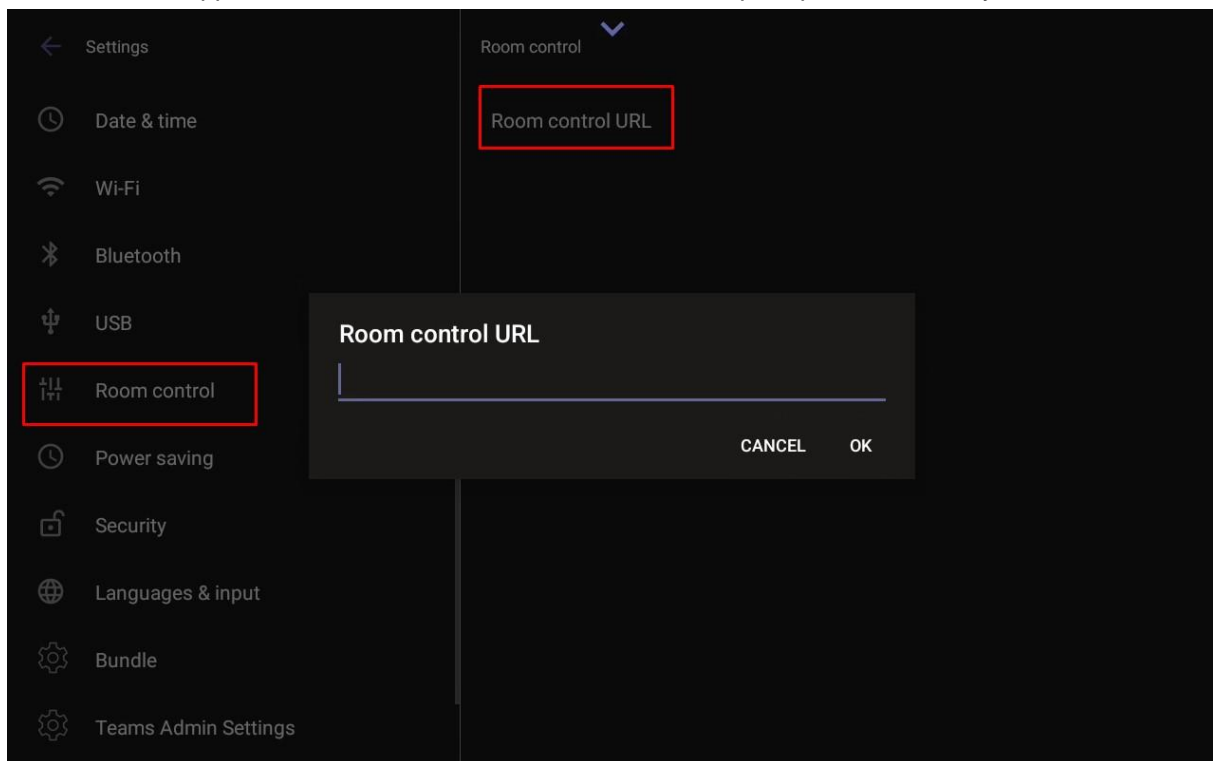


From left to right:

- **Teams** (tap to refresh RX-PAD's UI)
- **Settings** (tap to enter RX-PAD's Device Settings)
- **Camera settings** (tap to open the MTR's 'Camera Settings')
- **Remote keyboard** (tap to control the MTR)

2.5 Configuring RX-PAD FQDN/IP Address

RX-PAD features a setting enabling admin to configure FQDN/IP address. If RX-PAD is launched but the app has an invalid FQDN/IP address, admin is prompted to manually enter it.



Note:

- The option is supported even though IP address may be a rare case since the server certificate's CN must include it.
- There is also a settings option to download the CA certificate.

3 Operating RX-PAD

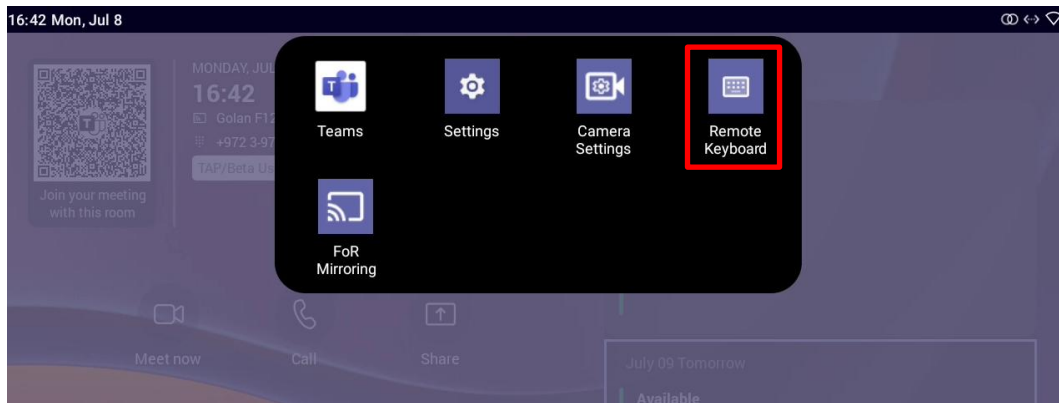
The following summarizes how to operate RX-PAD.



L-R	Description
1	Touch the back button to return to the previous screen.
2	Touch to return to the home screen or long-press to open the Device Settings page.
3	Touch to access the MTR's Camera Settings page.
4	Touch to open Microsoft Teams and the Device Settings menu.
5	Click to join a scheduled meeting.
6	Passive Infrared (PIR) motion sensor (hidden). When sensing motion, it wakes up RX-PAD from screensaver mode, automatically lighting up the screen to greet the user.
7	LED: <ul style="list-style-type: none"> ▪ Solid red indicates in a meeting ▪ Solid green indicates the RX-PAD is online and signed in ▪ Flashing red indicates incoming invite to join a meeting
8	Drop-down menu to make it easy to open the RX-PAD application launcher. The new launcher enables accessing an app <i>with a single click</i> .

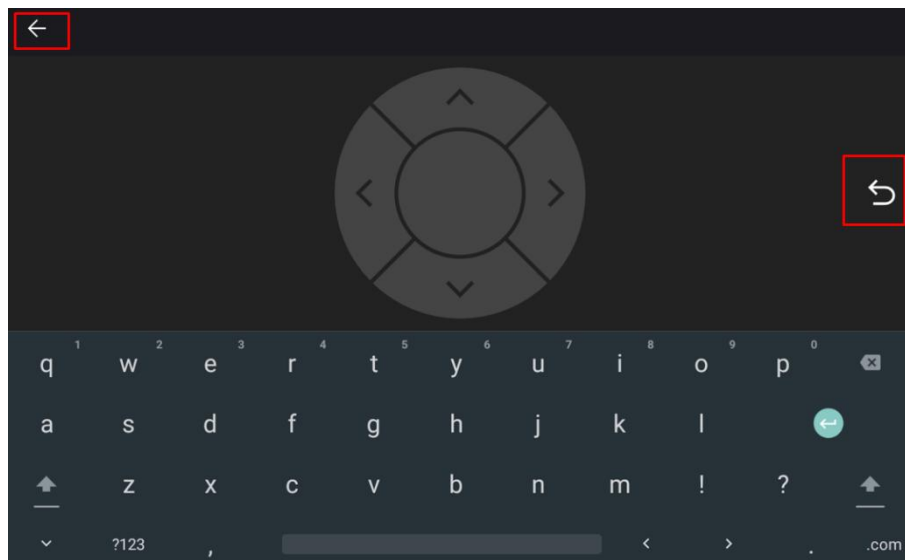
3.1 Operating with the Remote Keyboard

After pairing RX-PAD with the MTR, scroll down in RX-PAD to the Remote Keyboard menu:



➤ To operate with the remote keyboard:

1. Tap the menu indicated in the figure above.



2. Enable touchscreen controls for remote control of the MTR.
3. Use RX-PAD's remote keyboard to:
 - Sign in to an MTR (RXV81 | RXV200)
 - Toggle between the MTR's Teams menus and device menus
 - Navigate to MTR settings for adjustment of relevant features (such as Bundle selection, etc.)
4. Tap the right arrow indicated in the figure above to go back to the previous menu in the MTR.
5. Tap the uppermost left arrow indicated in the figure above to exit Remote Keyboard mode.

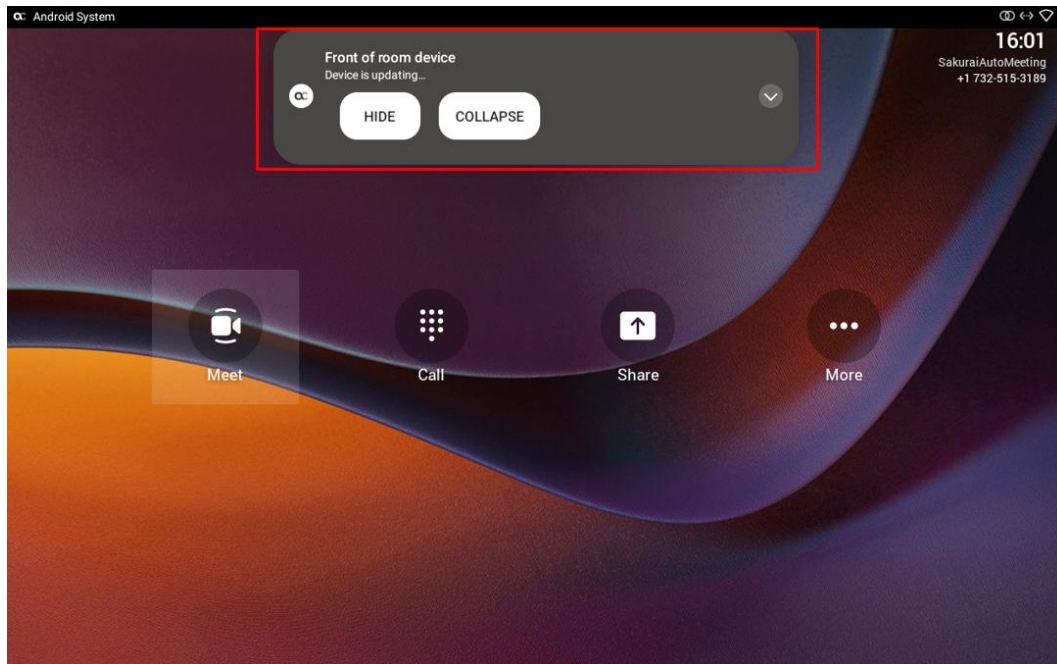
3.2 Managing Popup Messages

Popup messages displayed on the MTR device (RXV81 | RXV200) are seamlessly mirrored in the bundled RX-PAD to enhance user interaction.

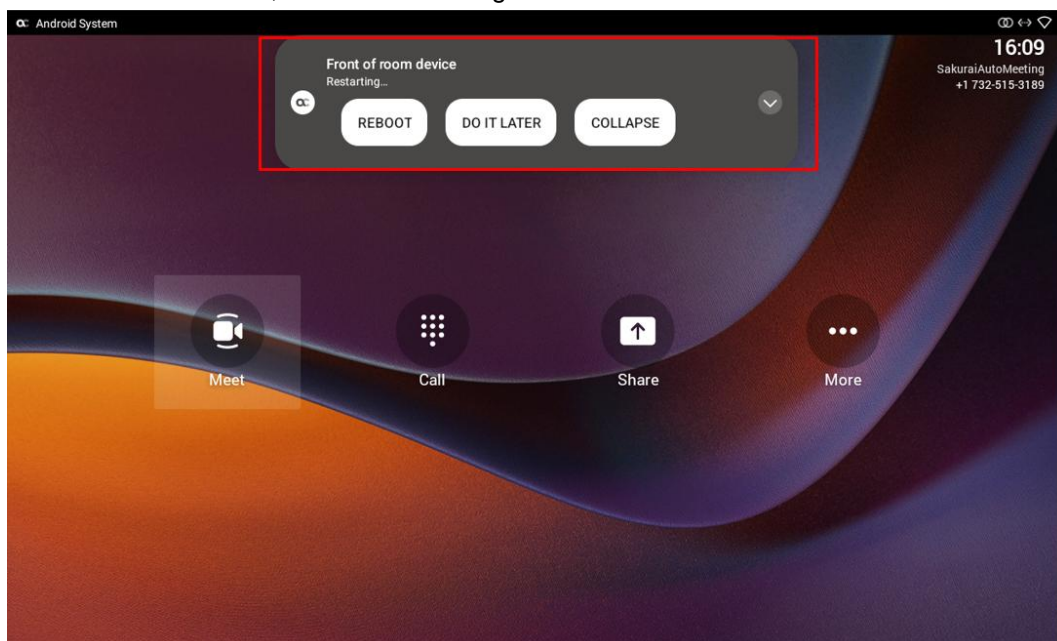
When a message pops up in the MTR GUI, the same is displayed in RX-PAD.

The feature streamlines user experience, allowing users to conveniently confirm messages directly from RX-PAD and manage notifications intuitively and efficiently.

The figure below shows the popup message **Device is updating** on RX-PAD.

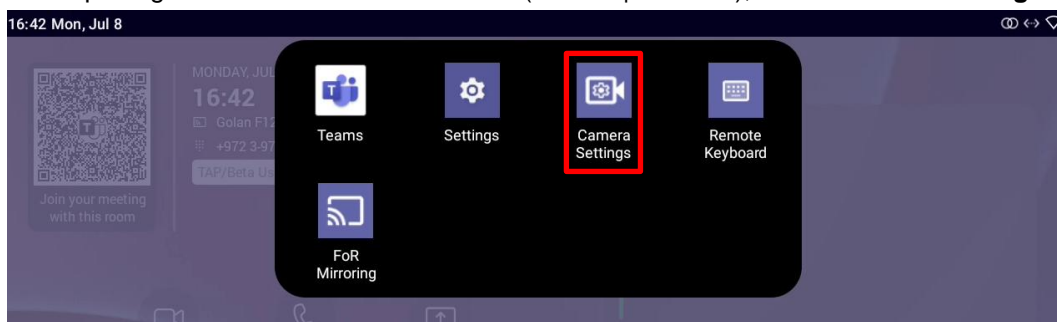


If the alert is an action, you can perform the action using RX-PAD, for example, REBOOT / DO IT LATER / COLLAPSE, as shown in the figure below.



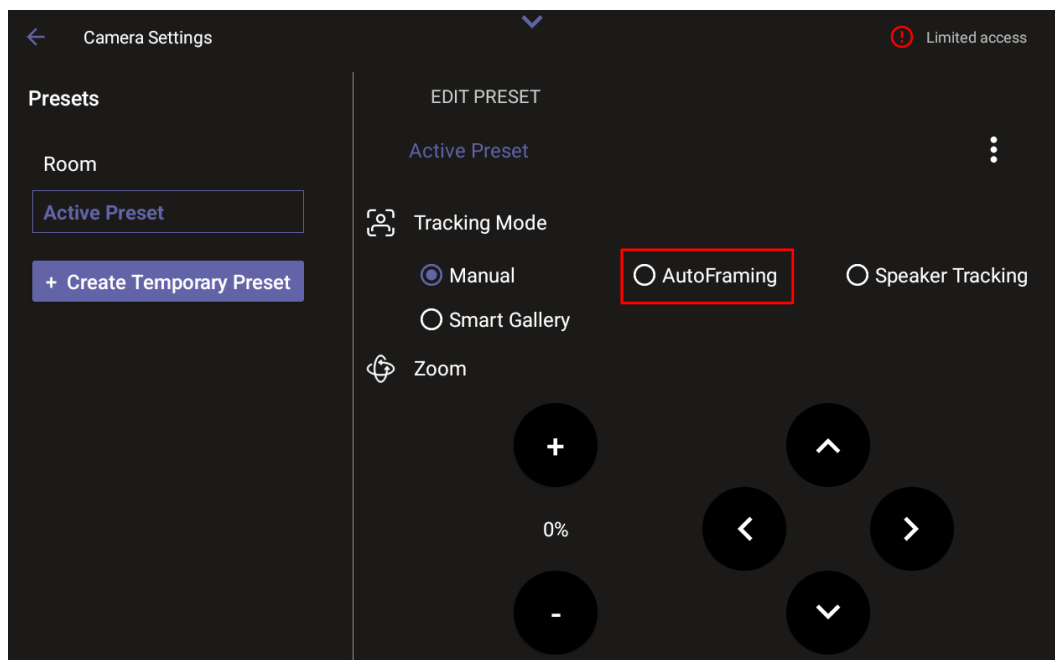
3.3 Adjusting MTR Camera Settings

After pairing RX-PAD with the MTR device (RXV81 | RXV200), select **Camera Settings** in RX-PAD:



➤ To adjust MTR camera settings:

1. Tap the menu indicated in the figure above to enter the MTR's Camera Settings page -or- use the camera hard key to access the Camera Settings page.



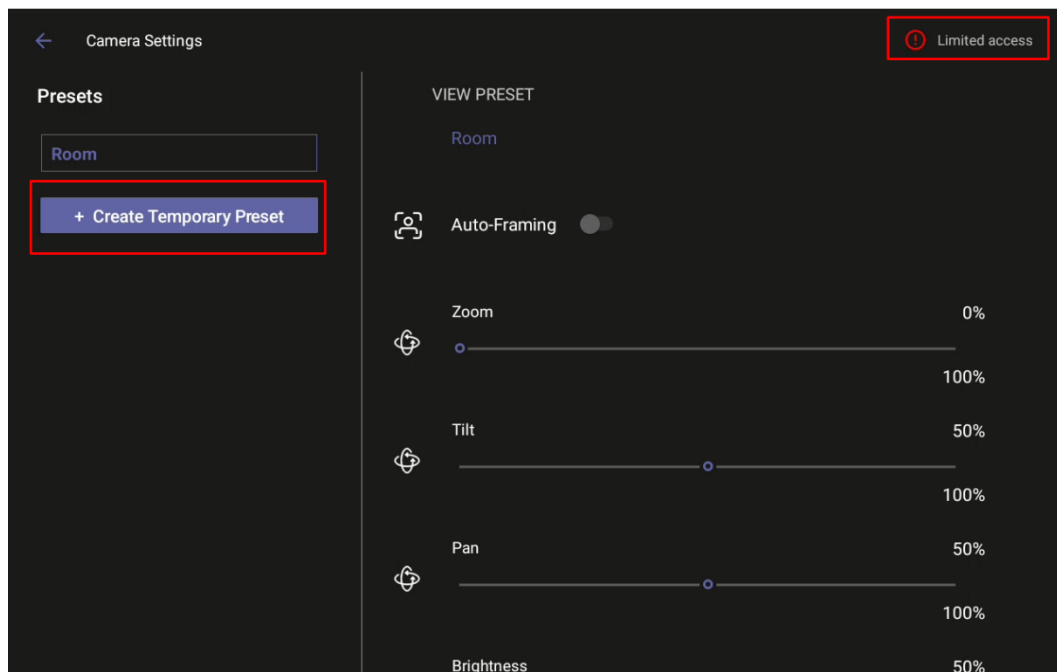
2. In the Camera Settings page shown in the figure above, view an Auto Framing switch available when RX-PAD is used to control RXV81 MTR. In addition to RXV81, the feature is also available on RXVCam50L/M connected to RXV200.



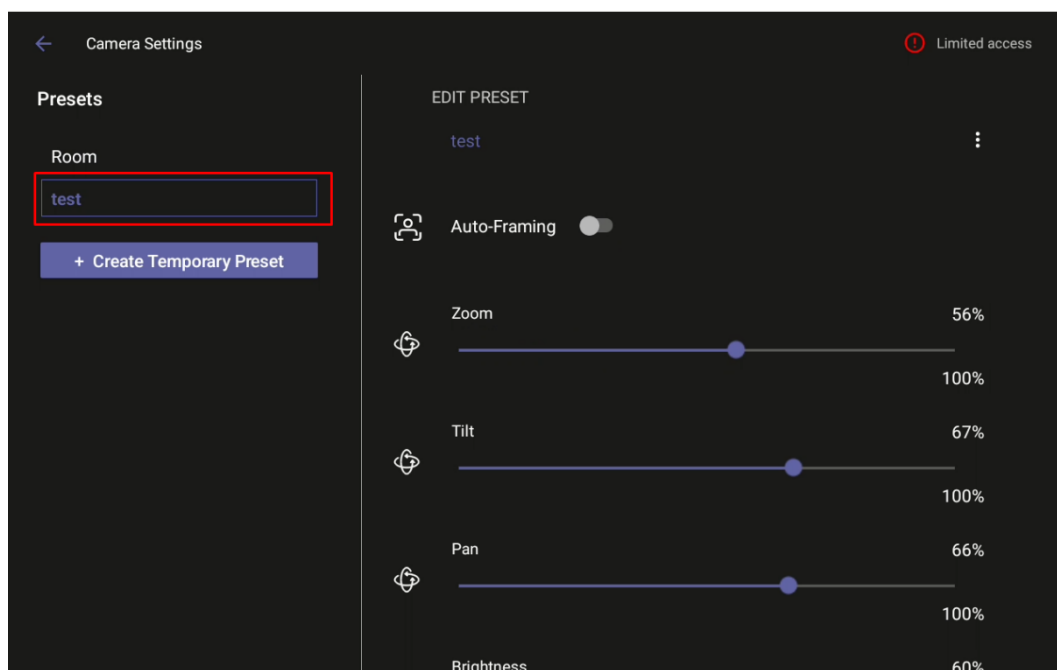
Note:

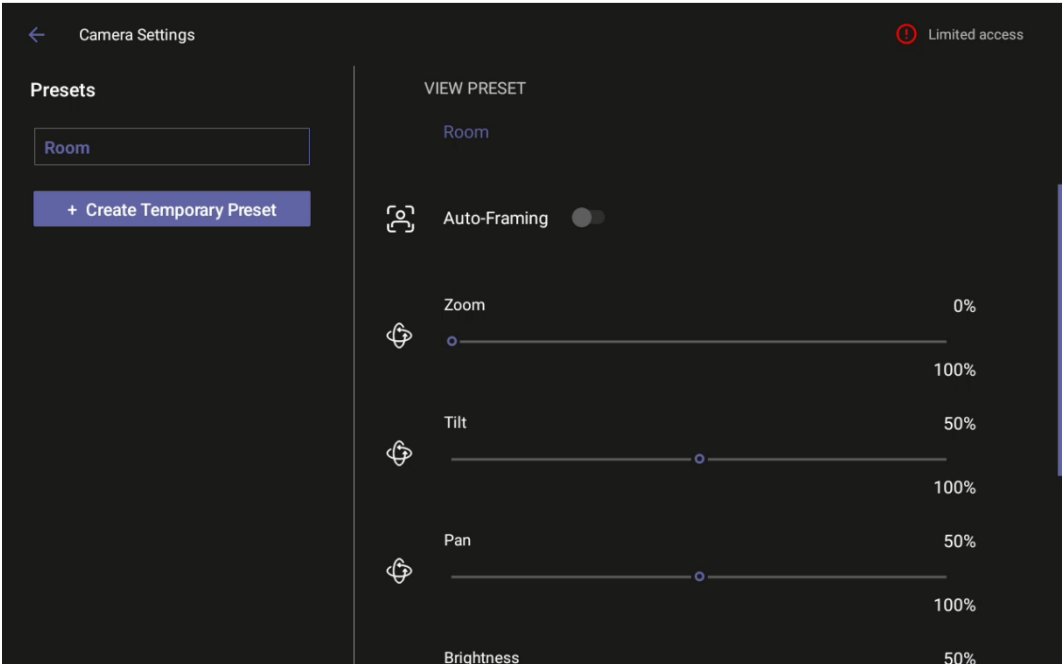
- Admin users can create a permanent camera settings preset including enable / disable of Auto Framing.
- End users can either select a preconfigured preset which includes enable / disable of Auto Framing or create a temporary preset *during a meeting* (which will be deleted at the end of the meeting) and can enable / disable Auto Framing.

3. Enable Auto Framing if required; PTZ (Pan Tilt Zoom) functions are then disabled; temporary presets are available for users without admin permissions; users without administrator permissions can create temporary presets.



Note: If that user leaves the meeting, the temporary presets will be erased when they later reenter Camera Settings (or another user later enters); temporary presets are only for that meeting they were configured for; new presets can be configured for the new meeting.





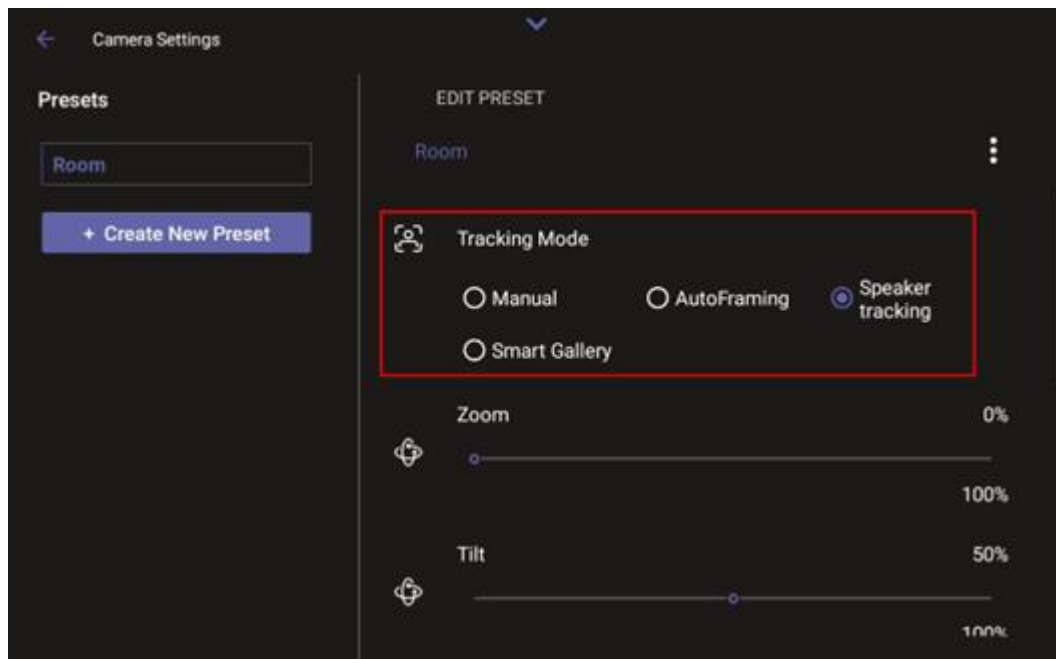
3.4 Configuring RXVCam70 Camera Tracking Modes



Note: Applies exclusively to RX-PAD bundled with RXV200.

➤ **To select a Tracking Mode:**


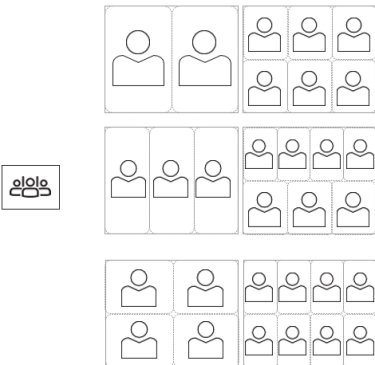
1. Open the Edit Preset page (**Camera Settings > Room > Edit Preset**).


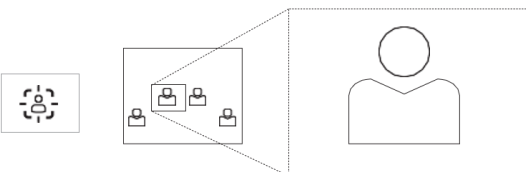



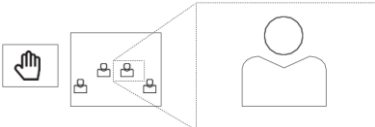
2. Select one of the following RXVCam70 camera tracking mode options:


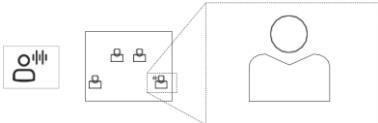


- Manual
- Auto framing
- Speaker tracking
- Smart Gallery

3. Use the following as reference:

 <p>Smart Gallery</p>	<ul style="list-style-type: none"> ▪ Automatically identifies 1-8 people ▪ Automatically lays out the display ▪ When a person moves, the camera automatically tracks them and keeps them centered ▪ Switching from one person to another is accompanied by dynamic effects of entry and exit
	

 <p>Presenter Tracking</p>	<ul style="list-style-type: none"> ▪ [Currently supported by the RC only] ▪ Automatically identifies and tracks the position of the presenter to ensure that that person remains centered. ▪ Press the left and right keys to select the target to track. ▪ Press OK to choose the target.
	

 <p>Manual</p>	<ul style="list-style-type: none"> ▪ Select this option to manually adjust the Zoom, Tilt or Pan. ▪ In RX-PAD's 'Camera Settings' page, use the sliders to set Zoom, Tilt or Pan. ▪ Using the RC, after selecting an area to display, zoom in out, move up down, and move left right. ▪ This mode does not have AI functions.
	

 Speaker Tracking	<ul style="list-style-type: none">▪ Automatically tracks speakers who speak continuously for 3-5 seconds▪ Focuses on the speaker (displays them close-up allowing participants to focus more)▪ Effective distance: 6m
	
 Group Framing	<ul style="list-style-type: none">▪ Automatically detects and frames all the participants in the room.▪ Effective distance: 8m
	

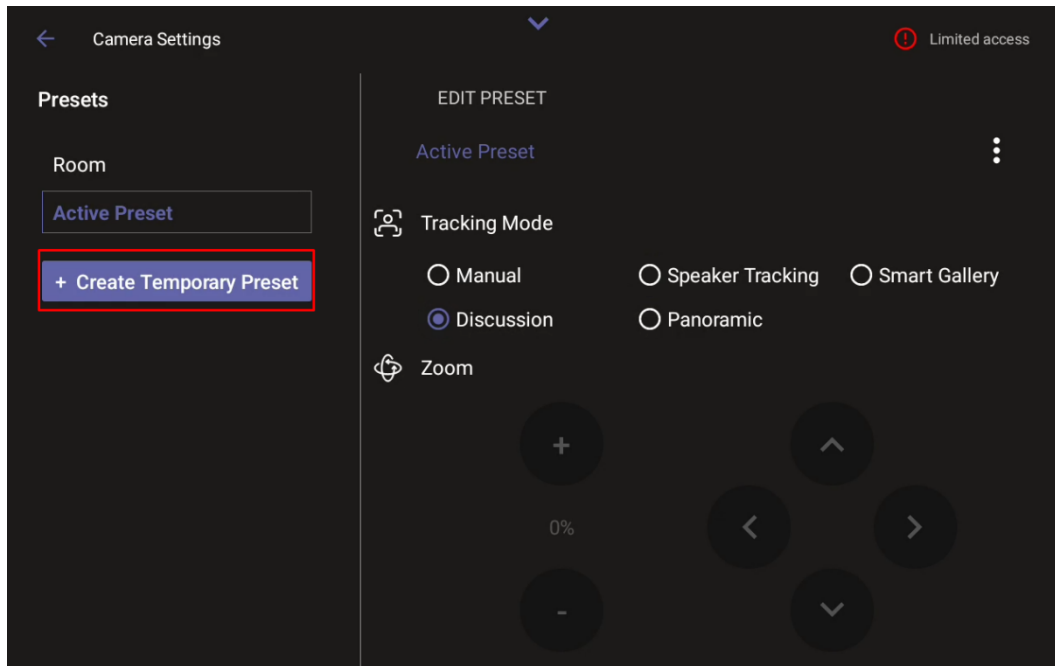
3.5 Selecting an RXVCam360 Camera Tracking Mode



Note: Applies exclusively to RX-PAD bundled with RXV200.

➤ **To select a Tracking Mode:**


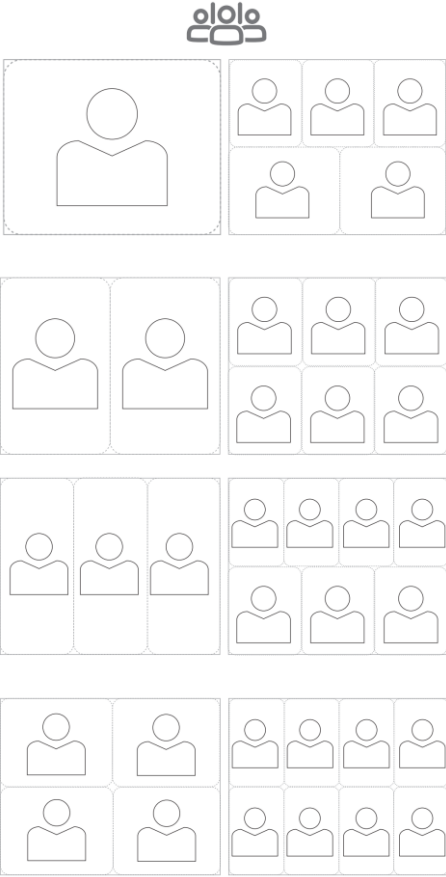

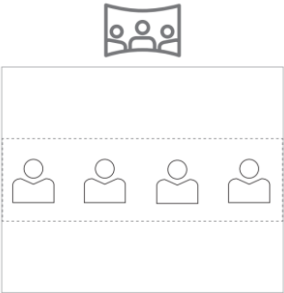
1. Open the Edit Preset page (**Camera Settings > Room > Edit Preset**).


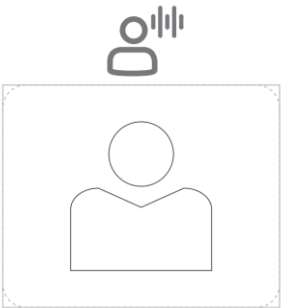

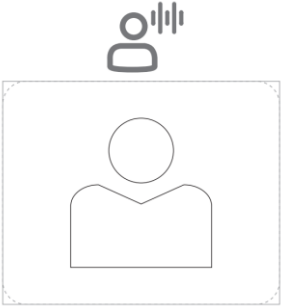

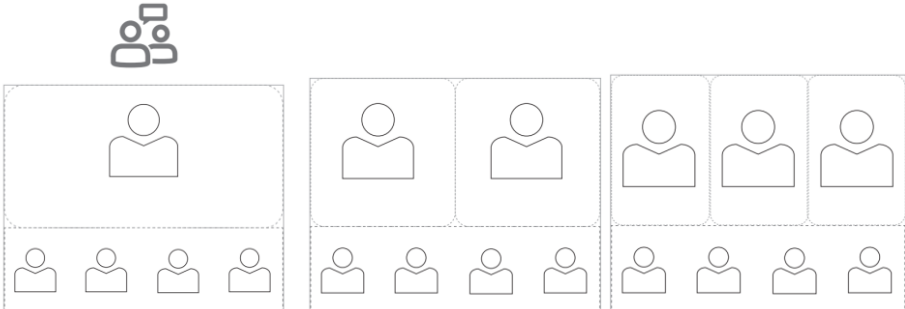




2. Select one of the following RXVCam360 camera tracking mode options:

- Manual
- Speaker tracking
- Smart Gallery
- Discussion
- Panoramic

3. Use the following as reference:

<div></div> <div>Smart Gallery Mode</div>	<ul style="list-style-type: none">▪ <u>Recommended</u>▪ Automatically identifies 1-8 people▪ Puts each in a dedicated frame▪ Maximum: 8 frames▪ When a person moves, the camera automatically tracks and keeps their head centered
<div></div>	
<div></div> <div>Panoramic Mode</div>	<ul style="list-style-type: none">▪ 360° panoramic high-definition view▪ This mode does not have AI functions
<div></div>	

 <p>Speaker Tracking Mode</p>	<p>RXVCam360 follows the active speaker and automatically switches from the previous speaker to the next speaker within three seconds.</p>
	
 <p>Voice Tracking Mode</p>	<p>This function is available due to direction-of-arrival (DOA) sound sourcing positioning recognition and displays the person speaking in full screen. The speaker will be changed with the current speaker within three seconds automatically.</p>
	
 <p>Discussion Mode</p>	<ul style="list-style-type: none"> ▪ The lowermost panel displays a 360° panoramic view. ▪ The second level displays an automatic layout of 1-3 speakers. <ul style="list-style-type: none"> • Only the person speaking is displayed. • Those not speaking are not displayed.
	

 Manual Mode*	<ul style="list-style-type: none">▪ Select an area to focus on▪ Use the RC to zoom in and out (five levels) and move up, down, left and right to select a focused area.▪ The selected area has a fixed 16:9 aspect ratio.▪ This mode does not have AI functions.
	

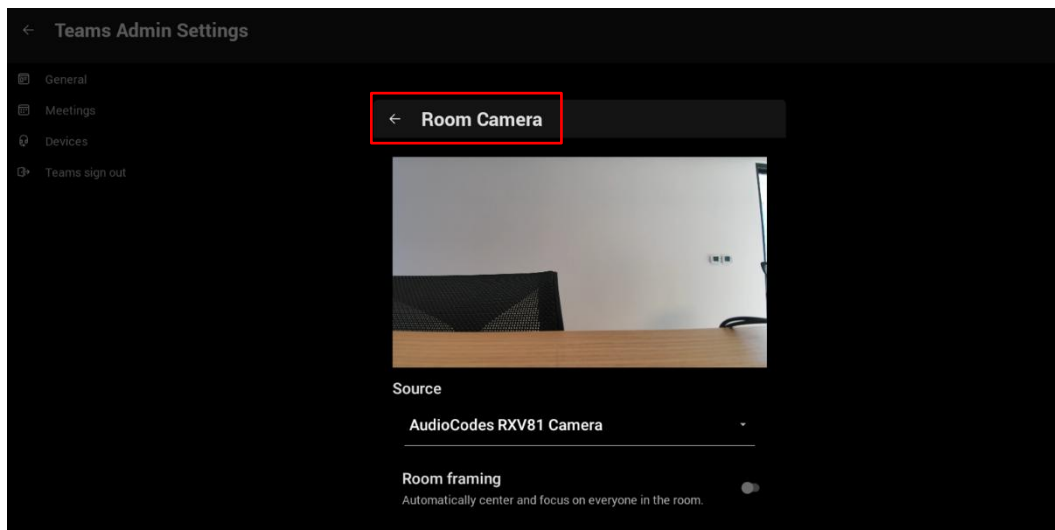
* Currently available only when using the RC

3.5.1 Configuring Room Camera in Teams Admin Settings

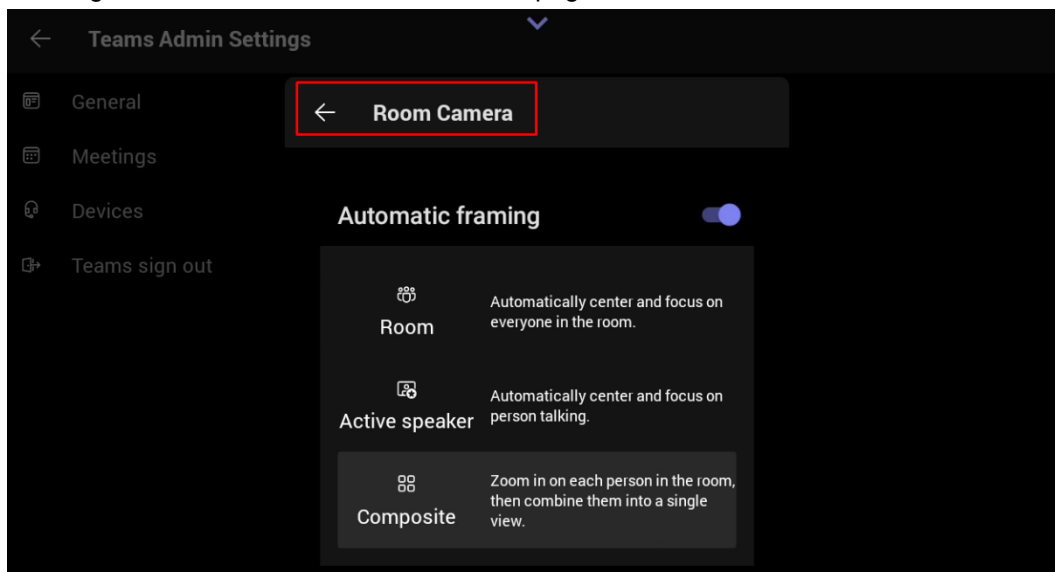
Smart camera settings (AudioCodes side) are supported via **Device Settings > Teams Admin Settings**.

All smart camera settings tracking modes are synchronized with Teams app side.

The figure below shows the Room Camera page when RX-PAD is bundled with RXV81:



The figure below shows the Room Camera page when RX-PAD is bundled with RXV200:

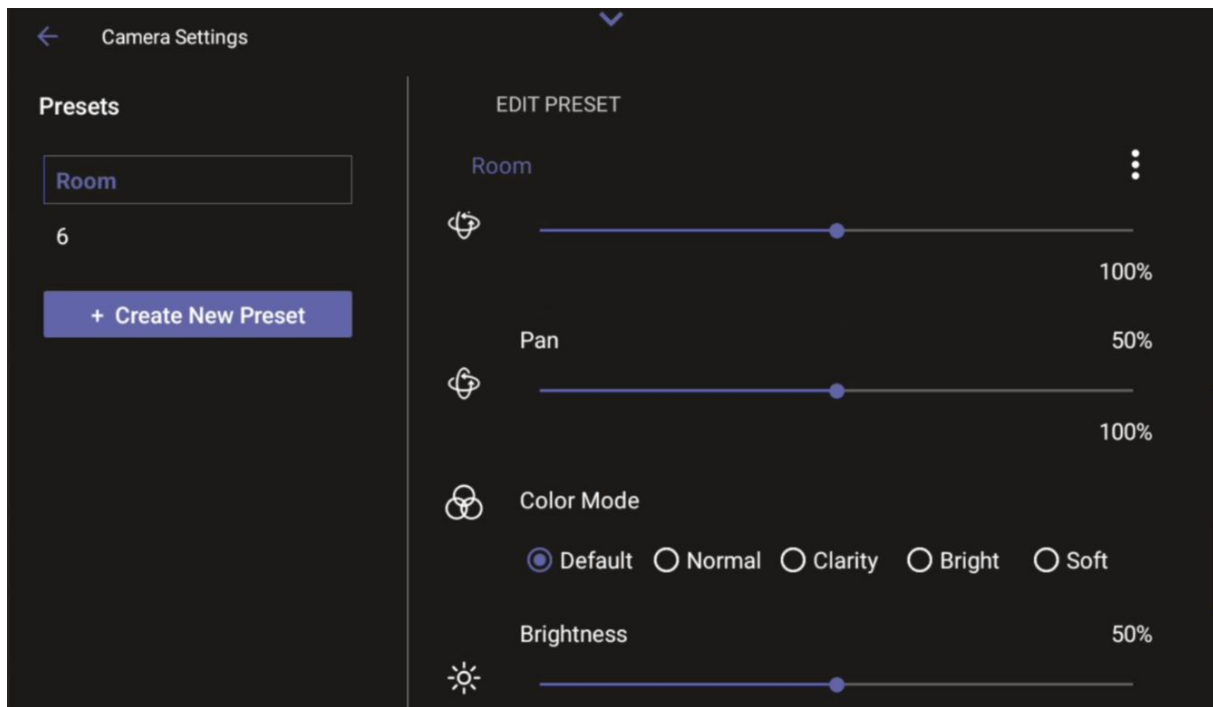


3.5.2 Configuring a Color Mode Preset on the RXVCAM50M/L Camera

Users can configure a Color Mode preset from RX-PAD when RXV200 is connected to the AudioCodes RXVCAM50M/L camera.

Users can configure either:

- Default
- Normal
- Clarity
- Bright
- Soft



Each Color Mode preset incorporates the following attributes:

- **Default:** Brightness - 50, Contrast - 50, Saturation - 70
- **Normal:** Brightness - 50, Contrast - 50, Saturation - 70
- **Clarity:** Brightness - 60, Contrast - 50, Saturation - 60
- **Bright:** Brightness - 50, Contrast - 50, Saturation - 70
- **Soft:** Brightness - 50, Contrast - 50, Saturation - 60

3.6 Configuring a Bundle

RX-PAD features a wizard with which admin can configure an RXV81 | RXV200 bundle.



Note:

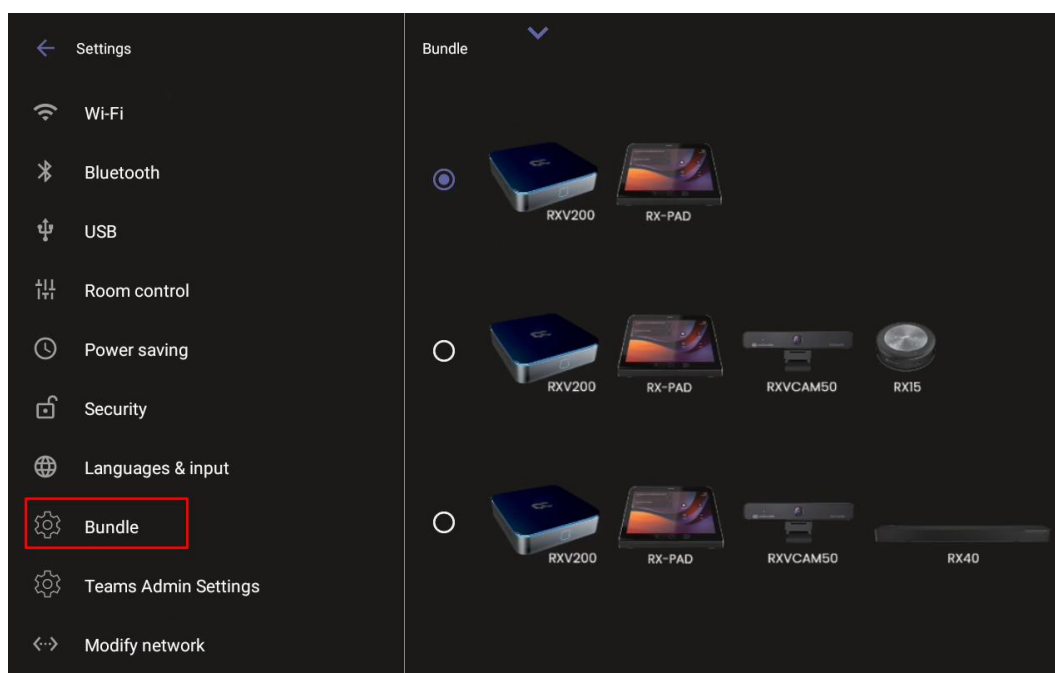
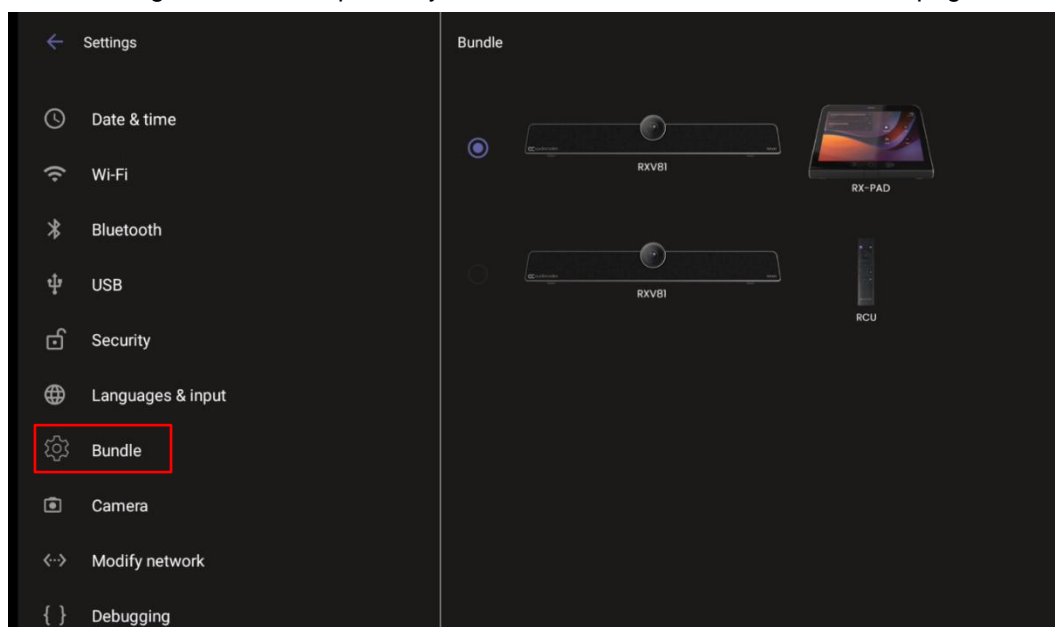
- Before version 2.6, bundle configuration was supported via the MTRA Front of Room (RXV81 | RXV200) using RX-PAD's Remote Keyboard to control the MTRA.
- As of version 2.6, admin can configure an RXV81 | RXV200 bundle in the RX-PAD wizard ('Bundle' page).

At any point, admin can rerun the wizard and change the bundle; the newly configured bundle will override the existing bundle and also change the input device.

➤ **To configure a bundle:**

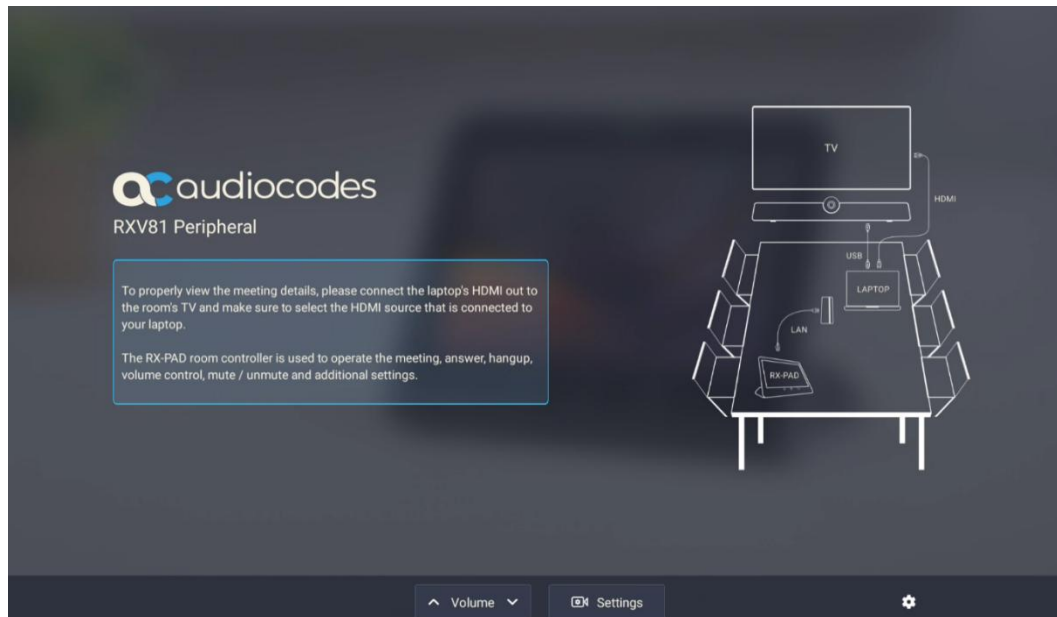
- In RX-PAD, open the wizard (**Settings > Bundle**).

The figures below respectively show the RXV81 and RXV200 'Bundle' pages.

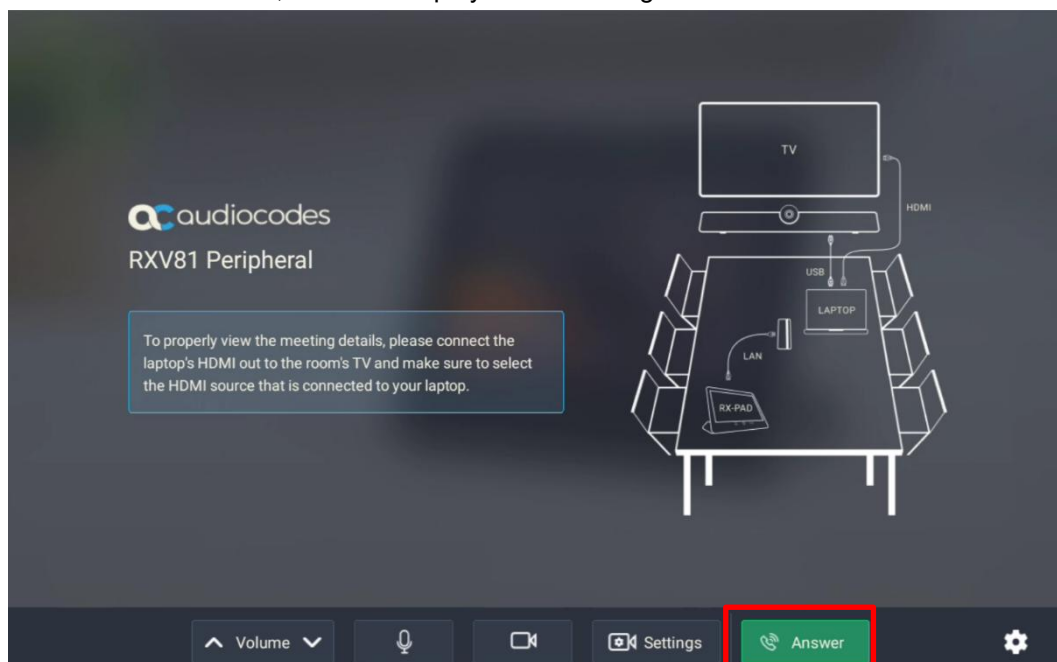


3.7 Configuring Ad Hoc Mode on RXV81 MTRA

RXV81 MTRA and RX-PAD Controller support ad hoc peripheral mode. When RXV81 MTRA is connected via USB to a PC/laptop, it automatically moves to ad hoc peripheral mode and the following is displayed on RX-PAD:



When a call comes in, RX-PAD displays the incoming call's functions as follows:



3.8 Screen Sharing

RXV81 and/or RXV200 enable users to share their PC/laptop screen via the RX-PAD HDMI In port, to be shared on the screen in IDLE mode and peripheral mode.



Note:

- A short HDMI cable connects the PC/laptop to the RX-PAD HDMI In port.
 - ✓ The connection is very fast.
 - ✓ The initial connection is performed in the background, without any notification.
- The connection between RX-PAD and RXV81 | RXV200 is thus 'cableless'.

The feature offers added flexibility by enabling the use of a shorter HDMI cable connected to the center of the meeting room desk, in contrast to a longer (more expensive) cable connected to the MTR positioned in the front of the room.

- Teams Meeting Mode: When the MTR is in a meeting, the presenter can use the Teams app 'Share' key to share their PC screen (when their PC is connected to RX-PAD's HDMI In port) with in-person attendees who are physically present in the same meeting room, as well as with remote attendees. [Audio sharing is currently unsupported].
- Standby Mode: When the MTR is not in a meeting, the presenter can use the Teams app 'Share' key to share their PC screen (when their PC is connected to RX-PAD's HDMI In port) only with in-person attendees who are physically present in the same meeting room.

The figure below shows RXV200 connected.



The figure below shows the RXV81 connections.



To enable utilization of this feature, make sure the following is permitted in the organization's firewall settings:

- Hostname: jitsi-meet-ipp.eastus.cloudapp.azure.com
- IP Address: 20.115.49.175
- Allow incoming connections on the following ports:
 - 80/tcp
 - 443/tcp
 - 3478/udp
 - 5349/tcp
 - 10000/udp

See also:

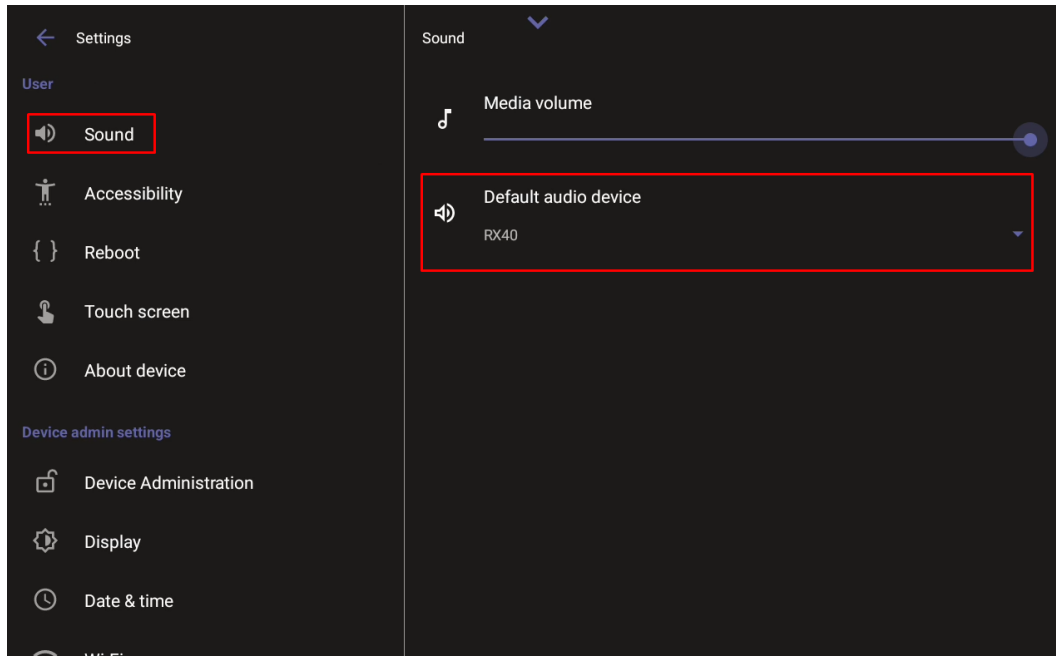
- RXV81 MTRA User's and Administrator's Manual
- RXV200 MTRA Compute User's and Administrator's Manual

3.9 Selecting the Default Audio Device

Admin can select the default audio device if there's more than one audio device option available.

➤ **To select the default audio device:**

1. Open the Sound page (**Device settings > Sounds**).



2. From the 'Default audio device' drop-down, select the device.

This page is intentionally left blank.

4 Configuring User Settings

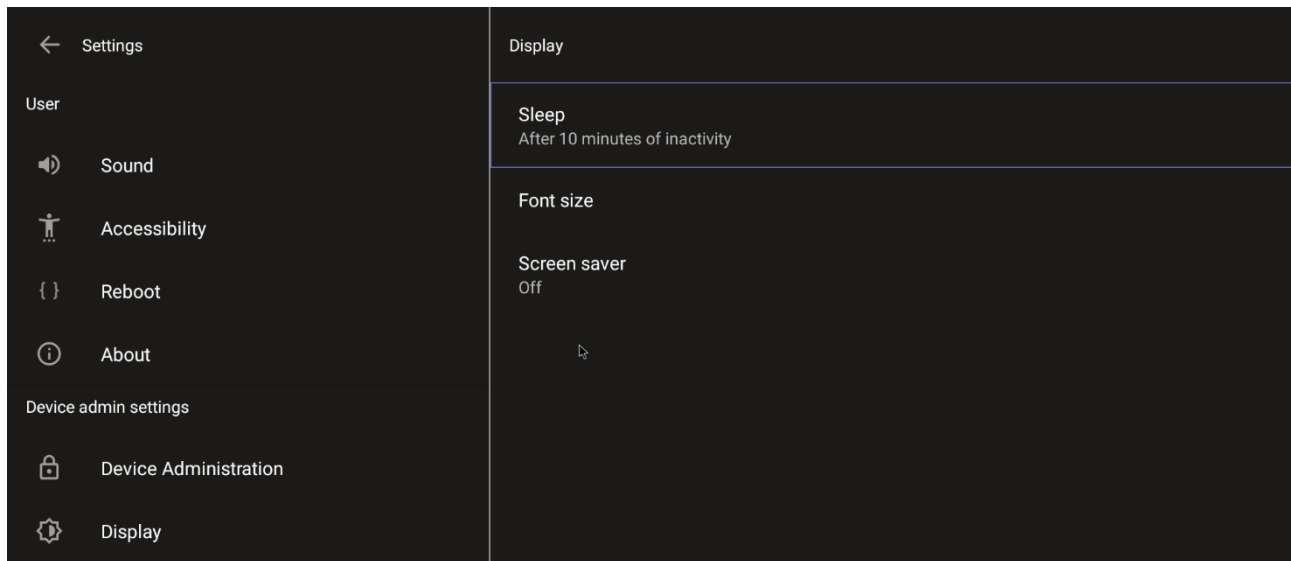
In the 'Settings' screen you can optionally configure the following User settings: Sound, Accessibility, Reboot and About (read-only).

4.1 Configuring Display

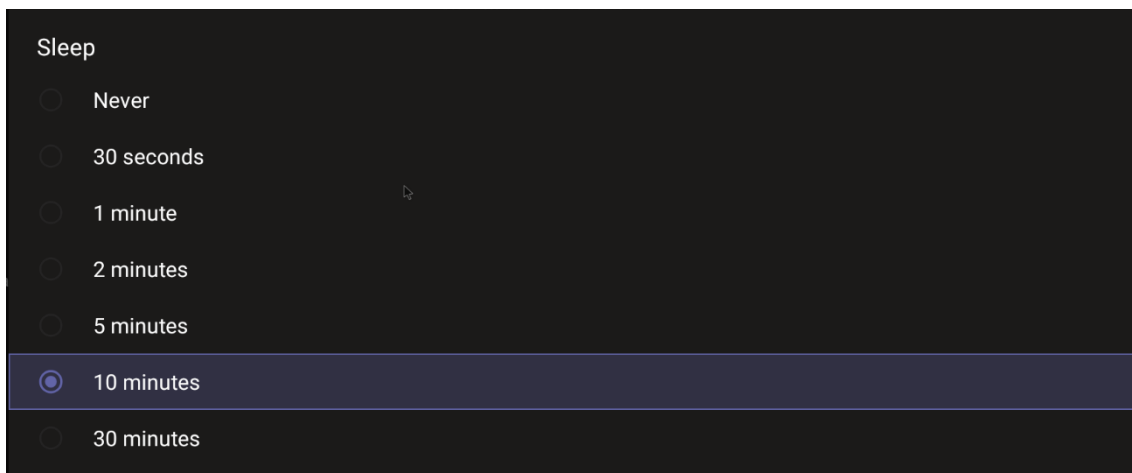
Modify these settings to suit your preferences related to the look and feel of the user interface.

➤ **To configure Display settings:**

1. Under 'Device admin settings', navigate to and select **Display**. [The figures below show RXV81].



2. Under 'Display', navigate to and select **Sleep**.



3. Navigate to and select the time to lapse before the interface 'goes to sleep'. Default: 10 minutes.



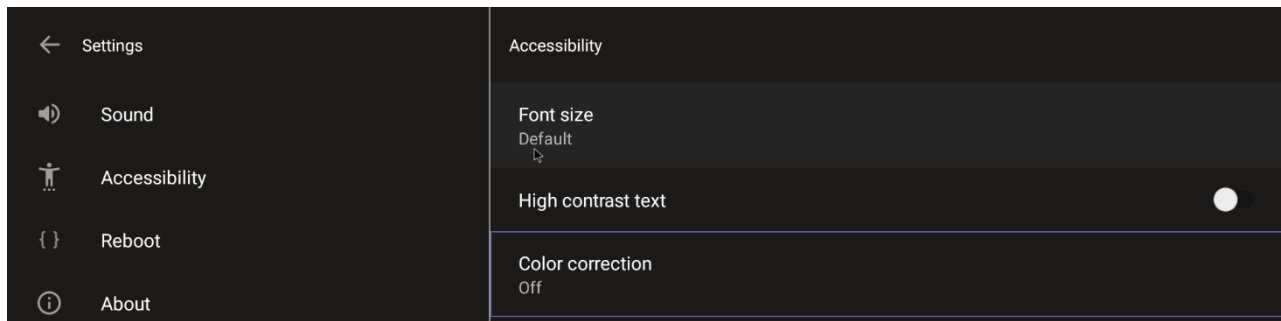
Note: It's recommended not to enable the 'No IR Power off' option which exists in known TV brands such as LG and Samsung, and to allow RX-PAD to put the system to sleep while it is not in use.

4.2 Accessibility

This option allows users to customize the screen to be reader-friendlier.

➤ **To configure the Accessibility setting:**

1. Under 'User', navigate to and select **Accessibility**.



2. Adjust the settings to suit personal requirements.

4.3 Setting Live Captions

Live Captions can be set in regular one-on-one calls as well as in Teams meetings.

4.4 Hiding Names and Meeting Titles

Users can hide information such as names and meeting titles for individual devices via the Meetings page (**More > Settings > Meetings**).

4.5 Room Control Configuration

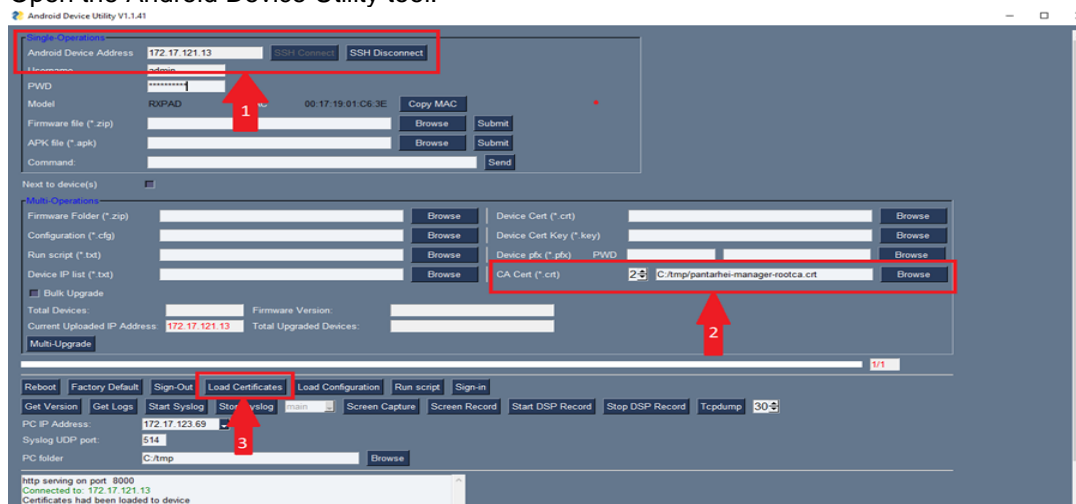
INTRO

You can use this procedure to configure the room control.

➤ **To install TLS certificate on RX-PAD:**

1. To check the .crt file use <https://www.sslshopper.com/certificate-decoder.html>
2. Load the .crt file created above to the RX-PAD, using the Android Device Utility tool:
 - a. Enable SSH on the RX-PAD: **Device Setting > Debugging > SSH > Enable**.

b. Open the Android Device Utility tool:



NOTE: Add to verify the IP of my computer is correct in the Android Device utility.

- c. In the Android Device Address field, enter the IP address, and then click **SSH Connect**.
- d. Click **Browse** by the CA Cert field to select your certificate (see #2).
- e. Click **Load Certificates** to load the .crt file to the RX-PAD (see #3).
- f. Verify the certificate is uploaded to the RX-PAD, using SSH:

```
logcat | grep -i certsinstall
```

To check using ssh (putty) that the certificate is uploaded, use the command:

```
param_tool pmp cert
```

look for:

```
security/ca_certificate/0/uri=
security/ca_certificate/1/uri=http://172.17.123.56:8000/kdemo_ca.
crt
security/ca_certificate/2/uri=
security/ca_certificate/3/uri=
security/ca_certificate/4/uri=
```

- g. To delete a certificate from the RX-PAD, use the command:

```
param_tool scp security/ca_certificate/4/example.crt ""
```

➤ Access the room controller



Note:

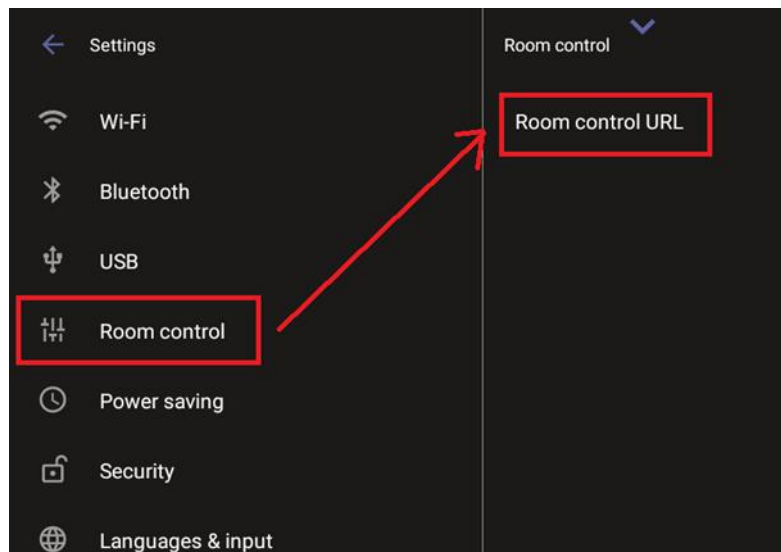
To work with an IP address and not with DNS, use this command in SSH:

```
param_tool scp system/room_control/security/ssl_id_mismatch_error
IGNORE
```

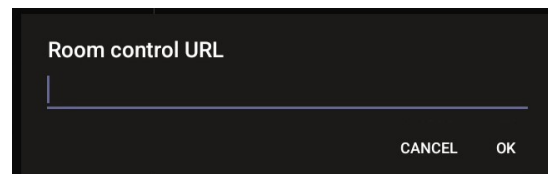
To work with DNS (default), use the this command in SSH:

```
param_tool scp system/room_control/security/ssl_id_mismatch
_error DISALLOW
```

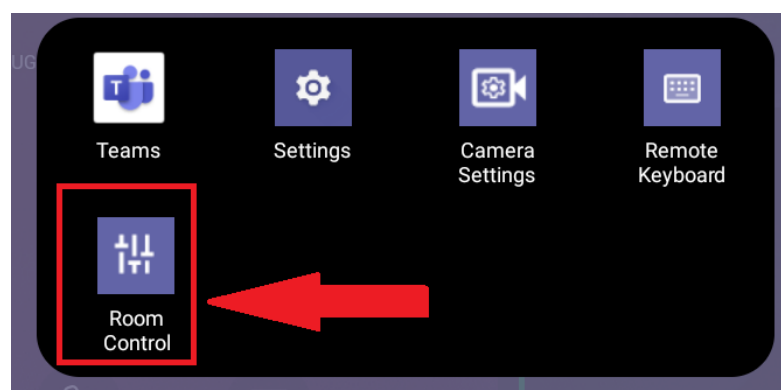
3. On the RX-PAD navigate to **Settings> Device settings> Room control >Room control URL:**



The following dialog box appears:



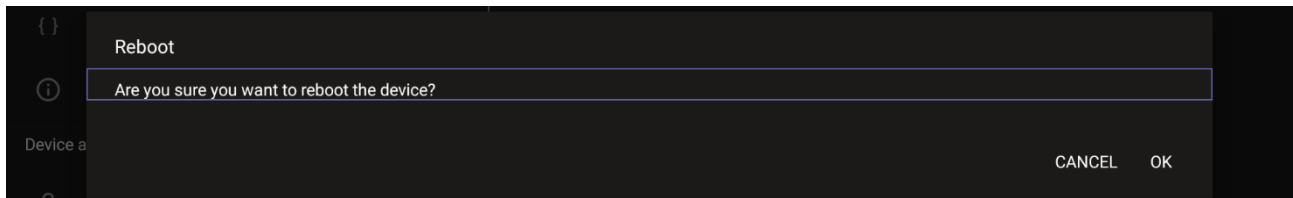
4. To move out of control, click the **o** in the middle of the screen.
5. To reopen the control, tap the scroll down arrow.
6. Select the **Room Control** icon:



4.6 Reboot

Rebooting allows you to exit from and reconnect without needing to sign in again.

- **To reboot:**
 - Under **User**, navigate to and select **Reboot**.

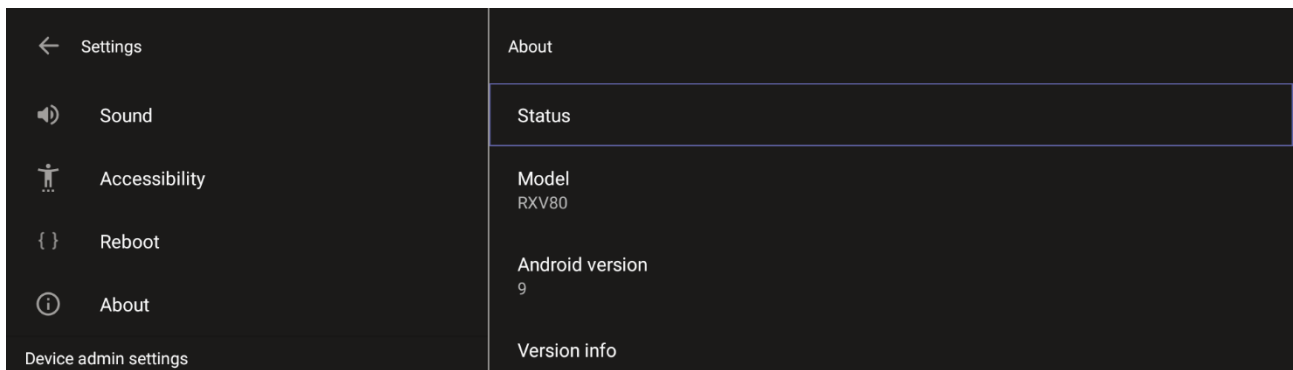


4.7 About

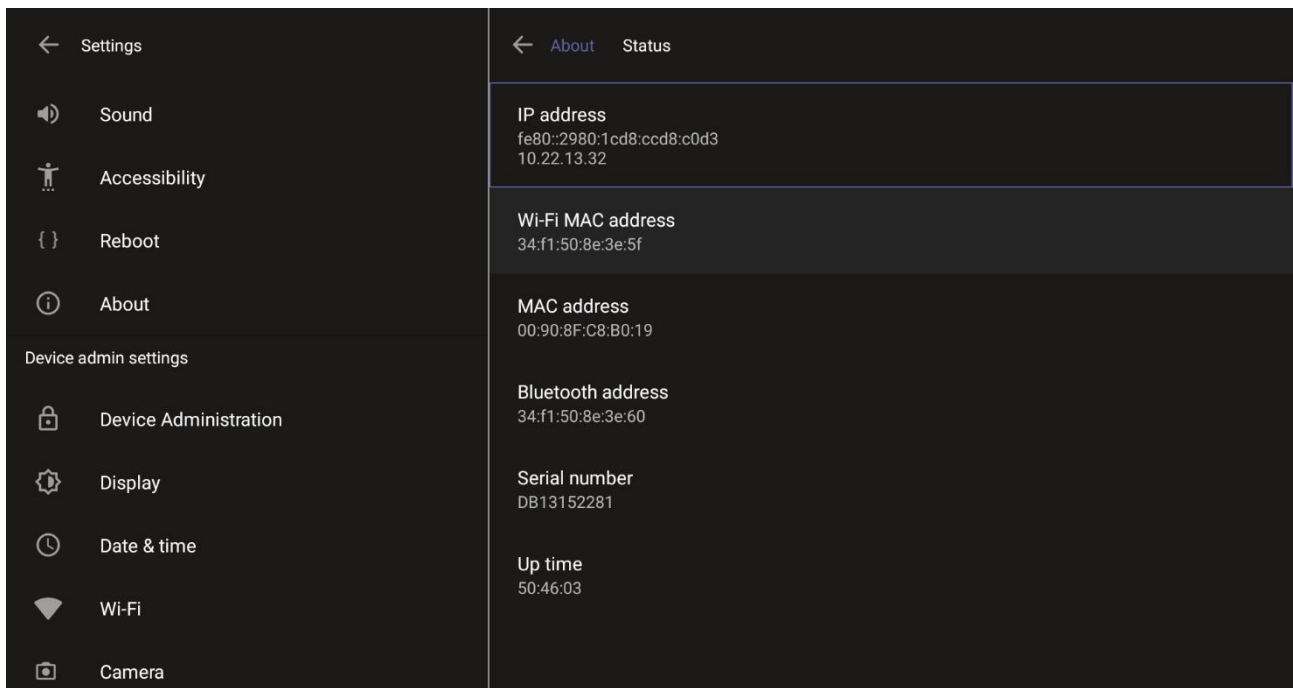
The 'About' screen gives you quick access to information about the deployment.

➤ **To access the About screen:**

- 7. Under 'User', navigate to and select **About**.



- 8. Navigate to and select **Status**.



- 9. View the firmware information.

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5 Advanced Features

5.1 Using Composite AI Camera

The RXV200 supports composite AI camera technology. **Composite AI** enhances video conferencing by intelligently combining streams from two cameras into a single, seamless layout. This innovation ensures remote participants gain an optimized and immersive view of the meeting room and its participants.

This feature applies to the following setups:

- **RXV200 with RXVCam70:** Combines streams from the RXVCam50 (full-room view) and RXVCam360 (Smart Gallery mode).
- **RXV200 with RXVCam360 and RXVCam50:** Utilizes the dual cameras of the RXVCam70: the wide-angle camera (full-room view) and the mechanical camera (Smart Gallery mode).

Key capabilities:

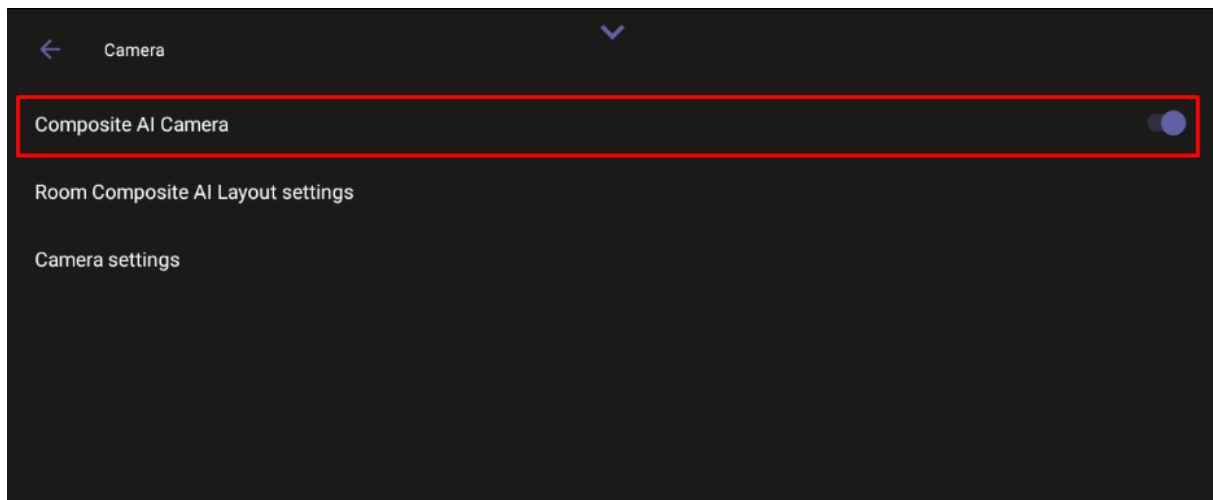
- **Enhanced room visibility:** Provides a comprehensive view of the meeting room capturing all participants clearly.
- **Intelligent Layout:** Automatically arranges the combined streams into a cohesive and intuitive layout.
- **Manual Layout adjustment:** Allows users to resize room view and enable or disable room view or smart gallery.



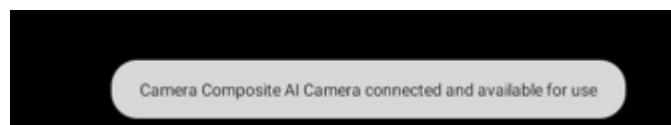
Note: Composite AI is disabled by default.

➤ **To enable composite AI:**

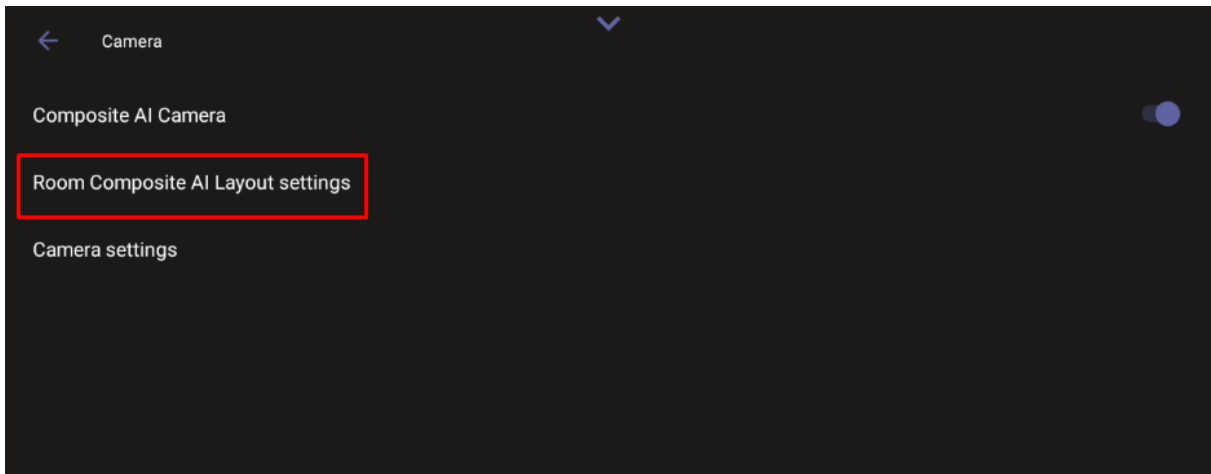
1. On the RX-PAD, navigate to **Device Settings > Camera Settings** as an Administrator, and then tap the **Composite AI Camera** toggle button so that it is on:



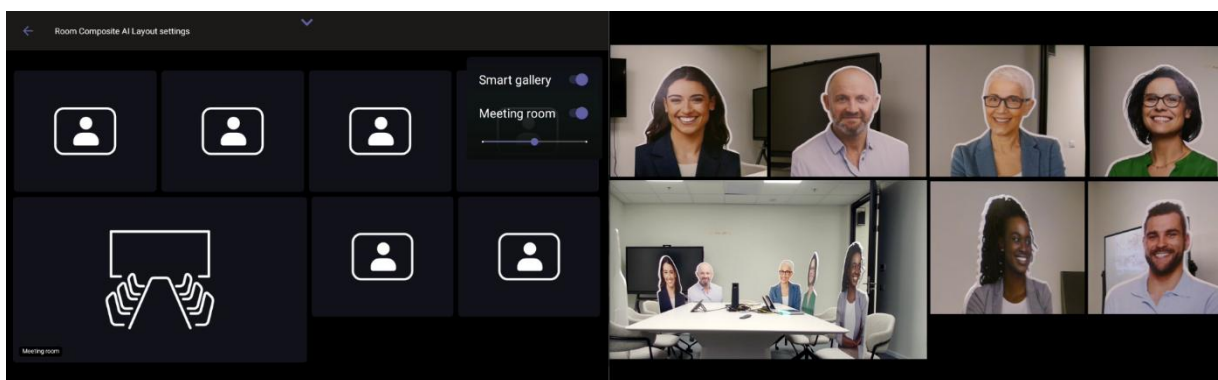
The following pop-up displays on the screen that the RXV200 is connected to:



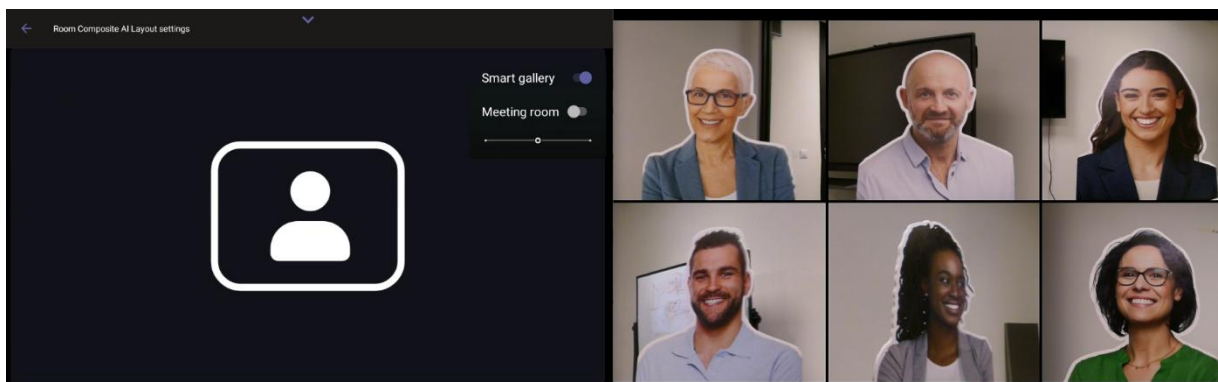
2. Tap **Room Composite AI Layout Settings** to choose the layout:



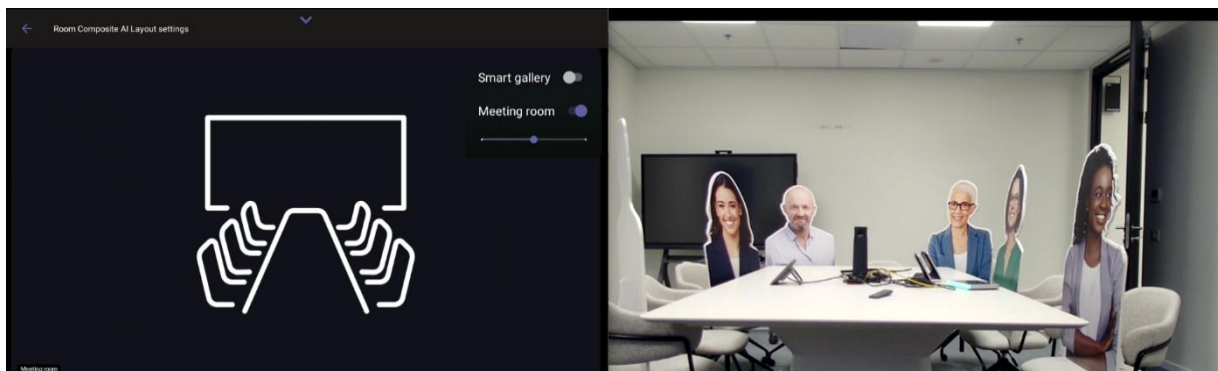
The connected camera stream opens. On RX-PAD, the layouts are displayed as shown below:



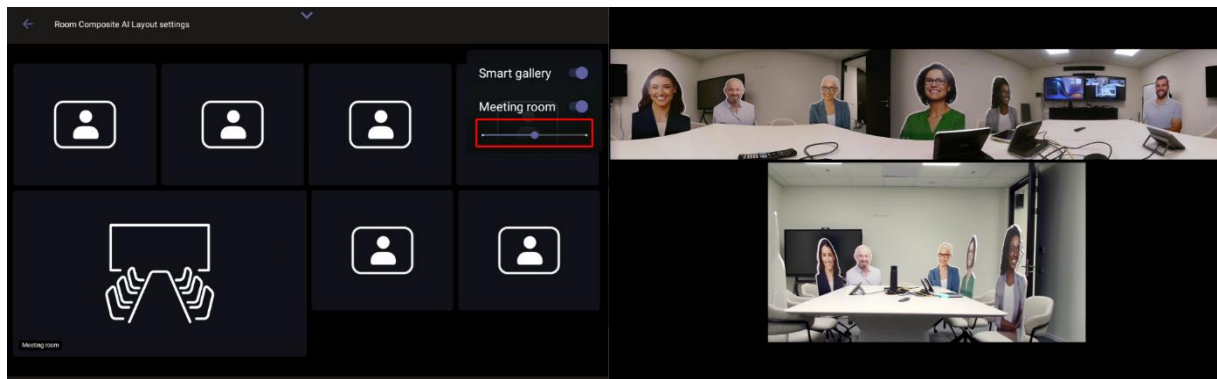
In the RXV200 screen (when RXV200 is connected to RXVCam70), the main camera is located in the center of the screen and the wide-angle camera at the lowermost left.



3. Disabling 'Room view' closes the wide-angle camera and centers the main camera feed in the screen.

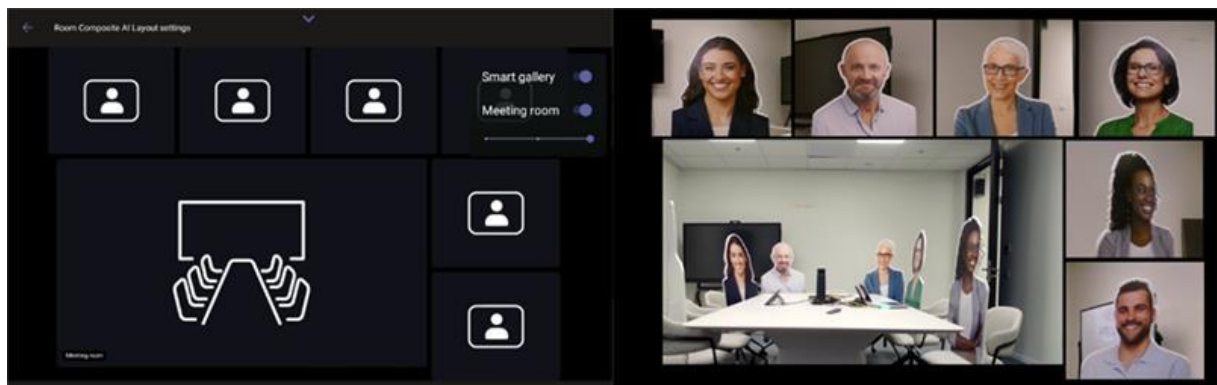


4. To close the main camera and center the wide-angle camera feed in the screen, disable the **Smart gallery**.



5. Using the scaling bar shown in the preceding figure to control the ratio between the main camera size and the wide-angle camera size; move the slide bar to adjust the size of the **Meeting room** view accordingly.

When connected to the RXVCam360 and RXVCam50 the screen below displays:



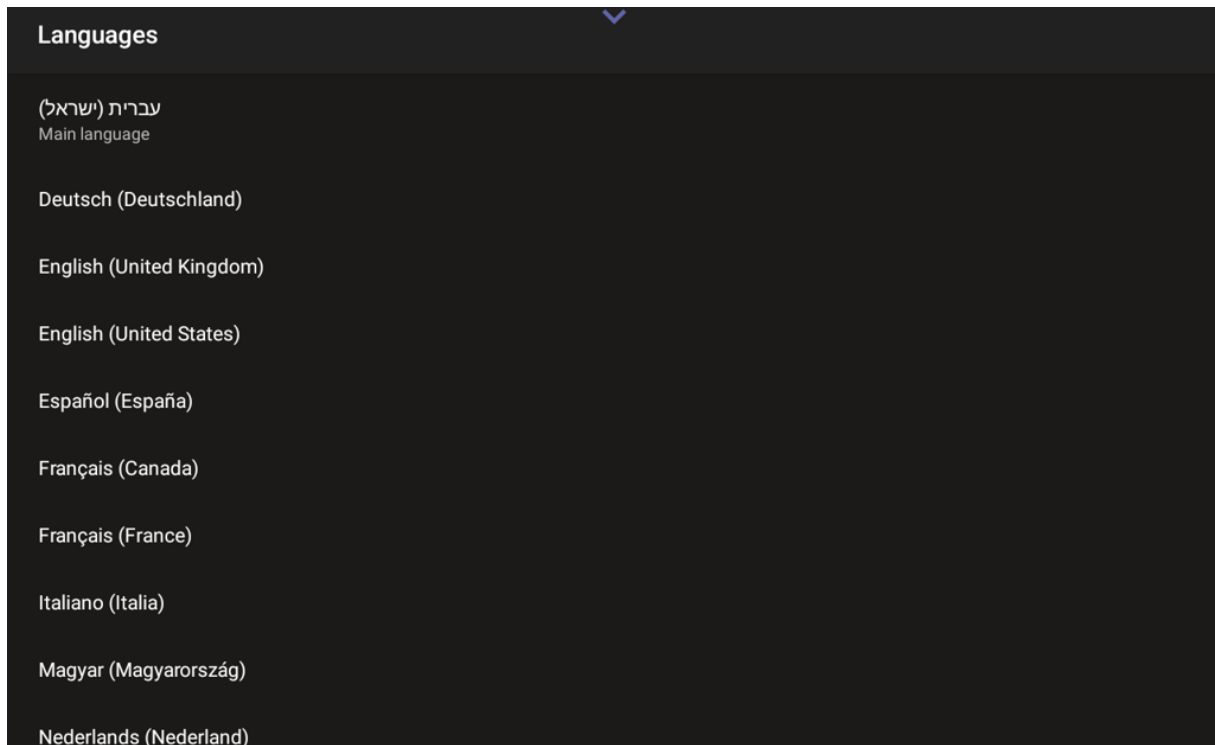
Note: Changing the Composite AI settings (layout, enabling/disabling Smart Gallery, or Room View) must be done by Admin.

5.2 Setting Up RXV200 using Wizard

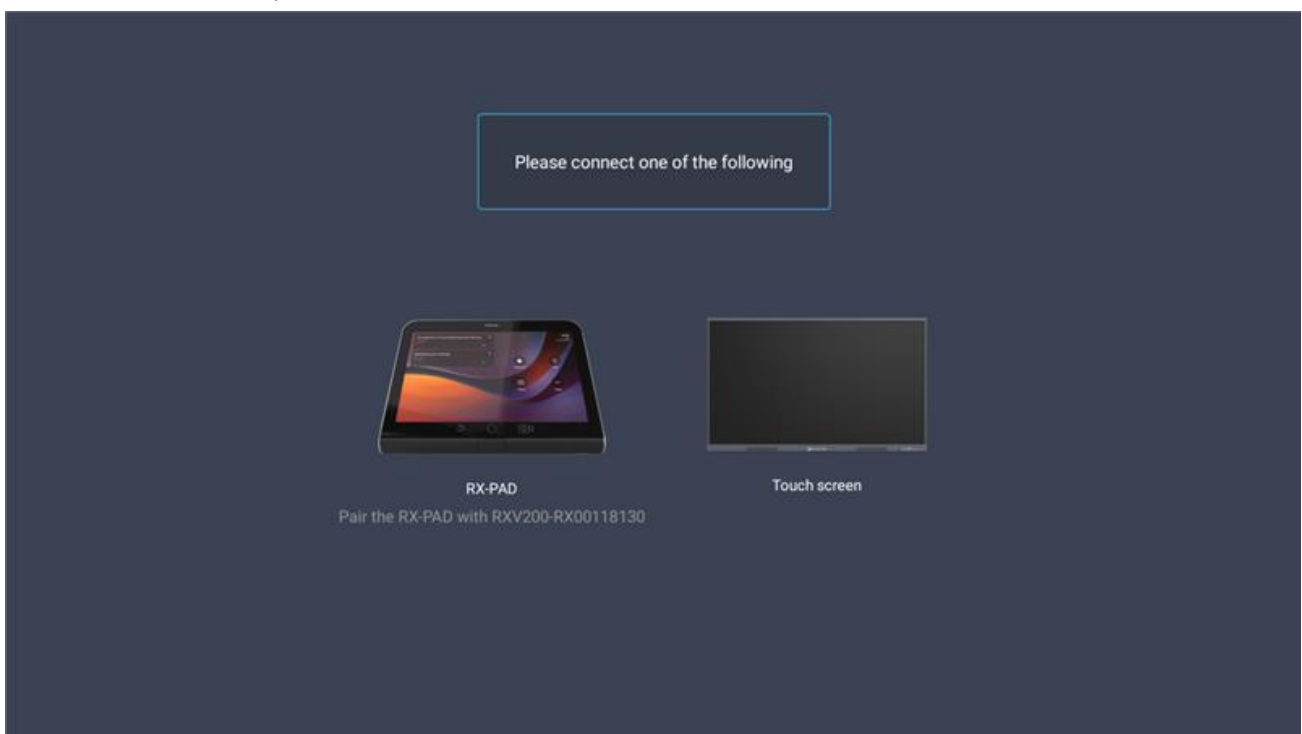
You can use the new wizard for an Out-of-Box (OOB) experience.

➤ **To set up RXV200 using wizard:**

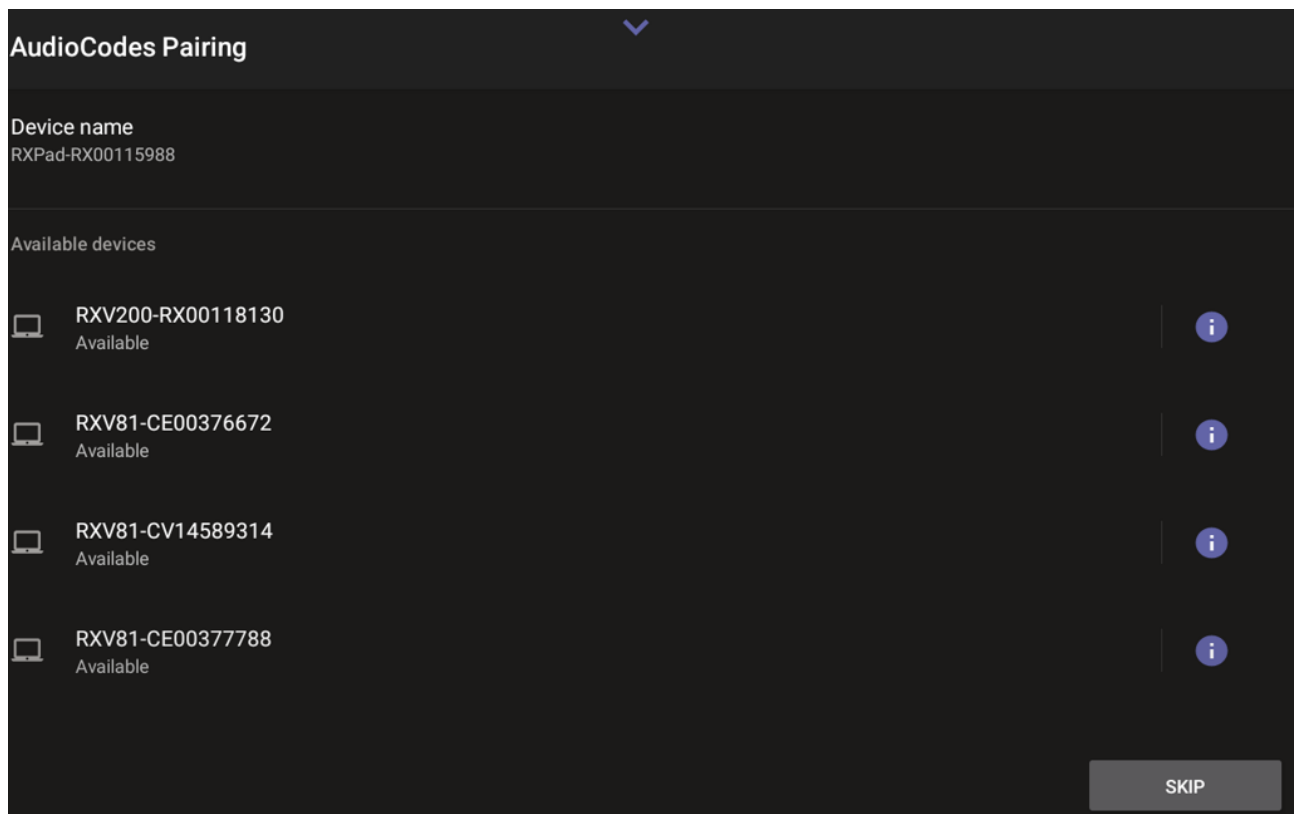
1. When you set up a paired MTRA (RXV81/RXV200 and RX-PAD), the RX-PAD prompts you to select the language:



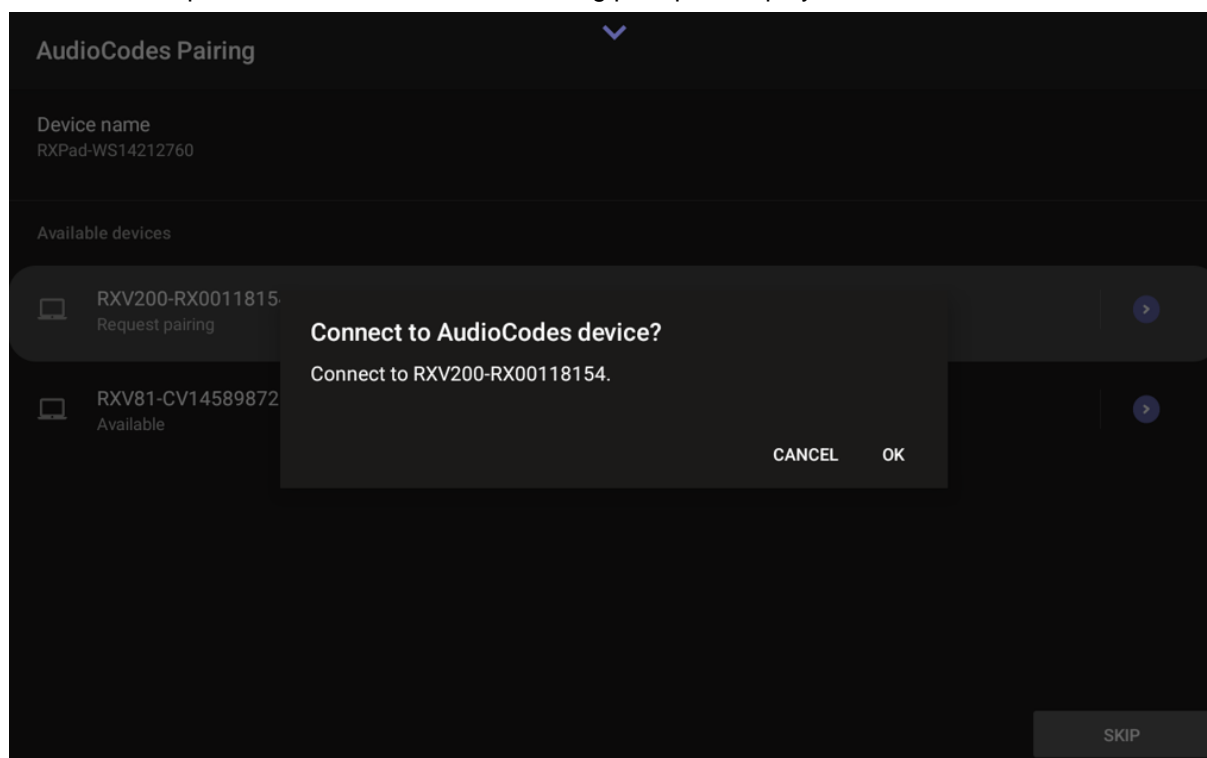
2. The MTRA prompts you to connect to an input device if there is not one already connected. An Input device can be an RX-PAD or a touch screen (or RCU in case it is part of the RXV81 bundle):



3. After you select the language, the **AudioCodes Pairing** page is displayed:

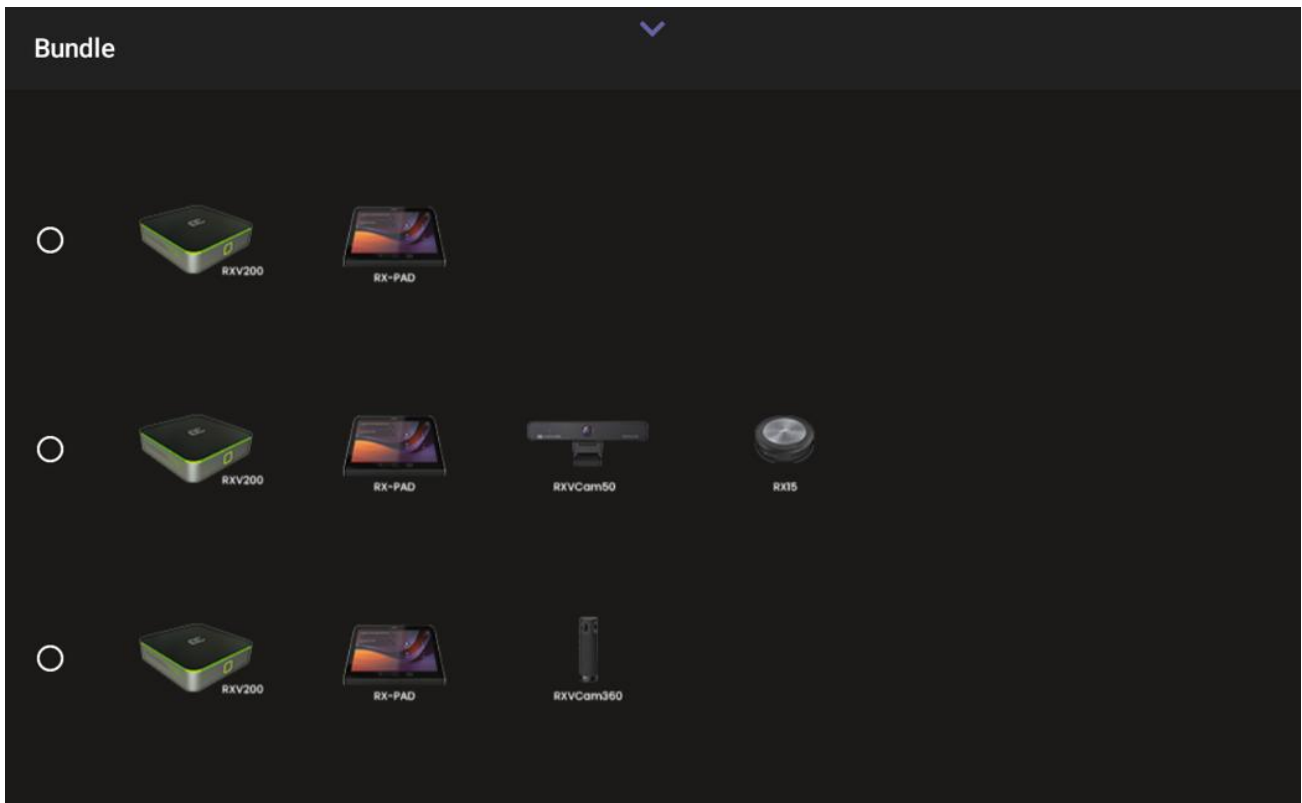


4. Tap the selected MTRA, the following prompt is displayed:

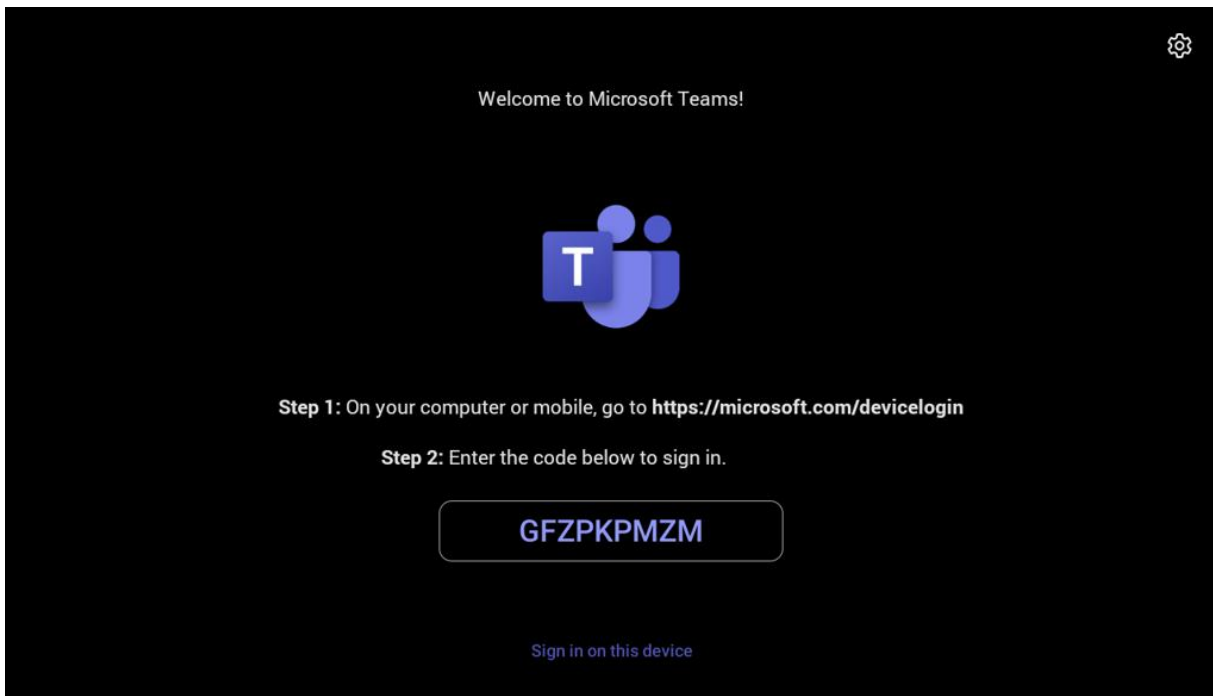


5. Tap **OK** to confirm: the RX-PAD finalizes the pairing process and assigns the appropriate bundle with the MTRA.

6. If you need to choose a bundle (for example, RXV200 with RXVCam360), the RX-PAD displays the **Bundle** screen:



7. After this process is completed, the following screen is displayed showing the code you need to sign into your Microsoft account. The sign-in displays on both devices:



8. Sign in to your Microsoft account.

5.3 Pairing Devices

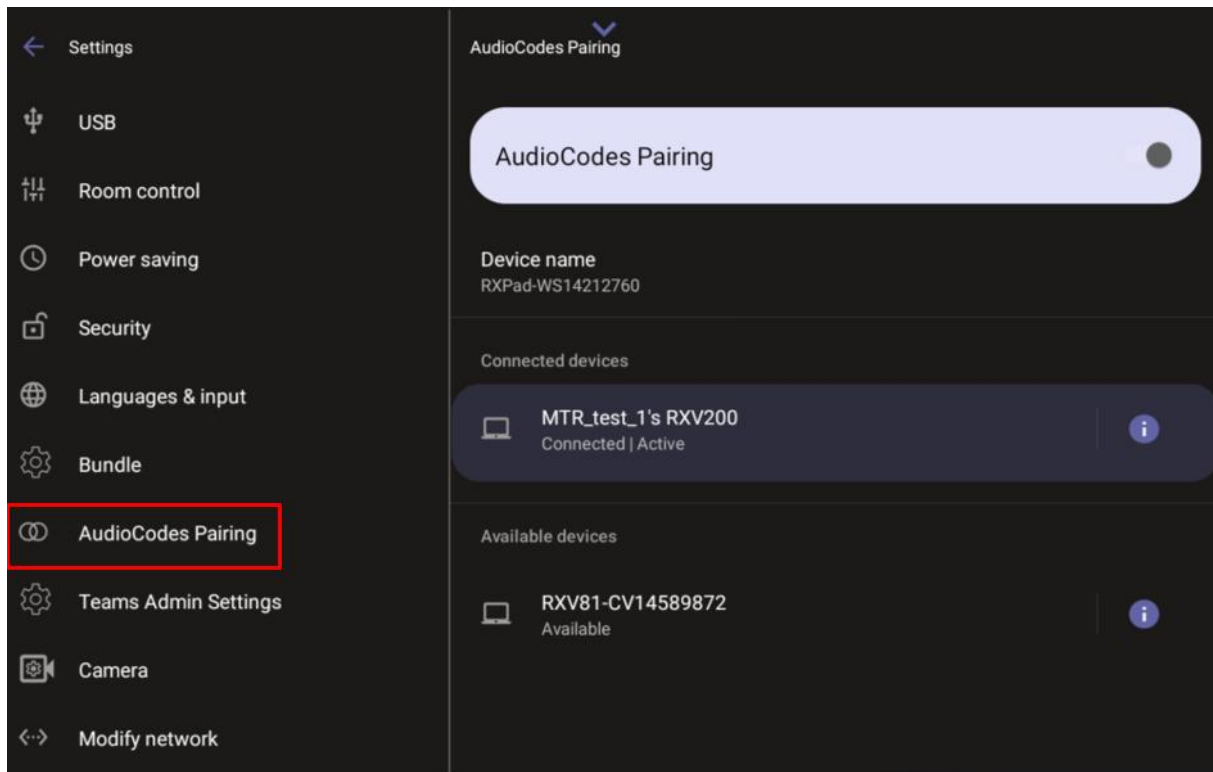
You can control your paired MTRA devices with the current RX-PAD and decide which MTRA you wish to pair, or unpair with on a current connection.



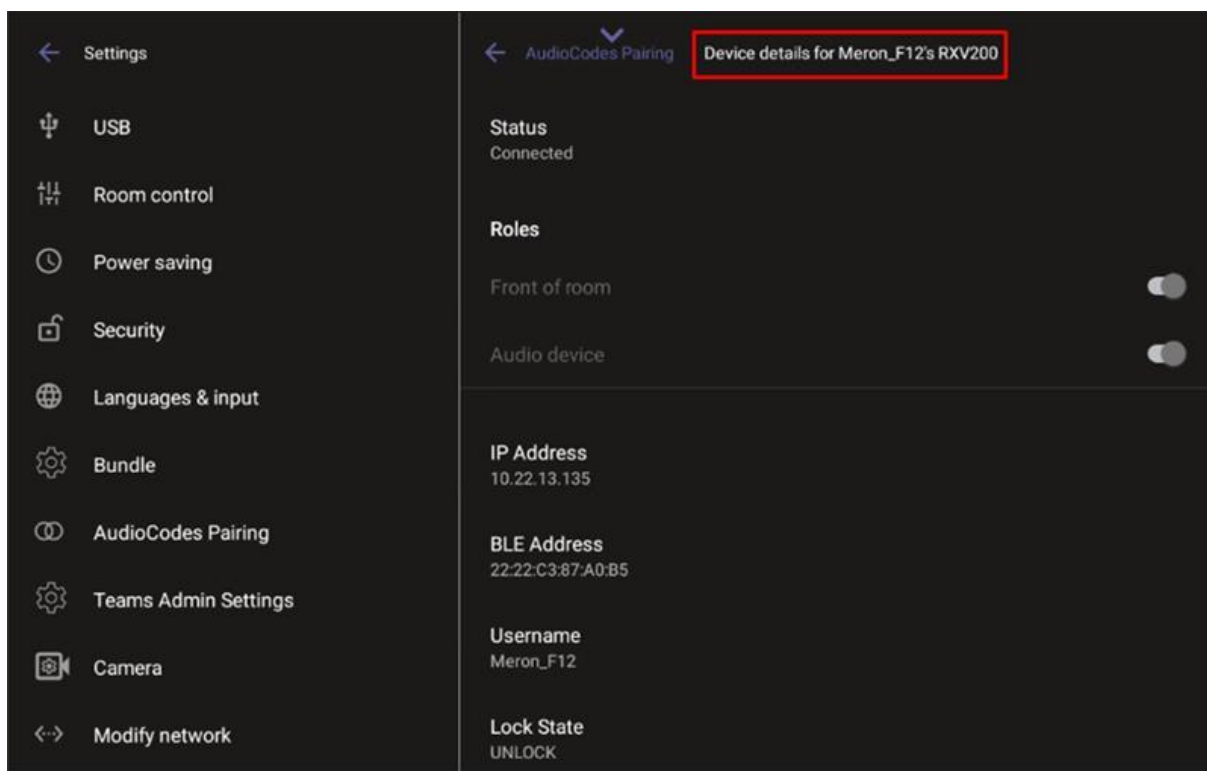
Note: Teams unpairing must occur prior to pairing with a new MTRA device.

➤ **To pair a device:**

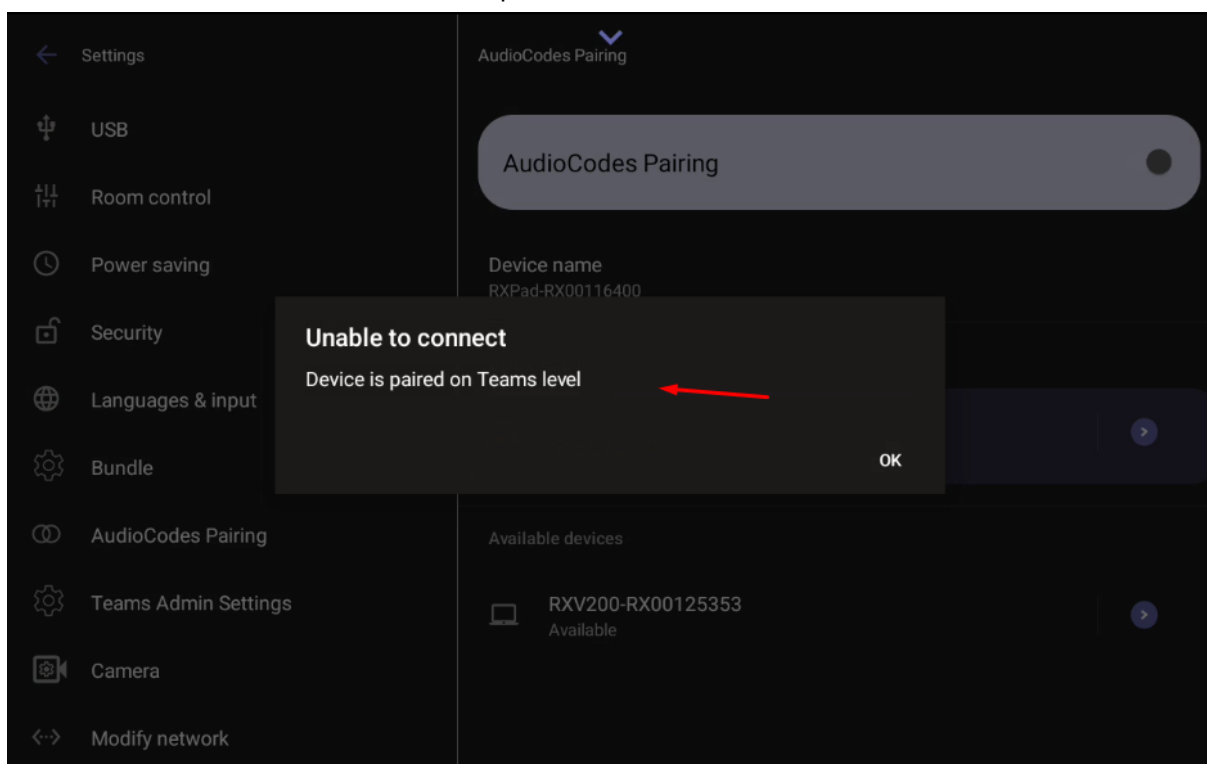
1. Navigate to **Settings**, and then tap **AudioCodes Pairing**.



2. Tap the **i** icon to view the information of the paired device from RX-PAD). For example, the IP address, device model, MAC address:



3. Navigate to **Teams Admin Settings > Devices** menu to break a currently paired set and pair a new MTRA. Admin must unpair the devices at the Teams level.

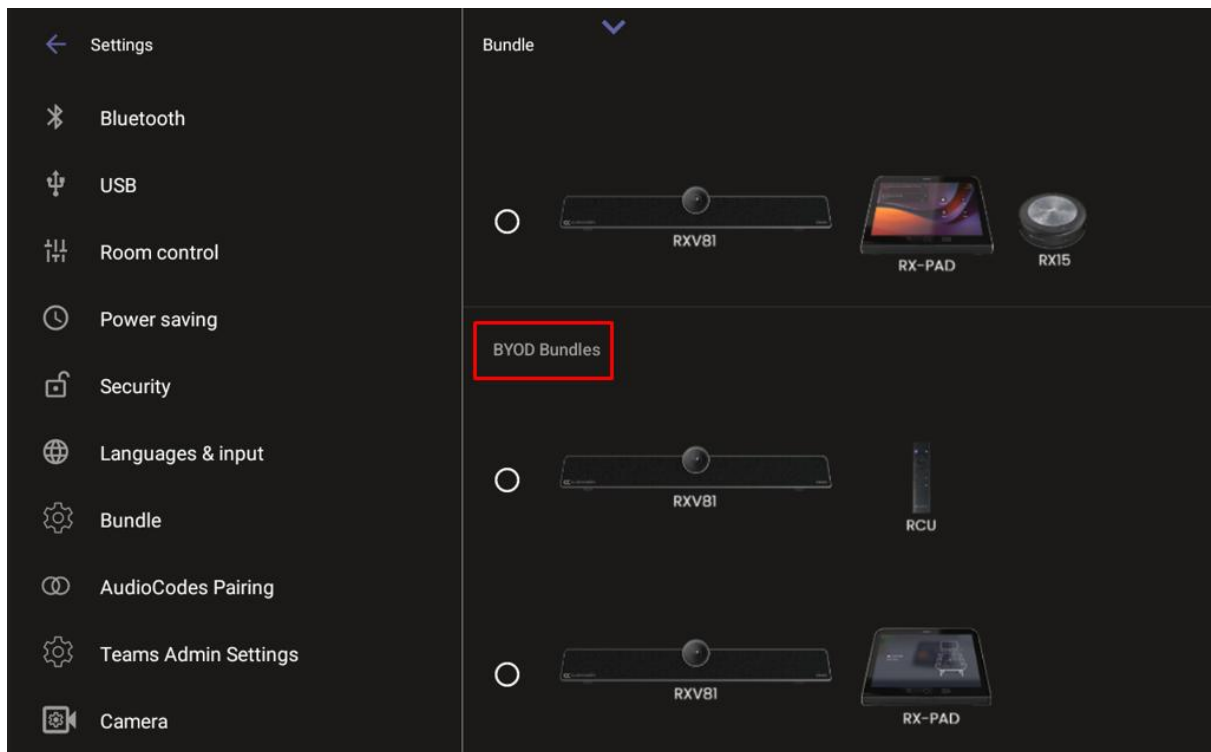


5.4 Modify RXV81 Connection to BYOD Bundles

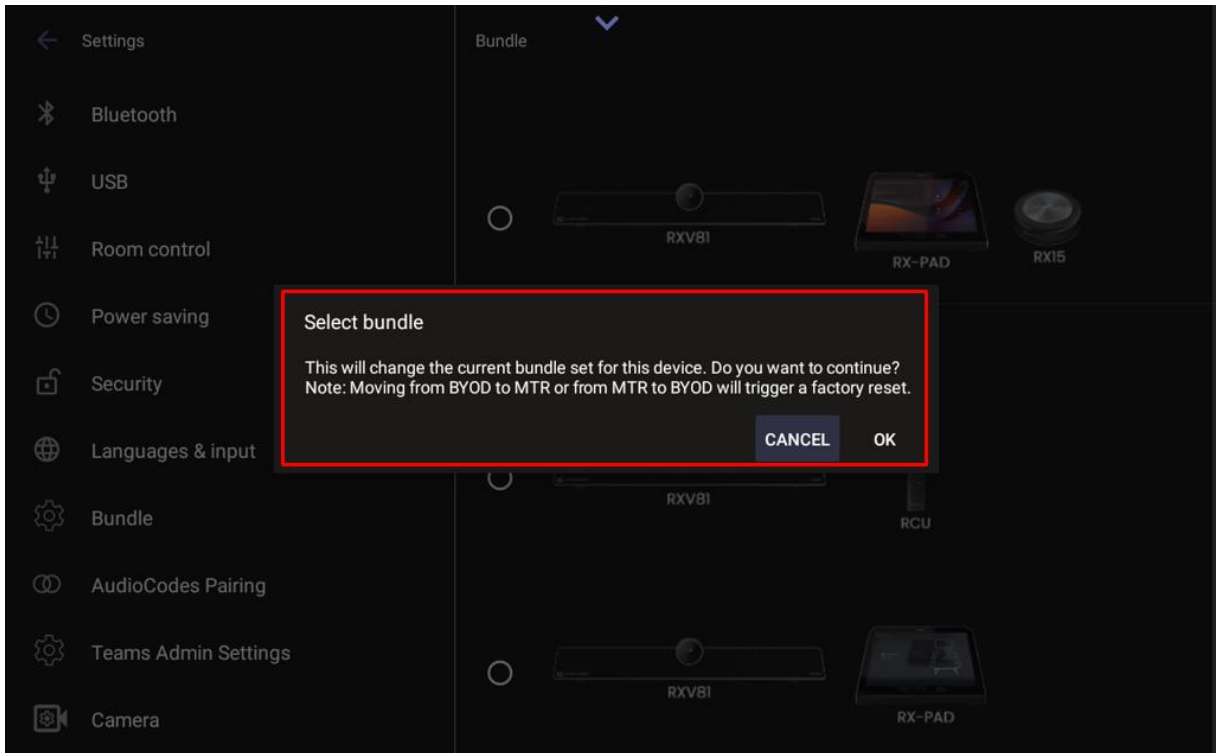
Connect your RXV81 to BYOD bundles which is MTR-ready.

➤ To modify RXV81 to new BYOD bundles:

1. Navigate to **Settings > Bundle**.
2. Tap the Bundle you want to connect to:



3. The **Select bundle** confirmation window is displayed. Tap **OK** to confirm.



Using the ad-hoc option under Teams mode is still possible when connecting the RXV81 with USB-C cable to a laptop.



Important note: Changing this setup 'on the fly' triggers a factory reset on the MTRA.

5.5 Dual Display Mode and Swap Screens Admin Controls¹ Pro

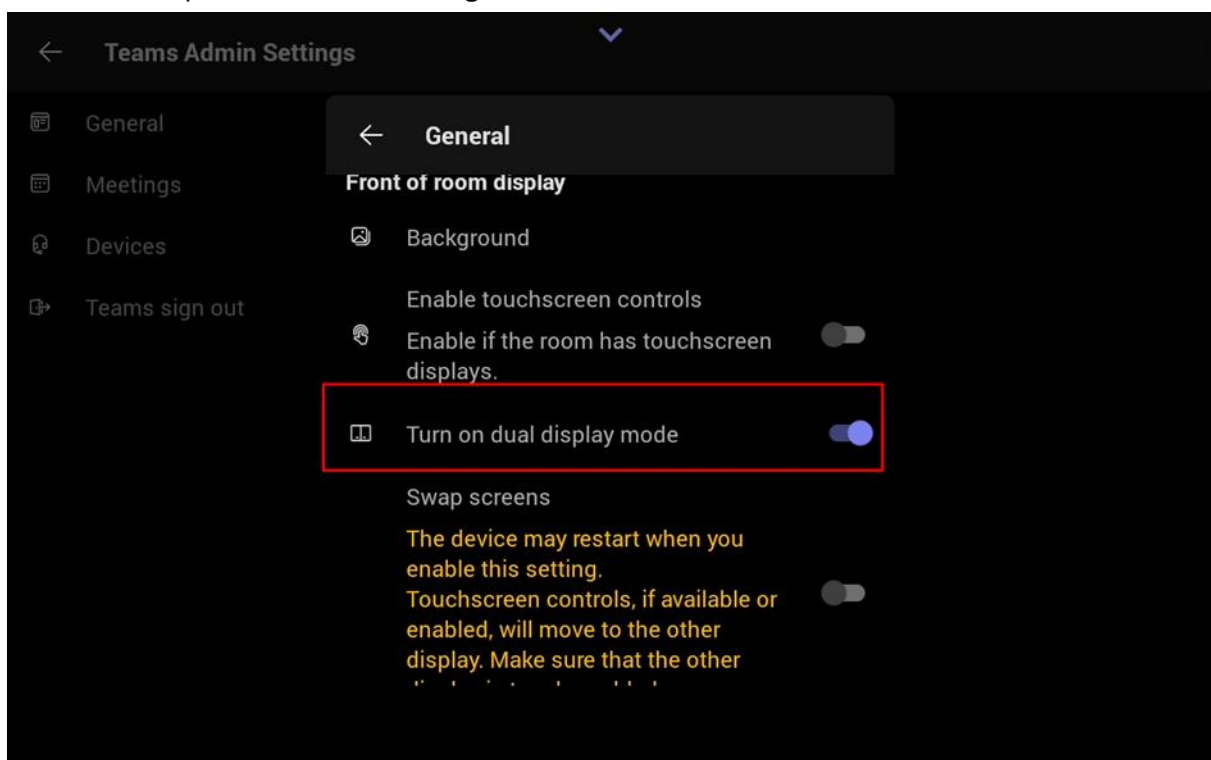


Note: This feature is for RX-PAD paired with RXV200 only, and for a Pro room account, as described below. The devices must run the following Teams app version or later - 1449/1.0.96.2024110701 (November 2024).

Admins can configure Teams Rooms on Android devices to run in dual display mode and to switch the screens in these rooms when set up invertedly as front-of-room display. This can be done without physically disconnecting and reconnecting the HDMI OUT cables from the RXV200.

➤ **To disable dual display mode or switch screens:**

1. Tap **Teams Admin Settings > General**:

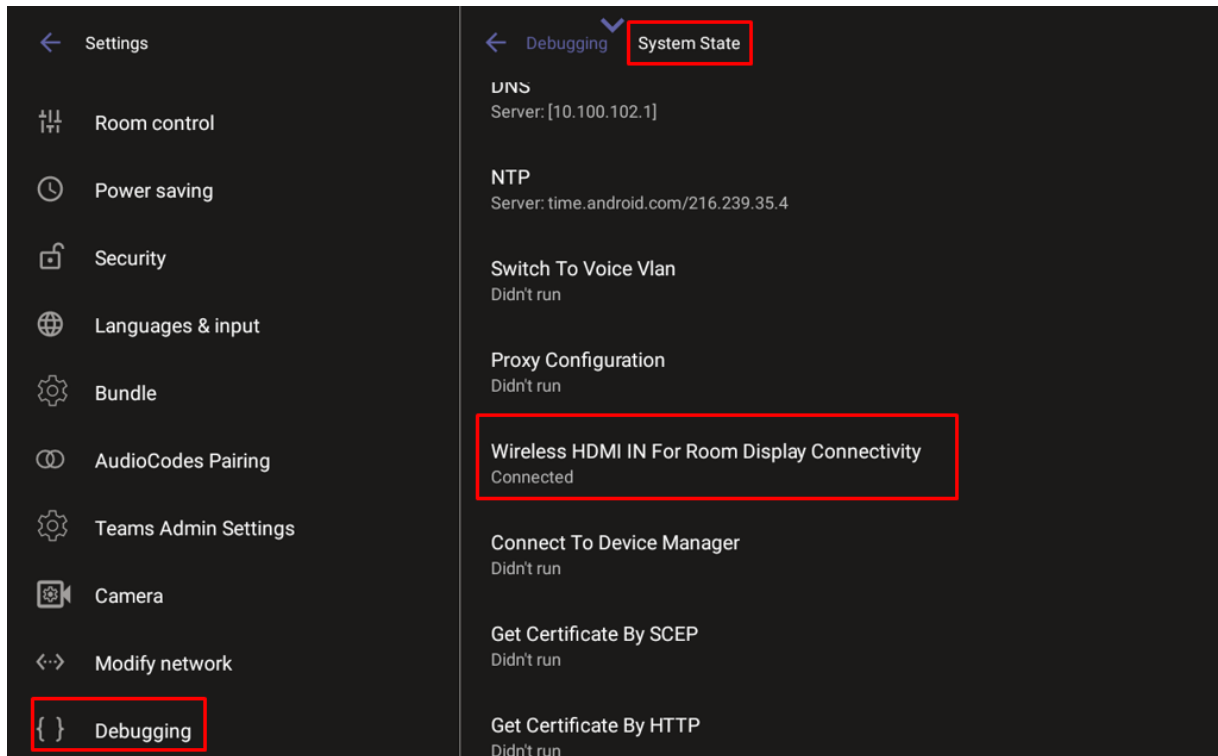


5.6 Monitoring Wireless HDMI In Service

You can monitor the HDMI In source.

➤ **To monitor HDMI In:**

1. Navigate to **Settings > Debugging > System State**.
2. Check the status of the Wireless HDMI In service. The following shows a **Connected** status:



6 Enrolling a Device with Intune Policies

Two ways are available to enroll an AudioCodes Teams Android-based device in Intune:

- Create a dynamic group - see [here](#)
- Create an exclusion group - see [here](#)

6.1 Creating a Dynamic Group

See [here](#) how to create dynamic groups in Intune for enrolling AudioCodes Android-based Teams devices.

6.2 Creating an Exclusion Group

The information presented here shows how to *exclude* AudioCodes Android-based Teams devices from the organization's Intune policies.

➤ **To exclude devices from the organization's Intune policies:**

- Remove all conditions that were previous configured:
 - Access Microsoft Azure Government Portal Home > Conditional Access Policies > Require Hybrid Joined or Intune to Access Cloud Resources Conditional Access policy as shown in the figure below.
 - Exclude the device from Intune policies and replace **displayName -contains RX-PAD** where **RX-PAD** is the name of the device model (**device.model**).

The screenshot shows the Microsoft Intune admin center interface. The left sidebar contains navigation links: Home, Dashboard, All services, Devices, Apps, Endpoint security, Reports, Users, Groups, Tenant administration, and Troubleshooting + support. The main content area is titled 'New Conditional Access policy'. It includes sections for Name, Assignments, Target resources, Conditions, Access controls, and Enable policy. The 'Filter for devices' section is highlighted with a red box, showing a rule that excludes devices with displayName 'RXV81' or 'RXV200'.

Filter for devices

Configure a filter to apply policy to specific devices. [Learn more](#)

Configure: ☒ Yes ☐ No

Devices matching the rule:

- ☐ Include filtered devices in policy
- ☒ Exclude filtered devices from policy

You can use the rule builder or rule syntax text box to create or edit the filter rule.

And/Or	Property	Operator	Value
And	displayName	Equals	RXV81
And	displayName	Equals	RXV200

[+ Add expression](#)

Rule syntax

```
device.displayName -eq "RXV81" -and device.displayName -eq "RXV200"
```

[Edit](#)

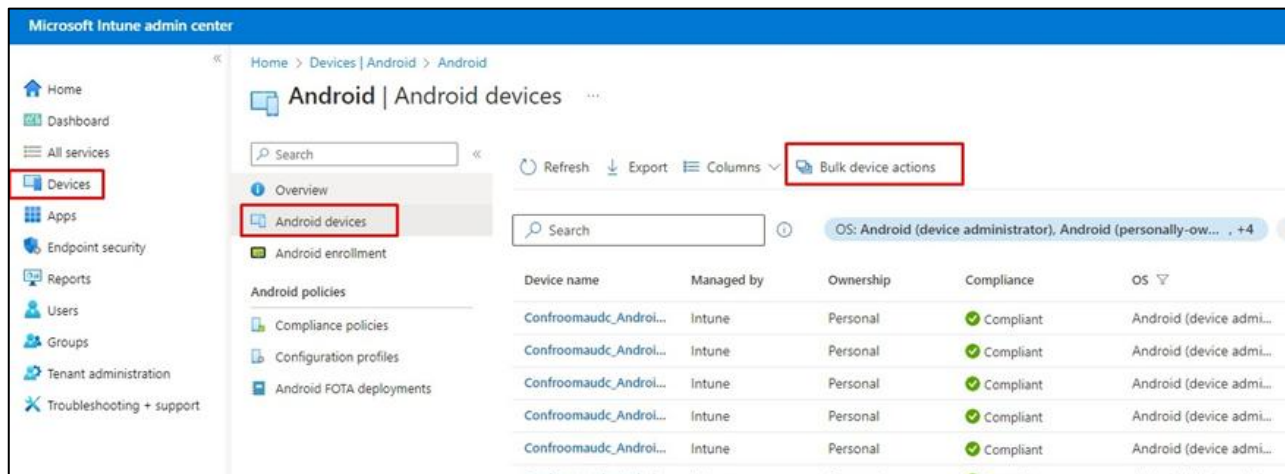
[Done](#)

6.3 Removing Devices from Intune admin center

You can remove devices from Intune admin center when the maximum capacity of signed-in devices is reached.

➤ **To remove devices from Intune admin center:**

1. Go to Microsoft 365 admin center [portal.office.com] and log in with an Administration account.
2. Navigate to **Devices > Android devices**.




Note: The Intune admin center service is licensed according to the terms of individual licenses so not all network admins will be able to navigate to it. Check if the license you're using includes the service or not.


3. Click Bulk device actions.

Home > Devices | Android > Android | Android devices >

Bulk device action ...

1 Basics 2 Devices 3 Review + create

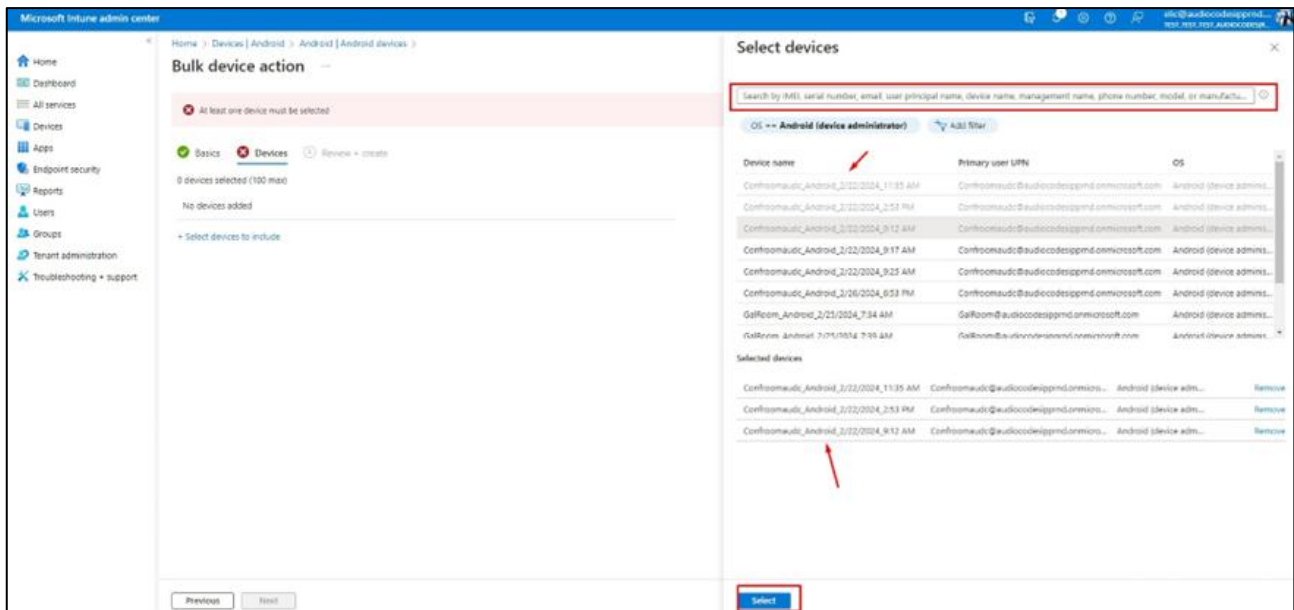
OS *  Android (device administrator) ▼

Device action *  Delete ▼

i If you delete this device, you will no longer be able to view or manage the device from the Intune portal. The device will no longer be allowed to access your company's corporate resources. Company data may be wiped from the device if the device tries to check-in after it is deleted.

[Previous](#) [Next](#)

4. From the 'OS' drop-down under the **Basics** tab, select **Android (device administrator)**. From the 'Device action' drop-down, select **Delete**. Click **Next**.



5. Select the devices to delete (i.e., to remove from Intune admin center), and then click **Select**.

Microsoft Intune admin center

Home > Devices | Android > Android | Android devices >

Bulk device action

Basics **Devices** Review + create

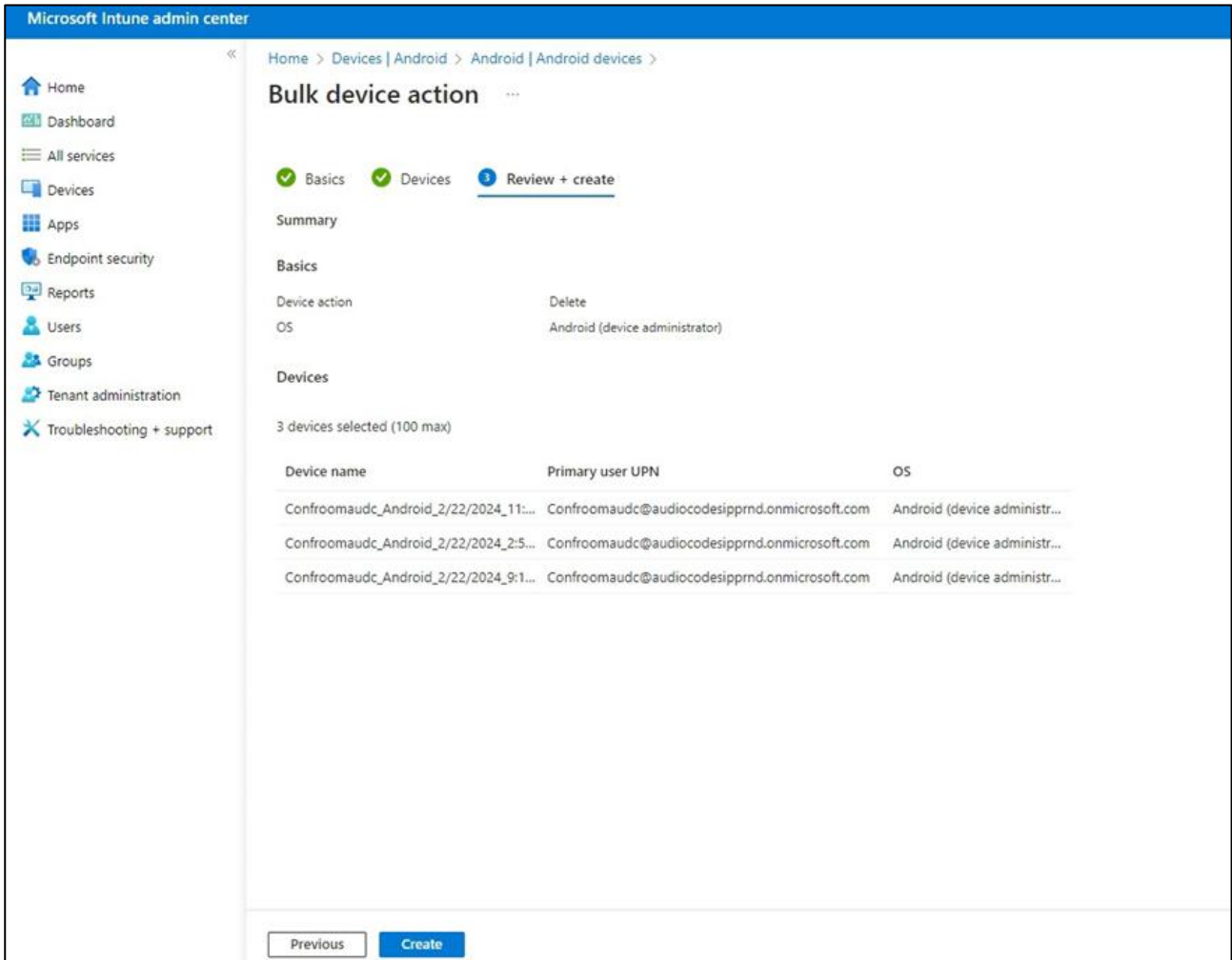
3 devices selected (100 max)

Device name	Primary user UPN	OS	Action
Confroomaudc_Android_2/22/2024...	Confroomaudc@audiocodesippnd.onmicrosoft...	Android (device admini...	Remove
Confroomaudc_Android_2/22/2024...	Confroomaudc@audiocodesippnd.onmicrosoft...	Android (device admini...	Remove
Confroomaudc_Android_2/22/2024...	Confroomaudc@audiocodesippnd.onmicrosoft...	Android (device admini...	Remove

[+ Select devices to include](#)

[Previous](#) [Next](#)

6. Under the **Devices** tab, click **Next**.



Microsoft Intune admin center

Home > Devices | Android > Android | Android devices >

Bulk device action

Basics Devices **Review + create**

Summary

Basics

Device action Delete

OS Android (device administrator)

Devices

3 devices selected (100 max)

Device name	Primary user UPN	OS
Confroomaudc_Android_2/22/2024_11:...	Confroomaudc@audiocodesipprd.onmicrosoft.com	Android (device administr...
Confroomaudc_Android_2/22/2024_2:5...	Confroomaudc@audiocodesipprd.onmicrosoft.com	Android (device administr...
Confroomaudc_Android_2/22/2024_9:1...	Confroomaudc@audiocodesipprd.onmicrosoft.com	Android (device administr...

Previous Create

7. Under the **Review + Create** tab, make sure your definitions are correct and then click **Create**; admin receives a notification that a delete action from Intune was successfully initiated on all devices and that n devices were removed.



Note: It may take some time to completely sync the devices with the account so after deleting the devices wait for 30 minutes before signing in.

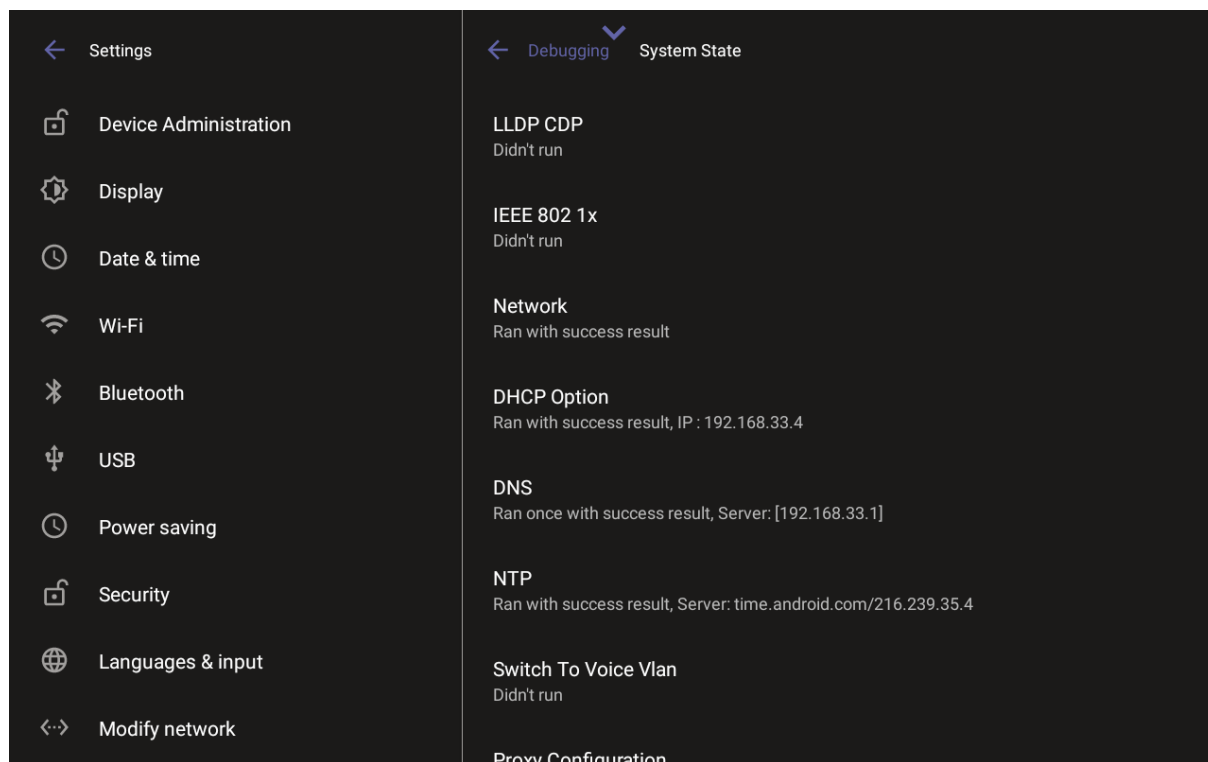
7 Monitoring Device Software Modules Status

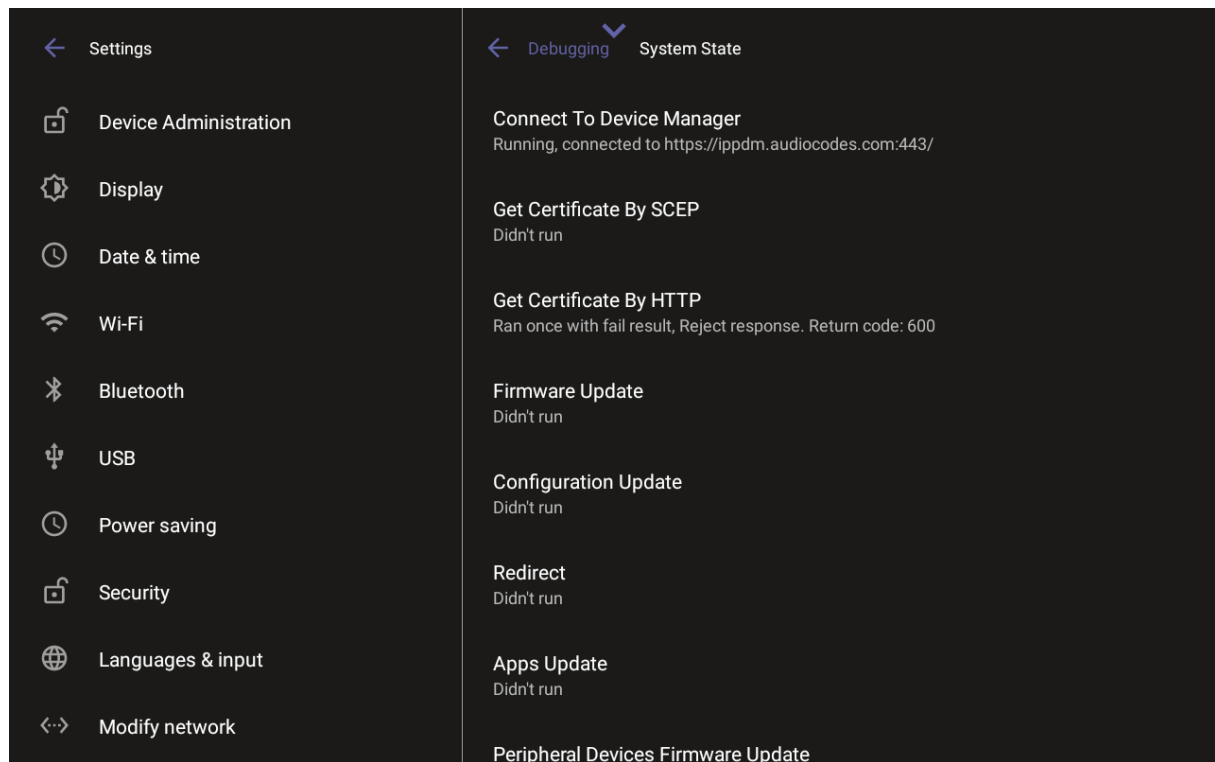
AudioCodes provides out-of-the-box troubleshooting capability: Admins can monitor the status of the device's various software modules from the System State page. If initial provisioning is unsuccessful or if admin encounters an issue related to the network / connection to Device Manager, the feature gives admin an indication as to why.

The feature enables debugging via the device's screen *without requiring external systems*. Admin can check connectivity *independently of external apps*.

➤ **To monitor the device's software modules status:**

- Open the System State page (**Settings > Debugging > System State**).



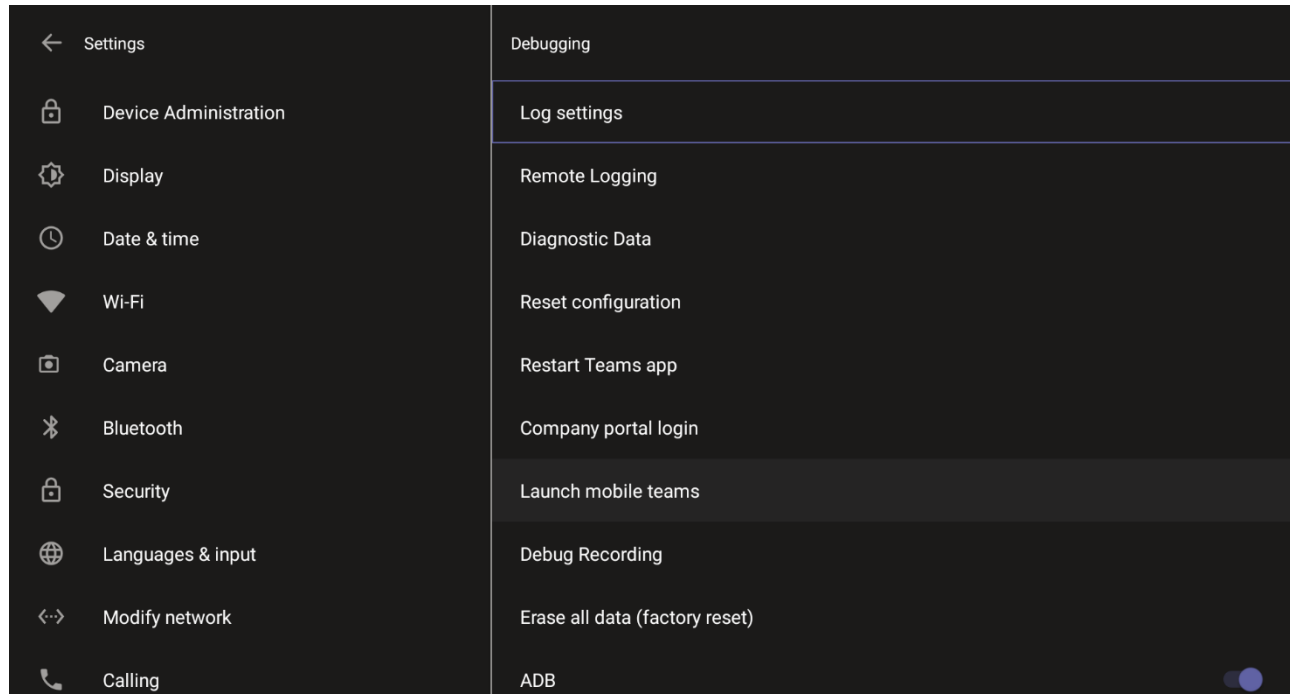


8 Debugging

Admin users can perform debugging for troubleshooting purposes.

➤ **To perform Debugging:**

1. In the Settings screen under 'Device administration', select **Debugging**.



2. Use the following debugging features available to Admin users:

- Log settings (see [Log Settings](#))
- Remote Logging (see under [Remote Logging](#))
- Diagnostic Data (see under [Diagnostic Data](#))
- Reset configuration (see under [Reset configuration](#))
- Restart Teams app (see under [Restart Teams app](#))
- Company portal login (see under [Company Portal Login](#))
- Launch mobile teams (see under [Launch Mobile Teams](#))
- Debug Recording (see under [Debug Recording](#))
- Erase all data (see under [Erase all data \(factory reset\)](#))
- Screen Capture (see under [Screen Capture](#))
- Performing Recovery Operations (see under [Performing Recovery Operations](#))
- Restoring Device Firmware via USB Disk (see under [Restoring Device Firmware via USB Disk](#))



Note:

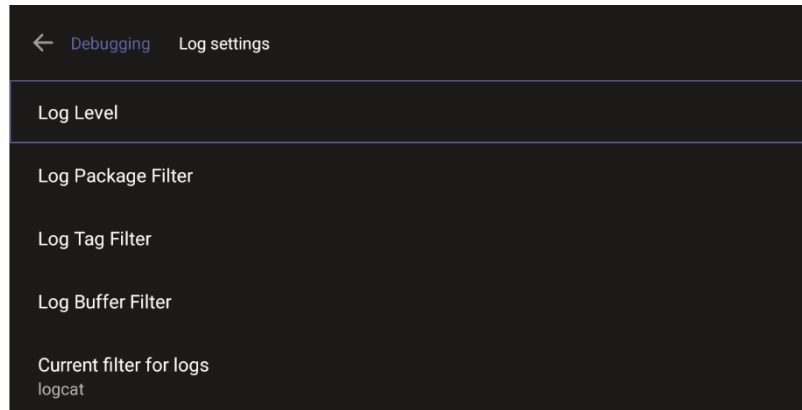
- An enhanced bug report is available for efficient debugging.
- Information such as pack up time, ps, top, meminfo and df commands (information about file system disk space usage) is reflected in it.

8.1 Log Settings | Collecting Logs

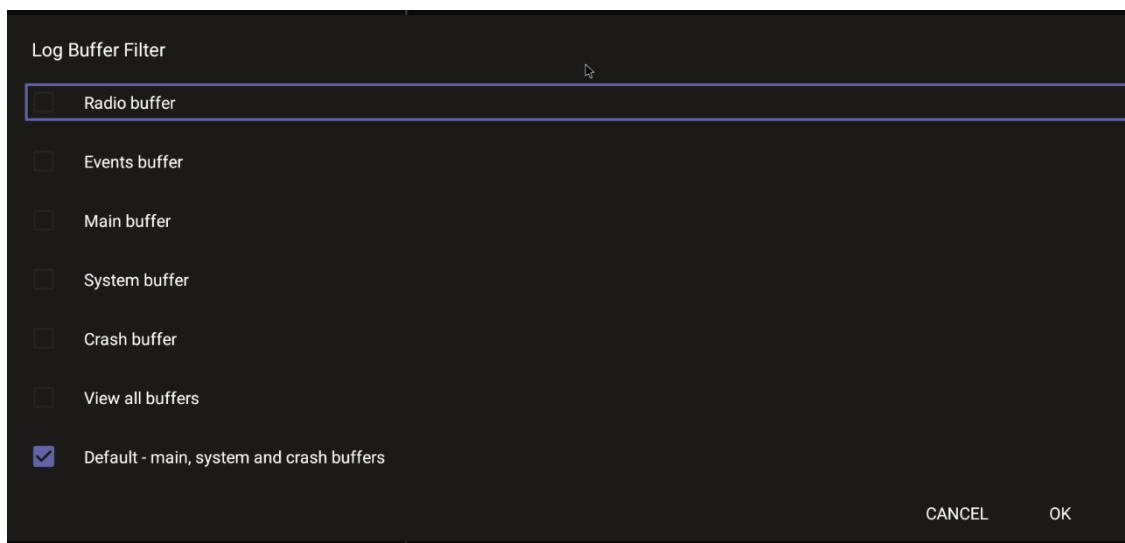
Device diagnostics (Logcat) can be collected using the Microsoft Admin Portal. For support purposes, general logs can be collected also using the Microsoft Admin Portal. The logs can help debug Teams application issues and also for issues related to the device.

➤ To configure log settings:

1. In the Debugging screen, select **Log settings**.



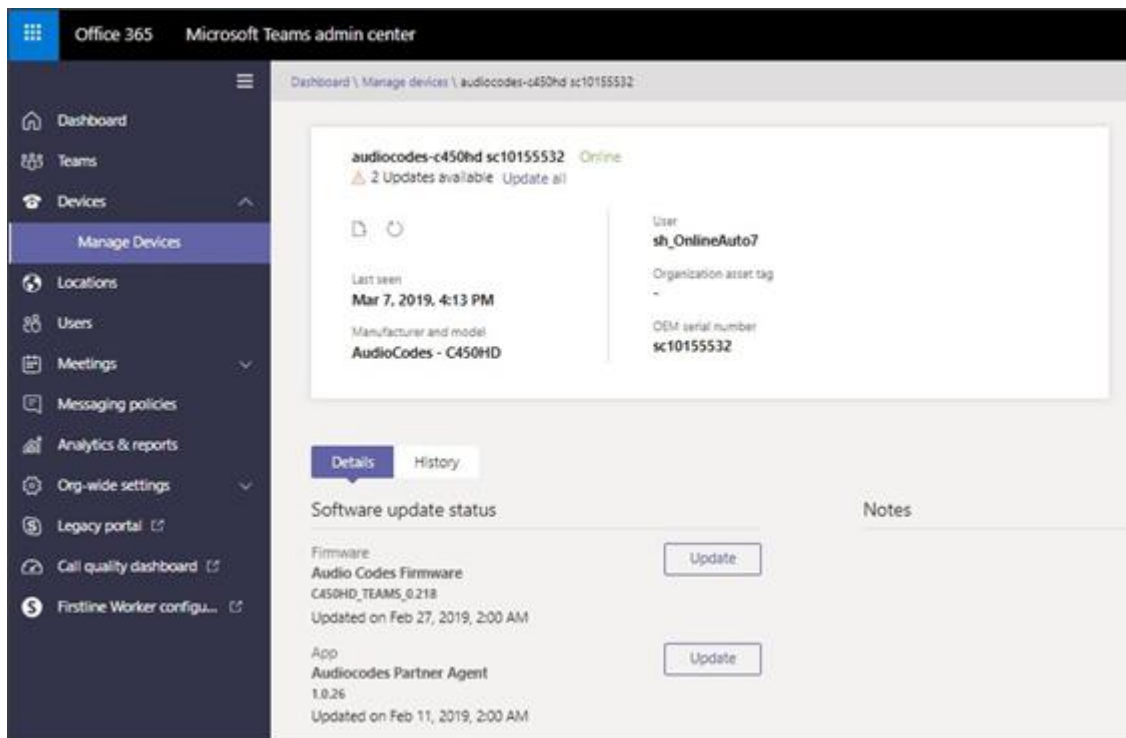
2. Navigate to and select **Log Level** and then select either
 - Verbose, Debug, Info, Warning, Error, Assert -or- None
3. Navigate to and select **Log Package Filter** and enter the filter.
4. Navigate to and select **Log Tag Filter** and enter the filter.
5. Navigate to and select **Log Buffer Filter**.



6. Navigate to and select **Current filter for logs**.

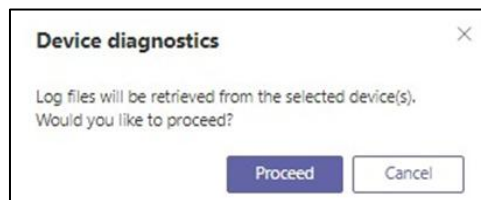
➤ To collect logs:

1. Reproduce the issue
2. Access Microsoft Admin Portal and under the **Devices** tab click the **Diagnostics** icon.

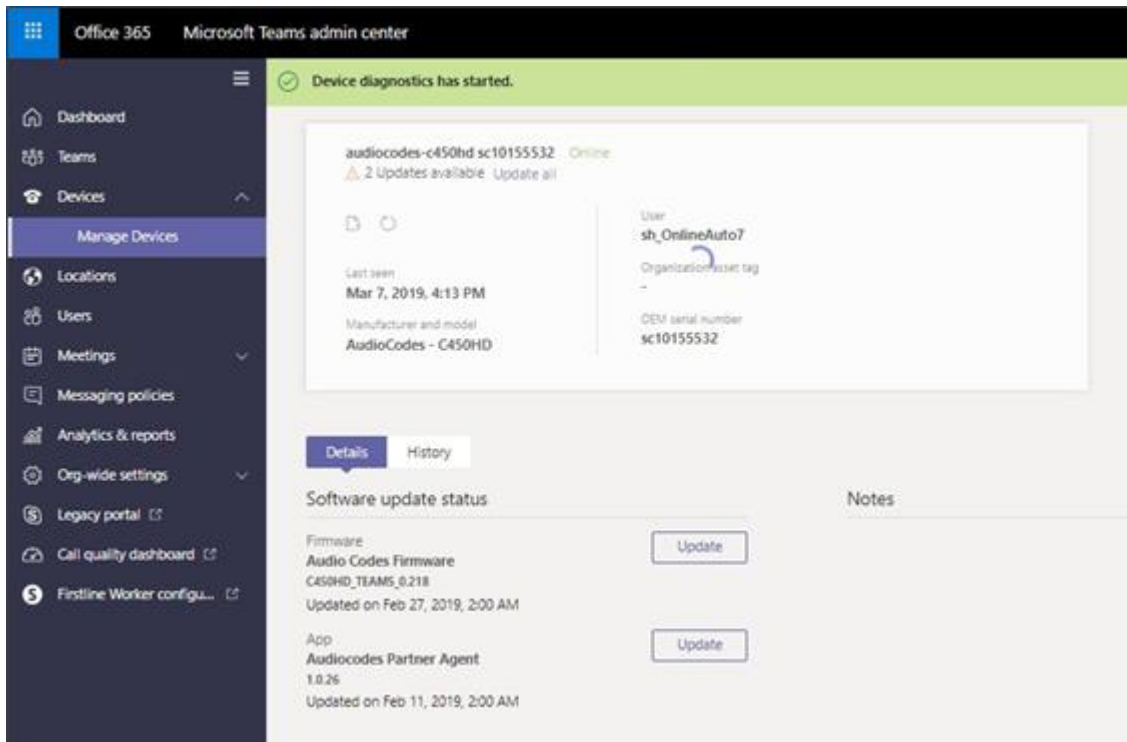


Note: The preceding figure is for illustrative purposes. It shows an AudioCodes phone. The same screen is displayed for the MTR.

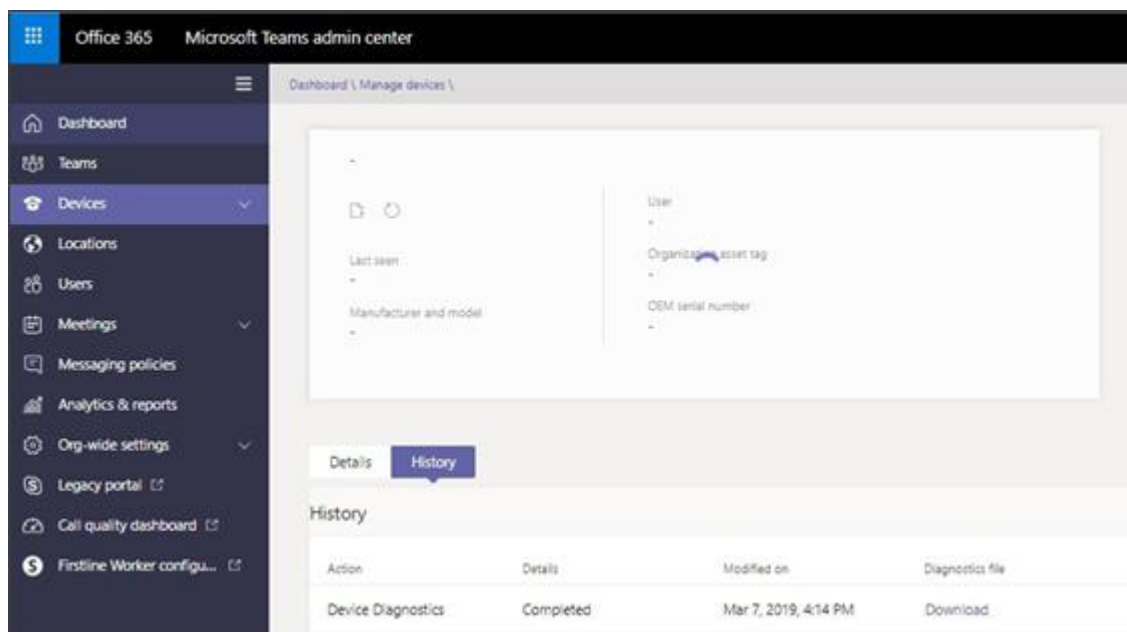
3. Click the **Diagnostics** icon.



4. Click **Proceed**; the logs are uploaded to the server.



5. Click the **History** tab.



6. Click **Download** to download the logs.

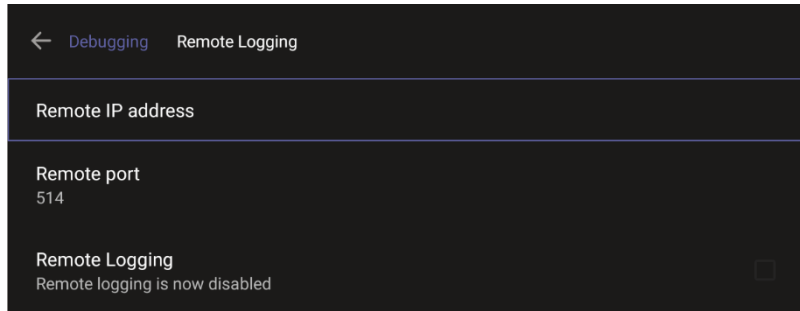
8.2 Remote Logging

Remote Logging via Syslog provides the same log level as Device Diagnostics (performed via the Microsoft Admin Portal) with some additional information that may be relevant to device issues (not Teams application issues).

Diagnostics via the Microsoft Admin Portal are saved to the device sdcard and collected after the event. Remote Logging via Syslog is different. The logs are collected in real time.

➤ **To enable Remote Logging via Syslog:**

1. Navigate to and select **Remote logging**.



2. Configure the 'Remote IP address' and 'Remote port' and enable 'Remote Logging'; the device starts sending logs to the Syslog server.



Note: Network administrators can also enable Syslog using Secure Shell (SSH) protocol.

➤ **To enable Syslog using SSH protocol, type the following command at the shell prompt:**

```
setprop persist.ac.rl_address <syslog_server_ip>:<port>.
```

➤ **To disable Syslog using SSH, type the following command at the shell prompt:**

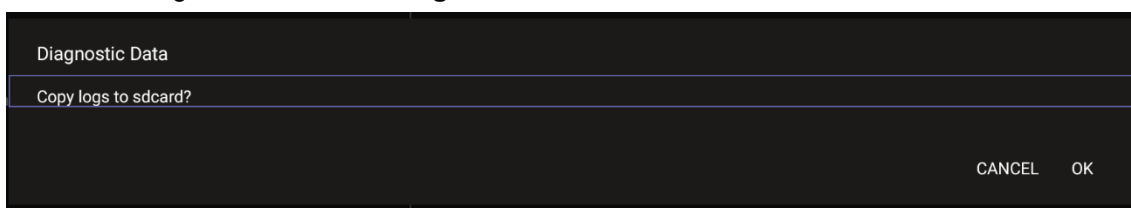
```
setprop persist.ac.rl_address ""
```

8.3 Diagnostic Data

Admin users who need to get logs from the device can dump the logs to the device's Secure Digital (SD) Card and then later collect them using Secure Copy Protocol (SCP) based on Secure Shell (SSH) protocol. Whenever an issue occurs, the Admin can dump the logs into the SD Card.

➤ **To use the tool:**

1. Navigate to and select **Diagnostic Data**.



2. Navigate to and select **OK** to confirm 'Copy logs to sdcard'; the MTR creates all necessary logs and copies them to the its SD Card / Logs folder.
3. Get the logs using SCP notation as follows:

```
scp -r admin@host_IP:/sdcard/logs/ .
```

Following are the relevant logs (version and ID may be different to those shown here):

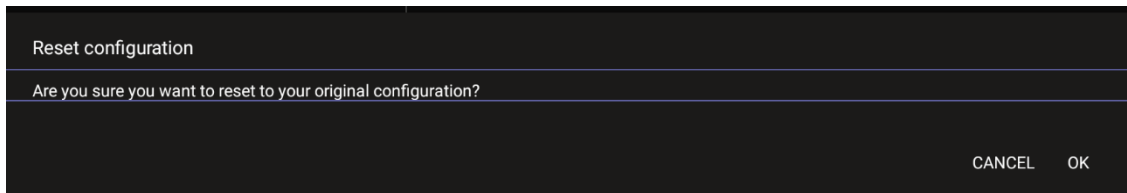
- dmesg.log
- dumpstate-TEAMS_1.3.16-undated.txt
- dumpstate_log-undated-2569.txt
- logcat.log

8.4 Reset configuration

Admin users can opt to 'clean up' their configuration history and return the MTR to an Out of Box Experience (OOBE). If the Teams app isn't running well, this might help.

➤ **To reset the configuration:**

1. Navigate to and select **Reset configuration**.



2. Navigate to and select **OK**; all data is erased and default factory settings are restored but sign-in is retained.

See also [here](#).

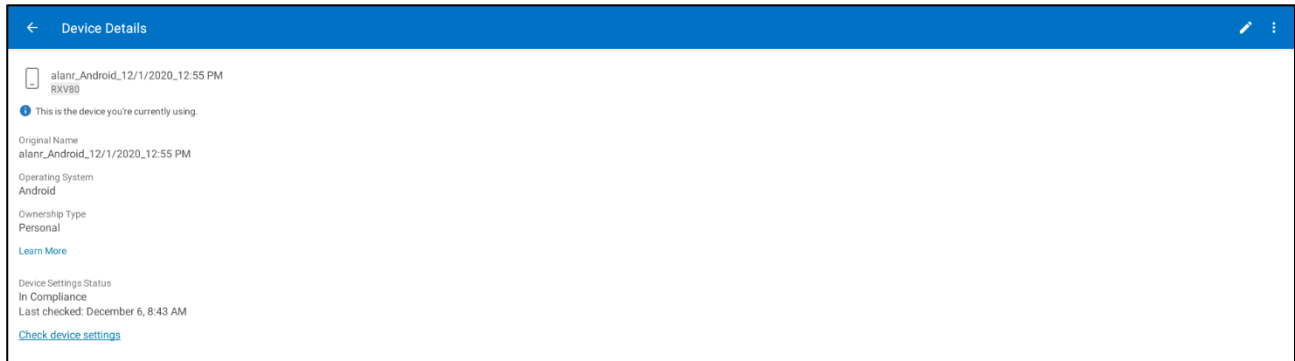
8.5 Restart Teams app

If the Teams application freezes or malfunctions, a good way to resolve this is to restart the app.

➤ **To restart the Teams app:**

- Navigate to and select **Restart Teams app**; only the Teams app is restarted.

8.6 Company Portal Login

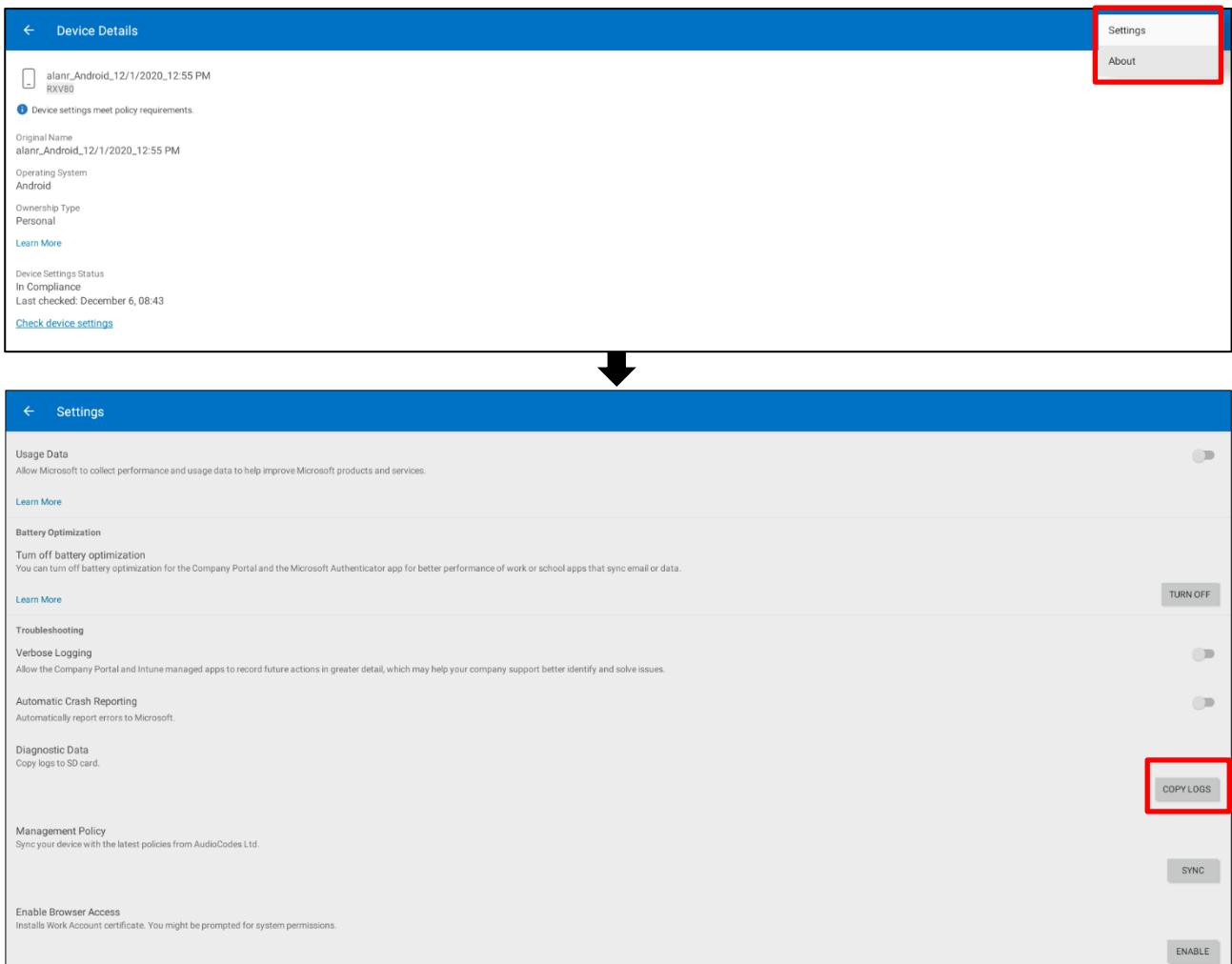


8.7 Getting Company Portal Logs

Company Portal logs can be helpful to network administrators when there are issues with signing in to Teams from the device.

➤ **To get Company Portal logs:**

1. Reproduce the issue (logs are saved to the device so you first need to reproduce the issue and then get the logs).
2. Log in to the device as Administrator and then go back.
3. Navigate to and select the **Debugging** option.
4. Navigate to and select **Company Portal login**.
5. In the Device Details screen that opens, navigate to and select **Settings**:



6. Navigate to and select **Copy Logs**.

Company portal logs are copied to:

```
sdcard/Android/data/com.microsoft.windowsintune.companyportal/files/
```

7. To pull the logs, use ssh:

```
scp -r admin@hosp_ip:/sdcard/android/data/com.microsoft.windowsintune.companyportal/files/
```

Files are quite heavy so you may need to pull them one by one.

8.8 Launch Mobile Teams

'App not found'. N/A in this release.

8.9 Debug Recording

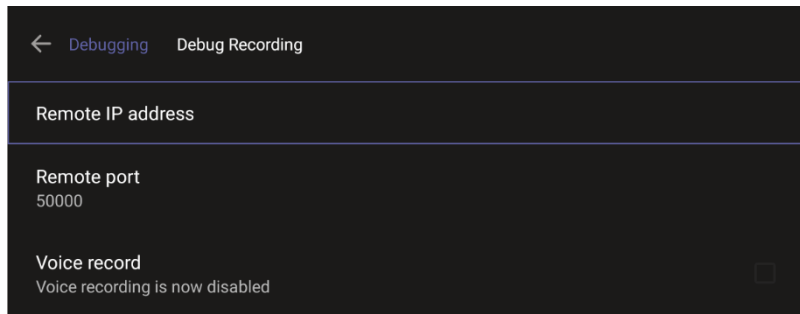
This feature enables Admin users to perform media/DSP debugging.



Note: DSP recording can be activated on the fly without requiring the network administrator to reset the device.

➤ **To reset the configuration:**

1. Navigate to and select **Debug Recording**.



2. Navigate to and select **Voice record** to enable the feature.
3. Navigate to and select **Remote IP address** to input the IP address of the device whose traffic you want to record.
4. Navigate to and select **Remote port** and input it (Default: 5000).
5. Start Wireshark on your PC to capture audio traffic.

8.10 Restoring to Defaults

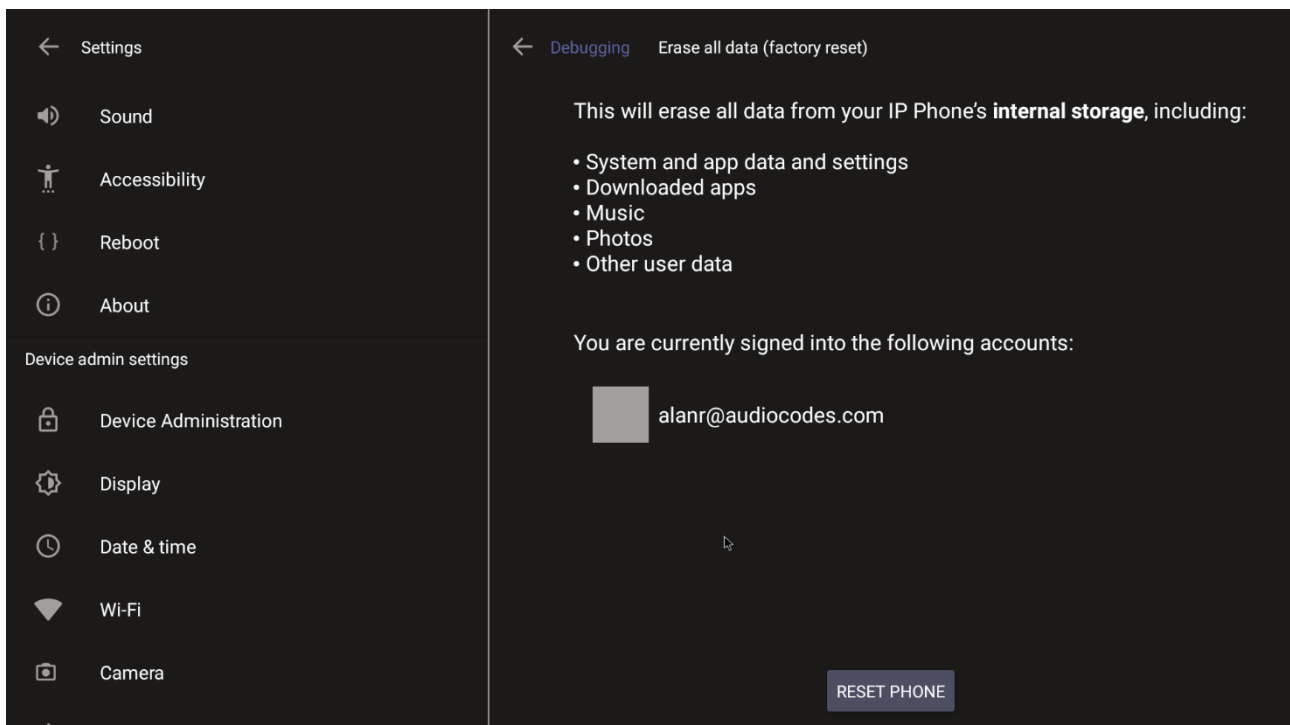
RX-PAD can be restored to defaults by pressing 15 seconds on the bottom key (dedicated button on RX-PAD).

8.11 Erase all data (factory reset)

This option is the equivalent of restoring to defaults shown in the preceding section; including logout and device reboot.

➤ **To erase all data (factory reset):**

1. Navigate to and select Erase all data (factory reset).



2. Navigate to and select **RESET PHONE**.

8.12 Screen Capture

By default, this setting is enabled. If disabled, the device won't allow its screens to be captured.

8.13 Performing Recovery Operations

While RX-PAD is powering up, admin can perform recovery operations by inserting a sharp pointed object, for example, a paper clip or pin, into the pinhole button shown below and pressing for the length of time shown in the table below.



When pressing the pinhole button, the device's main LED changes color after every n seconds; each color is aligned with a recovery operation option.



Note:

- Besides manual recovery options, Android devices also feature an independent, automatic problem detection and recovery attempt capability that can culminate in recovery mode or in switching image slots.
- Android devices also feature a 'hardware watchdog'. This feature resets the device if Android is stacked and doesn't respond (though Android stacking is unlikely); there's no recovery process; the device is only reset.

Use this table as reference as to how to use the pinhole button to perform recovery operations.

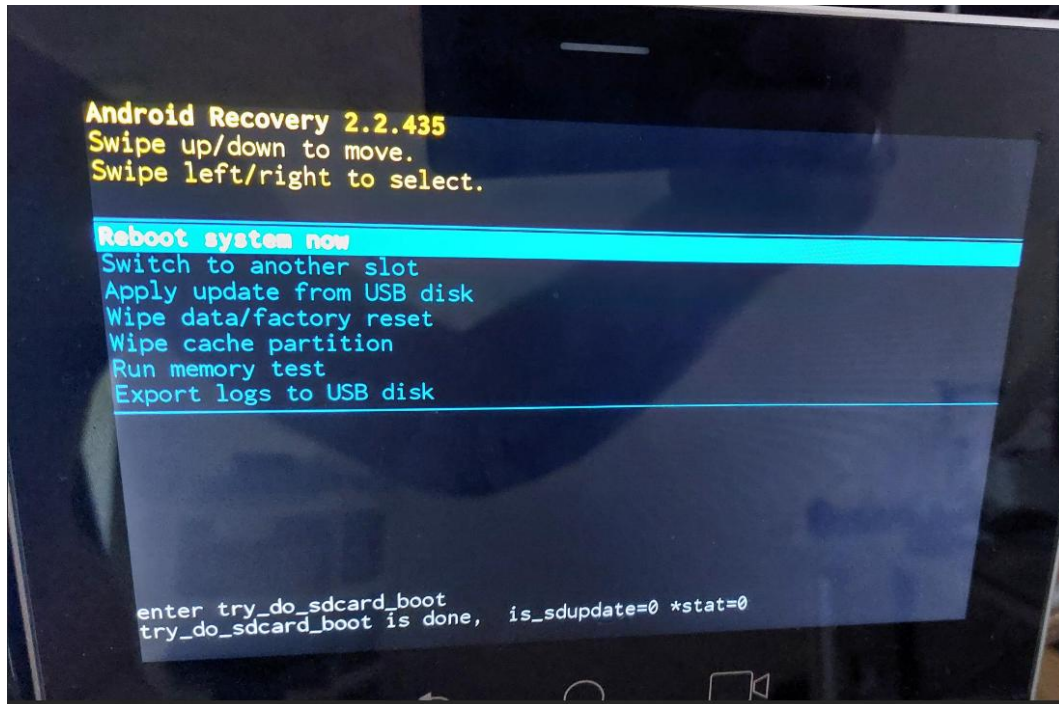
When?	Action	Press for how long?	LED flashes 3x after release
Start pressing immediately after power up (on U-Boot / Universal Boot Loader)	Recovery mode (you can restore defaults from there)	~ 4 seconds	Red
	Switch slots A / B	~ 10 seconds	Green
	Loader	~ 15 seconds	Blue / Yellow
	Restore defaults	~25 seconds	Green + blue / Green + yellow
When successfully booted (on Android)	Reboot	From the Recovery menu	-
	Restore defaults	Long-press the Hold key for ~15 seconds	Flashes yellow once after release

8.14 Restoring Device Firmware via USB Disk

For recovery purposes, firmware can be applied to RX-PAD from a USB disk.

➤ **To apply the firmware from the USB disk:**

1. Enter recovery mode by pressing for 2-4 seconds the power button as shown in the preceding table (Action: ENTER_RECOVERY); the device's LED lights up red.
2. Short-press the power button to move down the menu options, and long-press to select an option.
3. Insert the USB disk with the target firmware.



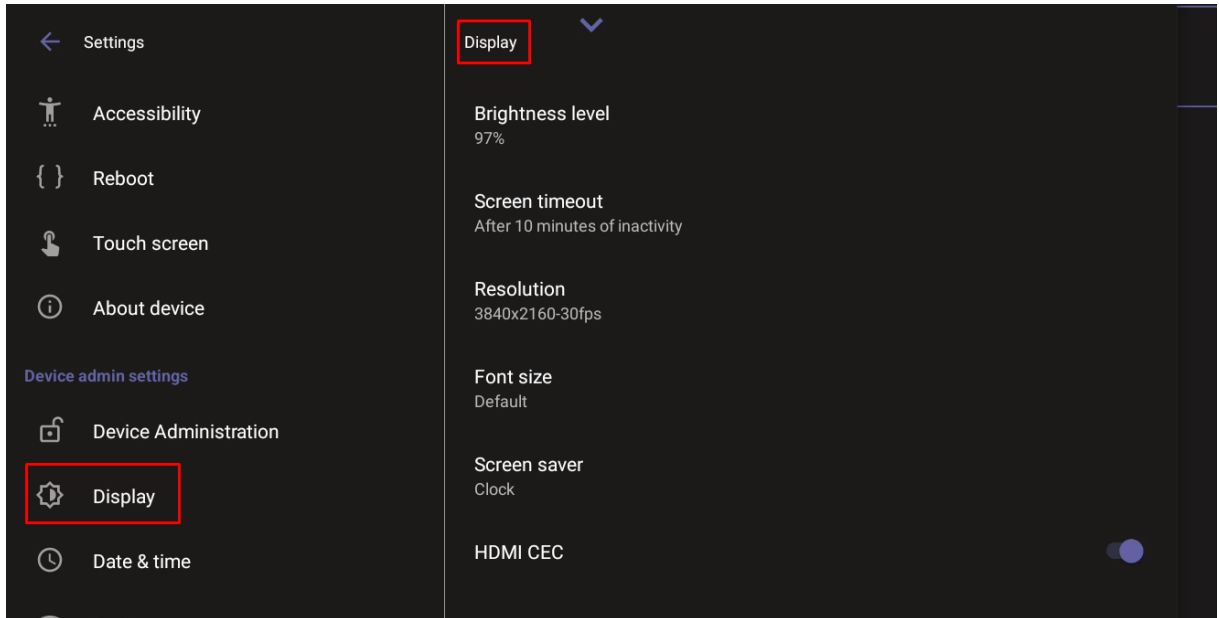
4. Select the **Apply update from USB disk** option and then choose the correct firmware image from the disk.

8.15 Limiting HDMI Resolution and FPS

Admin can limit HDMI Resolution and Frames per Second (FPS) for debugging purposes.

➤ **To limit HDMI Resolution and FPS:**

1. Open the Display page (**Settings > Display**).



2. Set 'HDMI CEC'.

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9 Saving Logs while Device is in Recovery Mode

The device features USB log export while in recovery mode. This feature enables users to seamlessly save logs while their device is in recovery mode.

In Android recovery mode, the system automatically mounts a partition, enabling users to connect a USB stick.

By simply clicking the **Export logs to USB disk** option, all logs are efficiently copied to the USB stick, providing a convenient and reliable method for log management during recovery procedures.

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10 Updating Microsoft Teams Devices Remotely

For instructions on how to update Microsoft Teams devices remotely, see [here](#).



Note: Before an update is pushed to a device, the firmware detects whether the user is using the device or not. If they are, the user is notified and given an option to delay the update or apply it, nonetheless. The feature avoids disrupting users' ongoing activities on their devices, such as calls.

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