

# RXV81 Bring Your Own Device (BYOD)

## Version 2.8





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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-05-2025

### Security Vulnerabilities

All security vulnerabilities should be reported to [vulnerability@audiocodes.com](mailto: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 Web site 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 BYOD Release Notes
RXV81 BYOD Quick Guide
One Voice Operation Center (OVOC) User's Manual
Device Manager Administrator's Guide

## Document Revision Record

LTRT	Description
18266	Update Version 2.8.

# 1 Introduction

AudioCodes' RXV81 Bring Your Own Device (BYOD) is a cost-effective, UC-agnostic collaboration bar designed for small and medium rooms, huddle rooms, focus rooms and executive rooms.

As a peripheral device, RXV81 BYOD with its integrated camera, microphones and speaker is connected in the room via USB to a PC or laptop running the UC application – Teams, Zoom, etc.

As a pure peripheral, RXV81 BYOD does not require any UC license to be installed on it.



**Important:** As a pure peripheral, RXV81 BYOD can be upgraded via software license (purchased separately) to a full Android MTR.

RXV81 BYOD is fully managed by the AudioCodes One Voice Operations Center (OVOC) | Device Manager (a plugin of OVOC), allowing admins to remotely oversee and easily upgrade all deployed devices from anywhere.

Note that RXV81 BYOD can be operated with a Remote Control Unit (RCU) or RX-PAD Meeting Room Controller.



**Note:**

- The RCU is bundled in the **RXV81P** bundle to control meetings (see also [here](#)).
- RX PAD is bundled in the **RXV81P-B10** bundle to control meetings (see also [here](#)).

A/V control functionalities include camera on / off, camera settings, mute / unmute and volume up / down.

Deployment is straightforward with its robust mounting element and minimal cable connections.



**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

RXV81 feature highlights:

- **Upgradable to a full Android MTR.** As a pure peripheral, RXV81 can be upgraded via software license (purchased separately) to a full Android MTR.
- **Plug-and-Play Simplicity for Fast Setup.**

An easy-to-use mounting element and minimal cable connections enable quick and simple deployment.



- **Control:**
  - **RX-PAD Meeting Room Controller** (see also [here](#)) -OR-
  - **Bluetooth Remote Control Unit (RCU)** (see also [here](#))  
Leverages Bluetooth for full control and bi-directional communication. Intuitive. Illuminated 'Mute' button.
- **High Quality Video and Audio.**  
Outstanding image clarity and superb surround sound ensures that everyone in the meeting room is seen and heard.
- **Wide-angle 4K Camera**  
Covers a 110° viewing angle capturing every seat in the room even in tight spaces with challenging lighting conditions. D: 120°/ H: 110°/ V: 75°
- **Easy to Manage from Anywhere.**  
Enhance the meeting experience with centralized device management and monitoring from any location.

## 1.2 Benefits

- An easy-to-use mounting element and minimal cable connections enable quick and simple deployment.
- Superior audio via a full-room pickup with no need for an additional external USB microphone or speaker.
- Effortlessly manage meetings using the dedicated Bluetooth RCU or RX-PAD Meeting Room Controller.
- Managed using AudioCodes' One Voice Operations Center (OVOC) Device Manager.

## 1.3 Hardware Features


- Wide-angle lens with 110° field of view (FoV) covers every seat in the meeting room. D: 120°/ H: 110°/ V: 75°
- Adjustable camera position with ePTZ support - 5x zoom - digital 5x zoom in. Manually vertically (up/down) adjustable  $\pm 15^\circ$ .
- 6-element microphone array with 4.5 m pickup range for mid-size rooms and a 10W speaker for superb sound
- Stylish design and finish.
- Built-in dual band Wi-Fi and Bluetooth.
- High Dynamic Range (HDR) automatically ON - Wide Dynamic Range (WDR).

## 1.4 Bundles

RXV81 BYOD is available in two bundles.

**Table 1-1: RXV81 BYOD Bundles**

Name	Details
RXV81P	<ul style="list-style-type: none"> <li>▪ Executive Offices   Huddle Rooms</li> <li>▪ RXV81 main unit</li> <li>▪ Bluetooth Remote Controller</li> </ul>

Name	Details
RXV81P-B10	<ul style="list-style-type: none"> <li>▪ Huddle Rooms   Small and Medium Meeting Rooms</li> <li>▪ 5-8 participants</li> <li>▪ RXV81 main unit</li> <li>▪ RX-PAD Meeting Room Controller</li> </ul> 

## 1.5 Management

RXV81 BYOD bundles are managed using AudioCodes' Device Manager, enabling admins to monitor and upgrade the devices from anywhere. Using Device Manager, admins can easily monitor and manage all bundled devices from a centralized location. Management includes:

- Firmware management / upgrade
- Alarm management

Admins can monitor the status of the device's modules from the System State page as shown [here](#).



**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.

## 1.6 Specifications

The following table shows RXV81 BYOD specifications.

**Table 1-2: Specifications**

Feature	Details
<b>Video capabilities</b>	<ul style="list-style-type: none"> <li>▪ 4k image sensor</li> <li>▪ Super-wide angle horizontal field of view: 110°</li> <li>▪ Lens: Fixed focus</li> <li>▪ ePTZ capable, digital 5x zoom in</li> <li>▪ Output resolution: 1080p</li> <li>▪ Frame rate: 30 fps</li> <li>▪ Manually adjustable, vertically (up/down) ±15°</li> <li>▪ High Dynamic Range (HDR) automatically ON - Wide Dynamic Range (WDR).</li> </ul>
<b>Audio</b>	<ul style="list-style-type: none"> <li>▪ Full duplex, noise suppression, acoustic Echo Cancellation, voice separation</li> <li>▪ 6x beamforming microphone array</li> <li>▪ Voice pickup range: 4.5m (15ft)</li> <li>▪ 10W speaker</li> </ul>
<b>Device Interfaces</b>	<ul style="list-style-type: none"> <li>▪ Power/reset button</li> <li>▪ USB 3.0 Type A (host) marked 1 to allow touch LCD or connectivity to wireless KB via BT USB dongle</li> <li>▪ Ethernet: 10/100 Mbps (RJ-45) network interface</li> <li>▪ USB2.0 Type-C (device) marked 2 to connect to PC/MAC BYOD device (peripheral mode)</li> <li>▪ 3 status LEDs indicating camera on/off, mute on, call state, device health</li> <li>▪ Wi-Fi (dual band support)</li> <li>▪ Bluetooth 5.0</li> <li>▪ 12V/3A DC power input</li> <li>▪ Remote Controller Unit (Bluetooth managed) or RX-PAD Meeting Room Controller</li> </ul>
<b>OS</b>	<ul style="list-style-type: none"> <li>▪ Android 12</li> </ul>
<b>Security</b>	<ul style="list-style-type: none"> <li>▪ Encryption: TLS (Transport Layer Security), SRTP encryption for media, AES256</li> <li>▪ Network Access Control: IEEE 802.1x</li> <li>▪ Built-in certificate</li> </ul>
<b>Management</b>	<ul style="list-style-type: none"> <li>▪ AudioCodes Device Manager, a plugin of AudioCodes One Voice Operations Center (OVOC)</li> </ul>
<b>RXV81 Device Feature Set</b>	<ul style="list-style-type: none"> <li>▪ Camera settings with different privileges for user and admin</li> <li>▪ In idle (Admin) and during a call/meeting (all users), long-pressing the camera button on the RCU allows: <ul style="list-style-type: none"> <li>✓ Defining/editing a new preset</li> <li>✓ Moving to different presets</li> <li>✓ Changing all settings options</li> </ul> </li> <li>▪ Video quality: Resolution of 1080p on the decoder side and 720p on the encoding side</li> <li>▪ RXV81 integration with AudioCodes OVOC-Device Manager</li> <li>▪ RXV81 Alerts to AudioCodes OVOC-Device Manager: <ul style="list-style-type: none"> <li>✓ Notification sent to screen/TV and to Device Manager if RCU is disconnected or if it's malfunctioning</li> </ul> </li> </ul>

Feature	Details
	<ul style="list-style-type: none"> <li>✓ Notification sent to screen/TV and to Device Manager if RCU battery voltage level falls low, indicating what percentage level remains unused</li> <li>✓ RCU flashes if the connection to RXV81 fails.</li> <li>▪ Camera frequency set per power supply:                             <ul style="list-style-type: none"> <li>✓ 110V – 60Hz</li> <li>✓ 220V – 50Hz</li> </ul> </li> <li>▪ Shortcut keys for administrators to manually perform recovery operations</li> </ul>

## 1.7 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 Connecting to RXV81



**Note:** See the *RXV81 BYOD Quick Guide* shipped with the product or available from AudioCodes for information about RXV81 hardware, including:

- Package contents
- Mounting
- Cabling

After mounting and cabling RXV81, connect to it the

- RCU -or-
- RX-PAD

### 2.1 Connecting RCU to RXV81

See the *RXV81 BYOD Quick Guide* for instructions on how to connect the RCU to RXV81.



**Note:** Applies to the **RXV81P** bundle only.

### 2.2 Connecting RX-PAD to RXV81

See the *RXV81 BYOD Quick Guide* for instructions on how to connect RX-PAD to RXV81.



**Note:** Applies to the **RXV81P-B10** bundle only.


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## 3 Using General RXV81 Functions

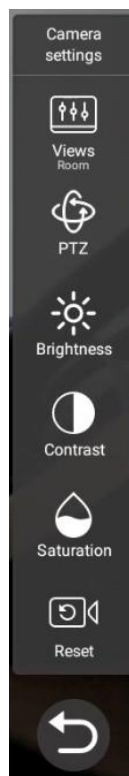
### 3.1 Modifying RXV81 Camera Settings

You can modify RXV81 camera settings relating to the look and feel of the video user interface, to suit your preferences.

➤ **To access RXV81 camera settings:**

- On the remote controller, long-press the camera icon 
- In RX-PAD, long-press the camera icon on the device.

**Figure 3-1: RXV81 Camera Settings**



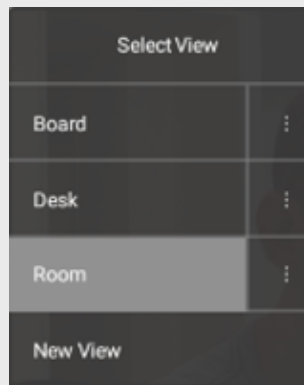
**Note:**

- During a call, *all users* who are signed into RXV81 – Admins *and* personal users - can change **Camera settings**, including the presets. All have the permissions required to do so. When the call ends, RXV81 reverts to its preconfigured presets.
- Only the Admin can access **Camera Settings** in idle and edit camera presets; the user can only move between the defined presets during a video call/meeting. The user can change **Camera Settings** during the meeting but the changes are not saved.
- Changing camera settings during a meeting can be done without turning off the video to remote parties.
- The option to access **Camera settings** from RXV81's **Device Settings** still exists; administrator permissions will be required in this case.



- The **Camera settings** option allows saving different camera settings to be used in a video call so that users can switch easily between predefined camera settings (camera presets) per user requirements in the call.

**Note:** Users can toggle between the presets, a convenient way to move from one preset to another, to view each preset and to reconfigure a preset. Click the **Camera Views** option and in the **Select View** menu that opens, choose the required preset.



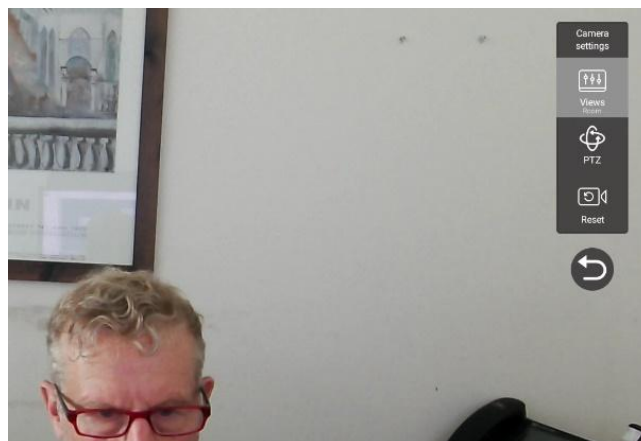
- For example, if a preset is configured to zoom in and focus on the whiteboard in a room, users in a video call/meeting can switch to it and later switch back to the full room preset or any other predefined preset. It's recommended to have a few presets configured for locations frequently zoomed in and focused on:
  - ◆ **Full room view** to capture all participants and action in a meeting room
  - ◆ **Presenter or single user / desk view** to focus on a single user in the room, usually the presenter
  - ◆ **Whiteboard view** if there's a whiteboard in the room
  - ◆ **Sunlight or dark modes** if direct sunlight enters the room at specific times of the day/year

Camera settings can be changed during a meeting without turning off the video to remote parties.

➤ **To add a camera preset when in idle mode:**

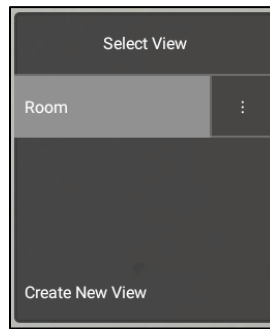
1. Long-press the camera button to access **Camera settings**.

**Figure 3-2: Camera settings**



2. Navigate to and select **Views** to create a view; you can create up to three views.





- 3. Navigate to and select **PTZ** to define pan, tilt, and zoom settings for each view.



- 4. Navigate to and select **Reset** for the camera settings to return to their defaults.

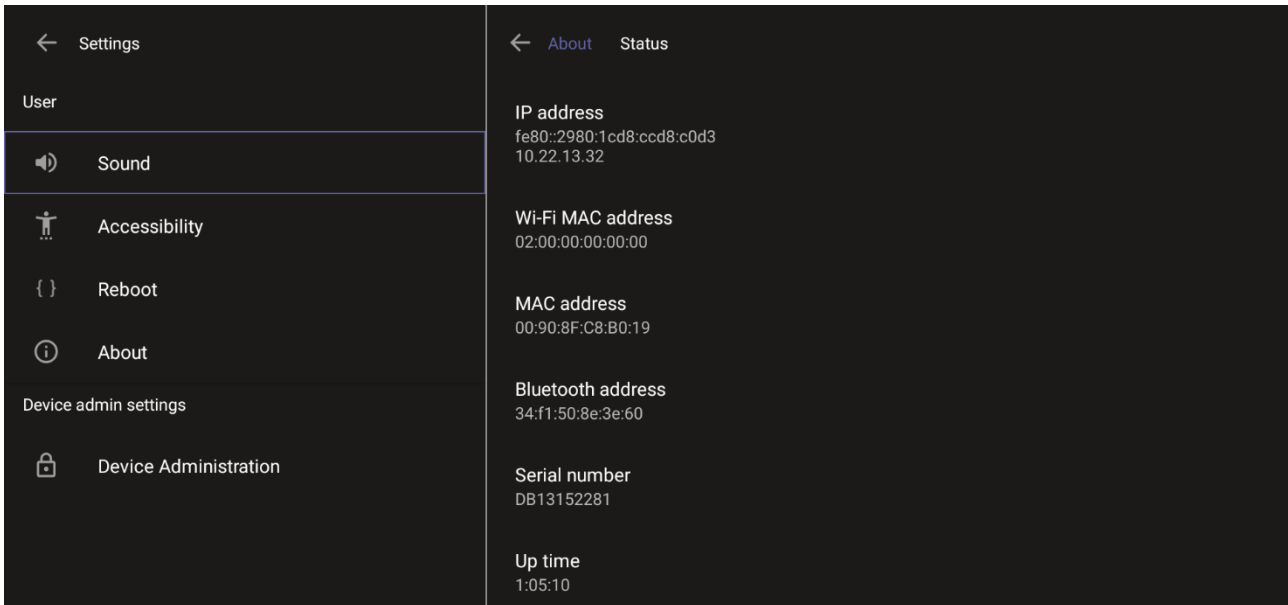
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## 4 Configuring RXV81 Settings

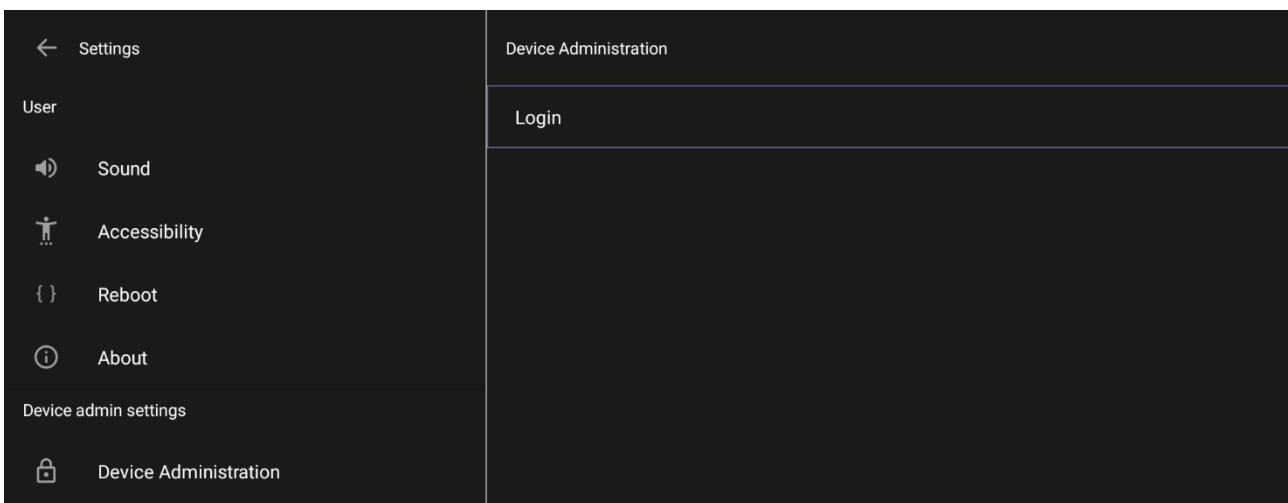
The section familiarizes you with RXV81's settings. RXV81s are delivered configured with their default settings. Customers can customize them to suit enterprise requirements.

➤ **To access device settings:**

1. From RX-PAD, touch the Settings button -OR- on the RCU, press the 'settings' button.



2. Navigate to and select **Device Administration**.

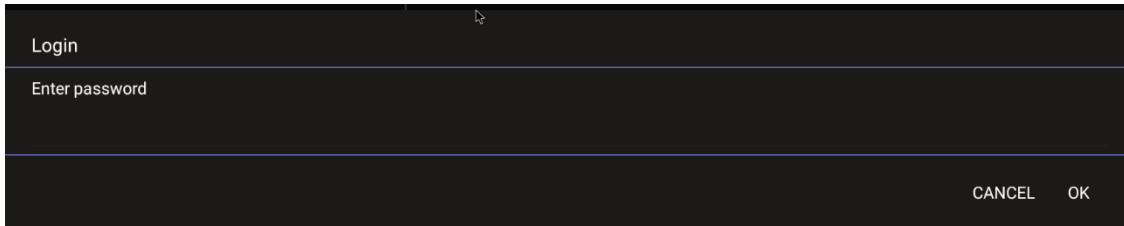


3. Log in as an administrator.



**Note:** Logging in as Administrator is required for debugging options. It's password protected. Default: **1234**. After logging in as Admin, you can log out | change password.

4. Select **Login**.



5. Enter the password (**1234**) in the 'Enter password' field; use the virtual keyboard to enter the password.



**Note:** The virtual keyboard pops up for all 'Settings' fields to allow inputting characters and / or numbers. Two virtual keyboard types can be displayed: Numeric or QWERTY.

6. Select **OK**; you're prompted to change password.



**Note:**

- The default password must be changed before access to the device via SSH is allowed.
- The default password can be changed per device from the GUI.

7. Enter a password; you're prompted to verify the password you entered. Criteria required for a strong password are provided (for strengthened security) in order to Log in as Administrator:

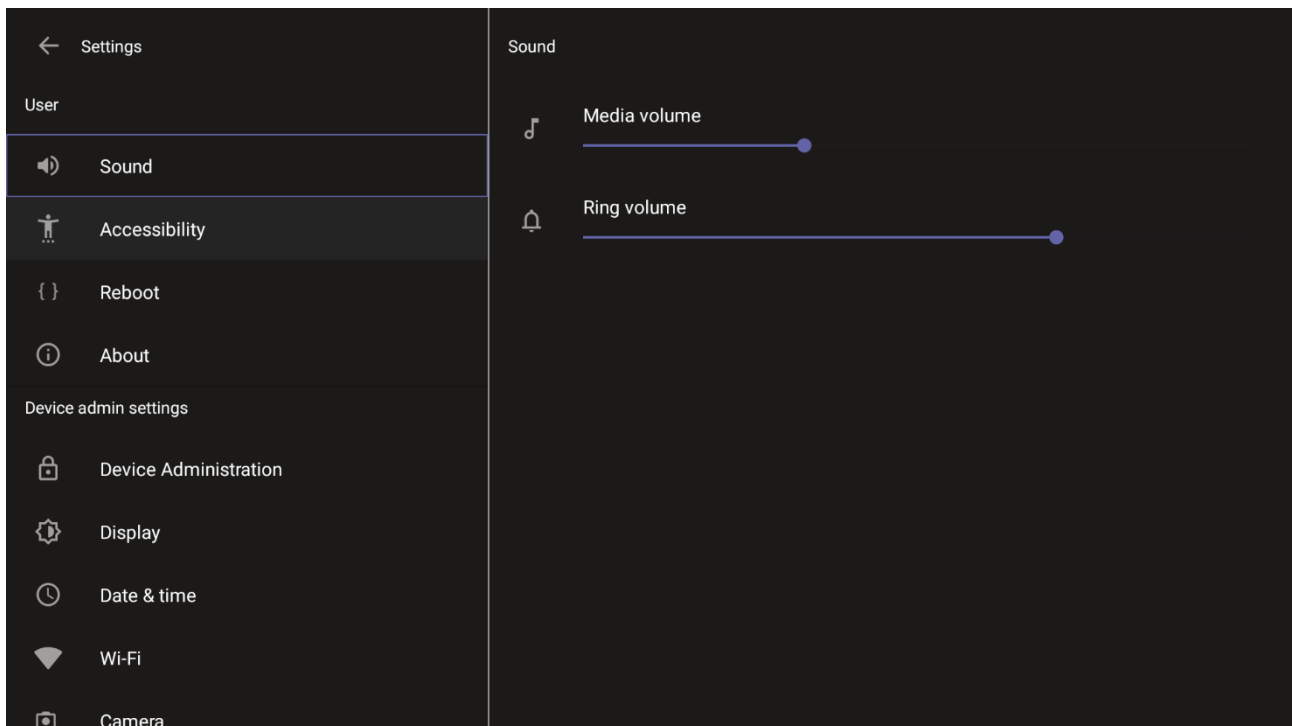
- The password length must be greater than or equal to 8.
- The password must contain one or more uppercase characters.
- The password must contain one or more lowercase characters.
- The password must contain one or more numeric values.
- The password must contain one or more special characters.



**Note:** These virtual keyboards are also displayed when the admin needs to enter an IP address to debug, or when they need to enter their PIN lock for the security setting.

After logging in, the Settings screen now also displays the settings under the section 'Device admin settings'.

8. Click **OK**; the Settings screen now also displays 'Device admin settings', in addition to the 'User' settings.



## 4.1 Device Admin Settings

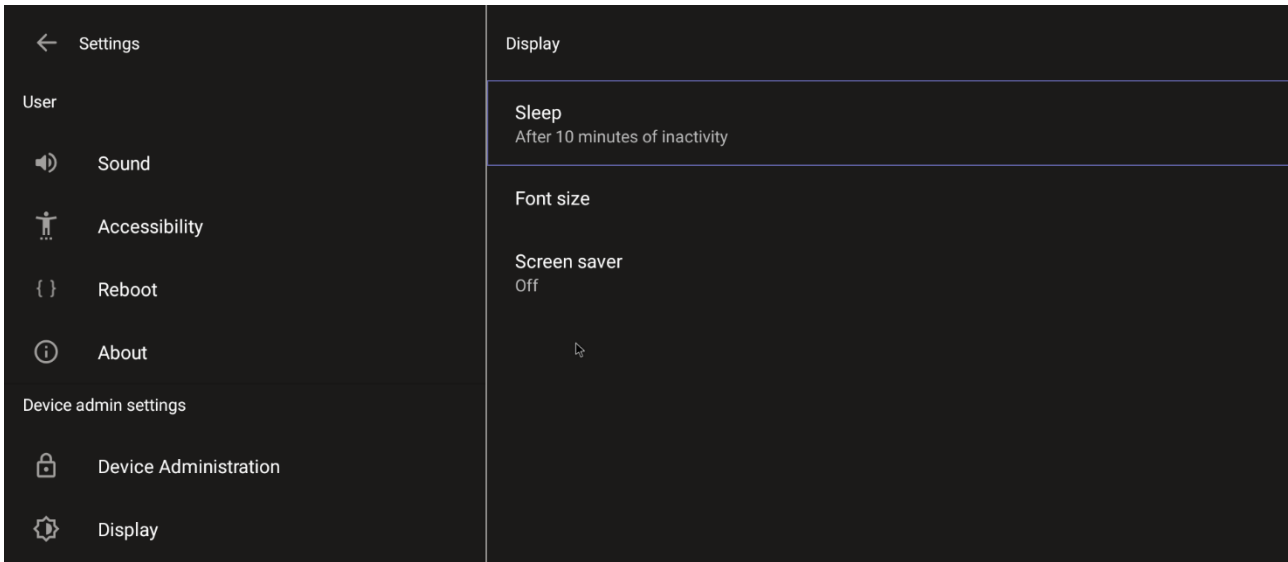
After logging in as Device Administration as shown in the previous section, you can configure Device Administration settings: Display, Date & Time, Wi-Fi, Camera.

### 4.1.1 Configuring Display

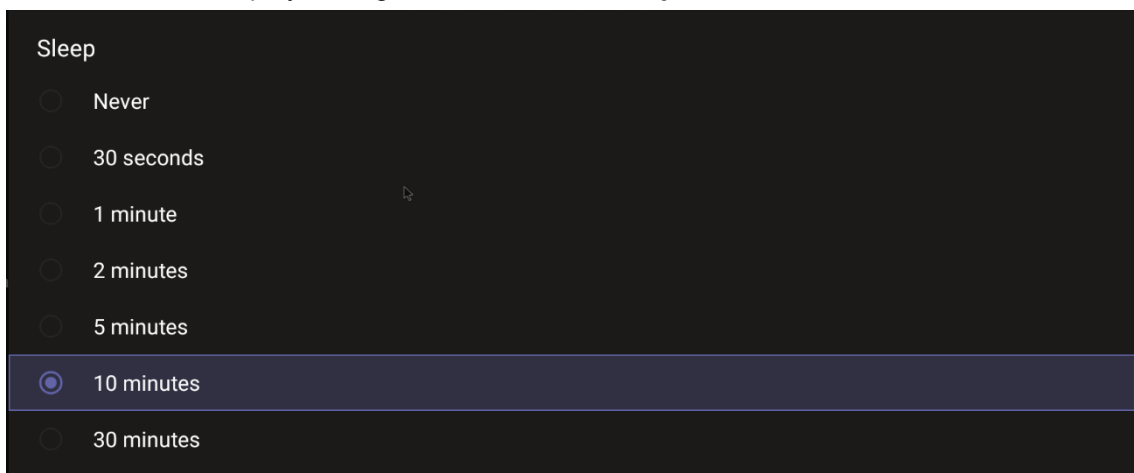
Modify these settings to suit your preferences related to the look and feel of the user interface.

➤ **To configure Display settings:**

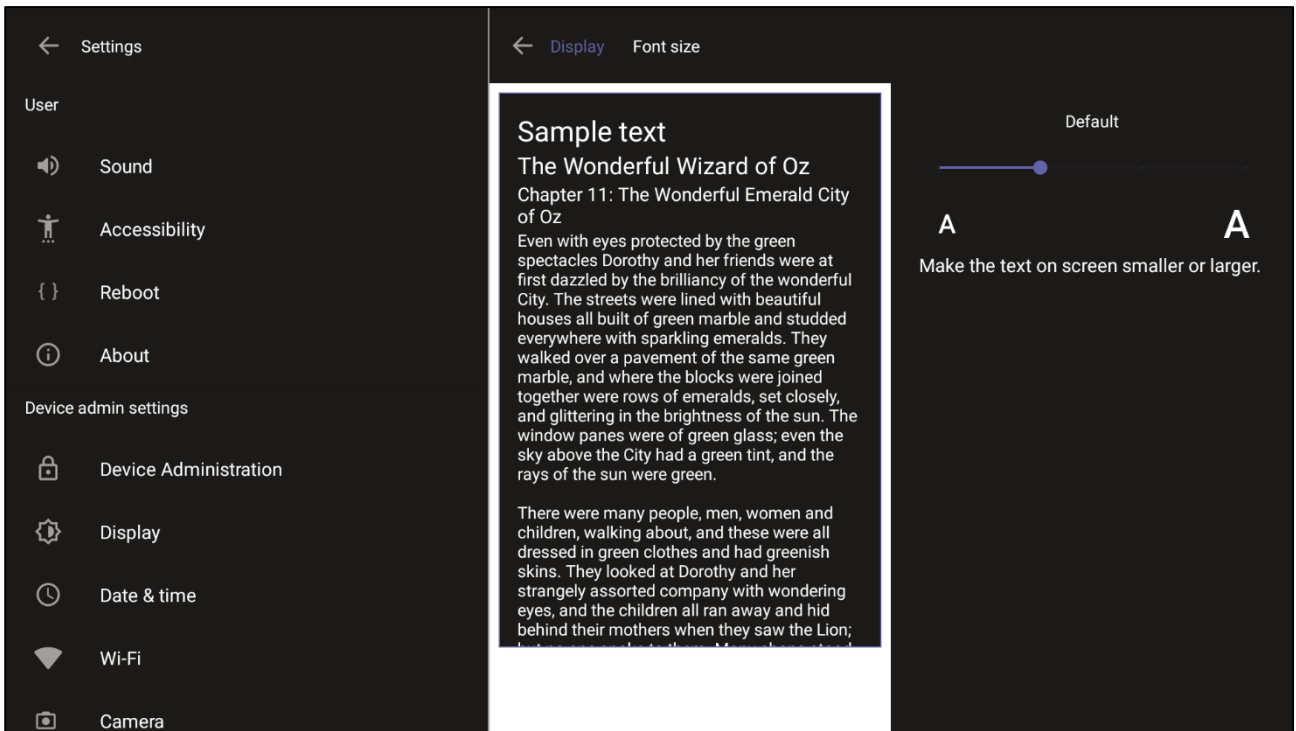
1. Under 'Device admin settings', navigate to and select **Display**.



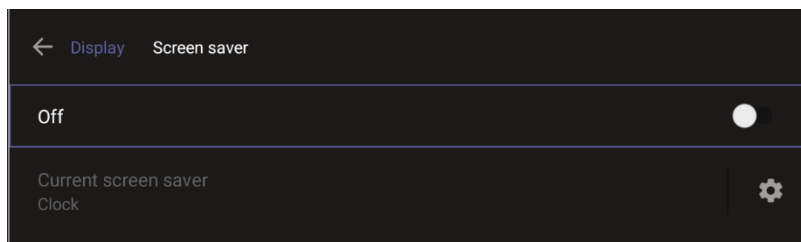
2. Under 'Display', navigate to and select **Sleep**.



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



5. Navigate to and select **Screen saver**.



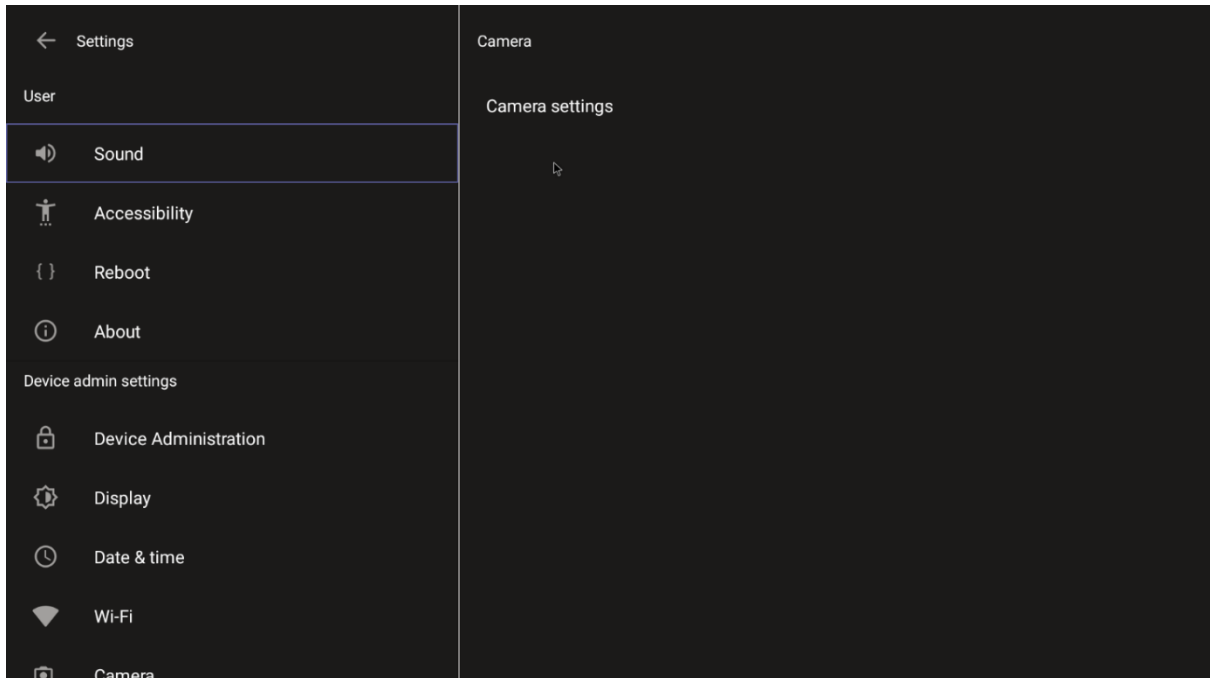
6. Navigate to and select **Off** to switch it on and then choose the screen saver.

### 4.1.2 Configuring Camera Settings

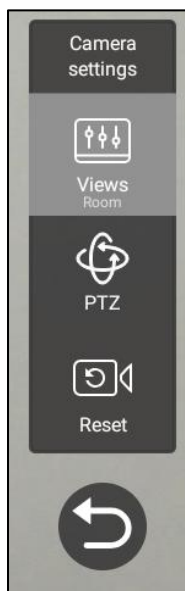
Settings controlling the look and feel of the video UI can be set to suit individual preferences.

➤ **To configure Camera settings:**

1. Under 'Device admin settings', navigate to and select **Camera**.



2. Navigate to and select **Camera settings**; the video stream is played and the following is displayed on the right side of the screen:



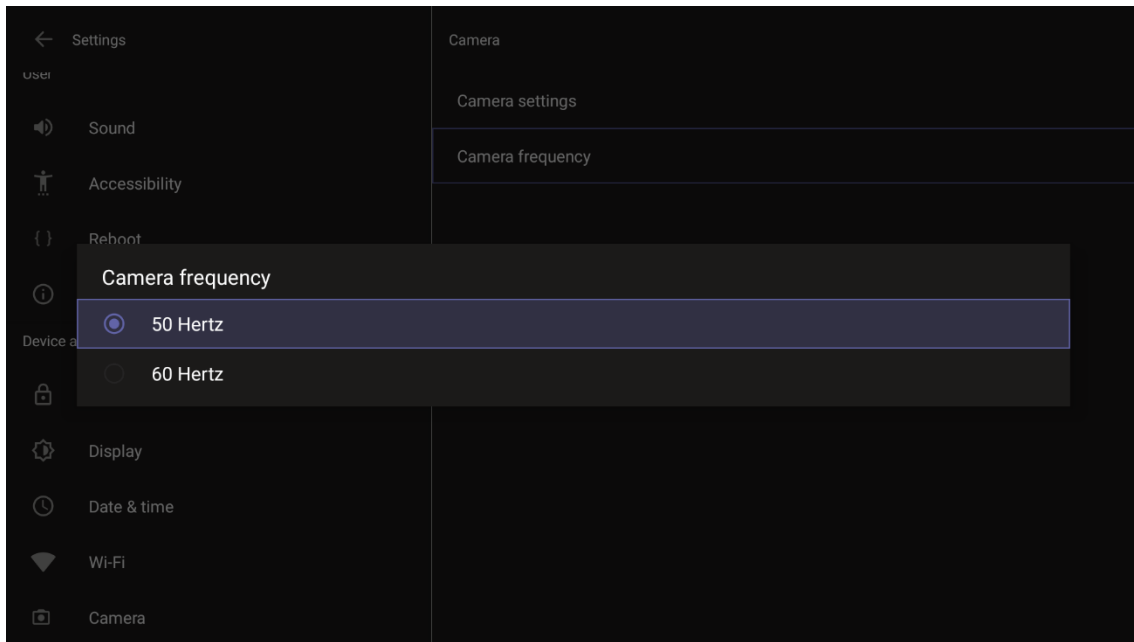
3. Create and edit presets using PTZ control.



### 4.1.2.1 Configuring Camera Frequency

The **Camera frequency** (under **Device settings**) must be set per the power supply as follows:

- 110V – 60Hz
- 220V – 50Hz



### 4.1.3 Auto Framing

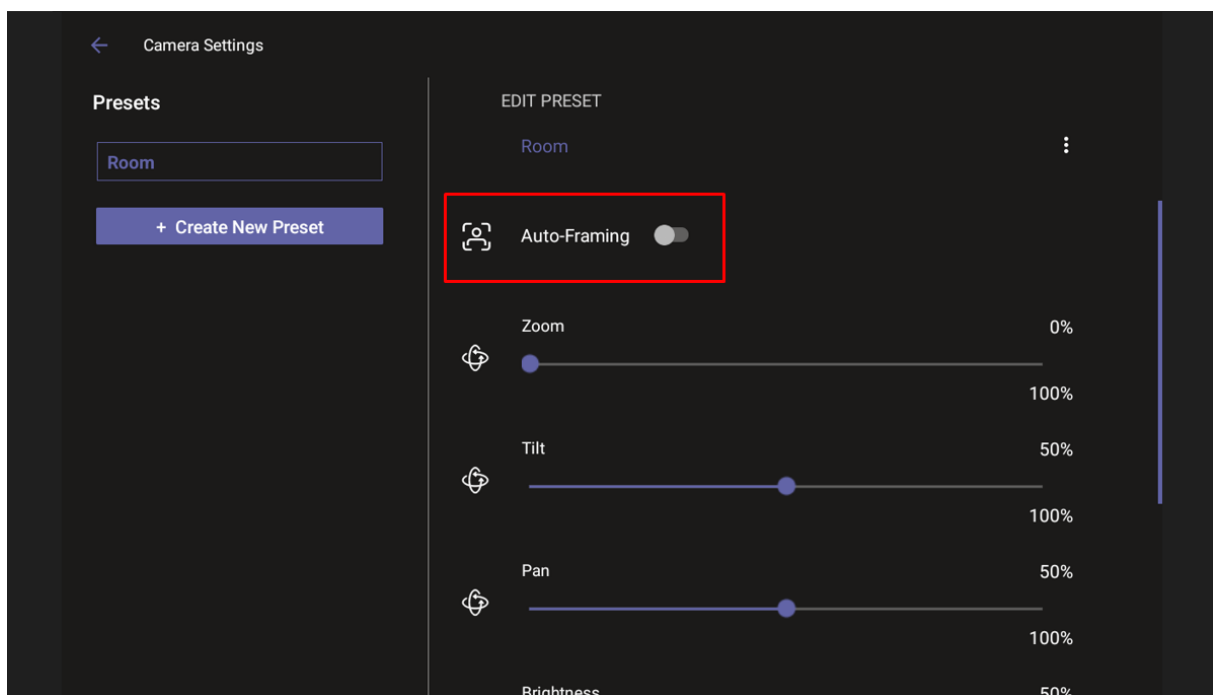
An Auto-Framing option is available under Camera Settings.

- To enable Auto-Framing on RXV81 paired with RX-PAD, use the camera hard key to access the Camera Settings page.
- For RXV81 paired with the Remote Controller unit (RCU), long-press the RCU's camera button to access the Camera Settings page.



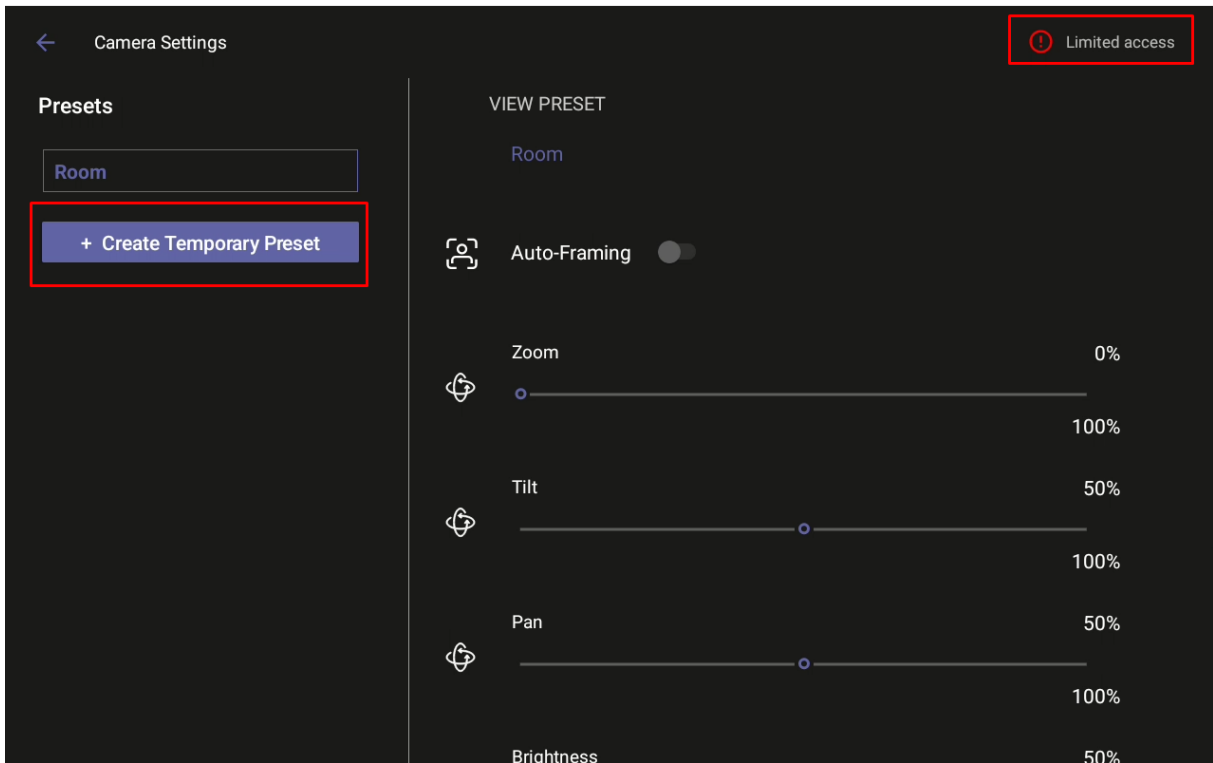
**Note:**

- 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.

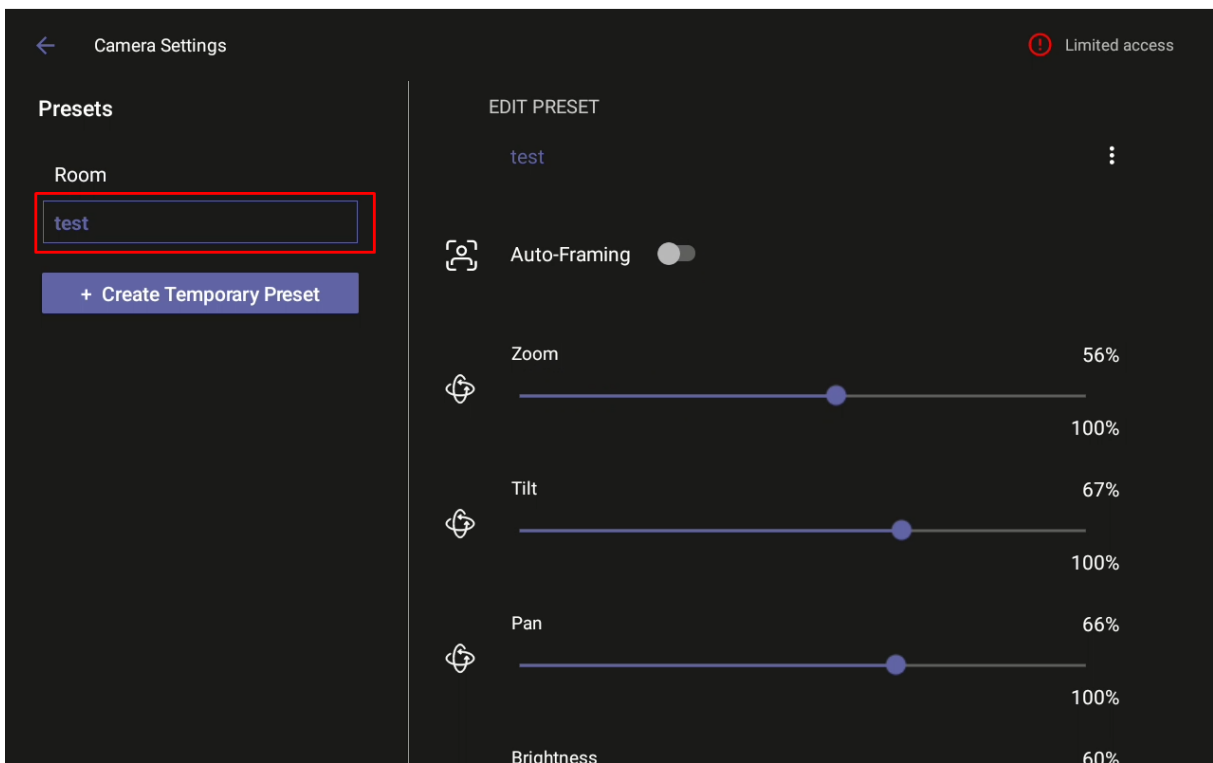


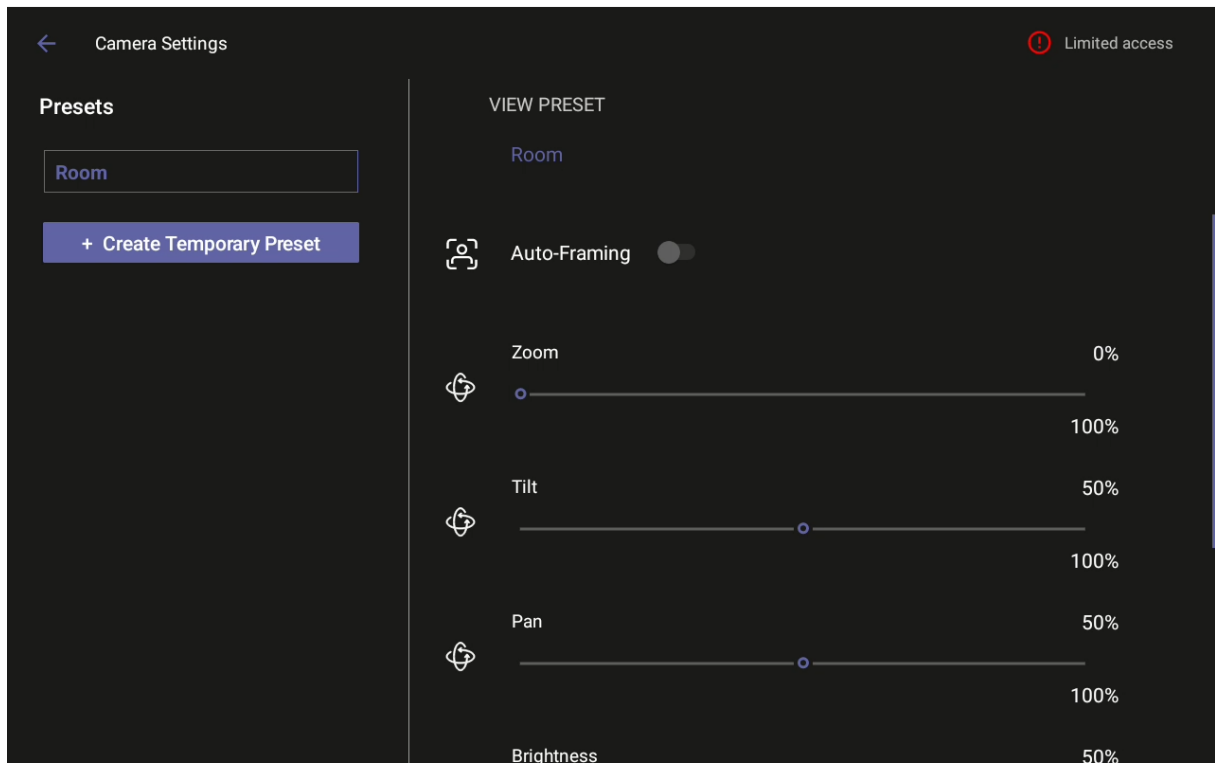
When Auto-Framing is enabled, PTZ (Pan Tilt Zoom) functions are disabled.

End users without administrator permissions can create temporary presets in the Camera Settings page as shown in the figures below.



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



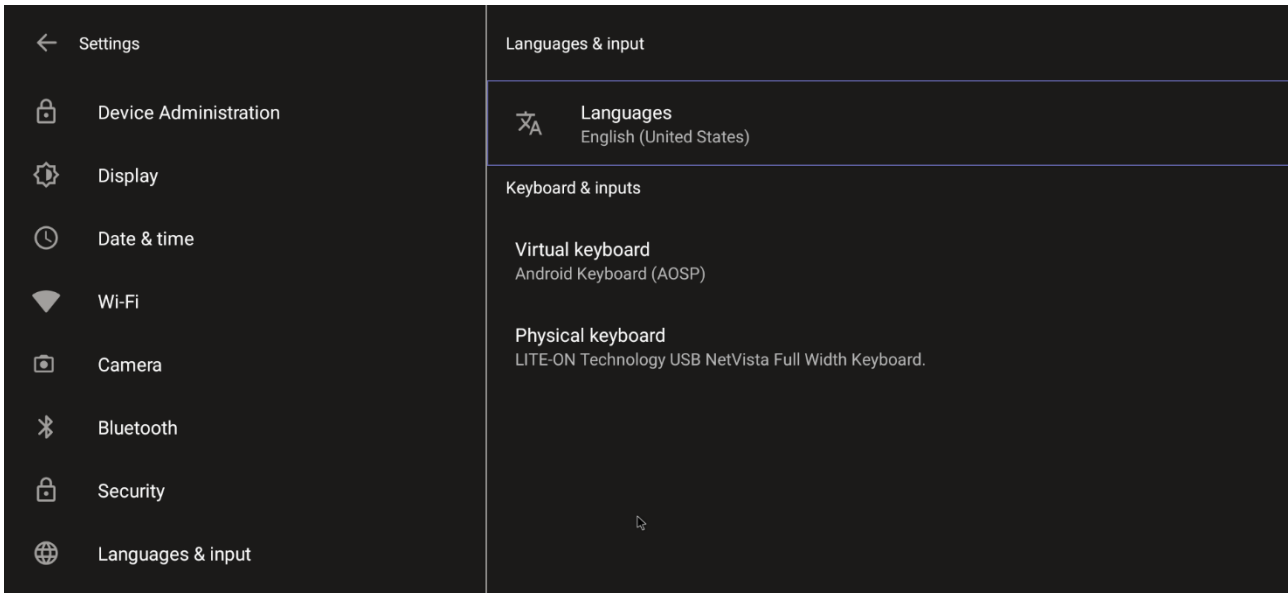


### 4.1.4 Configuring UI Language & Input

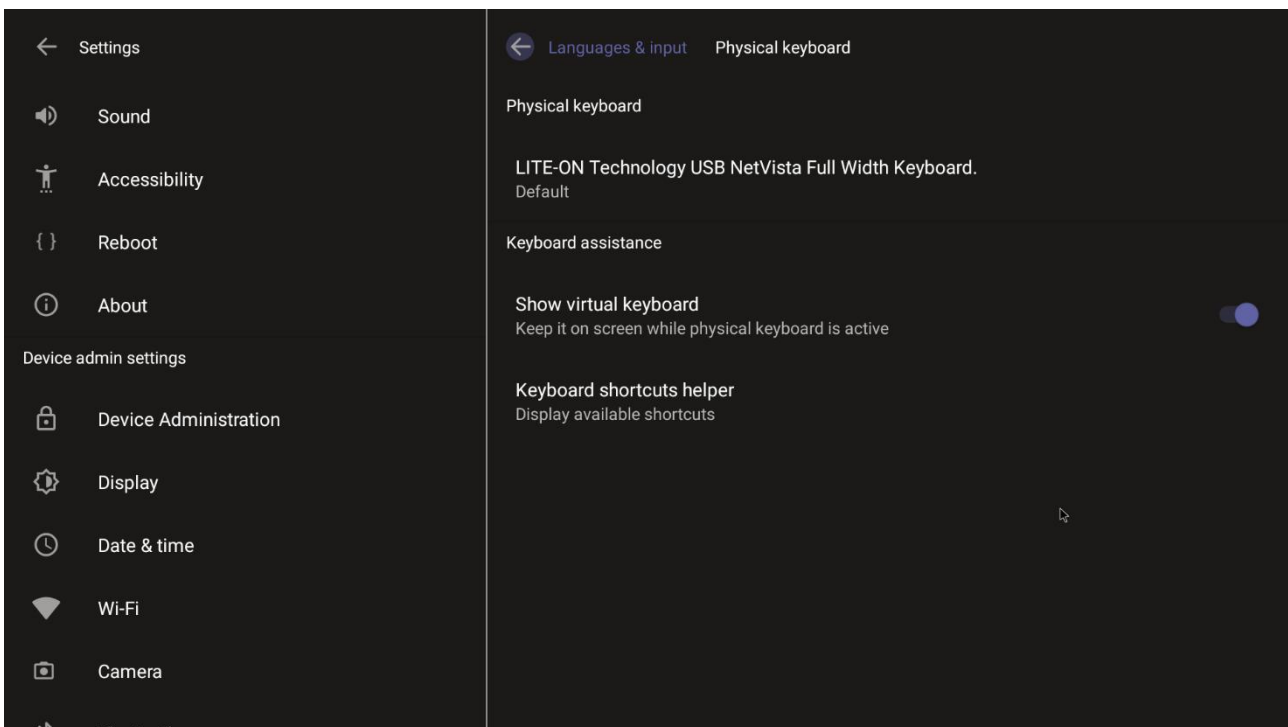
This setting allows users to customize inputting to suit personal requirements.

➤ **To set language and input:**

1. Under 'Device admin settings', navigate to and select **Languages & input**.



2. Navigate to and select **Physical keyboard**.



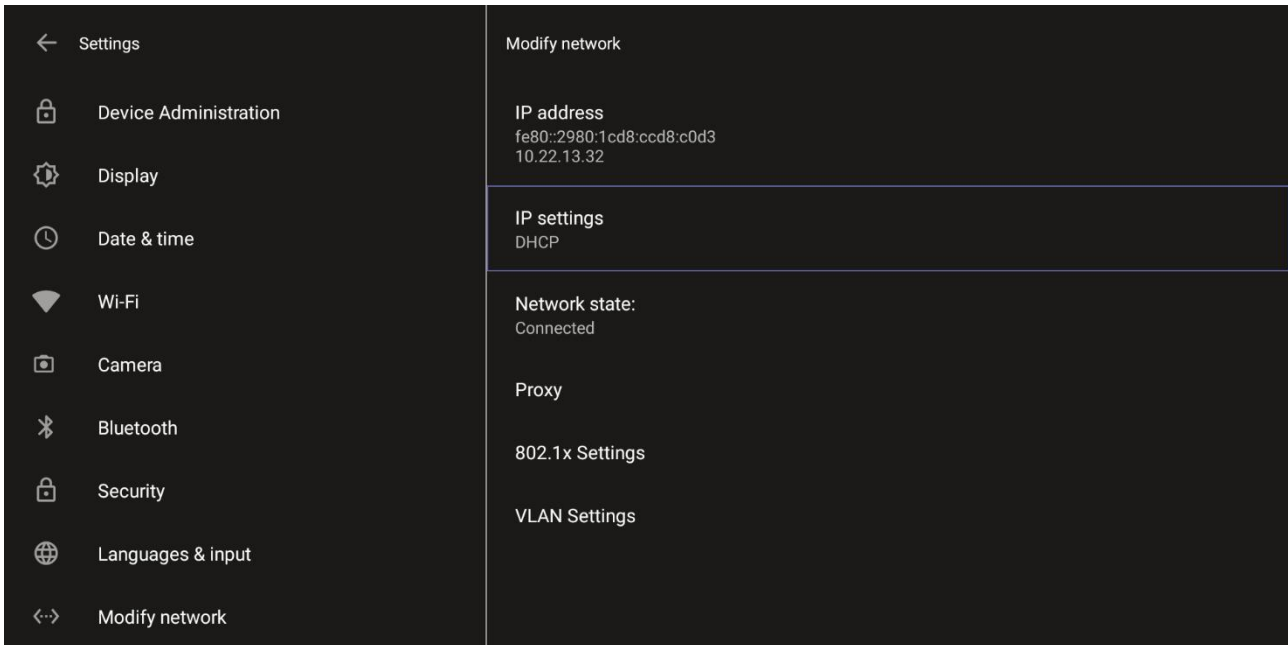
3. Navigate to and select **Show virtual keyboard**.

### 4.1.5 Modifying IP Network Settings

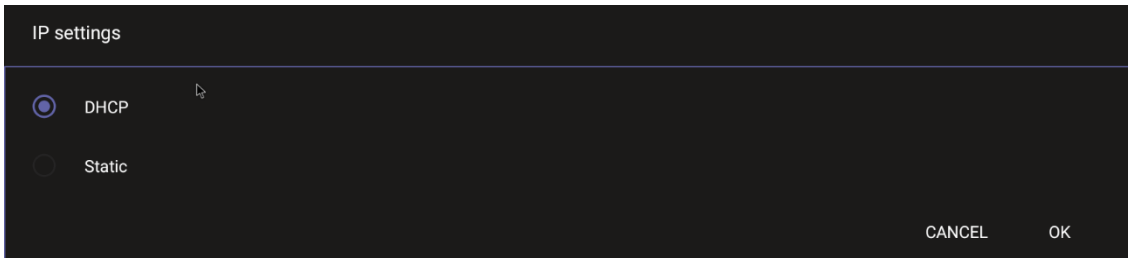
This setting enables the Admin user to determine IP network information and to modify IP network settings.

➤ **To modify network settings:**

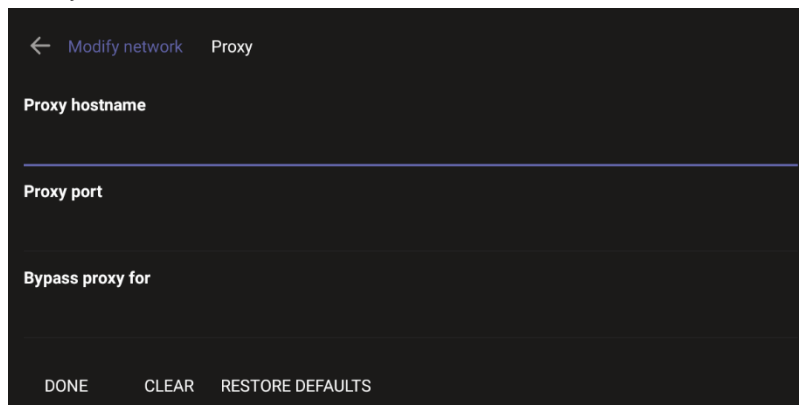
1. Under 'Device admin settings', navigate to and select **Modify network**.



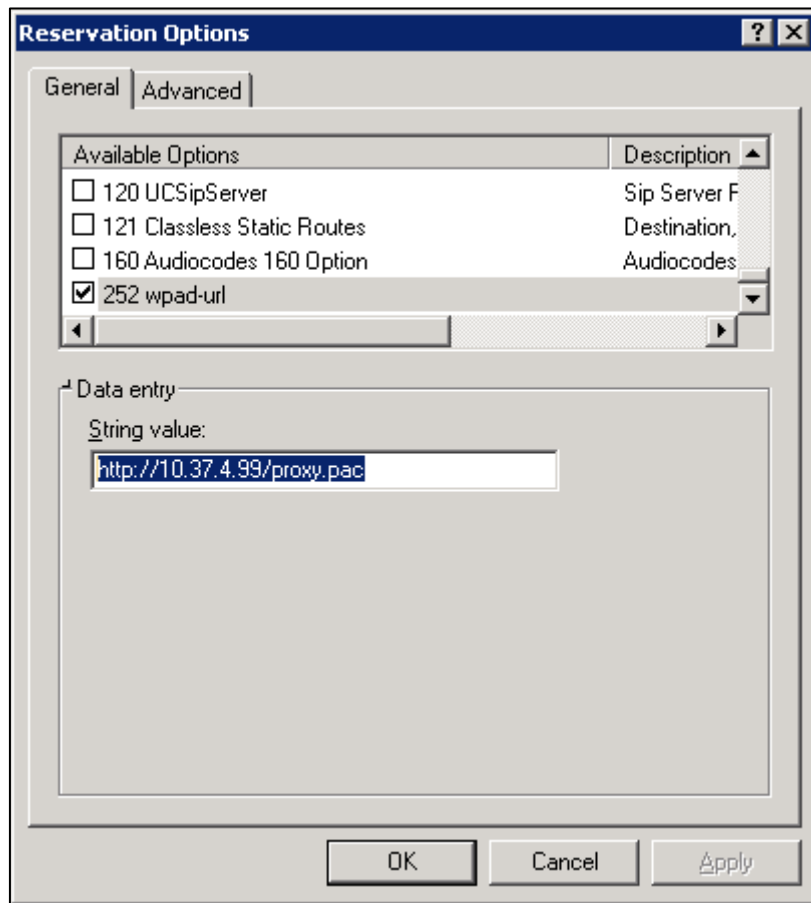
2. Navigate to and select:
  - IP Address [Read Only]
  - IP Settings [DHCP or Static IP]



- Network state [Read Only]
- Proxy



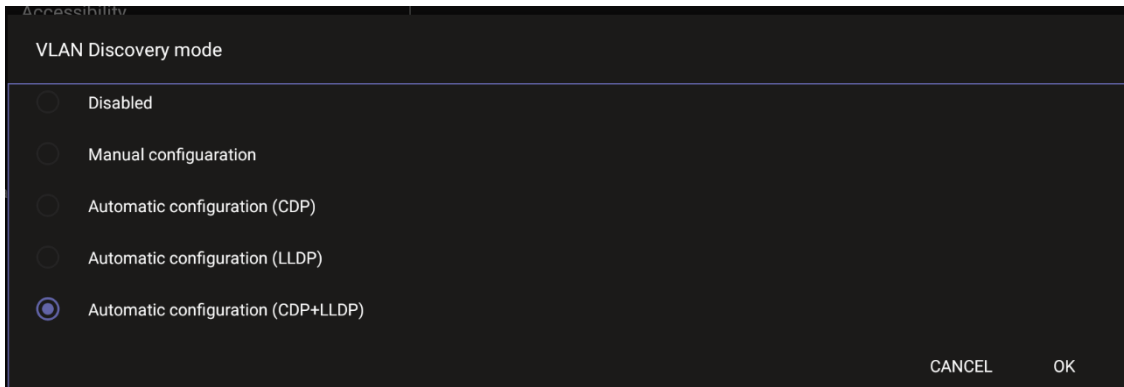
- ◆ Manually (from the screen shown in the preceding figure). Allows you to configure RXV81 with an HTTP proxy server. Configure the proxy hostname and proxy port and then navigate to and select **Done**.
- ◆ **DHCP Option 252** (recommended). Option 252 provides a DHCP client with a URL to use to configure its proxy settings:



The proxy setting is provided in a Proxy Auto-Configuration (PAC) file that contains a set of rules coded in JavaScript which allows a web browser to determine whether to send web traffic directly to the Internet or to be sent via a proxy server. PAC files control how the phone handles HTTP, HTTPS, and FTP traffic. Example of a basic PAC file:

```
function FindProxyForURL(url, host)
{
return "PROXY 10.13.2.40:3128";
}
```

- 802.1x Settings [Allows enabling 802.1x]  
802.1X Authentication is the IEEE Standard for Port-based Network Access Control (PNAC). See <https://1.ieee802.org/security/802-1x/> for more information.
- VLAN Settings
  - ◆ Allows you to configure 'VLAN Discovery mode' to Manual configuration, Automatic configuration (CDP), Automatic configuration (LLDP) or Automatic configuration (CDP+LLDP)]

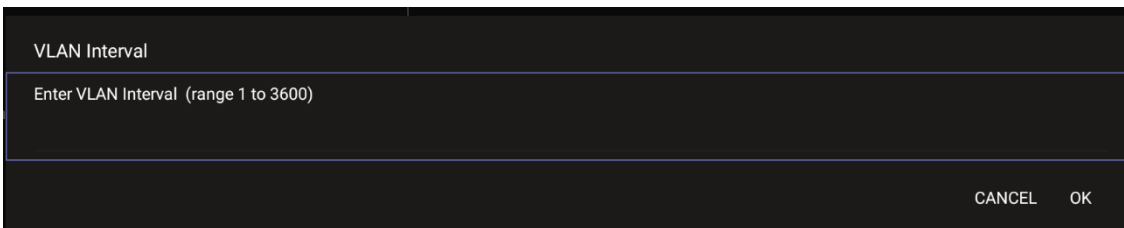


Cisco Discovery Protocol (CDP) is a Cisco proprietary Data Link Layer protocol  
 Link Layer Discovery Protocol (LLDP) is a standard, layer two discovery protocol



**Note:** The VLAN configuration is by default **data VLAN** rather than voice VLAN, in compliance with the requirement specified [here](#) for the device not to advertise itself as a voice device. The default CDP/LLDP configuration is **data VLAN**.

- ◆ Allows you to configure 'VLAN Interval'.



'VLAN interval' refers to CDP/LLDP advertisements' periodic interval. Default: 30 seconds. You can increase or decrease the intervals between the CDP/LLDP packets that are sent, based on network traffic and topology.



**Note:**

- In versions before 1.19, if network VLAN mode '/network/lan/vlan/mode' was set to LLDP, the device retrieved the VLAN and LLDP switch information (for location purposes) from LLDP.
- From version 1.19, LLDP switch information (for location purposes) is retrieved when parameter network/lan/lldp/enabled=1 (even when VLAN is retrieved from **CDP** or VLAN is **Manual**).

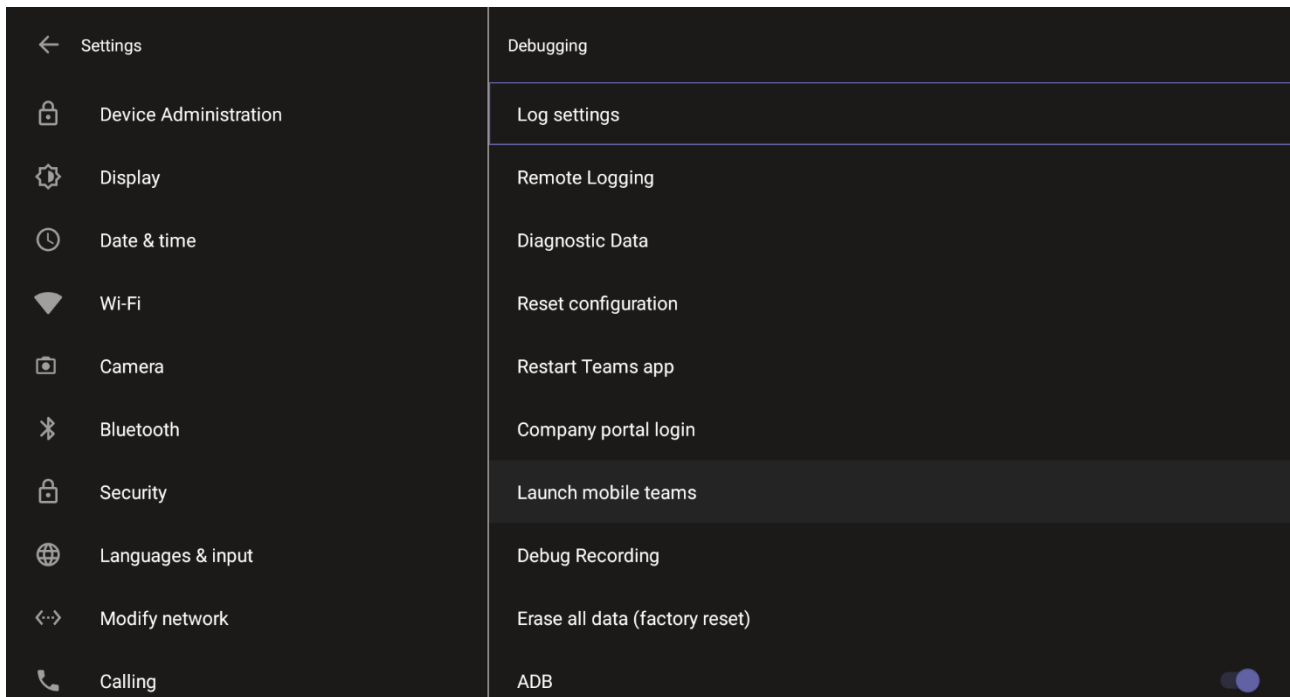


## 4.1.6 Debugging

Admin users can perform debugging for troubleshooting purposes. A bug report is available to allow admins to perform efficient debugging. The report also includes information such as pack up time, ps, top, meminfo and df commands (information about file system disk space usage) for optimized debugging.

➤ **To perform debugging:**

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



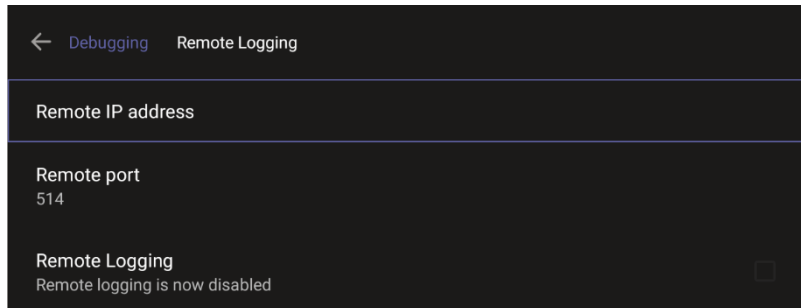
2. Use the following debugging features available to Admin users:
  - Remote Logging (see under [Remote Logging](#))
  - Diagnostic Data (see under [Diagnostic Data](#))
  - Reset configuration (see under [Reset configuration](#))
  - Debug Recording (see under [Debug Recording](#))
  - Erase all data (see under [Erase all data \(factory reset\)](#))
  - Screen Capture (see under [Screen Capture](#))

### 4.1.6.1 Remote Logging

Remote Logging via Syslog provides log-level diagnostics with information relevant to device issues. With Remote Logging via Syslog, 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 ""
```

### 4.1.6.2 Diagnostic Data

Admin users who need to get logs from the device can dump the logs to the phone'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'; RXV81 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):

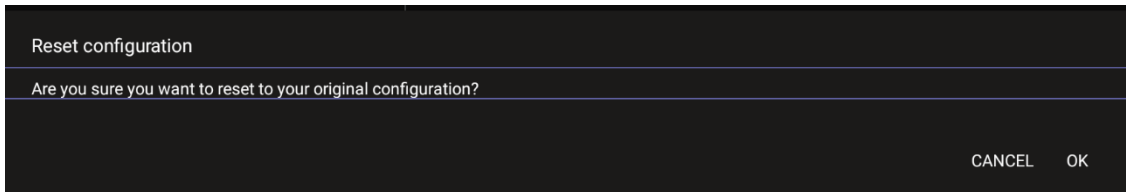
- dmesg.log
- dumpstate1.3.16-undated.txt
- dumpstate\_log-undated-2569.txt
- logcat.log

### 4.1.6.3 Reset configuration

Admin users can opt to 'clean up' their configuration history and return RXV81 to an Out of Box Experience (OOBE).

➤ **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](#).

### 4.1.6.4 Debug Recording

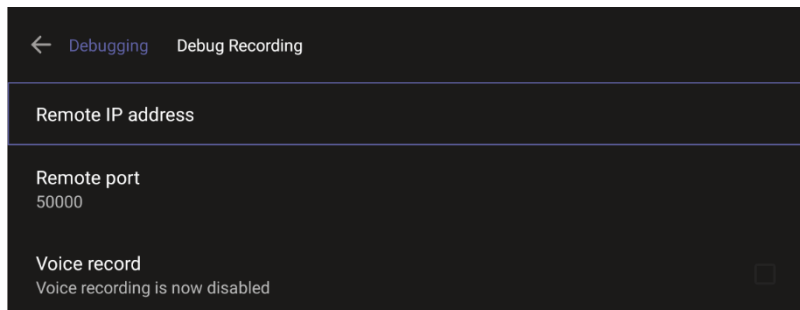
This feature enables Admin users to perform media/DSP debugging.



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

➤ **To reset the configuration:**

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



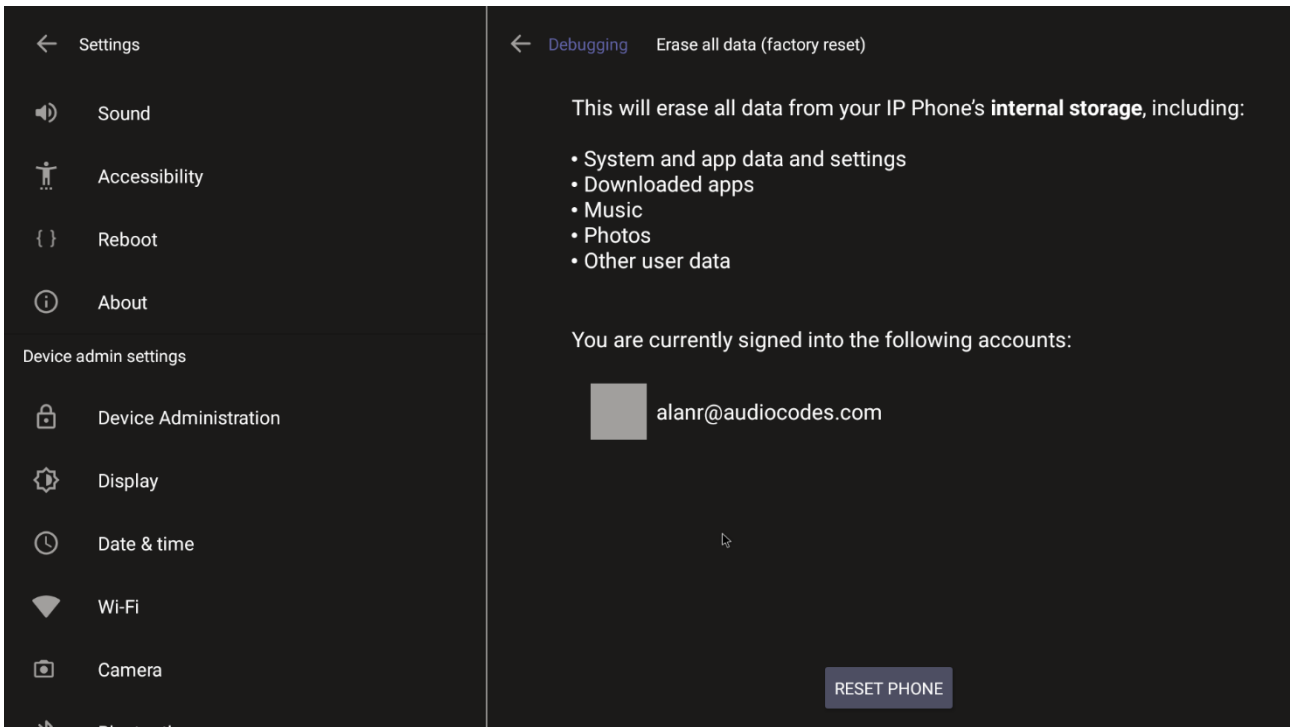
2. Navigate to and select **Voice record** to enable the feature.
3. Navigate to and select **Remote IP address** to input the IP address of the device whose traffic you want to record.
4. Navigate to and select **Remote port** and input it (Default: 5000).
5. Start Wireshark on your PC to capture audio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

### 4.1.6.5 Erase all data (factory reset)

This option is the equivalent of restore to defaults, 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**.

#### 4.1.6.6 Screen Capture

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

## 4.2 Performing Recovery Operations using Power Button

Network administrators can perform recovery operations using the power button on the rear panel of RXV81.



**Note:** Besides this recovery option, Android devices also feature an independent, automatic problem detection and recovery attempt capability that can culminate in recovery mode or in switching image slots.

The following figure shows the power button.



➤ **To perform recovery operations:**

1. Disconnect the power cord from RXV81 while long-pressing the power button for as long as is required for the action (see [Table 4-1](#) below for the available actions - see the **Action** column - and durations – see the **Long-press for** column).
2. Reconnect the power cord and continue pressing the power button for however long is necessary.

**Table 4-1: Recovery Operation Options using RXV81’s Power Button**

Stage	Action	Long-press for	LED Flashes 3x
On Uboot	NOTHING	< = 2 seconds	
	ENTER_RECOVERY	2-4 seconds	RED
	SWITCH_AB_SLOT	4-6 seconds	WHITE
	ENTER LOADER	6-8 seconds	BLUE
	RESTORE_DEFAULT	8-10 seconds	BLUE + WHITE
	SHUTDOWN	> = 10 seconds	

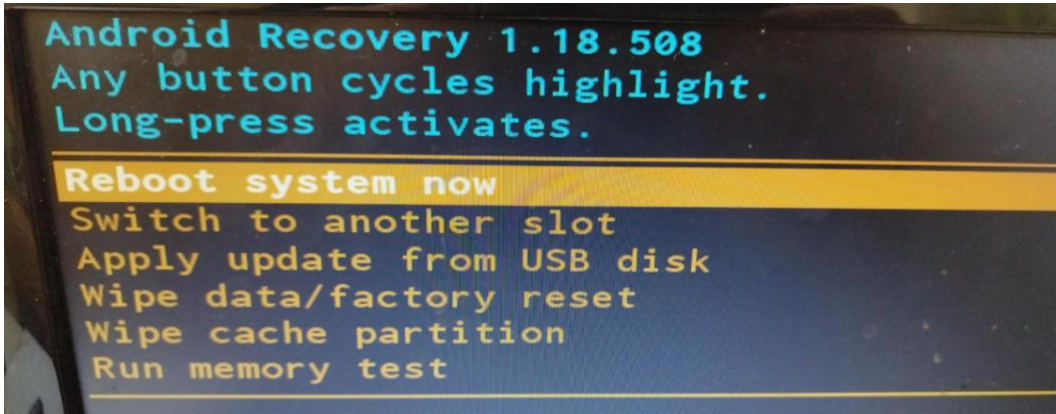
3. In the recovery menu use the power button to navigate between menus in the recovery mode. A long press selects the highlighted option.

### 4.3 Restoring RXV81 Firmware via USB Disk

For recovery purposes, firmware can be applied to RXV81 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 [Table 4-1](#) above (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.

### 4.4 User Settings

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

#### 4.4.1 Setting the Volume

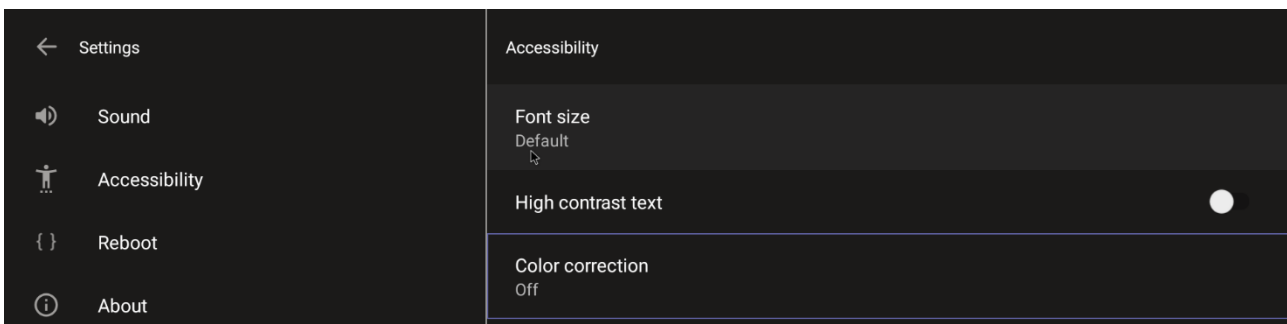
You can customize phone volume for a friendlier user experience.

#### 4.4.2 Configuring Accessibility Settings

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**.



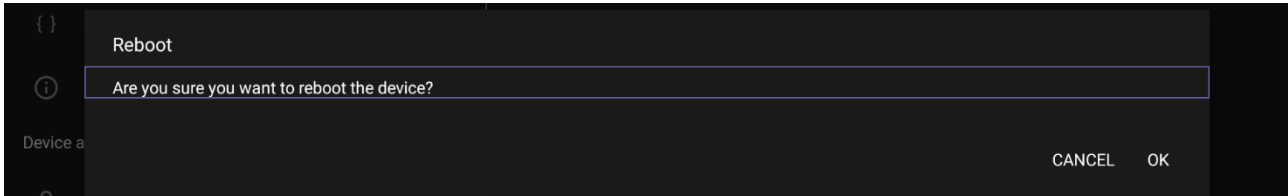
2. Adjust the settings to suit personal requirements.

### 4.4.3 Rebooting RXV81

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

➤ **To reboot:**

- Under 'User', navigate to and select **Reboot**.

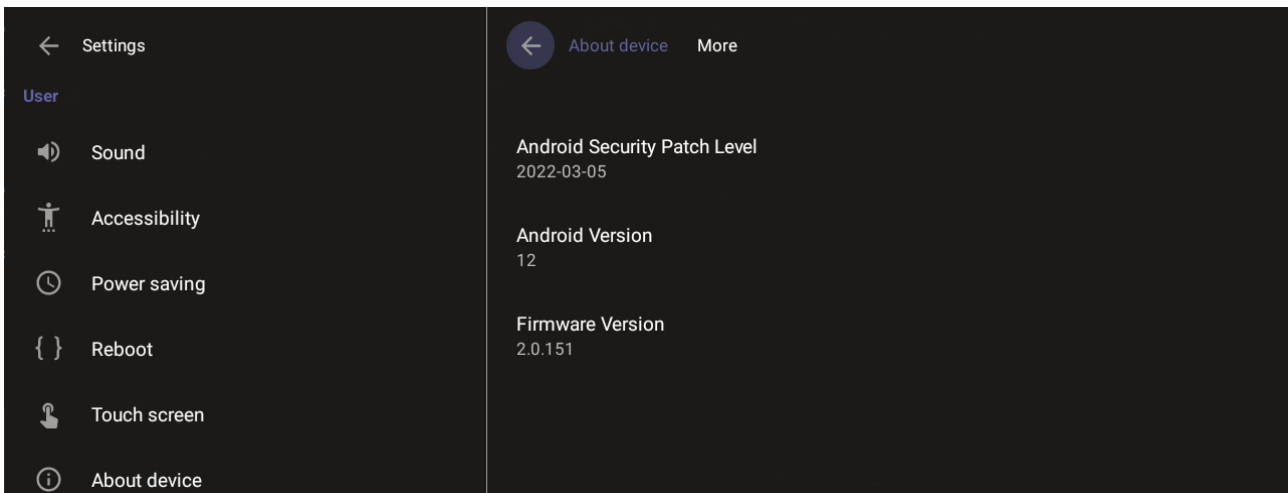


### 4.4.4 Viewing About RXV81

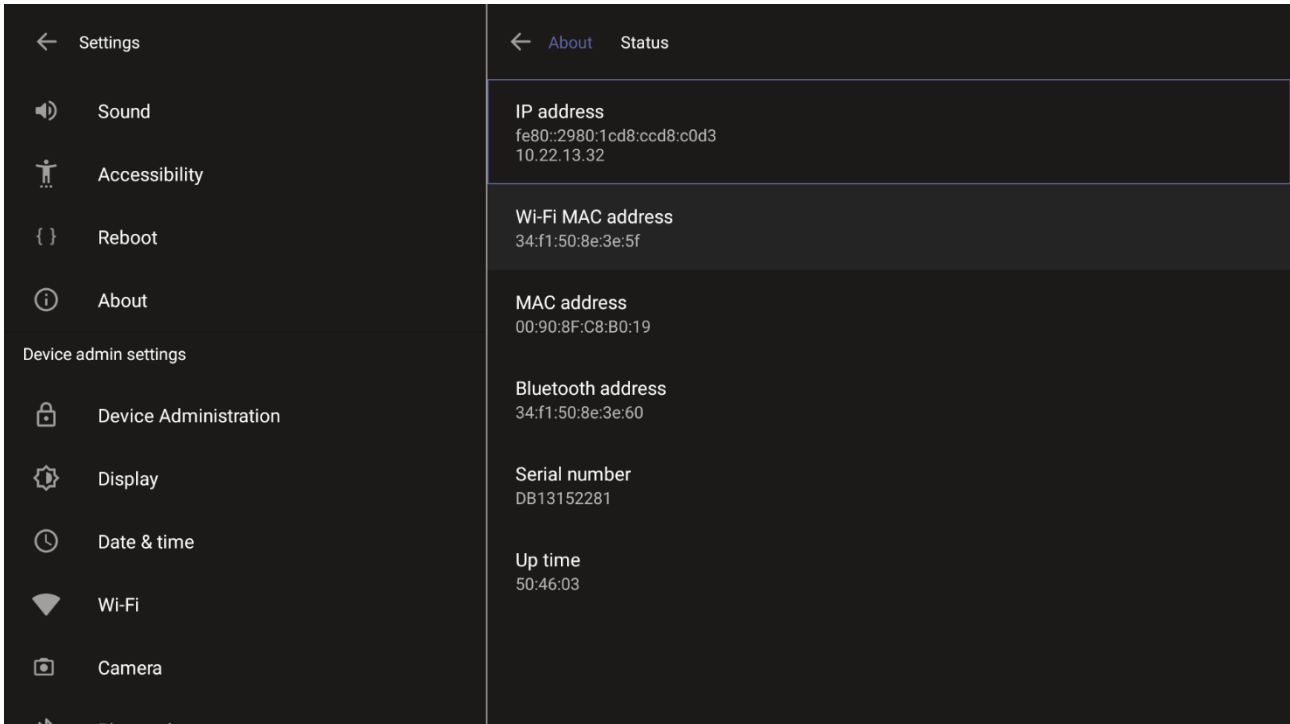
The 'About' screen gives you quick access to information about RXV81 deployment.

➤ **To access the About screen:**

1. Navigate to and select **About device**.



2. Navigate to and select **Status**.



3. View RXV81's firmware information.



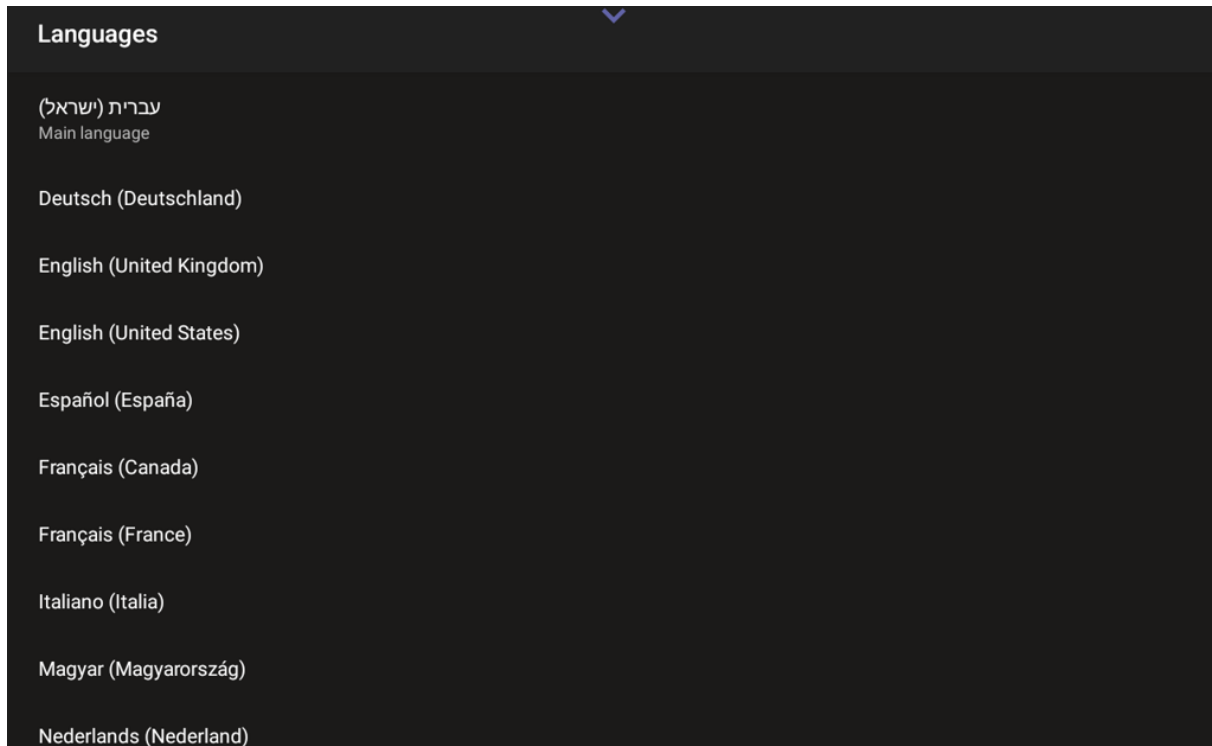
## 5 Advanced Features

### 5.1 Setting Up RXV200 using Wizard

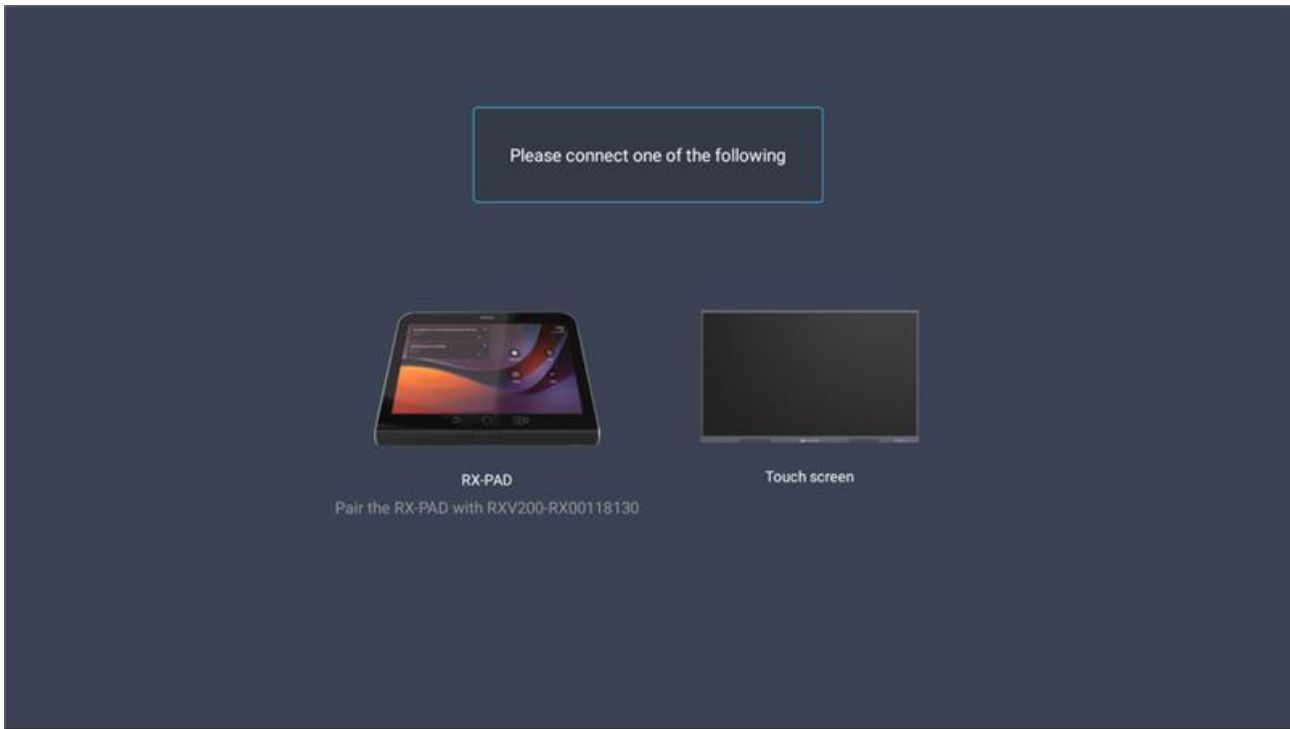
You can use the new wizard for an Out-of-Box (OOB) experience.

➤ **To set up RXV200 using wizard:**

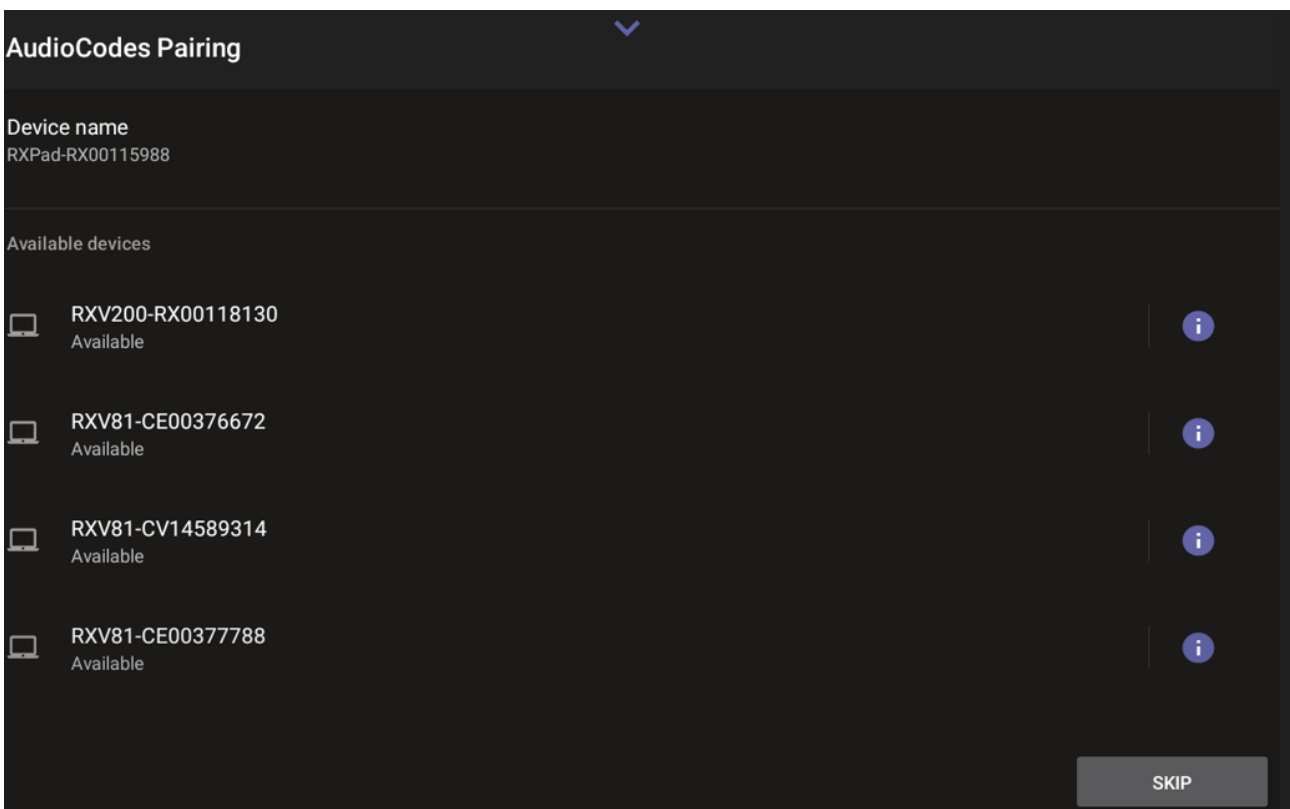
1. When you set up a paired MTRA (RXV81/RXV200 and RX-PAD), the RX-PAD prompts you to select the language:



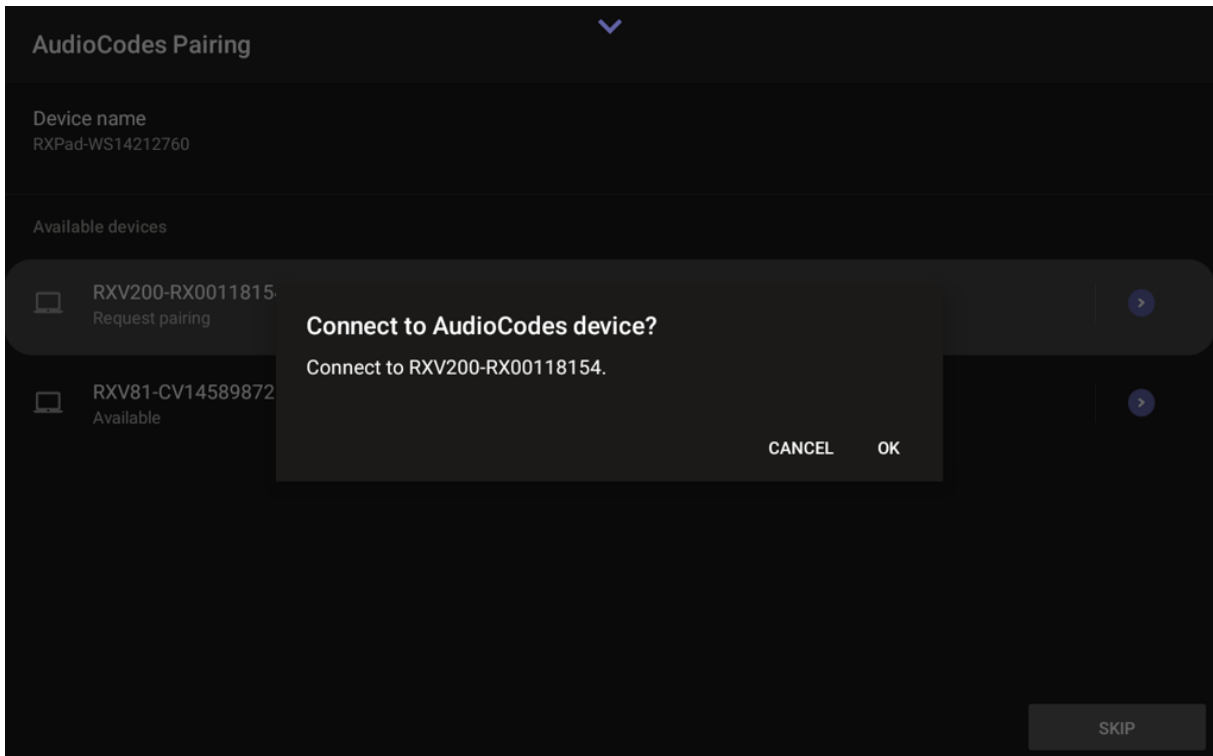
- The MTRA prompts you to connect to an input device if there is not one already connected. An Input device can be an RX-PAD or a touch screen (or RCU in case it is part of the RXV81 bundle):



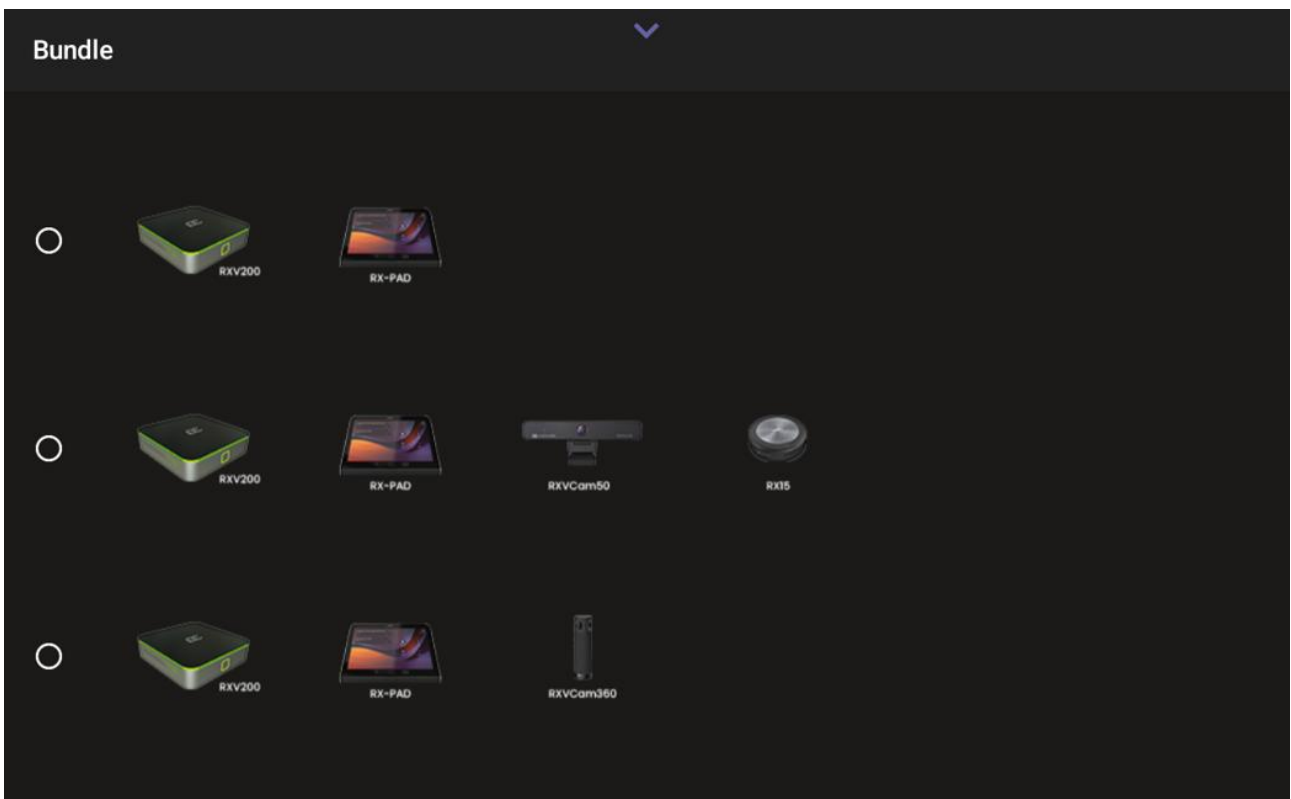
- After you select the language, the **AudioCodes Pairing** page is displayed:



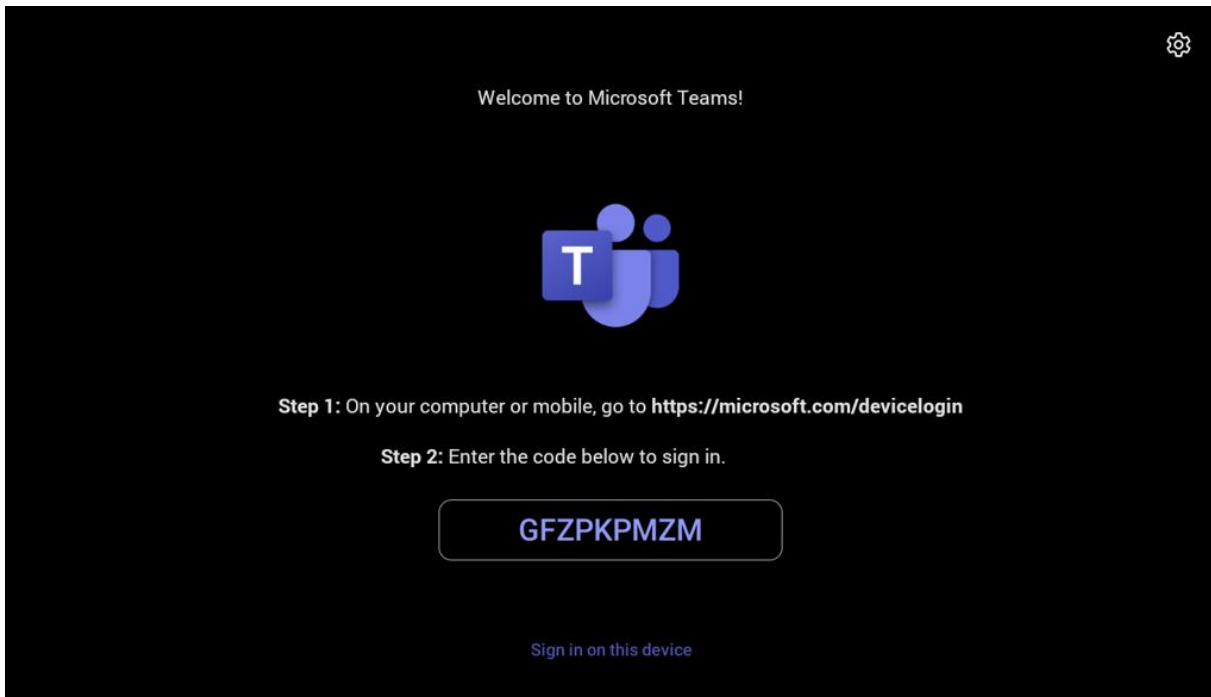
- Tap the selected MTRA, the following prompt is displayed:



- 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:



- 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:



- Sign in to your Microsoft account.

## 5.2 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:**

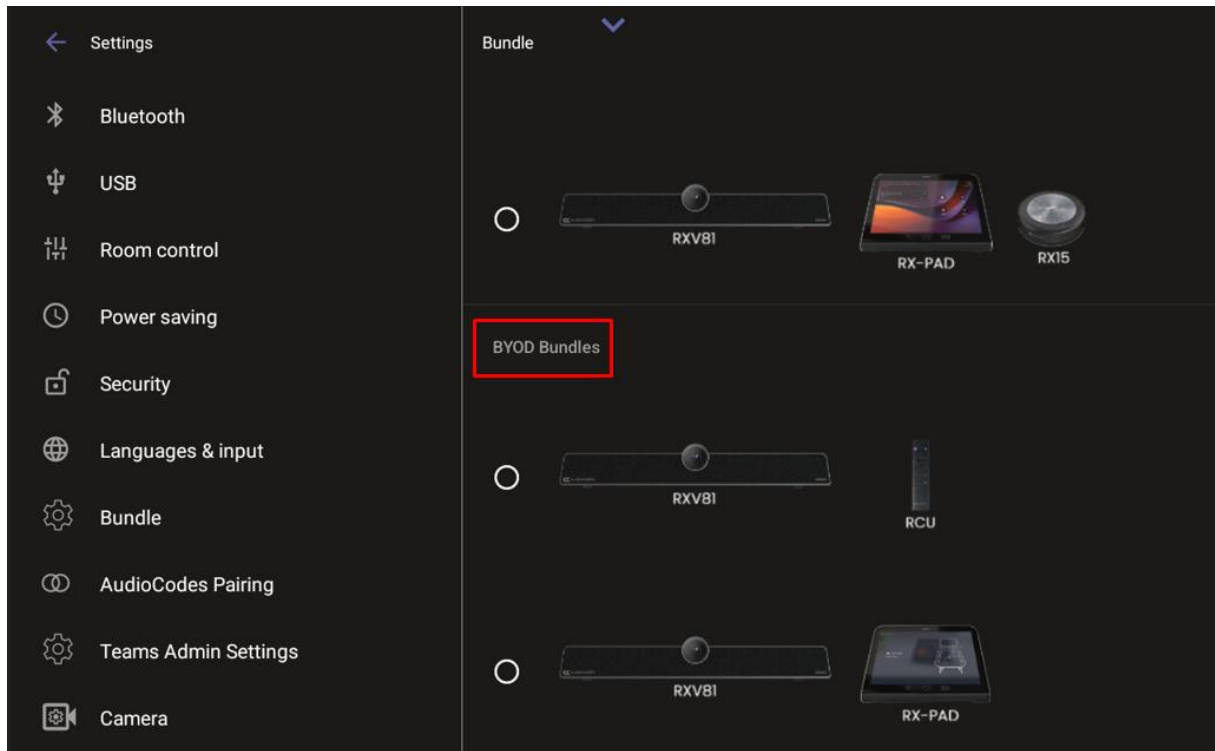
- Navigate to **Settings**, and then tap **AudioCodes Pairing**.

## 5.3 Modify RXV81 Connection to BYOD Bundles

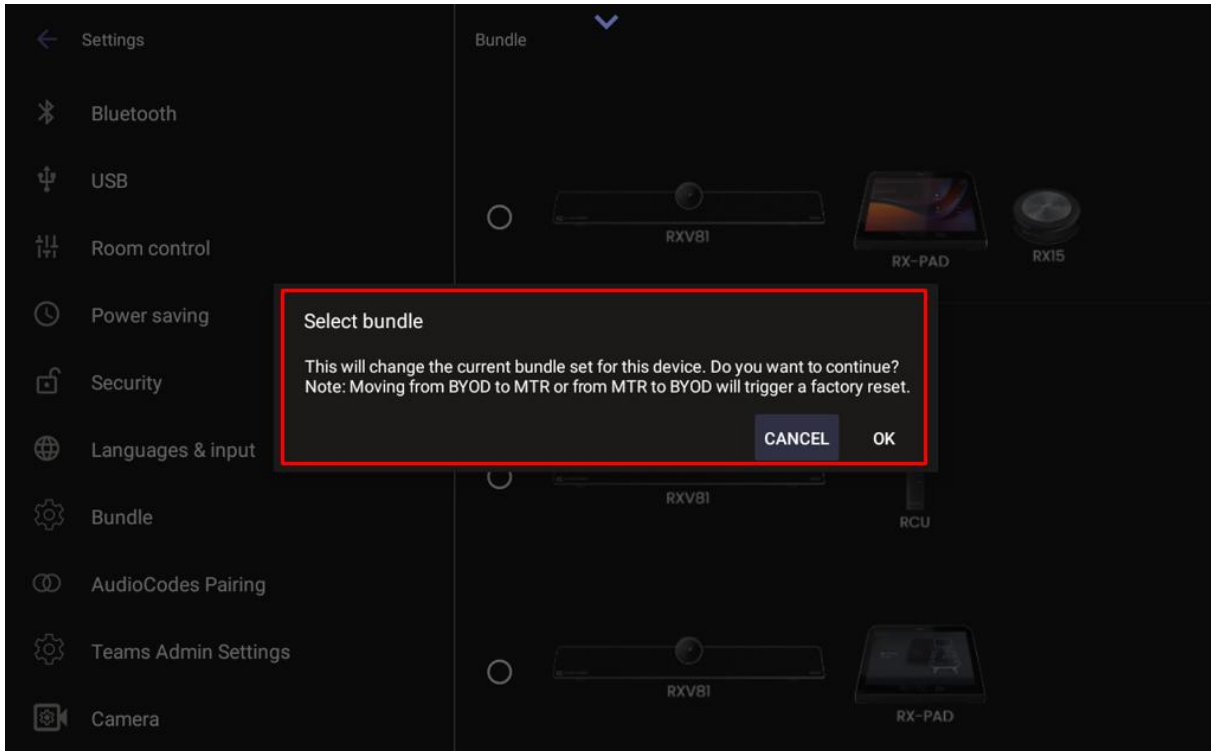
Connect your RXV81 to BYOD bundles which is MTR-ready.

➤ **To modify RXV81 to new BYOD bundles:**

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



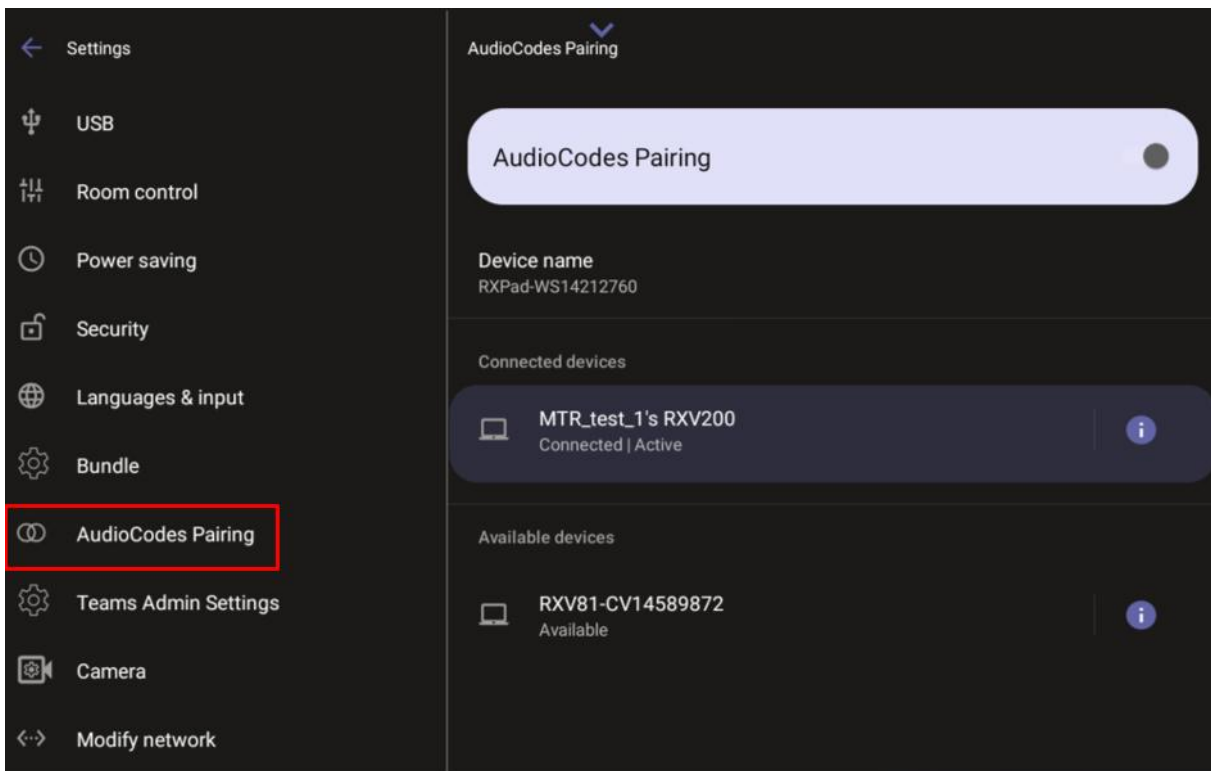
12. The **Select bundle** confirmation window is displayed. Tap **OK** to confirm.



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

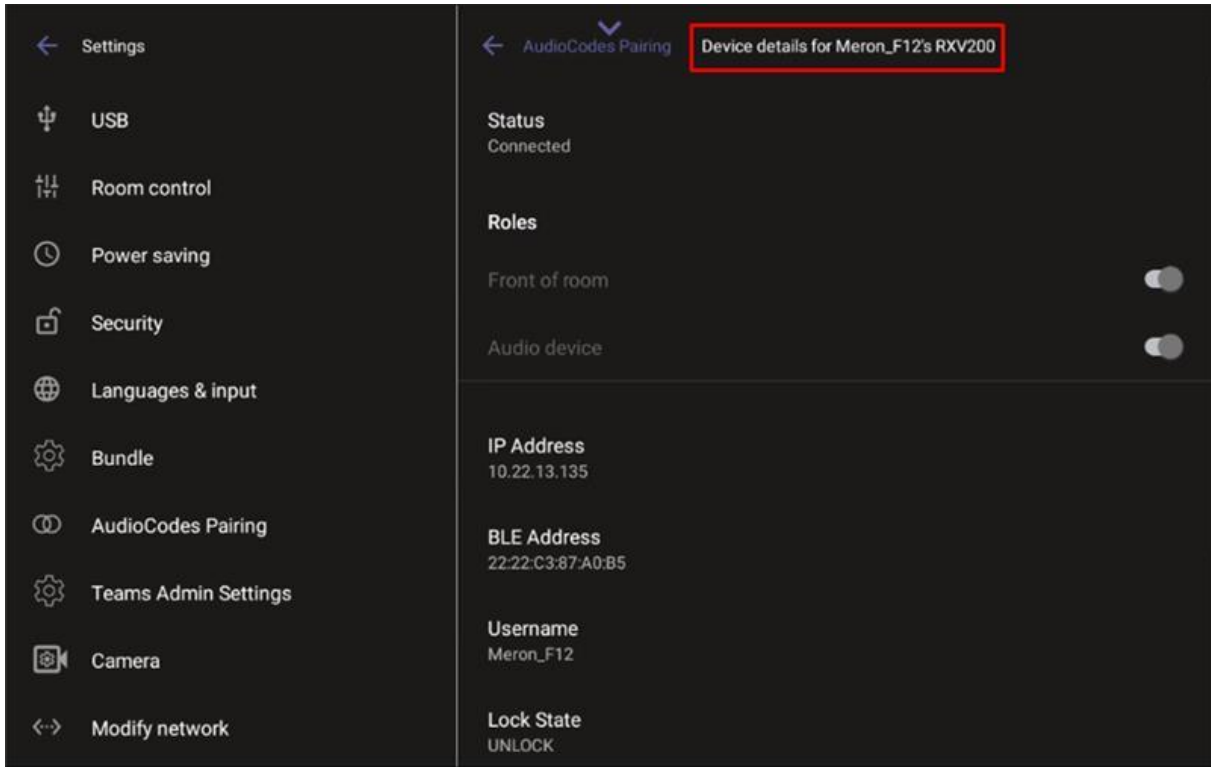


**Important note:** Changing this setup 'on the fly' triggers a factory reset on the MTRA.

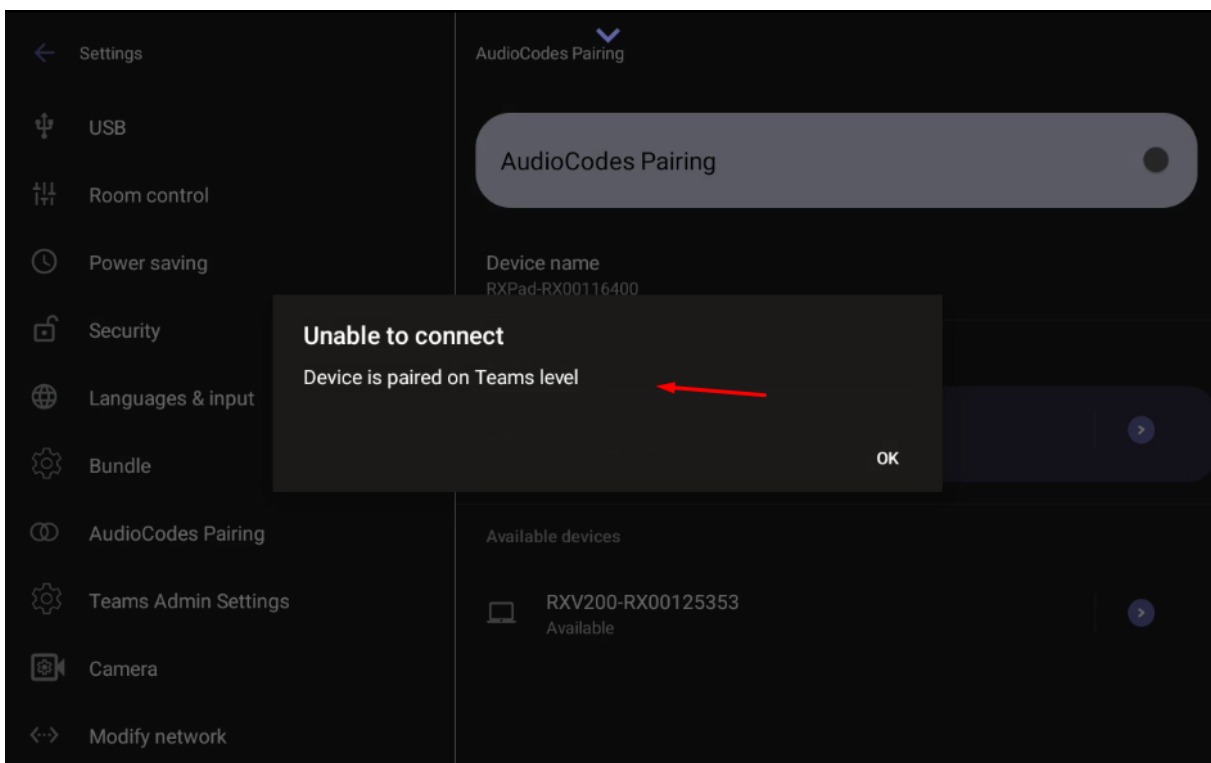


13. Tap the **i** icon to view the information of the paired device from RX-PAD). For example, the IP

address, device model, MAC address:



14. 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.



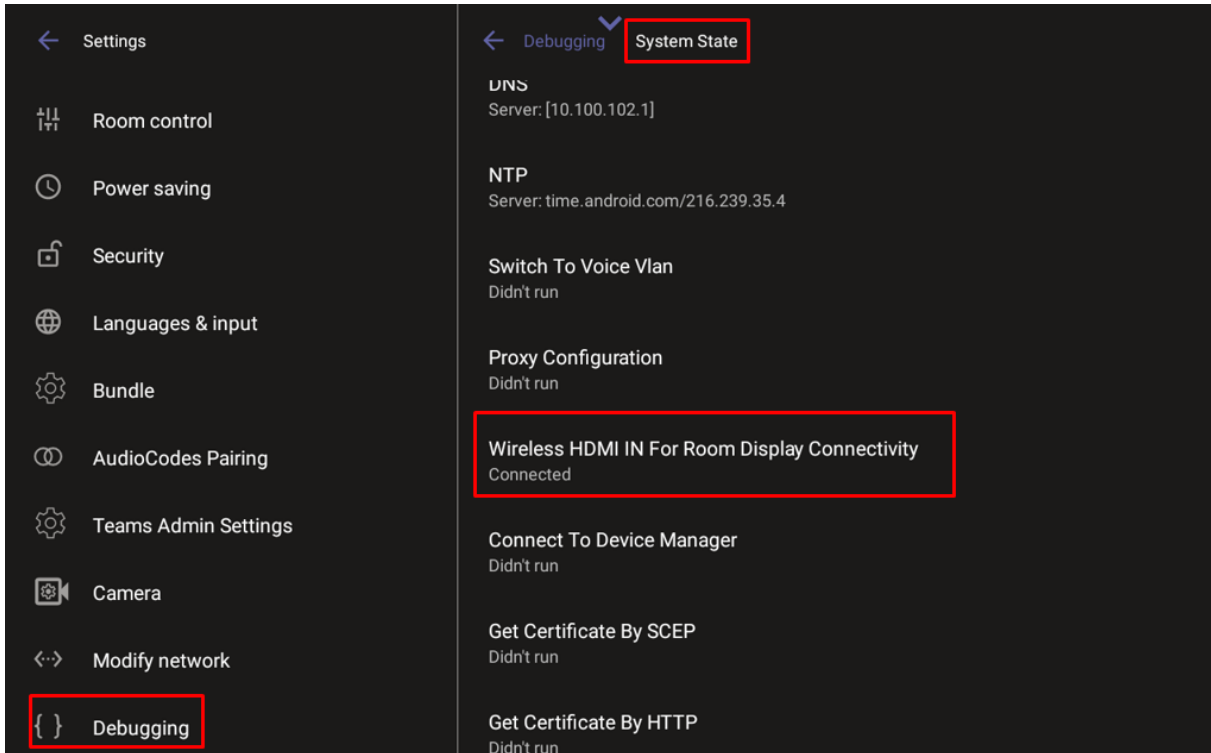
## 5.4 Monitoring Wireless HDMI In Service

You can monitor the HDMI In source.

➤ **To monitor HDMI In:**

15. Navigate to **Settings > Debugging > System State**.

16. Check the status of the Wireless HDMI In service. The following shows a **Connected** status:





## 6 Viewing RXV81 Status LEDs

Use the following figure and table as reference to determine RXV81 status when viewing LEDs.



**Table 6-1: Viewing RXV81 LEDs to Determine Status**

<span style="color: red;">●</span>	<b>Red / white / red &amp; white</b>
White on	Device is powered on
White flashing	Device is in booting phase
Red on	Device is in mute (highest priority state)
Red flashing	Network connectivity lost / Device is in upgrade mode / RCU connectivity lost
Red + white on	Device is powered on, network is connected
<span style="color: blue;">●</span>	<b>Blue</b>
Blue on	In a call (active call or meeting)
Blue flashing	Incoming call
○	<b>Camera on/off</b>
White on	Camera on
White off	Camera off

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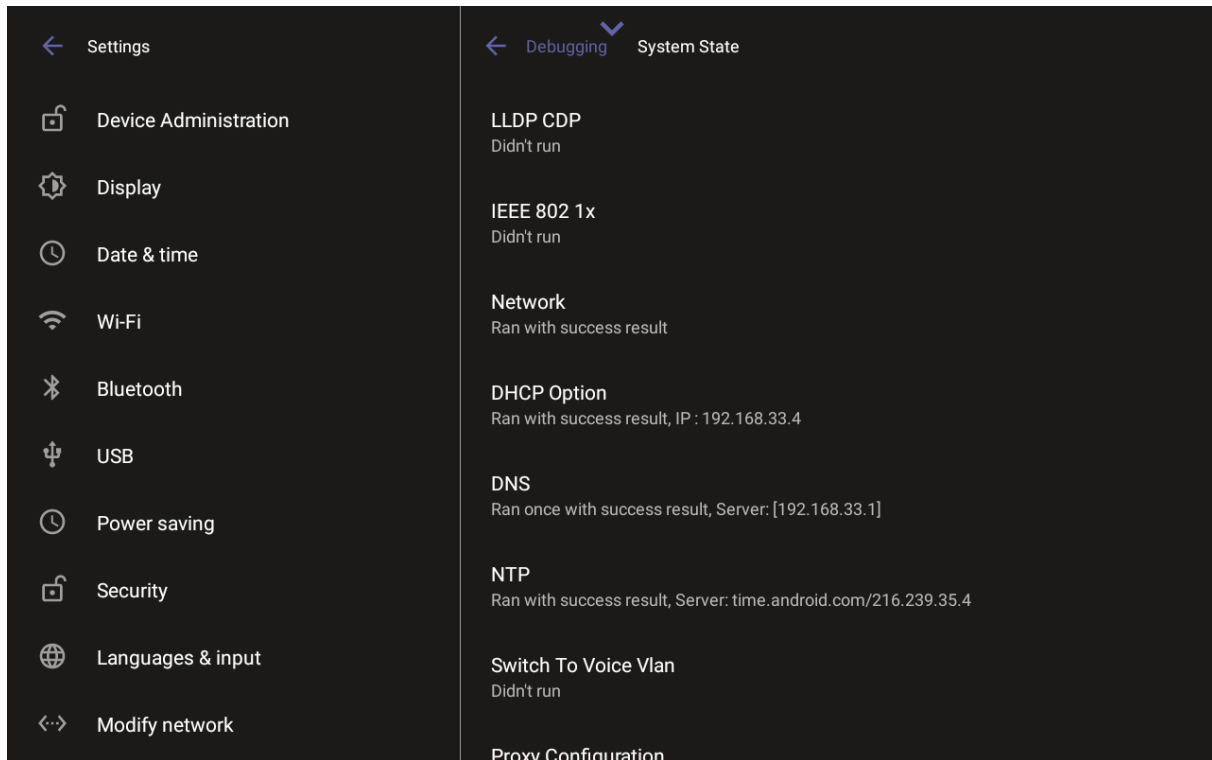
## 7 Monitoring Device Modules States

AudioCodes provides out-of-the-box troubleshooting capability: Admins can monitor the state of the device's 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*.

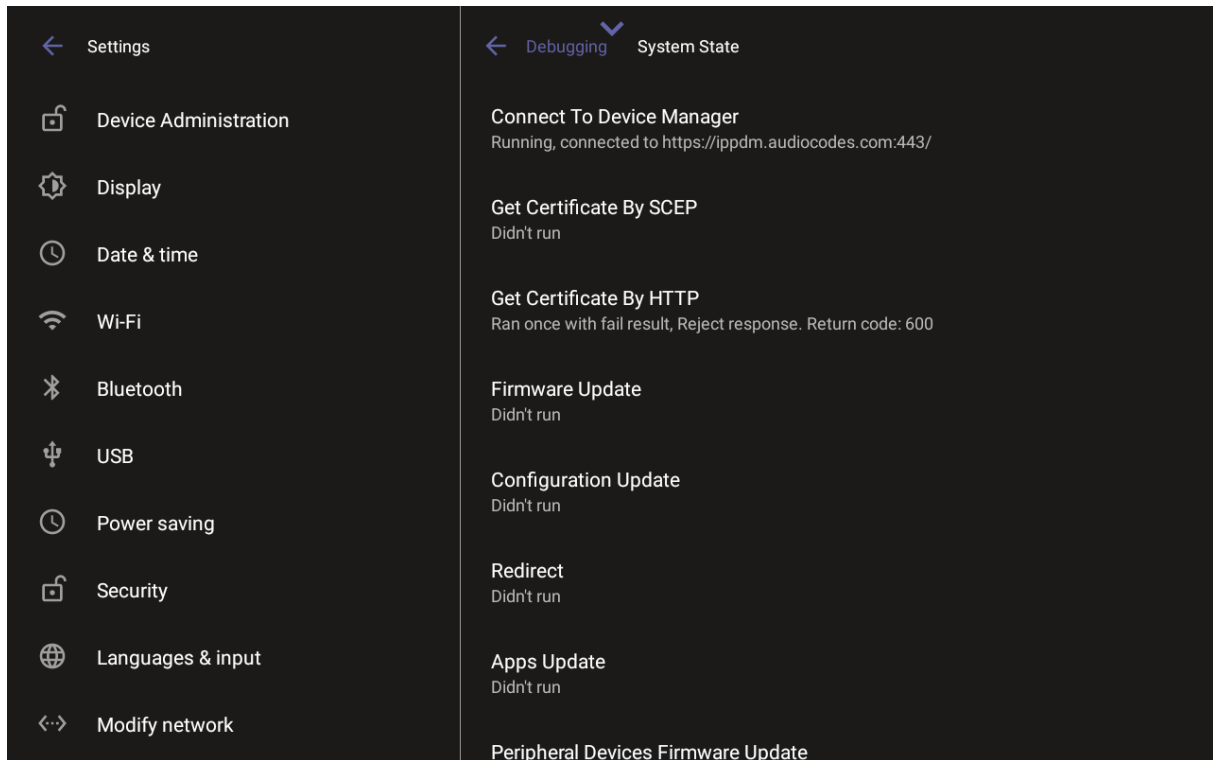
➤ **To monitor the device's modules state:**

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



**Note:**

- Each state displays its operational result: Successful or Failed
- For some states, the reason of failure will be displayed as well.



**Note:**

- Each state displays its operational result: Successful or Failed
- For some states, the reason of failure will be displayed as well.

## 8 Controlling RXV81 using RX-PAD

You can connect RXV81 to a BYOD (Bring Your Own Device) (PC/laptop) running a UC client; the BYOD displays meeting video and content and meetings are controlled via the BYOD (join, accept, manage participants). Audio/video (camera ePTZ, mic mute) can be controlled via RX-PAD or PC (camera on / off, mute, volume).

Supported actions that participants can perform during a video call / meeting when using the device with the USB A/V peripheral include:

- Volume
- Mute
- Camera on/off

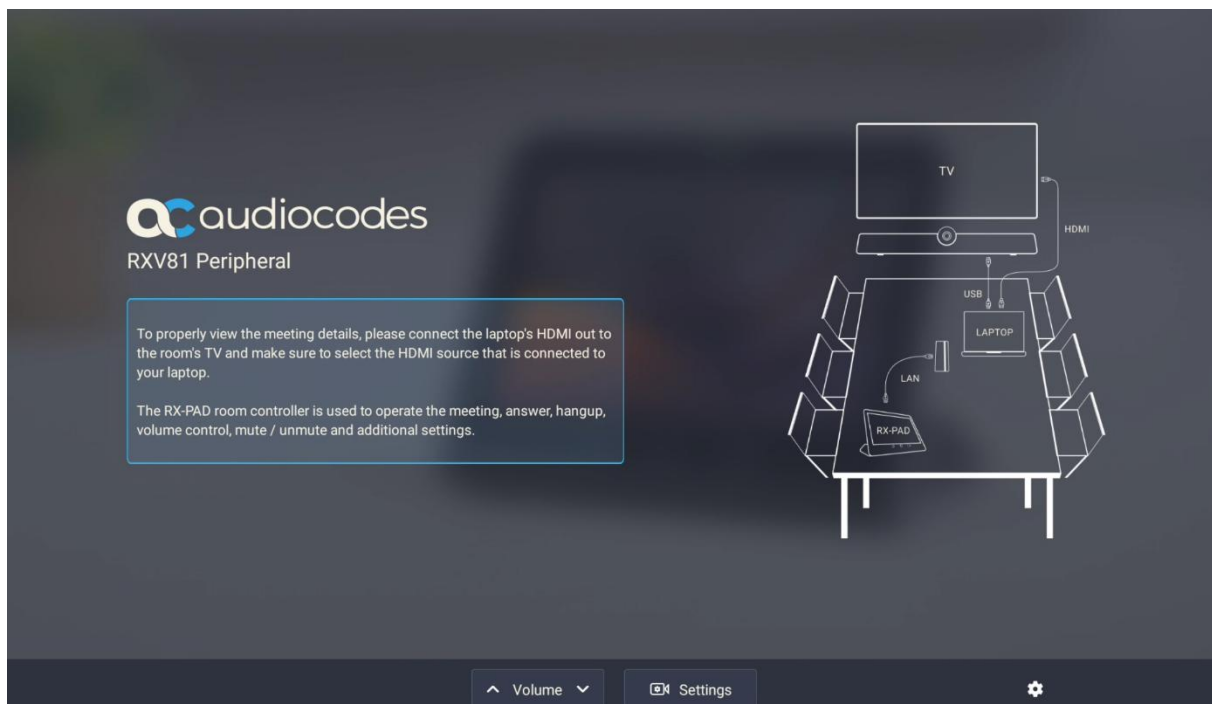


**Note:** See the *RXV81 BYOD Quick Guide* for detailed information on cabling RXV81.

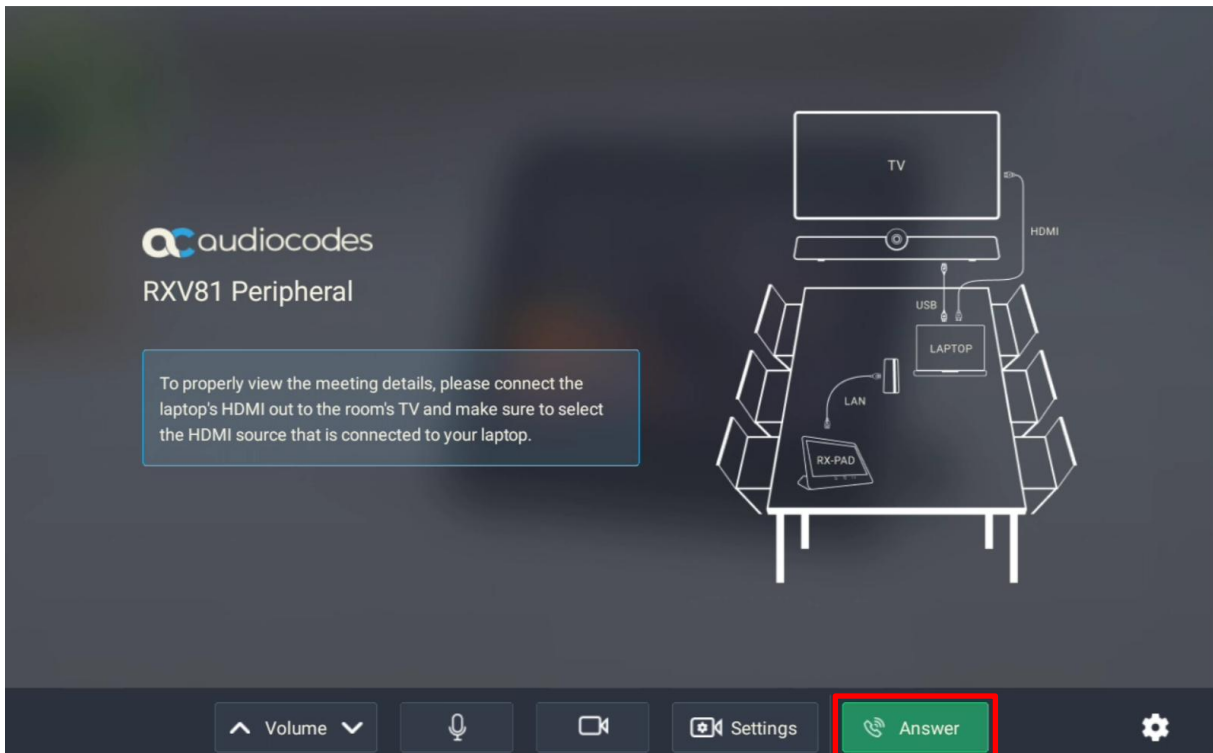
RXV81 is seamlessly integrated with the PC/laptop by utilizing RXV81's audio and camera capabilities as primary audio and camera sources for the PC/laptop.

### ➤ To control RXV81 using RX-PAD:

1. Connect the device's USB Type C port to a BYOD (Bring Your Own Device) (PC/laptop) running a UC client; RX-PAD displays the following:



- 2. When a call comes in, view on RX-PAD the incoming call's functions, for example, ANSWER, as shown in the figure below.



## 9 Controlling RXV81 using RCU

You can connect RXV81 to a BYOD (Bring Your Own Device) (PC/laptop) running a UC client; the BYOD displays meeting video and content and meetings are controlled via the BYOD (join, accept, manage participants).

### 9.1 RCU Functionalities

Audio/video (camera ePTZ, mic mute) can be controlled via RCU or PC (camera on / off, mute, volume).

Supported actions that participants can perform during a video call / meeting when using the device with the USB A/V peripheral include:

- Volume
- Mute
- Camera on/off
- Answer or hang up calls/meetings

RXV81 is seamlessly integrated with the PC/laptop by utilizing RXV81's audio and camera capabilities as primary audio and camera sources for the PC/laptop.



### 9.2 Pairing RCU with RXV81 via Bluetooth

Bluetooth is currently used to pair the RCU with RXV81.

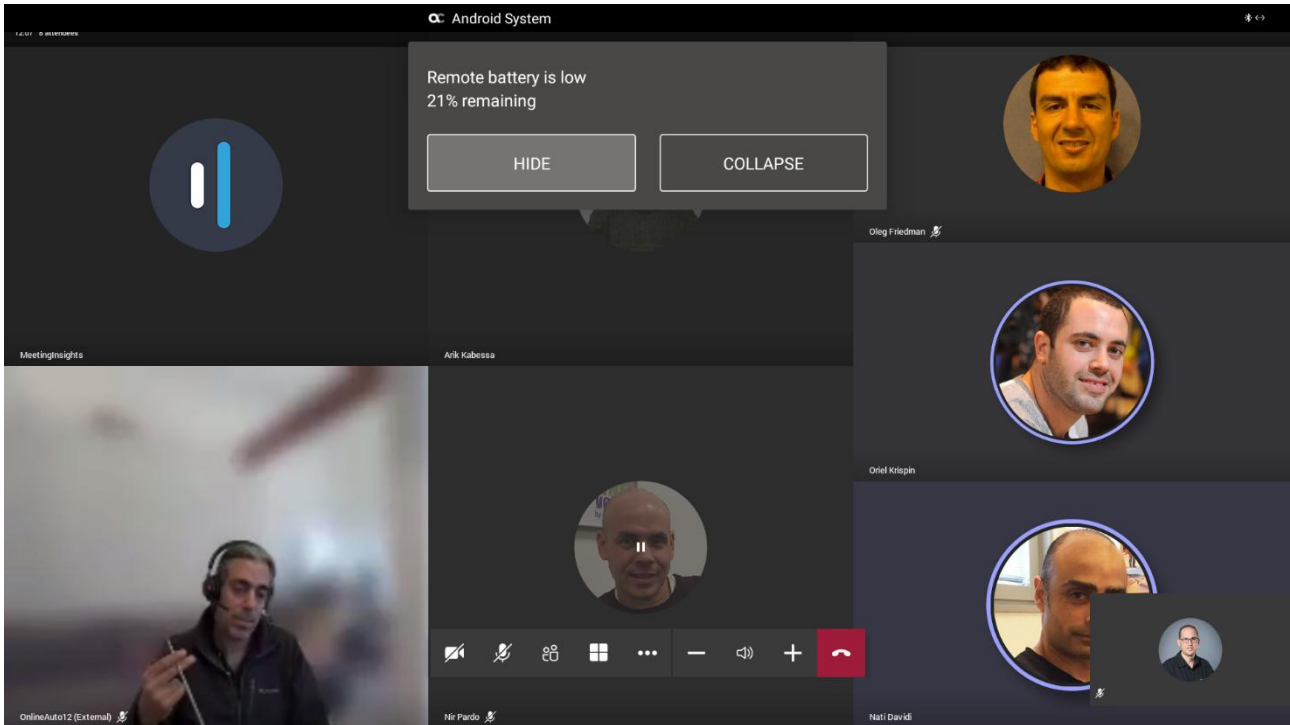


**Note:**

- Applies to the **RXV81P** bundle only.
- Refer to the *RXV81 BYOD Quick Guide* for detailed information.

### 9.3 Replacing RCU Batteries

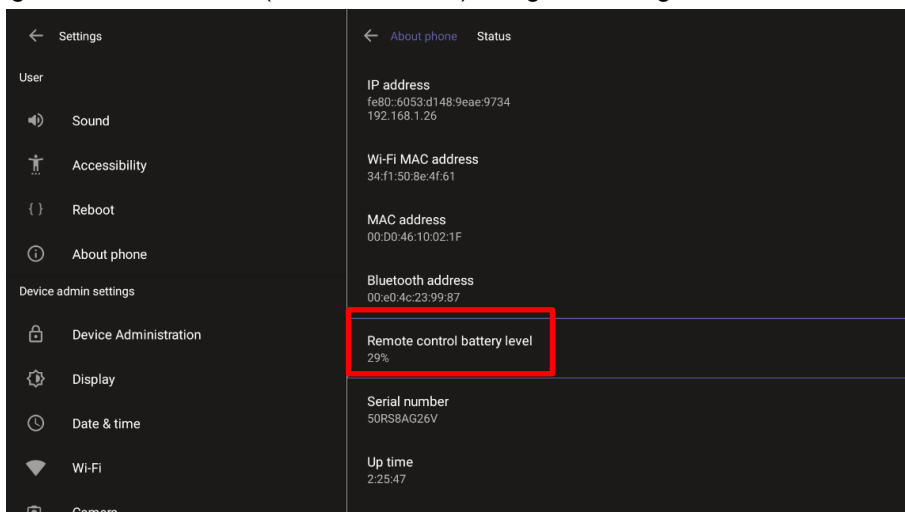
[Only applies to users who acquired the RCU bundle] If the RCU batteries run low, RXV81 application notifies you about the issue. A notification is sent to the screen/TV as well as to AudioCodes' Device Manager if battery voltage level falls low, indicating what percentage level remains unused.



Select **HIDE** to conceal the notification.

### 9.4 Assessing RCU Battery Level

[Only applies to users who acquired the RCU bundle] You can determine the RCU's battery level through the Status screen (**About > Status**) using the setting **Remote control battery level**.





## 9.5 Restarting / Rebooting RXV81

RXV81 sometimes needs to be restarted / rebooted.

➤ **To restart / reboot RXV81:**

- Long-press the RCU power on/off button for about five seconds (only applies to users with an RC)
- or-
- Long-press the RXV81 back button for ~5 seconds, then release it.

## 9.6 Powering Down/Up RXV81

RXV81 can be powered down/up.

➤ **To power down RXV81:**

- Long-press the RXV81 back button for 12 seconds; the device is powered down.

➤ **To power up RXV81:**

- Long-press the RXV81 back button for 12 seconds; the device is powered up.

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