User's & Administrator's Manual

KAC-BAR-81 MTR on Android[™] Video Collaboration Bar with KAC-SCD-10 Meeting Room Controller

Version 2.2.311







Modern Work

KAC-TCH-10	RX-PAD
KAC-CU-200	RXV-200
KAC-BAR-81	RXV-81
KAC-CAM-50M	RXVCam50M
KAC-CAM-CC-10	RXVCam10CC
KAC-SPK-15	RX-15
KAC-SPK-40	RX-40
KAC-SCD-10	RX-PANEL

In this Manual, the following marketing names are interchangeable:

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Notice

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

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Related Documentation

Document Name
RXV81 MTR on Android Video Collaboration Bar Deployment Guide
RXV81 MTR on Android Video Collaboration Bar Release Notes
RX-PAD Meeting Room Controller Pairing Guide
One Voice Operation Center (OVOC) Release Notes
One Voice Operation Center (OVOC) User's Manual
Device Manager Administrator's Manual



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1 Introduction

AudioCodes' RXV81 is a standalone Microsoft Teams Rooms on Android[™] (MTR) video bar that takes advantage of plug-and-play simplicity to deliver a familiar and exceptionally productive Microsoft Teams meeting experience.

Outstanding image clarity and enhanced voice quality ensure that remote participants can see and hear everyone in the room and can also participate in full Teams video and content sharing sessions.

The RXV81 stands out with its video and audio capabilities, embedded speaker and a 6-element microphone array, as well as Full HD and ePTZ with 5x zoom. These combine seamlessly to make every meeting interactive and personable.

Stylishly designed and quick to set up, the RXV81 is by default a standalone MTR specifically designed for huddle rooms and small shared rooms, as well as for managers' and executives' personal offices in today's busy hybrid workplaces. When used as a standalone MTR, video and sharing are displayed on the TV screen and meetings are controlled via AudioCodes' RX-PAD Meeting Room Controller or the remote control (RC).

In addition to standalone mode, the RXV81 can be used in ad hoc peripheral mode. In this mode, customers connect the 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 the UC client or the RC (camera on / off, mute, volume).

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

The RXV81 is supported by AudioCodes' Device Manager, a plugin of the AudioCodes One Voice Operations Center (OVOC), allowing IT managers to remotely oversee and upgrade all deployed devices with ease from anywhere.

See also AudioCodes' website here for information about the RXV-81.

1.1 Highlights

RXV81 feature highlights:

Plug-and-Play Simplicity for Fast Setup.

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

- [Optional] RX-PAD Meeting Room Controller
- [Optional] Bluetooth Remote Controller

Leverages Bluetooth for full control and bi-directional communication. Intuitive. Illuminated 'Mute' and 'Teams' buttons.

Intuitive Meeting Experience.

Fast access to meetings with one click to join using Microsoft Teams Room Android.

High Quality Video and Audio.

Outstanding Full HD image clarity and superb surround sound ensures that everyone in the meeting room is seen and heard.

Wide-angle 4K Camera (12M Storage)

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.

Peripheral Mode.

The RXV81 can be used on an ad hoc basis as a USB A/V peripheral for any UC client.

1.2 Benefits

- Intuitive meeting experiences with one click to join using the Microsoft Teams Rooms on Android application.
- 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 remote control or RX-PAD Meeting Room Controller.
- Managed using AudioCodes' One Voice Operations Center (OVOC) Device Manager or Microsoft's Teams admin center (TAC).

1.3 Hardware Features

- The RXV81 can be used on an ad hoc basis as a USB A/V peripheral for any UC client
- 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 ±15°.
- 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

The RXV81 is available in two bundles.

Table 1-1: RXV81 Bundles

Name of Bundle	Details
TEAMS-RXV81	 Managers offices RXV81 main unit Smart BT Remote Controller
TEAMS-RXV81-B10	 Shared rooms 5-6 participants RX-PAD Meeting Room Controller

1.5 Specifications

The following table shows the RXV81 specifications.

Table 1-2: Specifications

Feature	Details
Video capabilities	 Ultra HD 4k image sensor Super-wide angle horizontal field of view: 110° Lens: Fixed focus ePTZ capable, digital 5x zoom in Output resolution: 1080p Frame rate: 30 fps Manually adjustable, vertically (up/down) ±15° High Dynamic Range (HDR) automatically ON - Wide Dynamic Range (WDR).
Audio	 Full duplex, noise suppression, acoustic Echo Cancellation, voice separation 6x beamforming microphone array Voice pickup range: 4.5m (15ft) 10W speaker
Device Interfaces	 HDMI output to TV Power/reset button USB 3.0 Type A (host) marked 1 to allow touch LCD or connectivity to wireless KB via BT USB dongle Ethernet: 10/100/1000 Mbps (RJ-45) network interface USB2.0 Type-C (device) marked 2 to connect to PC/MAC BYOD device (peripheral mode) 3 status LEDs indicating camera on/off, mute on, call state, device health Wi-Fi (dual band support) Bluetooth 5.0 12V/3A DC power input Remote Controller (Bluetooth managed) RX-PAD Meeting Room Controller
Network Provisioning	 TCP/IP (IPv4), DHCP/ static IP; Time and date synchronization via SNTP; VLAN support; QoS support: IEEE 802.1p/Q tagging (VLAN) Layer 3 TOS and DSCP RTCP support: (RFC 1889) IP address configuration: TCP/IP (IPv4), DHCP/static IP Time and date synchronization: SNTP QoS support: IEEE 802.1p/Q tagging (VLAN), Layer 3 TOS and DSCP RTCP support: (RFC 1889)
OS	Android 12
Security	 Encryption: TLS (Transport Layer Security), SRTP encryption for media, AES256 Network Access Control: IEEE 802.1x Built-in certificate
Management	 AudioCodes Device Manager, a plugin of AudioCodes One Voice Operations Center (OVOC)
Microsoft Teams Features (Android MTR)	 ✓ Calendar integration (with meeting preview) and one click to join Teams meetings ✓ Meet now option ✓ Simple sign-in interface from browser or smartphone with a code

Feature	Details
	 'Direct guest join' to allow joining a third-party meeting 'Cast info' from mobile to the RXV81 screen over Bluetooth 'Room remote' using Teams mobile app allowing to control the RXV81 Remote sign-out from Microsoft Teams admin center (TAC). Hide names and meeting titles for individual devices Meeting stage Multi-spotlight Docked meeting controls Reactions Control camera/mic for attendees Live Captions in regular one-on-one calls and in Teams meetings Whiteboard support when signed in with personal account (short term roadmap for whiteboard support with room account) Multi-cloud sign-in support
RXV81 Device Feature Set	 Camera settings with different privileges for user and Admin In idle (Admin) and during a call/meeting (all users), long-pressing the camera button on the RC allows: Defining/editing a new preset Moving to different presets Changing all settings options Video quality: Resolution of 1080p on the decoder side and 720p on the encoding side RXV81 integration with AudioCodes OVOC-DM RXV81 Alerts to AudioCodes OVOC-Device Manager: Notification sent to screen/TV and to Device Manager if Remote Control is disconnected or if it's malfunctioning Notification sent to screen/TV and to Device Manager if Remote Control battery voltage level falls low, indicating what percentage level remains unused Remote Control flashes if the connection to the RXV81 fails. Camera frequency set per power supply: 110V – 60Hz 220V – 50Hz Shortcut keys for administrators to manually perform recovery operations Ad Hoc Peripheral Mode allows connecting the RXV81 via USB to the PC as a peripheral device (Feature in Preview)

1.6 Security Guidelines

The RXV81 is an AudioCodes Native Teams Android-based device purpose-built and customized for Teams calling and meeting and designed to enhance security as part of the default use.

Though customers might see Android-based systems as prone to security issues, security is much less a concern on devices that are purpose-built for Teams meeting and calling.

When analyzing the security of the device there are two levels that should be addressed:

- Authentication and security with regards to Teams connectivity and use
- Android level / system of the device

1.6.1 Microsoft Teams Security Guidelines

- Following are AudioCodes' recommendations with regards to device security:
 - Use "sign-in with other device option" using this mode the user does not type the
 password on the device, instead obtains a code to be used to sign-in on his PC/laptop;
 the device obtains a private token that enables it to access Teams cloud; this token,
 unlike a password, allows only that device which obtained it to reuse it. The token is
 stored on the secured file system.
 - Leverage Multi-Factor-authentication (MFA) to improve the security of the sign in.
 - IT can consider reducing the expiration time of the sign in for devices which are connected remotely (outside the organization network) vs devices in the organization premise.
- Visit Microsoft technical pages and learn more on security guidelines and policies for Microsoft Teams adoption:
 - Overview of security and compliance Microsoft Teams | Microsoft Docs
 - Identity models and authentication for Microsoft Teams Microsoft Teams | Microsoft Docs
 - Sign in to Microsoft Teams Microsoft Teams | Microsoft Docs

1.6.2 Android Level Security Hardening

This section describes the major changes performed on the system/Android level that were incorporated into the device to improve its security.

1.6.2.1 Google Play Services

Goggle Play services were removed from the device software – no access is allowed to any Google store or Play services.

The device update of the Android software and application is done via special software components that either connect into Teams Admin Center or to AudioCodes Device Manager over secured channel.

1.6.2.2 Running Android in Kiosk Mode

Android Kiosk Lockdown software is the software that locks down the Android devices to just allow the essential apps by disabling access to the Home/Launcher. Using Android Kiosk Lockdown software, the Android devices can be converted into public kiosk terminals or secured work devices.

Only specific Microsoft apps and AudioCodes signed apps that were certified and approved in the certification process can run under the Kiosk mode; even if a malicious user managed to install a new un-authorized app on the file system – the launcher on the device will only run those specific approved apps and this cannot be changed in run time (only with new software code that is provided by AudioCodes).

1.6.2.3 Screen Lock

AudioCodes Native Teams devices use a screen lock mechanism to prevent any malicious user/users from gaining access to Calendar information and / or Active Directory list of employees and / or triggering unauthorized Teams calls from the device. After enabling screen lock, the device automatically locks after a preconfigured period; a code is required to unlock the device and resume full operation.

1.6.2.4 AudioCodes Private Key

The system software on the device is signed with AudioCodes private key – users can replace the complete software only with new software that is also signed by the AudioCodes private key. This prevents the user from replacing the complete OTA package of the device with any new system software unless this software has been fully signed by AudioCodes.

1.6.2.5 Android Debug Bridge (ADB)

AudioCodes disables the Android Debug Bridge (ADB) application and keeps the Teams app running in the front all the time, which means there is no way to install other Apps from unknown sources and sideloading.

1.6.2.6 App Signing

Android requires that all apps are digitally-signed with a developer key before installation; currently the device verifies that the apps are signed by Microsoft. App signing prevents malicious user/users from replacing a Microsoft-signed app with an app that "pretends" to be Microsoft but which lacks the private key that is known only to Microsoft.

1.6.2.7 Web Browser

The device does not include a Web browser – users cannot browse to the public internet or internal intranet– all Web services are customized to connect to O365 services and AudioCodes managed services such as One Voice Operations Center (OVOC).

Without a web browser, malicious user/users will not be able to access the device and browse from it as a trusted device into the customer network.

1.6.2.8 Remote Configuration Management

The Native Teams device does not have an embedded WEB server – configuration and management is performed using one of the following remote interfaces:

- Microsoft Teams Admin Center (for Native Teams devices) over HTTPS protocols this is enabled after successful sign-in authentication process.
- AudioCodes Device Manager (part of AudioCodes OVOC suite) over HTTPS.
- Debugging interface over SSH. Note that SSH MUST be disabled by default and enabled only per specific case for debugging-purposes only.

1.6.2.9 AudioCodes Device Manager Validation

The IP phone validates the AudioCodes Device Manager identity using known root CA:

- The device is shipped with known Root CAs installed. See AudioCodes Root CA Certificate.
- For the initial connection phase, the AudioCodes Device Manager should access the device using a known CA.
- Once a successful secured connection has been established between the device and the Device Manager, the user can replace the root CA on the Device Manager and on the phone and re-establish the connection leveraging any private root CA.

1.6.2.10 Sandboxing

AudioCodes Native Teams devices use Android Application Sandbox so that each application can access its own data and is isolated from other applications. This prevents a malicious app from accessing the code or the data of other applications in the system.

1.6.2.11 Keystore

With AudioCodes Native Teams devices, the certificate keys are encrypted on the device file system.

1.6.2.12 Device Certificate

AudioCodes Native Teams devices are shipped with a unique certificate which is signed by AudioCodes Root CA.

1.6.2.13 Data Protection

AudioCodes Native Teams devices run Android which has integral procedures for protecting and securing user data.

1.6.2.14 Device File System

The device file system is encrypted on the RXV81 device – customers may enforce a policy of device encryption via Microsoft Intune.

1.6.2.15 Debugging Interface

- The device leverages SSH as a debugging interface.
- AudioCodes recommends that customers disable SSH on the device this can be done via the AudioCodes Device Manager (OVOC).
- AudioCodes recommends changing the Admin password from the default, which can be done via Teams Admin Center or AudioCodes Device Manager (OVOC).
- When debugging of a specific device is required, the user can enable SSH on specific device/s, access SSH with the new Admin password for debugging phase and disable SSH once debugging has been completed.

1.6.3 Android Security Updates

In addition to all the above, AudioCodes regularly adopts and integrates the Android security updates. For reference see <u>https://source.android.com/security/bulletin/2019-10-01</u>).

1.6.4 AudioCodes Root CA Certificate

Certificate Details for File 'New Text Document.cer'		
Certificate Hierarchy:		
👮 RootCA		
Version:	3	
Subject:	CN=RootCA,O=ACL	
Issuer:	CN=RootCA,O=ACL	
Serial Number:	0x1	
Valid From:	1/1/2000 2:00:00 AM IST	
Valid Until:	1/1/2030 2:00:00 AM IST	
Public Key:	RSA 2048 bits	
Signature Algorithm:	SHA256WITHRSA	
Fingerprint:	MD5 • AD:F7:94:DE:B3:1D:F0:3F:74:3B:C5:42:34:51:19	
	Import Extensions PEM ASN.1	
	OK	

----BEGIN CERTIFICATE----

MIIDMTCCAhmqAwIBAqIBATANBqkqhkiG9w0BAQsFADAfMQwwCqYDVQQKEwNBQ0wx DzANBqNVBAMTB1Jvb3RDQTAeFw0wMDAxMDEwMDAwMDBaFw0zMDAxMDEwMDAwMDBa MB8xDDAKBgNVBAoTA0FDTDEPMA0GA1UEAxMGUm9vdENBMIIBIjANBgkqhkiG9w0B AQEFAAOCAQ8AMIIBCgKCAQEA6GK495KUCXAm/UE17G4/cjnZN4LNaxYEYzbfZL0a EhgSKYt/LQ+iUcDhojsneusNgrcGkpwKklKsGsvGWmSRNULV01CW+TX2VJN73+hh V0uzhyOIYAUhbDaoqNM6Kp5b7sJ1ew4Ig9kfd/ma9Cz15koESLlw/inLj/r+rD96 mUcPElWrKspv7Qy4I14fsK/yMArixRopTL1munVVPpSFM9Jh8IY3JHyr5CQJXKKs EhGAJsnHaRqsR2Su3X/WtslgEF+cvP34pxhlhFL29nMfnaFATSS3rgGaFlSv11ZS esLMqkWjp9cqGYrvt7K61sYnvMMb+o/KbWqVokXb+Fr7bwIDAQABo3gwdjAMBgNV HRMEBTADAQH/MB0GA1UdDgQWBBQDXySn9hz151DraZ+iXddZGReB+zBHBgNVHSME QDA+qBQDXySn9hz151DraZ+iXddZGReB+6EjpCEwHzEMMAoGA1UEChMDQUNMMQ8w DQYDVQQDEwZSb290Q0GCAQEwDQYJKoZIhvcNAQELBQADggEBAI0rUywommWWJnH3 JOfKiS3+VnX5hJITZymvWanMXUz/6FonHccPXEBYTrUYwhiWx3dwELAFXDFKkxMp 0KKWZ4F39cAOLRjqhzya+xUeeJ9HQZCXYAJ6XgvTfN2BtyZk9Ma8WG+H1hNvvTZY QLbWsjQdu4eFniEufeYDke1jQ6800LwMlFlc59hMQCeJTenRx4HdJbJV86k1qBUE A7fJT1ePrRnXNDRz6QtADWoX30mN7Meqen/roTwvLpEP22nYwvB28dq3Jet1QKwu XC4gwI/o8K2wo3pySLU9Y/vanxXCr0/en513RDz1YpYWmQwHA8jJIu8rxdhr+VNQ Zv6R/Ys=

----END CERTIFICATE----

1.7 Certificate Enrollment using SCEP

The device supports certificate enrollment using Simple Certificate Enrollment Protocol (SCEP) using Microsoft's Network Device Enrollment Service (NDES) server without using AudioCodes' OVOC, thereby allowing device certificates and CA certificate provisioning to be scaled to multiple devices.

After devices are provisioned with a SCEP-related configuration, they receive a CA certificate from the NDES (via parameter 'security/ca_certificate/0/uri'), issue a Certificate Signing Request (CSR) to the NDES and receive a device certificate signed by the CA certificate (the one that the device received from NDES).

Network administrators must configure the following three parameters:

- security/SCEPEnroll/ca_fingerprint
- security/SCEPEnroll/password_challenge
- security/SCEPServerURL

The next table shows the parameter descriptions.

Table 1-3: SCEP Parameters

Parameter	Description
security/SCEPEnroll/ca_fingerprint	Define the thumbprint (hash value) for the CA certificate. Default value: NULL. Network admins must set its value to (for example): 3EBE50003ABF1DF5E6B5A3230B02B856
security/SCEPEnroll/password_challenge	Define the enrollment challenge password. Default value: NULL. Network admins must set its value to (for example): 7A7F9FC4BB7625F0935E67EA6D6322ED
security/SCEPServerURL	Define the NDES server's URL. Default: NULL. Network admins must set its value to (for example): https://ndes_derver
security/SCEPEnroll/renewal/advancethreshold	Define the renewal advance threshold of the device certificate. Configure between 50 and 100 (in units of percentage) Default: 80 This indicates that a renewal of the certificate (device.crt) will be initiated when 80 percent of its validity is reached.
security/SCEPEnroll/rollover/advancethreshold	Specify the threshold of the CA Root certificate's validity at which to initiate a renewal. Configure between 50 and 100 (in units of percentage). Default: 90 This indicates a renewal of the certificate (CAROOT.crt.) will be initiated when 90 percent of its validity is reached.

1.8 Provisioning Certificates in .pfx Format

Device certificates can be provisioned in .pfx format (combining .crt and key). The following parameter values can consequently be configured in the devices' Configuration File:

- /security/device_certificate_url = <url>/certificate.pfx
- /security/device_private_key_url = NULL
- security/device_certificate/password=<pfx password>

The feature is also supported by AudioCodes' Android Phone Utility.

Device pfx (*.pfx)	PWD		Browse	
				1

Note:

- Certificate loading is performed using HTTP; prior to version 1.19, it was performed using SCP.
- The HTTP port is 8000.
- Make sure the port is not blocked by the organization's firewall.

2 Connecting to RXV81

Note: See the *RXV81 MTR* on Android Video Collaboration Bar with *RX-PAD* or *RCU* Quick Guide shipped with the product or available from AudioCodes for information about the hardware of the RXV81, including:



Package contents

- Mounting
- Cabling

After mounting and cabling the RXV81 device as shown in the Deployment Guide, pair it with the

- Remote Controller (see the <u>next section</u>)
- RX-PAD (see *Pairing RX-PAD with Teams Rooms on Android AudioCodes Devices*)

2.1 Pairing with the RC

The instructions here show how to pair the RXV81 with the RC. Applies to users who acquired the **TEAMS-RXV81** bundle.

- To pair the RXV81 with the RC:
- 1. After cabling, remove the RC from its packaging and insert the batteries supplied into it.
- 2. View in the display the message:
 - Remote is not connected. Hold below buttons while holding the remote near the box.

	C Android System	<>
Languages	Remote is not connected Hold below buttons while holding the remote near the box	
(ישראל) Main language		
Deutsch (Deutschland)		
English (United Kingdom)		
English (United States)		
Español (España)		
Français (Canada)		
Français (France)		
Italiano (Italia)		
Magyar (Magyarország)		
Nederlands (Nederland)		

3. On the RC, simultaneously press and hold 🔄 + 🔳 until RC and RXV81 are connected.

	C Android System	
Languages	Connecting	
עברית (ישראל) Main language		
Deutsch (Deutschland)		
English (United Kingdom)		
English (United States)		
Español (España)		
Français (Canada)		
Français (France)		

	C Android System	\$ +>	
Languages	Remote connection succeed		
(ישראל) Main language			
Deutsch (Deutschland)			
English (United Kingdom)			
English (United States)			
Español (España)			
Français (Canada)			

4. Use the remote control to navigate to and select a language; the sign-in screen is displayed.

Sign in to make an emergency call.	
Welcome to Microsoft Teams!	®
Step 1 On your computer or mobile, go to https://microsoft.com/devicelogin	
Step 2 Enter the code below to sign in.	
C4Y8MK2P3	
Sign in on this device	

2.2 Signing in

Users are provided by default with the option to sign in from any browser or smartphone with a prominent device code. If you choose to sign in from the device, you can enter your username and password on-screen via the device keyboard.



2.2.1 Multi-Cloud Sign-in

For authentication into specialized clouds, the network administrator can choose the Settings gear on the sign-in page to see the options that are applicable to their tenant.



2.2.2 Remote Provisioning and Sign in from Teams Admin Center

See <u>Remote provisioning and sign in for Teams Android devices - Microsoft Teams | Microsoft Docs</u> for more information.

IT admins can remotely provision and sign in to a Teams device.

To provision a device remotely, the network administrator needs to upload the MAC IDs of the devices being provisioned and create a verification code. The entire process can be completed remotely from the Teams admin center.

Step 1: Add a device MAC address

Provision the device by imprinting a MAC address on it.

- 1. Sign in to the Teams admin center.
- 2. Expand **Devices**.
- 3. Select Provision new device from the Actions tab.

Dashboard	IP phones	Actions ~
tõš Teams 🗸 🗸		+ Provision new devices
▲ Devices ^	configuration profiles for each type of phone you have, make changes to their settings, and apply software updates. Learn	All device tags
IP phones		
Teams Rooms	Devices summary	
Collaboration bars		
Teams displays	12 11 12 Devices Need-update Offine	
Locations V		
දිරි Users		
📅 Meetings 🗸 🗸	All phones User phones Common area phones Conference phones Configuration profiles	
Messaging policies		
🗄 Teams apps 🗸 🗸	🖉 Edit 🖉 Assign configuration 🧷 Manage tags 🖉 Update ↑ Upgrade 🔿 Restart 🗙 Remove Showing 12 devices 🔍 Search by device name	C 0 7 0
🐨 Voice 🗸 🗸	✓ Display name Username Device name Health status ① Manufacturer Model Action	IP address
Policy packages	Megan Bowen Megan B@M365x021987.0 poly-trioc60 64167fd55b9a Offline Poly TrioC60 1 Update availab	ole 10.172.208.254
्री Analytics & reports 🛛 🗸	Nextor Wilke Nextor/W@M365x021967 Ienovo-lenovocd-18781y 4 Offline LENOVO LenovoCD-18781Y -	N/A

In the 'Provision new devices' window, you can either add the MAC address manually or upload a file.

Manually add a device MAC address

- 1. From the Awaiting Activation tab, select Add MAC ID.
- 2. Enter the MAC ID.
- 3. Enter a location, which helps technicians identify where to install the devices.
- 4. Select Apply when finished.
- Upload a file to add a device MAC address
- 1. From the Awaiting Activation tab, select Upload MAC IDs.
- 2. Download the file template.
- 3. Enter the MAC ID and location, and then save the file.
- 4. Select the file, and then select Upload.

Step 2: Generate a verification code

You need to generate a verification code for the devices. The verification code is generated in bulk or at the device level and is valid for 24 hours.

From the Awaiting Activation tab, select an existing MAC ID. A password is created for the MAC address and is shown in the Verification Code column.

	😤 Contoso Electro	onics	Microsoft Teams admin center					(
		=						
ଭ	Dashboard		Provision new devices					
885	Teams	~	Your new devices will be added to the main list when technicians ph	ysically activate them and deploy on site. To help them do				
۵	Devices	~	this follow the steps below					
	Teams Rooms		Provisioning Summary	New device provisioning steps Manually add or upload a file with new device MAC IDs				
	Collaboration bars		1 0 0	 Generate a one-time password (OTP) 				
	Teams displays		Added MAC IDs Expired OTP's Awaiting sign in	Export the table with valid OTPs for your technicians				
۲	Locations	~~						
යි	Users		Awaiting Activation Awaiting sign in					
Ē	Meetings	~						
٩	Messaging policies		+ Add MAC ID 🚯 Upload MAC IDs 🔍 Generate Verifica	ition Code 🥒 Edit 📋 Delete 🛛 1 item selected	Q, Search by MAC ID	a 0	Y	
₿	Teams apps	*	V MAC ID Location	Verification Code				
ଙ		~	✓ NOLED Locator					
	Policy packages		✓ 80-se-c0-sb-be-td Redmo	nd 876713				

You'll need to provide the list of MAC IDs and verification codes to the field technicians. You can export the detail directly in a file and share the file with the technician who is doing the actual installation work.

Step 3: Provisioning on the device

Once the device is powered up and connected to the network, the technician provisions the device by choosing the 'Settings' gear on the top right of the new 'Sign in' page and selecting **Provision phone**.

Non Feb 01 11:31 A	M		
		Sign in to make an emergency call.	
	×	Settings	1
		Provision phone	
	\odot	Cloud	
	\$ <u>0</u>	Device settings	
Step 1			
Step 2			
		Sign in on this device	

The technician is then expected to enter the device-specific Verification code that was provided in the Teams admin center on the phone's user interface. Once the device is provisioned successfully, the tenant name will be available on the sign in page.

	Sign in to make an emergency call.	
	Contoso	\$
Step 1 On your computer or m Step 2 Enter the code below to	bobile, go to https://microsoft.com/devicelogin o sign in.	
	RCYVBF4XQ	

Step 4: Sign in remotely

The provisioned device appears in the Awaiting sign in tab. Initiate the remote sign-in process by selecting the individual device.

- 1. Select a device from the Awaiting sign in tab.
- 2. Follow the instructions in Sign in a user, and then select Close.



The tenant admin is expected to complete authentication on the device from any browser or smartphone.



When the tenant admin is signing in from Teams Admin Center, the user interface on the device is blocked to prevent other actions on the phone.



3 Using General RXV81 Functions

This section shows how to use general RXV81 functions.

- > To get started:
- 1. After signing in, view the RXV81 home page.

Figure 3-1: Home Page



3.1 Managing Notification Messages

Notification messages that pop up on the RXV81 device are seamlessly mirrored in the bundled RX-PAD. When a message pops up in the RXV81 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.

C Android System	$\odot \leftrightarrow \diamondsuit$
Front of room device Device is updating HIDE COLLAPSE	16:01 SakuraiAutoMeeting +1 732-515-3189
Meet Call Share	More

The figure below shows the notification 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.



3.2 Configuring a Bundle

Admins can configure an RXV81 bundle. Information about available bundles can be seen here.

- To configure a bundle:
- Use the RX-PAD Keypad app that controls RXV81 to navigate to the Bundles page. Admin must be logged in to access the page.



3.3 Modifying RXV81 Camera Settings

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

To access the RXV81 camera settings:

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

Figure 3-2: RXV81 Camera Settings



Note:

 During a call, *all users* who are signed into the RXV81 – Admins *and* personal users can change Camera settings, including the presets. All have the permissions required to do so. When the call ends, the RXV81 reverts to its preconfigured presets.



- Using a Teams shared account, 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 the 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 3-3: 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.

3.4 Starting a New Meeting

- To start a new meeting:
- 1. In the home screen, navigate to and select the Meet Now option.

Figure 3-4: New meeting – Invite someone



2. In the 'Invite someone' field, enter the name of a person to invite; after entering the first letters in the name, matching contacts from directory are displayed.

Figure 3-5: New meeting – Enter the name of a person



3. Select the name of the person to invite.



Figure 3-6: New meeting – Select the name of a person

4. Invite someone else – or others – and then select **Start meeting**.



Note: The server allocates a meeting ID number and sends an invite message to all participant devices. All devices simultaneously indicate an incoming call (the 'Calling' screen is displayed). The server manages every aspect of the call.



5. Select **Accept**. Note that according to the icon in the 'Incoming call' screen shown in the preceding figure, the caller has video capability.







3.5 Dialing a Number

You can manually dial someone's phone number.

- > To dial a phone number:
- 1. In the home screen, navigate to and select the **Dial pad** option.

Figure 3-7: Dial pad

×		
1	2 ABC	3 Def
4 _{бні}	5 JKL	б ^{мно}
7 PQRS	8 ^{TUV}	9 ^{wxyz}
*	0 ,	#

2. Enter the digits of the destination to call and select **Call**.

3.6 Enabling Proximity Join

'Proximity Join' allows you to discover and add a nearby, available Microsoft Teams Room, i.e., the RXV81, in this case, to any meeting. It's also possible to accept the incoming meeting on the console of the room.

The feature functions in combination with Bluetooth and 'Bluetooth Beaconing', an integral feature in Microsoft Teams Rooms (MTRs). The MTR device is RXV81. If you bring a laptop or a Teams Mobile Client near the RXV81, it'll offer the RXV81 as the room audio device. The figure below shows how to select the room audio device.



After you select the room audio device, the meeting is opened without any audio device on your PC client, and then the room meeting device (RXV81) gets a request to join the meeting.

> To enable 'Proximity join':

In the Settings screen, navigate to and select **Proximity join**. If it's disabled, it'll become enabled and vice versa.

← Se	ettings	
S	Calling	
<u>(</u>	Proximity join	٠
	Report an issue	
ជ្យ់រ	About	
G→	Sign out	
6)	Device settings	

3.7 Sharing a Whiteboard

Teams meetings on the RXV81 allow participants to open a virtual whiteboard – a digital canvas - on which they can sketch, illustrate, collaborate, brainstorm, plan, and share perspectives with one another in real time. The focus switches away from the presenting participant to the whiteboard. For more information about this Microsoft feature, see <u>here</u>.

> To share the Whiteboard:

1. From the Settings menu, select Share Whiteboard.



2. Alternatively, access the Whiteboard from Share content:

Teams Whiteboard View			- 🗆 X
People Chat Reactions	Image: Solution of the soluti		x tic Share
	Share content	Include computer soun Window (24)	
	Microsoft Wh Collaborate on a		
	Share a docume	camera nt, a whiteboard, and more	
	 IPP-Manager-A BToE Overview_ 08.07.19_400HE 	.V2 D Series IP Phone Training	g - Sh
Alan Roberts		uction to our phones, typ al Training 2019 - IPP	es of
	Previous_GA	veryone to work on together. tance TestsXXXX	

3. View the following Microsoft Whiteboard initializing indication:

← Whiteb	pard	Stop presenting		Ŷ
		Microsoft Whiteboard		

4. View the Whiteboard in the Teams desktop application or in Teams client:

← Whiteboard	Stop presenting	Ļ
Whiteboard Meeting		\$
Q.		
100%		
®,		
	🦾 📩 📕 🖻 T 💊 🍐 🖩 5 2	

5. Edit the Whiteboard; every participant with privileges can edit it.
÷	Whiteboard	Stop presenting	Ŷ
Whitebo	ard Meeting		¢
		Whiteboard	
୍ର 100% କ୍			
		🦾 🍰 📕 🖻 🕈 T 🐁 🎍 🔳 🖻 ट	

3.8 About Microsoft Teams

Information about the Microsoft Teams application can be viewed by navigating to and selecting the Settings screen's **About** option shown in the preceding figure.

← About
Microsoft Teams
Microsoft learns
Version: 1449/1.0.96.2020102101(ring3) Calling Version: 2020.33.01.1 Microsoft Corporation Copyright ©2020
Privacy & Cookies
Terms of Use
Third Party Software Notices and Information

3.9 Signing out

You can sign out of the application as one user and optionally sign in again as another.

- To sign out:
- Navigate to **Teams admin settings** > **Teams sign out** and confirm in the prompt below.



Optionally, remote sign-out can be performed from Microsoft Teams admin center (TAC). Admins can provision the RXV81 from the TAC, remotely sign in, and also sign out.

> To sign out of the RXV81 using Microsoft TAC:

■ Navigate to the TAC screen shown in the figure below and from the … menu located in the uppermost right corner of the screen, select **Actions** and then **Sign out**.

III Mice	rosoft Teams admin cen	ter							◎ ? (**)
		IP phones \	audiocodes-c435hd unavailable						
	brace								
853 Teams								🖉 Manage tags	Actions >
👃 Devio	s ^		John M35hd			7-DAY QUALITY	7-DAY ACTIVITY	0° Sign out	
IP pho	mes			nload device logs	Health status Healthy		0 Meetings	× Remove device	
SIP de				ate software	Offline since		27		
	s Rooms		(* Rest		Device name audiocodes-c435hd unavaila		Calls		
	poration bars		Q Refre	esh details	Usemame Online1@audiocodesipprnd	Good Peer II Unknown			
	s displays								
	s panels								
Cocation 100 Co		Hea	th Details Activity	History					
E Meet		So	ftware health						
E Mess			Software type	Current version	Health status				_
E Teams									
· Voice			Teams Admin Agent	1.0.0.202106130738.product	Up to date				_
Policy			Firmware	TEAMS_1.14.390	Up to date				
_	tics & reports v		Company Portal App	5.0.5211.0	Up to date				
(j) Org.v	vide settings 🔍 🗸		OEM Agent App	1.0.90	Up to date				
it≣ Plann			Teams App	1449/1.0.94.2021081703	Up to date				
⊕ Notifi	cations & alerts \sim								
	uality dashboard								

4 RXV81 Settings

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

- To access device settings:
- 1. In the home screen, navigate to and select the **More** option.



2. Navigate to and select Settings.

e Se	← Settings						
AudioCodes Ltd							
S	Calling	ß					
Ŗ	Proximity join	h2					•
⚠	Report an issue						
ជ្យំរ	About						
G	Sign out						
වේ	Device settings						

3. Navigate to and select **Device settings**.

÷	Settings	← About Status	
User		IP address	
•)	Sound	fe80::2980:1cd8:ccd8:c0d3 10.22.13.32	
Ĭ	Accessibility	Wi-Fi MAC address 02:00:00:00:00	
{}	Reboot	MAC address 00:90:8F:C8:B0:19	
(j)	About	00.50.01.00.00.15	
Device	admin settings	Bluetooth address 34:f1:50:8e:3e:60	
₿	Device Administration	Serial number DB13152281	
		Up time 1:05:10	

4. Navigate to and select Device Administration.

÷	Settings	Device Administration
User		Login
4)	Sound	
Ţ	Accessibility	
{}	Reboot	
(j)	About	
Device	e admin settings	
⋳	Device Administration	

5. Log in as 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.

6. Select Login.

	ß		
Login			
Enter password			
		CANCEL	ОК

7. 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.

8. 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, or via bulk configuration of multiple devices using Microsoft's TAC or AudioCodes' Device Manager.
- **9.** 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'.

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

÷	Settings	Sound	
User		ſ	Media volume
۹)	Sound		•
Ĭ	Accessibility	¢	Ring volume
{}	Reboot		
(j)	About		
Device	admin settings		
⋳	Device Administration		
٩	Display		
0	Date & time		
♥	Wi-Fi		
۲	Camera		

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.

÷	Settings	Display
User		Sleep After 10 minutes of inactivity
(ا	Sound	
		Font size
Ť	Accessibility	
		Screen saver
{ }	Reboot	Off
(j)	About	4
. .		
Device	admin settings	
ð	Device Administration	
Ŀ	Device Administration	
۞	Display	
ι¢.	Display	

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

Slee	Sleep						
	Never						
	30 seconds						
	1 minute						
	2 minutes						
	5 minutes						
۲	10 minutes						
	30 minutes						

- **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.

← Display Screen saver	
Off	
Current screen saver Clock	\$

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

4.1.2 Configuring Date & Time

Date and time are automatically retrieved from the deployed Network Time Protocol (NTP) server.

To configure Date & Time:

1. Under 'Device admin settings', navigate to and select **Date & Time**.

Date & time	
Automatic date & time Use network-provided time	
Select time zone GMT+02:00 Israel Standard Time	
Automatic 24-hour format Use locale default	
Use 24-hour format 1:00 PM	

2. Navigate to and select Use 24-hour format [Allows you to select the Time format].



Note: The device automatically detects time zone via geographical location (**Automatic Time Zone Detection**).

4.1.3 Configuring Wi-Fi

The RXV81 can connect to an Access Point via Wi-Fi. Network administrators can configure Wi-Fi parameters for the RXV81. The parameters are concealed from the user's view. Users can enable | disable Wi-Fi in the device's user interface.



Note: Wi-Fi cannot be enabled | disabled using SSH command.

The Wi-Fi connection is transparent to users; which frequency is used, 2.4 GHz or 5 GHz, is made for users by the device; users cannot disable one or the other.

4.1.3.1 Connecting to an Available Wi-Fi Network

To connect to an available Wi-Fi network:



Note: Make sure to first disconnect your Ethernet cable. If it's connected, the device will not be able to connect to a Wi-Fi network.

1. Under 'Settings', navigate to Wi-Fi and enable Use Wi-Fi.

÷	Settings	Wi-Fi		
Device	e admin settings		e Wi-Fi	
ර	Device Administration	05		
٩	Display	▼	audc-ph	
0	Date & time	$\mathbf{\hat{v}}$	Amitush	
(î•	Wi-Fi		MP264_Pilot	⋳
*	Bluetooth	$\widehat{\mathbf{v}}$	QA_automation_DMZ	
ර	Security	\Diamond	DIRECT-20-HP Smart Tank 610	⋳
⊕	Languages & input	*		
۲	Camera	+	Add network	814

- 2. View a list of available connections.
- 3. Select the Wi-Fi network you want and enter the password.
- 4. View the network you selected 'Connected'.

4.1.3.2 Manually Connecting to a Wi-Fi Network

To manually connect to a Wi-Fi network:



Note: Make sure to first disconnect your Ethernet cable. If it's connected, the device will not be able to connect to a Wi-Fi network.

1. Under Wi-Fi, select Add network and then enter the SSID of the network to add manually.

← Add network		
Network name		
		81 1
Security		
None		
Advanced options		
CAT	NCEL	

2. From the 'Security' drop-down, select a security key strength (encryption method).

← Add network	
Network name Enter the SSID	814
Security	
None	
Enhanced Open	
WEP	
WPA/WPA2-Personal	
WPA3-Personal	
WPA/WPA2-Enterprise	
WPA3-Enterprise	

3. Optionally meter the selected network. Leave the setting at its default value of **Detect automatically** if you don't want to meter the network. Select a **Metered** option to meter it.

← Add network	
Network name	
Enter the SSID	81 9
Security	
None	
Hidden network	
No	
Metered	
Detect automatically	
Ргоху	
None	
IP settings	
DHCP	

Note:

- 'Proxy' and 'DHCP' will automatically be configured by the network.
- Enabling the setting **Turn on Wi-Fi automatically** allows the device to automatically connect in the future to the highest signal-quality network remembered by the device.
- As an alternative to manually configuring Wi-Fi settings via the device's user interface, you can configure the Wi-Fi settings described in Table 4-1, using the Configuration File.

Parameter	Description
network/wireless/adavanced_ options/dns1	Defines the IP of the wireless DNS1.
network/wireless/adavanced_options/dns2	Defines the IP of the wireless DNS2.
network/wireless/adavanced_ options/gateway	Defines the IP address of the wireless gateway
network/wireless/adavanced_ options/hidden_network	Defines the name of the wireless hidden network.
network/wireless/adavanced_ options/ip_addr	Defines the IP address of the static Wi-Fi network if you're operating with a static Wi-Fi network.
network/wireless/adavanced_ options/ip_settings	Used to define DHCP.
network/wireless/adavanced_ options/network_prefix_length	Defines the network prefix length to be used.
network/wireless/adavanced_ options/proxy	Defines the proxy wireless server source.
network/wireless/adavanced_ options/proxy/auto_config/pac_url	Defines the URL of the PAC file.
network/wireless/adavanced_ options/proxy/manual/exclusion_list	Defines the list of IP addresses that will be blocked.

Table 4-1: Configuration File Wi-Fi Parameters

Parameter	Description
network/wireless/adavanced_ options/proxy/manual/proxy_hostname	Defines the name of the proxy host.
network/wireless/adavanced_ options/proxy/manual/proxy_port	Defines the proxy port.
network/wireless/anon_identity	Defines the anonymous wireless users who won't be seen.
network/wireless/ca_cert	Defines which CA certificate to use.
network/wireless/client_cert	Defines which client certificate to use.
network/wireless/domain	Defines the domain name.
network/wireless/eap_method	Defines the EAP method.
network/wireless/identity	Defines the identity of the user.
network/wireless/password	Defines the password of the network.
network/wireless/phase2_method NONE,MSCHAPV2,GTC,PAP,MSCHAP	Defines the encryption method. Phase 2 applies only to the 802.1x EAP method.
network/wireless/security	Defines the security method (encryption protocol).

4.1.4 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**.

← Settings	Camera
User	Camera settings
Sound	₽.
T Accessibility	
{ } Reboot	
i About	
Device admin settings	
Device Administration	
Display	
🕚 Date & time	
🖤 Wi-Fi	
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. For more information, see <u>here</u>.

4.1.4.1 Configuring Camera Frequency

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

- 110V 60Hz
- 220V 50Hz

\leftarrow	Settings	Camera
		Camera settings
		Camera frequency
	Camera frequency	
	50 Hertz	
	O 60 Hertz	
٩		
	Date & time	
	Wi-Fi	
	Camera	

4.1.5 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.

← Camera Settings		
Presets	EDIT PRESET	
Room		:
+ Create New Preset	[옷] Auto-Framing 🗩	
	Zoom	
	Tilt	100% 50%
		100%
	Pan 🕒	50%
		100%
	Brightness	50%

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.

← Camera Settings		Limited access
Presets	VIEW PRESET	
Room	Room	
+ Create Temporary Preset	운 Auto-Framing	
	Zoom	0%
		100%
	Tilt ••	50%
		100%
	Pan •• ••	50%
		100%
	Brightness	50%

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.



4.1.6 Pairing RC with RXV81 via Bluetooth

Bluetooth is currently used to pair the RC with RXV81.

- To pair a new device:
- 1. Under 'Device admin settings', navigate to and select **Bluetooth**.

÷	Settings	Bluetooth	
Ť	Accessibility		On 🔷
{ }	Reboot	Devic RXV80	e name
(j	About		y connected
Device	e admin settings		,
⋳	Device Administration	*	RC-RXV80
		+	Pair new device
✨	Display	_	
0	Date & time	60	
		í	When Bluetooth is turned on, your device can communicate with other nearby Bluetooth devices.
	Wi-Fi		uevices.
٩	Camera		ŀ}
*	Bluetooth		

2. Navigate to and select **Pair new device**.

4.1.7 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.

÷	Settings	Languages & input
⋳	Device Administration	→A Languages English (United States)
✨	Display	Keyboard & inputs
S	Date & time	Virtual keyboard
▼	Wi-Fi	Android Keyboard (AOSP)
٢	Camera	Physical keyboard LITE-ON Technology USB NetVista Full Width Keyboard.
*	Bluetooth	
⋳	Security	
⊕	Languages & input	C ₂



2. Navigate to and select Physical keyboard.

3. Navigate to and select Show virtual keyboard.

4.1.8 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.

÷	Settings	Modify network
⋳	Device Administration	IP address fe80::2980:1cd8:ccd8:c0d3
ᢙ	Display	10.22.13.32
0	Date & time	IP settings DHCP
•	Wi-Fi	Network state: Connected
٥	Camera	Proxy
*	Bluetooth	802.1x Settings
₿	Security	VLAN Settings
⊕	Languages & input	
‹·· >	Modify network	

2. Navigate to and select:

•

- IP Address [Read Only]
 - IP Settings [DHCP or Static IP]

IP se	ettings				
۲	DHCP	l≩			
	Static				
				CANCEL	ок

- Network state [Read Only]
- Proxy

🔶 Modify n		Proxy		
Proxy hostnan	ne			
Proxy port				
Bypass proxy	for			
DONE	CLEAR	RESTORE DEFAULTS		

- Manually (from the screen shown in the preceding figure). Allows you to configure the 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:

Reservation Options 🛛 🚦					
General Advanced					
Available Options	Description 🔺				
120 UCSipServer	Sip Server F				
□ 121 Classless Static Routes	Destination,				
□ 160 Audiocodes 160 Option	Audiocodes				
☑ 252 wpad-url	-				
<					
Data entry String value: http://10.37.4.99/proxy.pac					
OK Cancel	Apply				

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://lieee802.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)]

CANCEL

ок

	N Discovery mode		
\bigcirc	Disabled		
0	Manual configuaration		
	Automatic configuration (CDP)		
0	Automatic configuration (LLDP)		
	Automatic configuration (CDP+LLDP)		
		CANCEL	ок

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 <u>here</u> 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

Enter VLAN Interval (range 1 to 3600)

'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 disabled or VLAN is **Manual**).

4.1.9 Configuring Call Settings

This setting enables the user to configure call-associated functionalities to suit personal preferences.

To configure call settings:

1. From the home page, navigate to and select **More** and then navigate to and select **Settings**.

Calling		
Calling		

2. Navigate to and select Calling.

	Calls AudioCodes Ltd	
	⊨}	
Call for	rwarding O	
Also rir	ng o	ff
lf unan	nswered Voicement	il
	e voicemail greetings ils will show in the calling app with audio playback and transcript	
Calls fo	or you Defau	lt
Forwar	rded calls Defau	lt
Delega	ated calls Defau	lt
Block o	calls with no caller ID	

- In the Calls screen, navigate to and select:
 - **Call forwarding** to enable automatically redirecting incoming calls to another destination.
 - Also ring to configure other phones to ring on incoming calls; only displayed if Call forwarding is disabled.
 - If unanswered to configure the destination to which unanswered calls will be sent; only displayed if Call forwarding is disabled. Select either Off, Voicemail, Contact or number.
 - Calls for you to configure the ringtone played on your phone when calls come in.
 - Forwarded calls
 - **Delegated calls** to configure the ringtone played to delegates.
 - Block calls with no caller ID to block calls that do not have a Caller ID.

4.1.10 Configuring DSCP for QoS

The RXV81 Teams application supports DS (Differentiated Services) containing a differentiated Services Code Point (DSCP) value and an ECN (Explicit Congestion Notification) value, for monitoring Quality of Service (QoS).

DSCP is part of the IP header that defines the type of routing service to tag outgoing voice packets originated from the device. It informs routers that this packet must receive a specific QoS. Values can be set in decimal (e.g., 184) or hexadecimal (e.g., 0xb8). The default value is 0xb8 (184).



The DSCP value for audio is 0x46.

The DSCP value for **video** is **0x34** (screen sharing is not supported). See also Microsoft's website for more information.



Note: The DSCP value can be adjusted on the server; it cannot be adjusted on the client.

The figure below shows the recommended port ranges.

ledia traffic type	Client source port range	Protocol	DSCP value	DSCP class
Audio	50.000-50.019	TCP/UDP	46	Expedited Forwarding (EF)
Video	50.020-50.039	TCP/UDP	34	Assured Forwarding (AF41)
Application/Screen Sharing	50.040-50.059	TCP/UDP	18	Assured Forwarding (AF21)

The figure below shows the recommended DSCP setting for Audio.

	2057 47.390455	192.168.2.104	172.17.178.203	UDP	84 50006 → 50012 Len=42
	2058 47.390541	192.168.2.104	172.17.178.203	UDP	228 50006 → 50012 Len=186
	2059 47.393899	192.168.2.104	172.17.178.203	UDP	151 50006 → 50012 Len=109
	2060 47.395193	172.17.178.203	192.168.2.104	UDP	114 50012 + 50006 Len=72
	2061 47.395209	172.17.178.203	192.168.2.104	UDP	114 50012 → 50006 Len=72
F	came 2057: 84 byte	es on wire (672 bits). 84 bytes captured (672	bits) on interface	\Device\NPF_{296D2E63-3934-488A-8FAB-666A48797EE2}, id (
			0:90:8f:9c:1a:38), Dst: V		
			168.2.104, Dst: 172.17.17	Construction and the second	
1	0100 = Vers	and some the strained as a second strained of the st	100.2.104, 030. 1/2.1/.1/	0.205	
		der Length: 20 bytes	(5)		
		Construction of the second	(DSCP: EF PHB, ECN: Not-I	ECT)	
	 A second and and and an inclusion for the second sec		ces Codepoint: Expedited f	Contraction in the local data and the local data an	
			Notification: Not ECN-Capa		
	Total Length: 76	Contraction of the second second second second	Willication. Not cen-capa	able mansport (0)	
	Identification:				
1	Flags: 0x4000, D				
1					
	Fragment offset: Time to live: 64				
	Protocol: UDP (1	Contract of the second s			
		0x4447 [validation			
	·	n status: Unverified	1		
	Source: 192.168.	Contraction of the second second			
	Destination: 172	2.17.178.203			
11	ser Datagram Proto	ocol, Src Port: 5000	6, Dst Port: 50012		

The figure below shows the recommended DSCP setting for Video.

2290 8.194033	192.168.2.103	172.17.178.101	UDP	1022 50036 → 50023 Len=980				
2291 R.194102	192,168.2.103	172.17.178.101	IIDP	1022 50036 + 50023 (en=980				
rame 2290: 1022	bytes on wire (8176 i	its), 1022 bytes captured	(8176 bits) on int	terface \Device\NPF {296D2E63-3934-488A-BFA8-666A48797EE2}, id				
thernet II, Src:	DolbyLab_10:02:04 (6	0:d0:46:10:02:04), Dst: V	Mware_ff:63:15 (00:	:0c:29:ff:63:15)				
internet Protocol	Version 4, Src: 192.	168.2.103, Dst: 172.17.17	8.101					
0100 = Ve	rsion: 4							
0101 = He	ader Length: 20 bytes	(5)						
 Differentiated 	Services Field: 0x88	(DSCP: AF41, ECN: Not-EC	T)					
1000 10 =	Differentiated Servi	ces Codepoint: Assured For	warding 41 (34)					
00 =								
Total Length:	Total Length: 1008							
Identification	: 0x8368 (33640)							
> Flags: 0x4000,	Don't fragment							
Fragment offse	t: 0							
Time to live:	64							
Protocol: UDP	(17)							
Header checksu	m: 0x9186 [validation	disabled]						
[Header checks	um status: Unverified	1						
Source: 192.16	8.2.103							

4.1.11 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.

÷	Settings	Debugging
⋳	Device Administration	Log settings
ᢙ	Display	Remote Logging
0	Date & time	Diagnostic Data
▼	Wi-Fi	Reset configuration
٦	Camera	Restart Teams app
*	Bluetooth	Company portal login
⋳	Security	Launch mobile teams
⊕	Languages & input	Debug Recording
< >	Modify network	Erase all data (factory reset)
۲	Calling	ADB

- 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)

4.1.11.1 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.

← Debugging Log settings
Log Level
Log Package Filter
Log Tag Filter
Log Buffer Filter
Current filter for logs logcat

- 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.

Log I	Buffer Filter		
	Radio buffer		
	Events buffer		
	Main buffer		
	System buffer		
	Crash buffer		
	View all buffers		
	Default - main, system and crash buffers		
		CANCEL	ок

- 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.

	Office 365 Microsoft Teams admin center			
	≡	Dashboard \ Manage devices \ audiocodes-c450hd sc10155	532	
ଭ	Deshboard			
885	Teams	audiocodes-c450hd sc10155532 Onlin	e.	
8	Devices ^		User	
5	Manage Devices	D O	sh_OnlineAuto7	
۲	Locations	Last seen Mar 7, 2019, 4:13 PM	Organization asset tag	
88	Users	Manufacturer and model	OEM serial number	
Ē	Meetings v	AudioCodes - C450HD	sc10155532	
	Messaging policies			
41	Analytics & reports	Details History		
۲	Org-wide settings 💫 🗸 🗸			
3	Legacy portal 🗠	Software update status	Notes	
æ	Call quality dashboard 15	Firmware Audio Codes Firmware	Update	
6	Firstline Worker configu	C450HD_TEAMS_0.218 Updated on Feb 27, 2019, 2:00 AM		
		App Audiocodes Partner Agent 1.0.26 Updated on Feb 11, 2019, 200 AM	Update	



Note: The preceding figure is for illustrative purposes. It shows an AudioCodes phone. The same screen is displayed for the RXV81.

3. Click the Diagnostics icon.





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

5. Click the **History** tab.

	Office 365 Microsoft T	Microsoft Teams admin center			
	=	Dashboard \ Manage devices \			
ଜ	Dashboard				
885	Teams				
8	Devices 🗸 🗸	0.0		User	
۲	Locations	Last seen		Organization, asset tag	
88	Users	-		• OEM serial number	
Ē	Meetings 🗸 🗸	Manufacturer and model		*	
E	Messaging policies				
41	Analytics & reports				
۲	Org-wide settings \sim	Details History			
3	Legacy portal 12				
۵	Call quality dashboard 13	History			
ø	Firstline Worker configu 🖸	Action	Details	Modified on	Diagnostics file
		Device Diagnostics	Completed	Mar 7, 2019, 4:14 PM	Download

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

4.1.11.2 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:
- 7. Navigate to and select **Remote logging**.

← Debugging Remote Logging	
Remote IP address	
Remote port 514	
Remote Logging Remote logging is now disabled	

8. 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 ""

4.1.11.3 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**.

Diagnostic Data		
Copy logs to sdcard?		
	CANCEL	ок

- 2. Navigate to and select **OK** to confirm 'Copy logs to sdcard'; the 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
- dumpstate-TEAMS_1.3.16-undated.txt
- dumpstate_log-undated-2569.txt
- logcat.log

4.1.11.4 Reset configuration

Admin users can opt to 'clean up' their configuration history and return the RXV81 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**.

Reset configuration		
Are you sure you want to reset to your original configuration?		
	CANCEL	ок

 Navigate to and select OK; all data is erased and default factory settings are restored but signin is retained.
 See also here.

4.1.11.5 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.

4.1.11.6 Company Portal Login

← Device Details	N E
alarr_Android_12/1/2020_12.55 PM RXV80 This is the device you're currently using.	
Original Name alianr_Android_12/11/2020_12:55 PM	
Operating System Android Ownership Type	
United by the Personal Learn More	
Device Strings Status In Compliance Last Checked: December 6, 8:43 AM <u>Check device settings</u>	

4.1.11.7 Getting Company Portal Logs

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

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 RXV81 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**:

← Device Details	Settings
alarr_Android_12/1/2020_12:55 PM	About
Device settings meet policy requirements.	
Original Name alanr,Android,12/1/2020_12:55 PM	
Operating System Android	
Ownership Type Personal	
Learn More	
Device Settings Status In Compliance Last checked: December 6, 08:43	
Check device settings	

← Settings	
Usage Data Allow Microsoft to collect performance and usage data to help improve Microsoft products and services.	()*
Battery Optimization Turn off battery optimization You can turn off battery optimization for the Company Portal and the Microsoft Authenticator app for better performance of work or school apps that syncemal or data. Learn More	TURN OFF
Troubleshooting Verbose Logging Allow the Company Portal and Intune managed apps to record future actions in greater detail, which may help your company support better identify and solve issues.	(1
Automatic Crash Reporting Automatically report errors to Microsoft.	() 3
Diagnostic Data Copy logs to SD card.	COPYLOGS
Management Policy Sync your device with the latest policies from AudioCodes Ltd.	SYNC
Enable Browser Access Installs Work Account certificate. You might be prompted for system permissions.	ENABLE

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.

4.1.11.8 Launch Mobile Teams

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

4.1.11.9 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 phone.

To reset the configuration:

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

C Debugging Debug Recording	
Remote IP address	
Remote port 50000	
Voice record Voice recording is now disabled	

- 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.

4.1.11.10 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).

÷	Settings	← Debugging Erase all data (factory reset)
4)	Sound	This will erase all data from your IP Phone's internal storage, including:
Ť	Accessibility	System and app data and settings Downloaded apps
{}	Reboot	• Music • Photos • Other user data
(j)	About	
Device admin settings		You are currently signed into the following accounts:
₿	Device Administration	alanr@audiocodes.com
✨	Display	
0	Date & time	ß
♥	Wi-Fi	
٦	Camera	RESET PHONE

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

4.1.11.11 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 the 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 the RXV81 while long-pressing the power button for as long as is required for the action (see Table 4-2 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.

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

Table 4-2: Recovery Operation Options using the RXV81's Power Button

3. Short-press the power button to move down the menu options, and long-press to select an option.

4.3 Restoring RXV81 Firmware via USB Disk

For recovery purposes, firmware can be applied to the 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 4-2 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.

To configure sound settings:

Under 'User', navigate to and select **Sound**.

÷	Settings	Sound	
User		ľ	Media volume
•)	Sound		
Ť	Accessibility	¢	Ring volume
{}	Reboot		
í	About		5

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.

÷	Settings	Accessibility
(۳	Sound	Font size Default
Ĭ	Accessibility	La High contrast text
{}	Reboot	Color correction
í	About	Off

2. Adjust the settings to suit personal requirements.

4.4.3 Setting Live Captions

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

4.4.4 Enabling Display of Meeting Name using Exchange Online PowerShell

See <u>here</u> for information about how to access the exchange instance (the tenant). Admin must set the two parameters indicated in the figure below to 'False':

PS C:\Users\waynea> Get-CalendarProce	ssing -Identity Maxim_MTR FL
AutomateProcessing	: AutoAccept
AllowConflicts	: False
AllowDistributionGroup	: True
AllowMultipleResources	: True
BookingType	: Standard
BookingWindowInDays	: 180
MaximumDurationInMinutes	: 1440
MinimumDurationInMinutes	: 0
AllowRecurringMeetings	: True
EnforceAdjacencyAsOverlap	: False
EnforceCapacity	: False
EnforceSchedulingHorizon	: True
ScheduleOnlyDuringWorkHours	: False
ConflictPercentageAllowed	: 0
MaximumConflictInstances	: 0
ForwardRequestsToDelegates	: True
DeleteAttachments	: True
DeleteComments	: False
Removernivaterroperty	. Tulac
DeleteSubject	: False
AddOrganizerToSubject	: False
DeleteNonCalendaritems	: Irue
TentativePendingApproval	: True
EnableResponseDetails	: True
OrganizerInfo	: True
ResourceDelegates	: ()
RequestOutOfPolicy	: ()
AllRequestOutOfPolicy	: False
BookInPolicy	: {}
AllBookInPolicy	: True
RequestInPolicy	: {}
AllRequestInPolicy	· U : False
AddAdditionalResponse	: raise : True
AdditionalResponse	: This is a Microsoft Teams Meeting room!
	: This is a microsoft leams meeting room: : True
RemoveOldMeetingMessages	
AddNewRequestsTentatively	: True : True
ProcessExternalMeetingMessages	
RemoveForwardedMeetingNotifications	
AutoRSVPConfiguration	: Microsoft.Exchange.Data.Storage.AutoRSVPConfiguration
RemoveCanceledMeetings	: False
EnableAutoRelease	: False
PostReservationMaxClaimTimeInMinutes	
MailboxOwnerId	: Maxim_MTR
Identity	: Maxim_MTR
IsValid	: True
ObjectState	: Changed

'Identity' is the name of the account to which admin wants to apply these two settings:

- Set-CalendarProcessing -Identity "Maxim_MTR" -DeleteSubject \$false
- Set-CalendarProcessing -Identity "Maxim_MTR" -AddOrganizerToSubject \$false
4.4.5 Hiding Names and Meeting Titles

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

← Meetings	
Show meeting names	•
Proximity meeting join	•
₽ Allow remote control of room system	•

4.4.6 Rebooting the RXV81

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

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

	Reboot	
	Are you sure you want to reboot the device?	
Device a	CANCEL OK	
	CANCEL OK	

4.4.7 Viewing About RXV81

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

- To access the About screen:
- 1. Navigate to and select **About device**.



÷	Settings	← About Status		
۹)	Sound	IP address fe80::2980:1cd8:ccd8:c0d3		
Ť	Accessibility	10.22.13.32		
{}	Reboot	Wi-Fi MAC address 34:f1:50:8e:3e:5f		
(j)	About	MAC address 00:90:8F:C8:B0:19		
Device admin settings				
⋳	Device Administration	Bluetooth address 34:f1:50:8e:3e:60		
٩	Display	Serial number DB13152281		
C	Date & time	Up time		
•	Wi-Fi	50:46:03		
۲	Camera			
\$	Blustestk			

3. View the RXV81's firmware information.

5 Viewing RXV81 Status LEDs

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



•	Red / white / red & white	
White on	Device is powered on, signed in to Teams	
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, but not signed into Teams	
•	Blue	
Blue on	In a call (active call or meeting)	
Blue flashing	Incoming call	
\bigcirc	Camera on/off	
White on	Camera on	
White off	Camera off	

Table 5-1: Viewing RXV81 LEDs to Determine Status



6 Using RXV81 in Ad Hoc Peripheral Mode

In addition to standalone mode, RXV81 can be used in ad hoc peripheral mode. In this mode, you can connect the 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 the UC client or the RC (camera on / off, mute, volume).

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

- Volume
- Mute
- Camera on/off



Note: See the *RXV81 MTR on Android Video Collaboration Bar with RX-PAD or RCU Quick Guide* for detailed information on cabling the RXV81.

Ad hoc peripheral mode is a versatile feature designed to enhance RXV81 functionality. The mode enables seamless integration of RXV81 with a PC/laptop by utilizing RXV81's audio and camera capabilities as primary audio and camera sources for the PC/laptop.

> To use RXV81 in ad hoc peripheral mode:

1. Connect the device's ¹/₄ USB Type C port to a BYOD (Bring Your Own Device) (PC/laptop) running a UC client; the device automatically moves to ad hoc peripheral mode and RX-PAD displays the following:

EXCENSION OF A CONTRACT OF A C	rce that is connected to neeting, answer, hangup,		
	∧ Volume ∨	Settings	۰

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



3. View peripheral ad hoc mode displayed on RXV81 as follows:



4. View ad hoc peripheral mode displayed on RXV81 bundled with the Remote Controller unit (RCU) as shown in the figure below.



When the device is in ad hoc peripheral mode, it automatically detects the mode when the user connects a USB cable from their BYOD compute, and pops up this message to the user:

In addition to the USB cable already connected to your laptop, please connect your laptop to the TV using the HDMI cable to properly view meeting details and content sharing.

On your TV, make sure to select the HDMI source that is connected to your laptop.

Note that you can still use your RXV81 RC to increase or decrease volume, mute or unmute audio, and switch the camera on or off.

In peripheral mode, the BYOD displays meeting video and content. Meetings are controlled via the BYOD (join, accept, manage participants). Audio/video (camera ePTZ, mic mute) can be controlled via the UC client or the RC (camera on / off, mute, volume).





7

Updating the RXV81 MTR Remotely

For instructions on how to update the RXV81 Microsoft Teams Room remotely, see <u>https://docs.microsoft.com/en-us/microsoftteams/devices/remote-update</u>.



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.



8 **Replacing RC Batteries**

[Only applies to users who acquired the RC bundle] If the RC batteries run low, the 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.

8.1 Assessing RC Battery Level

[Only applies to users who acquired the RC bundle] You can determine the RXV81 remote controller's battery level through the Status screen (**About** > **Status**) using the setting **Remote control battery level**.



8.2 Restarting / Rebooting the RXV81

The RXV81 sometimes needs to be restarted / rebooted, for example, after inserting the Bluetooth dongle.

To restart / reboot the RXV81:

Long-press the RC 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.

8.3 **Powering Down/Up the RXV81**

The RXV81 can be powered down/up.

- **To power down the RXV81:**
- Long-press the RXV81 back button for 12 seconds; the device is powered down.
- > To power up the RXV81:
- Long-press the RXV81 back button for 12 seconds; the device is powered up.

9 RX-PAD Meeting Room Controller

Note:

- Only applies to users who acquire the RXV81 bundle **TEAMS-RXV81-B10**.
- Optionally replaces RXV81's RC for management and control functions.
- See the <u>RX-PAD Meeting Room Controller Pairing Guide</u> for instructions how to pair the controller with the RXV81.

AudioCodes' RX-PAD is a center-of-room intelligent touch controller that provides access to the RXV-81 meeting room.



RX-PAD enables capabilities such as one-click collaboration initiation with an integrated calendar, content sharing and camera adjustments, and more.

Requiring only a PoE cable for quick installation, RX-PAD leverages plug-and-play simplicity to provide a familiar Microsoft Teams meeting experience.

See AudioCodes' website here for more information about RX-PAD.

9.1 Using RX-PAD

Use the figure and the table following as a reference to using RX-PAD.



L-R	Description		
1	'Back' button; press to return to the screen previously accessed.		
2	Press to return to the home screen from any screen. Long-press to open the device's 'Settings' screen.		
3	Press to access 'Camera Settings'.		
4	Press to open administrator-related menus, including 'Settings'.		
5	One-click to join with an integrated calendar for quick and rapid collaboration initiation.		
6	Human proximity motion sensor concealed under the plastic that allows the user to hold their hand near the sensor location to 'wake up' the device while in screensaver mode, triggering automatic lighting to greet the user.		
7	 LED indications: If illuminated red (constantly, without flashing), it indicates 'No network'. Flashing red indicates a system alert, for example, when a user tries to charge via the device's USB port. Flashing yellow indicates that the device is in the process of a software upgrade. 		

Table 9-1: Reference to Using RX-PAD

9.2 Using RX-PAD to Adjust RXV81 Camera Settings

RX-PAD can be used to control RXV81 camera settings.

> To adjust RXV81 camera settings:

1. In RX-PAD, pull down the notification bar and select the **Camera Settings** icon -OR- on the physical interface of the RX-PAD, tap the camera icon (labeled 3 in the preceding figure).



2. View the camera settings menu and a preview of the room the RXV81 is located in.



3. In the Camera Settings page, adjust the Brightness, Contrast, Saturation, Zoom and Tilt.

4. Optionally, save the current settings in the running preset, or save them in a separate preset using the **Create New Preset** button.





10 Remote Controller (RC)



Note: Only applies to users who acquire the RXV81 bundle **TEAMS-RXV81**. See <u>here</u> for bundle details.

The figure below shows AudioCodes' remote controller.



- The software on the remote controller is managed by the RXV81.
- The remote controller leverages Bluetooth which enables full control and bi-directional communication (very much like touch control). See also Section 4.1.5.
- The keys on the remote controller (Mute, Teams) are illuminated.



Note: The remote controller flashes if the connection to the RXV81 fails.



11 Android-based Teams Devices Parameters

Listed here are the configuration file parameters currently supported by Android-based Teams devices. They're in AudioCodes' UC version format. The parameters are comprised of Microsoft configuration profile settings and AudioCodes' device-specific parameters.

- general/silent_mode = 0 (default)/1
- general/power_saving = 0 (default)/1
- phone_lock/enabled = 0 (default)/1
- phone_lock/timeout = 900 (default) (in units of seconds)
- phone_lock/lock_pin = 123456
- display/language = English (default)
- display/screensaver_enabled = 0/1
- display/screensaver_timeout = 1800 (seconds)
- display/backlight = 80 (0-100)
- display/high_contrast = 0 (default)/1
- date_time/timezone = +02:00
- date_time/time_dst = 0 (default)/1
- date_time/time_format = 12 (default) / 24
- network/dhcp_enabled = 0/1
- network/ip_address =
- network/subnet_mask =
- network/default_gateway =
- network/primary_dns =
- network/pecondary_dns =
- network/pc_port = 0/1
- office_hours/start = 08:00
- office_hours/end = 17:00
- logging/enabled = 0/1
- logging/levels = Verbose, Debug, Info, Warn, Error, Assert, None
- admin/default_password = 1234
- admin/ssh_enabled=0/1 (default)
- security/SSLCertificateErrorsMode = IGNORE, NOTIFICATION, DISALLOW (default)
- security/ca_certificate/[0-4]/uri uri to download costumer's root-ca
- provisioning/period/daily/time
- provisioning/period/hourly/hours_interval
- provisioning/period/type = HOURLY, DAILY (default), WEEKLY, POWERUP, EVERY5MIN, EVERY15MIN
- provisioning/period/weekly/day
- provisioning/period/weekly/time
- provisioning/random_provisioning_time

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