

C448HD C450HD C470HD IP Phones for Microsoft Teams

Version 1.10



Microsoft Partner

Gold Communications



audiocodes

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Abbreviations and Conventions

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

Related Documentation

Document Name
C448HD IP Phone for Microsoft Teams Quick Guide
C450HD IP Phone for Microsoft Teams Quick Guide
C470HD IP Phone for Microsoft Teams Quick Guide
C448HD C450HD C470HD IP Phone for Microsoft Teams User's and Administrator's Manual
https://docs.microsoft.com/en-us/MicrosoftTeams/phones-for-teams

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1 Introduction

This document describes the new features and known constraints of AudioCodes' C448HD, C450HD and C470HD IP Phones for Microsoft Teams.

1.1 Overview

The AudioCodes C470HD, C450HD and C448HD IP phones are native Microsoft Teams high-end executive business phones with a large color touch screen and full UC integration for the Native Microsoft Teams Online market.

The phones can be managed by the Microsoft Teams & Skype for Business Admin Center. For more information, see <https://docs.microsoft.com/en-us/MicrosoftTeams/phones-for-teams>.

1.1.1 About the C470HD IP Phone

The AudioCodes Microsoft Teams-native C470HD IP phone is a feature-rich, executive high-end business phone for Microsoft Teams. A native Microsoft Teams Total Touch high-end business phone, it features a large color touch screen and full UC integration. The phone is equipped with a large, single surface, full touch interface, incorporating an exceptionally sharp 5.5" color touch screen, with optional support for Wi-Fi and Bluetooth.

AudioCodes IP phones can be offered as part of its Managed IP Phones solution, which defines the IP phone as an IT-managed entity and delivers unique and complete lifecycle management of end-user desktop devices.

Feature highlights:

- Native support for Microsoft Teams
- Graphical portrait 5.5" color touch screen (1280 x 720) with multi-lingual support
- GbE support
- USB headset support
- Bluetooth 5.0 support

1.1.2 About the C450HD IP Phone

The C450HD IP phone is a high-end, native Microsoft Teams executive IP phone with a large, color 5" touch screen, integrated Bluetooth and Wi-Fi, and optional connectivity to a color touch screen expansion module.

Feature highlights:

- Full duplex speakerphone and headset connectivity
- Graphical 5" color capacitive touch screen (1280 X 720 resolution)
- Multi-lingual support
- Dual GbE support
- PoE or external power supply
- 2xUSB headset support
- Optional integrated Bluetooth and Wi-Fi (contact your local AudioCodes representative for more information about regional availability of Wi-Fi / Bluetooth)
- Expansion module support

The C450HD phone also features the option to be used as a Microsoft Skype for Business IP phone, offered as part of AudioCodes' Managed IP Phones solution which defines the IP phone as an IT-managed entity and delivers unique and complete lifecycle management of end-user desktop devices. A single-click switchover between native Microsoft Teams and Skype for Business is supported.

1.1.3 About the C448HD IP Phone

The C448HD phone is a native Microsoft Teams entry level/common area phone with a large, color 5" touch screen. Recommended for hot desking.

Feature highlights:

- Full duplex speakerphone and headset connectivity
- Graphical 5" color touch screen (1280 X 720)
- Multi-lingual support
- Dual GbE support
- PoE or external power supply
- 1xUSB headset support

The C448HD phone currently does not support the option to be used as a Microsoft Skype for Business phone as it's for native Microsoft Teams only.

1.2 Specifications

The table below summarizes the software specifications of the C450HD and C448HD IP Phones for Microsoft Teams.

Table 1-1: C450HD and C448HD IP Phones for Microsoft Teams Software Specifications

Feature	Details
Media Processing	<ul style="list-style-type: none"> ■ Voice Coders: G.711, G.729, G.722, SILK Opus ■ Acoustic Echo Cancelation: G.168-2004 compliant, 64-msec tail length ■ Adaptive Jitter Buffer ■ Voice Activity Detection ■ Comfort Noise Generation ■ Packet Lost Concealment ■ RTP/RTCP Packetization (RFC 3550, RFC 3551), SRTP (RFC 3711)
Microsoft Teams phones feature set	<ul style="list-style-type: none"> ■ For a summarized list of features, see https://docs.microsoft.com/en-us/MicrosoftTeams/phones-for-teams. ■ In addition, the phones feature the following: <ul style="list-style-type: none"> ✓ Sign-in with Modern Authentication, IP phone policies (including sign-in as Common Area Phone (CAP)), lock/unlock phone, unlock with smart PIN, 802.1x Authentication, SSH access, HTTPS Proxy Server, LLDP/CDP ✓ Incoming/outgoing P2P calls, PSTN calls, Regional Tone Settings, in-call controls via phone screen (mute, hold/resume, transfer, transfer to contacts, call park, call merge, end call, auto dismiss rate my call and call ended screens, Group Call Pickup), auto-dialing to call an

Feature	Details
	<p>extension, distinctive ringtone per call type, People app, add/remove 'Favorites', Delegates, E911, Visual Voicemail</p> <ul style="list-style-type: none"> ✓ Calendar and Presence (meeting details; Exchange calendar; contact pictures; Corporate Directory access), Meetings (one-click join; join Skype for Business meetings; meeting call controls [mute/unmute, hold/resume, hang up, add/remove participant, raise hand, live captions]) ✓ Language Localization; Virtual Keyboard: QWERTY Numeric, Global Network Banner, Dark Theme ✓ Wi-Fi (C450HD only), Bluetooth (C450HD only), Better Together over Bluetooth incl. pairing with the Teams PC client and lock/unlock synchronization, VLANs ✓ AudioCodes Device Manager (OVOC plugin), AudioCodes Redirect Server ✓ Dumpstate option, Remote Logging (Syslog) / Device Diagnostics Logs, Android Debug Bridge (ADB) command-line tool
Configuration / Management	<ul style="list-style-type: none"> ▪ Microsoft Teams & Skype for Business Admin Center (Provisioning and Logging) ▪ AudioCodes Device Manager
Debugging Tools	<ul style="list-style-type: none"> ▪ Log upload to Microsoft server (certification for 3rd party Skype for Business clients) ▪ Remote logging via Syslog ▪ Diagnostic Data ▪ SSH Access ▪ Capturing the phone screen ▪ TCPdump ▪ Company Portal (Intune) logs ▪ Audio Debug recording logs ▪ Media logs (*.blog) ▪ Port mirroring network monitoring (C450HD and C448HD) ▪ Remote Packet Capture network sniffer application (C450HD and C448HD)
Localization Support	<ul style="list-style-type: none"> ▪ Multi-lingual support; the language pack list is not yet final and is subject to modification.
C470HD Hardware	<ul style="list-style-type: none"> ▪ Graphical portrait 5.5" color touch screen, 720 x 1280 resolution, with multi-lingual support ▪ Wired connectivity: <ul style="list-style-type: none"> ✓ Two RJ-45 [Gigabit Ethernet (GbE)] (10/100/1000BaseT Ethernet) ports for WAN and LAN ✓ RJ-9 port (jack) for handset ✓ USB port for headset support ✓ RJ-11 interface ▪ Wireless connectivity: <ul style="list-style-type: none"> ✓ Dual band 2.4GHz/5GHz 802.11b/g/n/ac ✓ Wi-Fi supported protocol: 802.1X PEAP/TLS/TTLS/PWD ✓ Integrated optional Bluetooth support (Currently supported at a Beta level) ▪ Power: <ul style="list-style-type: none"> ✓ DC jack adapter 12V ✓ Power supply AC 100 ~ 240V ✓ PoE Class 3: IEEE802.3af (optional)

Feature	Details
	<ul style="list-style-type: none"> ▪ Keys: <ul style="list-style-type: none"> ✓ Hold ✓ Mute ✓ Transfer ✓ Volume ✓ Headset (including LED) ✓ Speaker (including LED) ✓ Back ✓ Home
C450HD Hardware	<ul style="list-style-type: none"> ▪ Five-inch color capacitive touch screen, 1280 x 720 resolution, with an intuitive user interface. ▪ Wired connectivity: <ul style="list-style-type: none"> ✓ Two RJ-45 [Gigabit Ethernet (GbE)] (10/100/1000BaseT Ethernet) ports for WAN and LAN ✓ RJ-9 port (jack) for headset ✓ RJ-9 port (jack) for handset ✓ 2 x USB ports for headset support <ul style="list-style-type: none"> USB white port– host port USB black port – device port (default) but it can be configured to host port (see the <i>C448HD and C450HD Teams Phone UM-AM</i> for more information) ✓ RJ-11 interface ▪ Wireless connectivity: <ul style="list-style-type: none"> ✓ Dual band 2.4GHz/5GHz, 802.11b/g/n Wi-Fi support ✓ Wi-Fi supported protocols: WEP, WPA-PSK/WPA2-PSK and WPA/WPA2 Enterprise (802.1X) PEAP only ▪ Integrated optional Bluetooth support for: <ul style="list-style-type: none"> ✓ Bluetooth headsets ✓ Microsoft Better Together for device pairing ▪ Mounting: <ul style="list-style-type: none"> ✓ Wall and desktop mounting options ✓ One angle for desktop mount, another angle for wall mount ▪ Power: <ul style="list-style-type: none"> ✓ DC jack adapter 12V ✓ Power supply AC 100 ~ 240V ✓ PoE Class 3: IEEE802.3af (optional) ▪ Keys: <ul style="list-style-type: none"> ✓ VOICE MAIL message hotkey (including LED) ✓ 4-way navigation button with OK key ✓ MENU ✓ REDIAL ✓ HOLD ✓ MUTE (including LED) ✓ TRANSFER ✓ VOLUME control key ✓ HEADSET (including LED) ✓ SPEAKER (including LED) ✓ BACK (the 'x' key) ✓ CONTACTS

Feature	Details
C448HD Hardware	<ul style="list-style-type: none"> ▪ Five-inch color capacitive touch screen, 1280 x 720 resolution, with an intuitive user interface. ▪ Wired connectivity: <ul style="list-style-type: none"> ✓ Two RJ-45 [Gigabit Ethernet (GbE)] (10/100/1000BaseT Ethernet) ports for WAN and LAN ✓ RJ-9 port (jack) for headset ✓ RJ-9 port (jack) for handset ✓ USB port for headset support ✓ RJ-11 interface ▪ Mounting: <ul style="list-style-type: none"> ✓ Wall and desktop mounting options ✓ One angle for desktop mount, another angle for wall mount ▪ Power: <ul style="list-style-type: none"> ✓ DC jack adapter 12V ✓ Power supply AC 100 ~ 240V ✓ PoE Class 3: IEEE802.3af (optional) ▪ Keys: <ul style="list-style-type: none"> ✓ VOICE MAIL message hotkey (including LED) ✓ 4-way navigation button with OK key ✓ MENU ✓ REDIAL ✓ HOLD ✓ MUTE (including LED) ✓ TRANSFER ✓ VOLUME control key ✓ HEADSET (including LED) ✓ SPEAKER (including LED) ✓ BACK (the 'x' key) ✓ CONTACTS

1.3 AudioCodes IP Phones for Microsoft Teams

The table below lists the AudioCodes IP Phones for Microsoft Teams.

Table 1-2: AudioCodes IP Phones for Microsoft Teams

Part Number	Product Description
TEAMS-C448HD	Teams C448HD IP Phone PoE GbE, black
TEAMS-C450HD	Teams C450HD IP Phone PoE GbE, black
TEAMS-C470HD	Teams C470HD Total Touch IP Phone PoE GbE
TEAMS-C470HD-DBW	Teams C470HD Total Touch IP Phone PoE GbE with integrated Bluetooth and Dual Band Wi-Fi
TEAMS-C450HD-DBW	Teams C450HD IP Phone PoE GbE black, with integrated Bluetooth and Dual Band Wi-Fi
TEAMS-C450HD-BW	Teams C450HD IP Phone PoE GbE black, with integrated Bluetooth and Wi-Fi
TEAMS-C448HDPS	Teams C448HD IP Phone PoE GbE black, with an external power supply black
TEAMS-C450HDPS	Teams C450HD IP Phone PoE GbE black, with an external power supply black
TEAMS-C470HDPS	Teams C470HD Total Touch IP Phone PoE GbE with an external power supply
TEAMS-C470HDPS-DBW	Teams C470HD Total Touch IP Phone PoE GbE with integrated Bluetooth, Dual Band Wi-Fi and an external power supply
TEAMS-C450HDPS-DBW	Teams C450HD IP Phone PoE GbE with integrated Bluetooth, Dual Band Wi-Fi and an external power supply black
TEAMS-C450HDPS-BW	Teams C450HD IP Phone PoE GbE with integrated Bluetooth and Wi-Fi and an external power supply, black

2 Version 1.10

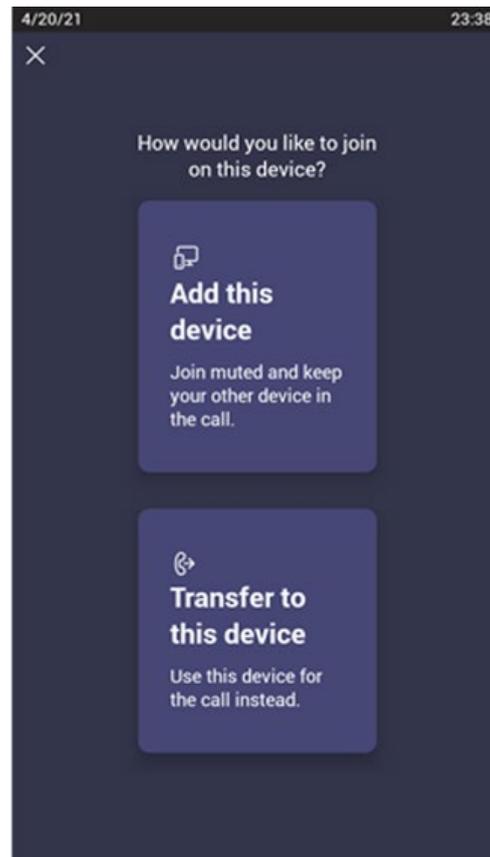
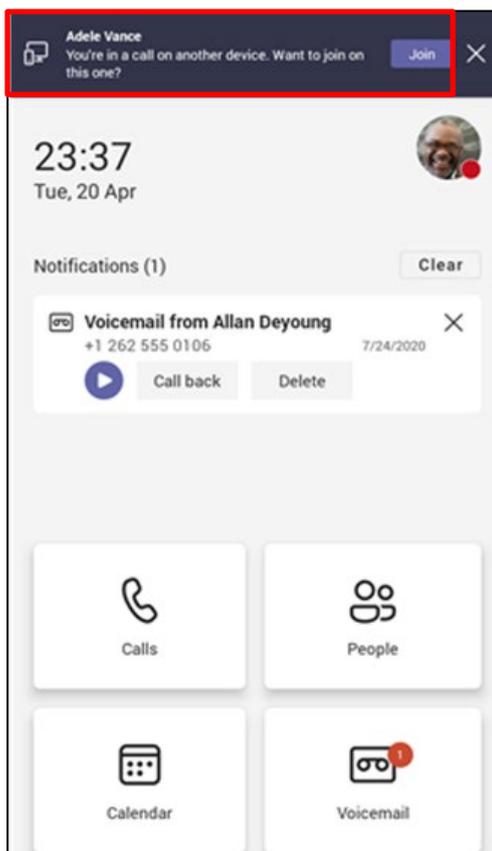


Note: Version 1.10.143 includes Microsoft Teams Version **2021052803**.

2.1 What's New in Version 1.10

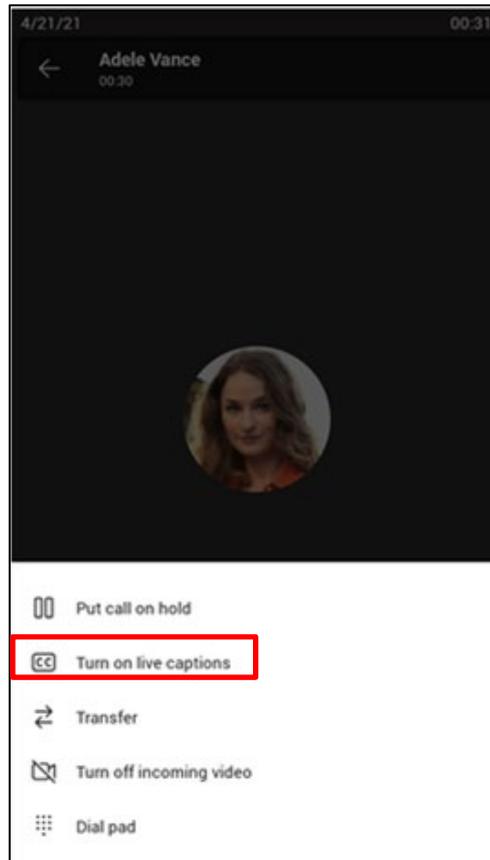
■ What's New for Microsoft Teams app:

- Upgrade to Microsoft Teams application version 2021052803
- Upgrade to Microsoft Company Portal application version 5.0.5088.0
- Upgrade to Microsoft Admin Agent application version 256
- **Users can add or transfer calls and meetings across devices.** If a user joins a meeting on their PC, they'll view a prompt suggesting adding their Teams device to split the audio and video, or transferring completely. The feature enables the user to move away from their PC while seamlessly staying connected. The phone recognizes the user is in a call on another device and prompts them to transfer or add, letting them start their call from elsewhere and transfer to their desk phone.



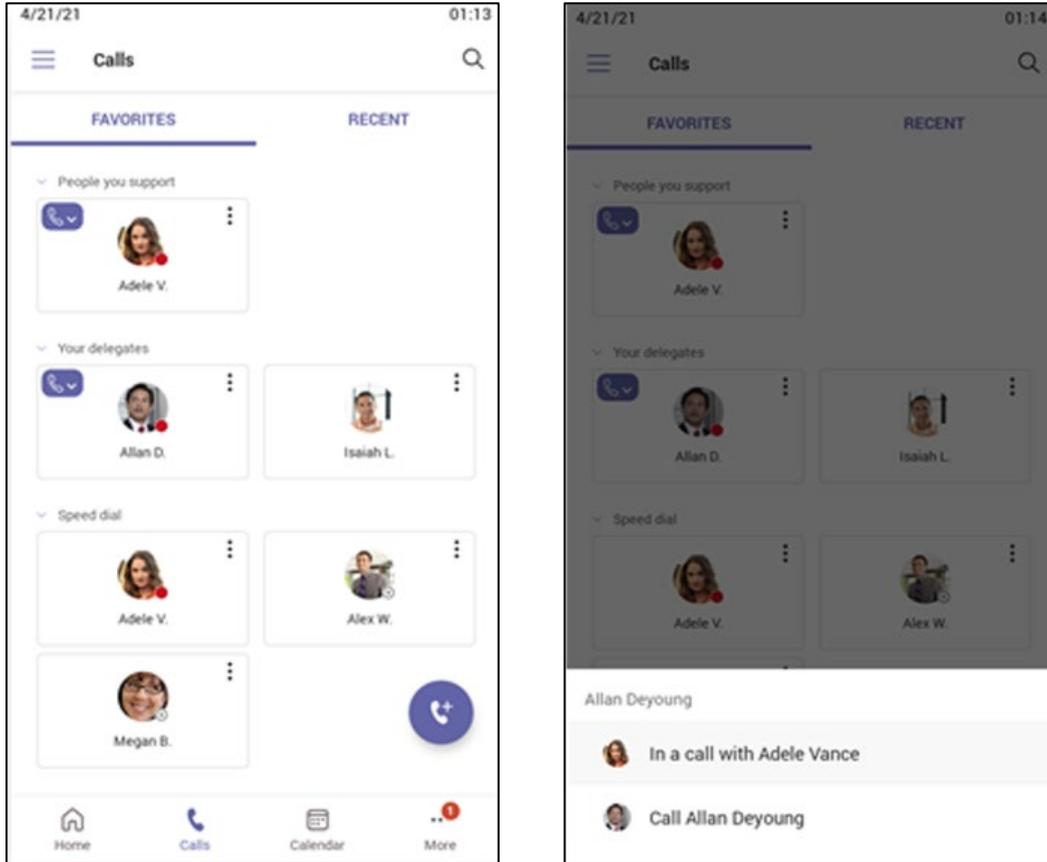
- **Contacts in Microsoft Outlook are available in read-only mode.** If a user creates a contact within Microsoft Outlook, their information appears under the People app on the phone screen. While only phone numbers currently appear, users can search on the phone for contacts and easily call the people they may email or meet with using Outlook.

- **Live captions are now available in calls.** Teams detects what is being said during a 1:1 call and presents the text on the screen in real time. In previous version releases, this feature was supported in meetings only.
 - ◆ Captions are currently only available in English (US).
 - ◆ Captions are unavailable for phones within government clouds.

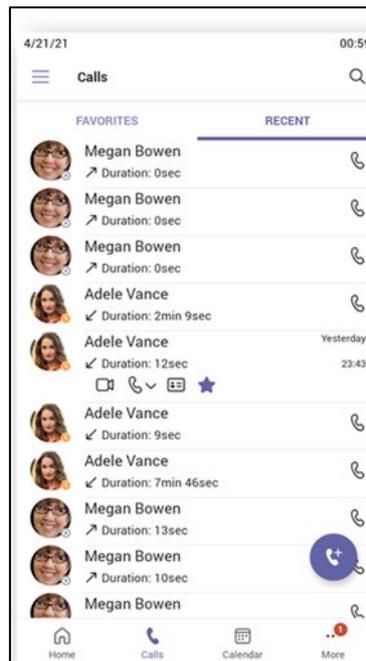


- **Usability improvements**

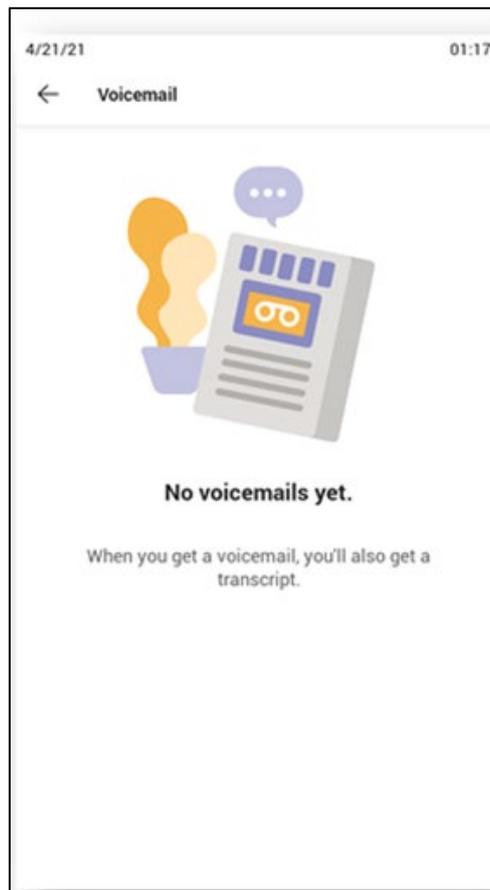
When a boss or admin is in a call, users can press the purple button touch target to see new options with respect to their contacts. The boss or admin can now easily see their frequent contacts with instant options to see their call status or place an outgoing call to them.



If a contact has multiple numbers, the phone screen now allows the user to select from a drop-down menu the intended contact method.



A new screen lets users know they have no voicemails.



- **Support for DTMF in the pre-call screen**
To facilitate quick responses for auto attendant scenarios, dial pad has been made available for early media scenarios.

2.2 Resolved Limitations in Version 1.10

2.2.1 Teams Application

Here are the Teams application limitations that have been resolved in Version 1.10.

Table 2-1: Resolved Teams Application Limitations in Version 1.10

Incident	Description
VSO257123	The Teams app crashes randomly in calls, or when incoming calls are received.
-	[Sign-in] [Microsoft Teams admin center login flow] Shared device account sign-in gets stuck at the 'Verifying a few things' screen.
-	[Sign-in] [Government Cloud Computing High (GCCH) environment] After signing in, the device goes back to the 'Active directory' screen.
-	[Sign-in] After rebooting the device, the device goes to sign-in [the phone requires re-authentication].
-	[Sign-in] The phone gets stuck in the username screen while signing-in when the language (Turkish) is changed from the sign-in screen.
-	[Sign-in] Sign-in fails and the phone goes back to the sign-in screen with the same code. The phone is signed out randomly and goes into a loop when sign-in is reattempted.

2.2.2 Device

Here are the device limitations that have been resolved in Version 1.10.

Table 2-2: Resolved Device Limitations in Version 1.10

Incident	Description
IPPAN-1821	[Device Manager] The 'Upgrade Firmware' action via the Device Manager causes an unnecessary reboot when pulling the cfg file with the new URL.
IPPAN-3206	The phone unnecessarily downloads the same available app update repeatedly [in a loop] when trying to update apps from the Teams Admin Center (TAC).
IPPAN-3174	Screensaver is not enabled on the phone when the configuration file is pushed from the Device Manager.
IPPAN-3213	[C450HD] Wi-Fi connectivity gets disconnected on rare occasions.
IPPAN-2888	The user can lock the device without signing-in.
IPPAN-2889	[C450HD] The phone uses the incorrect intent to restart the admin agent. This sometimes causes the device not to appear in the TAC.
IPPAN-2453	The phone sometimes displays 'Teams isn't responding'.
IPPAN-2592	[C470HD] [Multiple incoming calls] During multiple calls, the second call is automatically accepted by the device.
IPPAN-3245	[C470HD] On rare occasions, the phone does not start the Redirect process.
IPPAN-3161	[Localization] Japanese language - The date format on the phone is incorrect.
IPPAN-2965	[Localization] The Polish translation requires improvement.
IPPAN-3029	[C470HD] The device displays an 'encryption unsuccessful' pop-up on its first bootup after restoring phone to its default settings. Another 'Restore to default' solves it.
IPPAN-2858	When LLDP is configured, the phone gets the access VLAN IP for 15 seconds and then gets the voice VLAN IP.
IPPAN-1913	[C450HD Bluetooth] The scan for a Bluetooth device sometimes in a noisy environment cannot find the Bluetooth headset.
IPPAN-2720	On rare occasions, the phone cannot boot up after two provisioning parameters are set.
IPPAN-2728	[C470HD Certification] The bootup screen doesn't display the message 'Initializing. Please wait.' with Microsoft Teams and AudioCodes logos.
DSP-743	[C470HD] Audio tests (in external laboratories) reveal that tuning/improvements are required as part of the phone certification.
IPPAN-2475	[C470HD] The phone's real time format is 12-hour when the automatic 24-hour format is enabled.
IPPAN-2708	[C450HD] One-way voice in an outgoing direction sometimes occurs with USB Jabra Evolve 20.
IPPUC-3565	On some occasions, the phone does not start provisioning via AudioCodes Device Manager since it tries starting it without making sure that the network is ready.
IPPAN-2733	The phone DHCP Vendor class (Option 60) is wrong.
IPPAN-2600	[C470HD] On some occasions, voice cannot be heard in a call with a Bluetooth headset.

Incident	Description
IPPAN-2636	The user name displays '0' in Device Manager Express if the device was previously registered to other users.
IPPUC-6054	The device gets stuck in the 'Acquiring IP' screen after disabling PC Port VLAN.
IPPAN-2495	[C470HD 802.1x] An authentication failure occurs when the phone is configured to EAP-TLS.
IPPAN-2539	On some occasions, a 'Settings app is not responding' message appears when IP changes are made.
IPPAN-2603	[C470HD] The phone remains dim after pressing the 'home' key on the device.
IPPAN-2408	[C470HD] Voice is unexpectedly routed to the handset.
IPPAN-2515	[C470HD] The phone doesn't have side tone (audible feedback) at all.
IPPAN-2496	The phone cannot get a voice VLAN when the Cisco switch supports only LLDP or only CDP.
IPPAN-2517	[C470HD] The phone sometimes doesn't respond after pressing the Reboot softkey on the notification bar when the phone finishes a firmware update.
IPPAN-3878	[AudioCodes Device Manager] The phone may malfunction when pulling a configuration from the Device Manager.
IPPAN-3702	When Web Proxy Auto-Discovery (WPAD, DHCP Option 252) is configured in the phone environment, the phone may go to Android Recovery Mode.
IPPAN-3220	[VSO 253536] The user gets a 'Location access' pop-up message when the Teams application is updated remotely (from Microsoft Teams admin center).

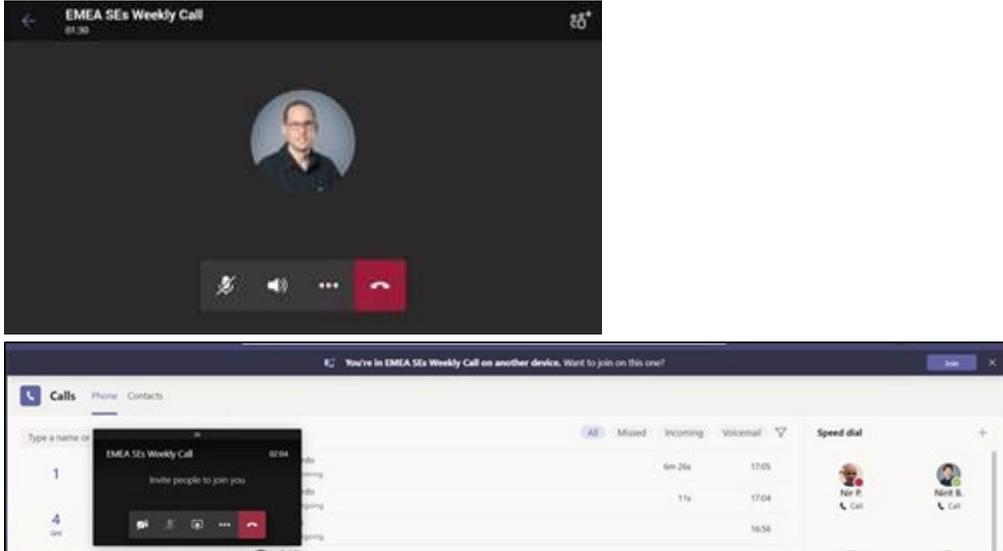
2.3 Known Limitations in Version 1.10

2.3.1 Teams Application

Here are the known Teams application limitations in Version 1.10.

Table 2-3: Known Teams Application Limitations in Version 1.10

Incident	Description
VSO240928	Transitioning from the 'home' screen to one of the tabs screens is slow.
IPPAN-3127	The phone gets stuck in a 'Verifying a few things' state after idle.
IPPAN-3064	[C470HD/C435HD] The message 'Company Portal isn't responding' is displayed after restoring a phone to its default settings.
IPPAN-3063	[C470HD/C435HD] Consultation Transfer fails after a party is transferred several times.
IPPAN-2476	[C470HD] The phone displays 'Meeting' after a parked call is picked up.
IPPAN-2270	[RXV80, C450HD] The device sometimes displays 'Poor internet connection' in the main screen.
IPPAN-2566	A muted phone that receives another incoming call and rejects it results in a non-voluntary unmute of the original call.
-	When using right to left languages (Hebrew, for example) the soft dial pad and presented dial string are reverted.
IPPAN-2505	[C450HD with Expansion Module] After configuring the phone to use the dark theme, the sidecar still uses the non-dark theme.
IPPAN-2271	[C450HD with Expansion Module] If the user deletes a speed dial key from the phone screen, it only disappears from the sidecar BLF after a short delay.
VSO 221679	[C450HD with Expansion Module] On some occasions, the sidecar duplicates the main screen instead of displaying the speed dials.
VSO 221683	[C450HD with Expansion Module] On some occasions after signing in, the Teams application doesn't sync the sidecar with the speed dial list and instead displays 'Sign in to your account'.
IPPAN-2520	On some occasions, the phone displays a 'Connecting...' message after boot up even though there is no real network issue.
IPPAN-2270	On some occasions, the phone displays a 'Poor internet connection...' message after booting up even though there is no real network issue.
IPPAN-2476	[C470HD] The phone displays an irrelevant 'Meeting' string when a parked call is picked up.
IPPAN-2413	[C470HD] When accessing the 'Device Settings' menu, or if the Company Portal app pops up during a call, the person using the C470HD phone hears a noise.
IPPAN-2508	The Hot Desk Sign-in screen is cut off when the virtual keyboard is open.
IPPAN-2510	An incorrect date format is displayed when the current language is Simple Chinese.
IPPAN-3946	The sign-out action occasionally doesn't land in the Sign in screen. Instead, the phone shows the 'Device settings' screen. A reboot can be performed to recover from this scenario.
-	[Better Together] Peer-to-Peer (direct) calls are still not supported.

Incident	Description
VSO240928	Transitioning from the 'home' screen to one of the tabs screens is slow.
-	[Better Together] Pairing the phone with the PC client might in some cases fail. Quitting the PC client and restarting it may solve the issue.
-	<p>[Better Together] Though users can join meetings from a phone or from the PC client, it's recommended to join from the phone. After joining, the phone is used as the audio device and the PC client notifies 'You're in a meeting on another device'; the user is then prompted to join the meeting on the PC client as well, for content sharing.</p> <p>The following figures show joining from a phone and from the PC client respectively:</p> 
-	[Better Together] When the phone is the PC client audio device, video cannot be used on the PC client.

2.3.2 Device

Here are the known device limitations in Version 1.10.

Table 2-4: Known Device Limitations in Version 1.10

Incident	Description
-	[Device Manager] Administrators are recommended not to provision phones from both the Device Manager and the Microsoft Admin Portal. Monitoring from both Device Manager and the Microsoft Admin Portal at the same time is not an issue.
-	An endless auto-negotiation with the Ethernet switch may occur if the phone is connected to the Power Supply and to PoE simultaneously. It's recommended to avoid connecting them simultaneously even though no damage occurs. If a Power Supply is used, users should disable the power from the ETH port.
IPPAN-3369	[C470HD] A high-pitched noise occurs when starting to talk handsfree from the phone after a long mute/silence or at the outset when the call starts.
IPPAN-2542	[C470HD] Sometimes, touching one of the keys results in the speaker emitting a little noise. This usually happens immediately after phone restart.
IPPAN-3283	When using multiple users on a single phone (i.e., if user A signs out and then signs in with user B), AudioCodes' Device Manager may present the wrong username.
IPPAN-2204	[C450HD, C448HD] On some occasions, disconnecting a USB headset during a call may result in the phone getting stuck and a reboot is then required to recover from this state.
IPPAN-2561	[C450HD] On some occasions, reconnecting a USB headset during a call causes the call to be disconnected.
IPPAN-3343	The date format does not take effect on the phone when the configuration file is loaded from the Device Manager.
IPPAN-2353	[C450HD] The phone cannot answer an incoming call with USB headset Jabra Evolve2 40's key.
IPPAN-2204	[C450HD/C448HD] Disconnecting the USB headset during a call causes a stack on the phone.

3 Previous Releases

3.1 Version 1.10.126



Note: Version 1.10.126 (C448HD and C450HD phones) and Version 1.10.126 (C470HD phone) includes Microsoft Teams Version **2021033002**.

3.1.1 What's New in Version 1.10.126

- **Security patch level for Android devices.** AudioCodes regularly adopts and integrates Android security updates. In this release, the **C450HD and C448HD devices were updated with the most recent Android security patch level (October 6, 2019).**

For reference, see <https://source.android.com/security/bulletin/2019-10-01>).



Note: Due to the security patch level update, when downgrading the C450HD or C448HD from any version with the updated security patch to an older version that does not include it, restoring to defaults is mandatory else the phone will not feature the capability to access it using its administrator password.

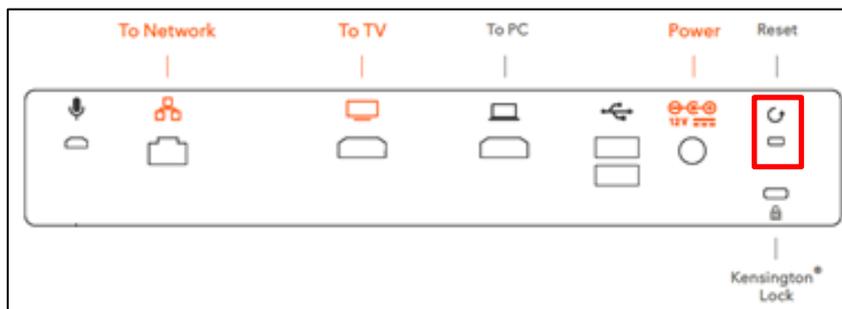
- **Android C450HD-DBW encryption.** As of this version release, the C450HD-DBW device's file system is encrypted. Customers may enforce a policy of device encryption via Microsoft's cloud-based Intune service.
 - The C470HD device's file system has been encrypted from its first release.
 - The C450HD-BW device's file system and the C448HD device's file system are not encrypted.
- **Two additional NTP server options are now available** for phones to be configured with when migrating from Skype for Business phones to Native Teams phones:
 - **time.windows.com**
 - **time.nist.gov**

These additional NTP server options accelerate customers' migration process. The Native Teams phones' default NTP server is sometimes not configured in DHCP Option 42. If the default NTP server is not configured in DHCP Option 42, the phones attempt the Google NTP server. If DHCP Option 42 is not configured *and* the Google NTP server is blocked (for example), the phones will use the server **time.windows.com** (and if it's unavailable, the server **time.nist.gov**).
- **[C470HD only] The 'home' key  on the phone now allows users to perform more than one function:**
 - Long-pressing it opens the device Settings screen.
 - Touching it returns users to the 'home' screen from any screen.
- **Preview Feature [C450HD and C448HD]: Improved background noise block.** When a user speaks on the phone in handset mode, ambient noise (noise from the device's immediate environment) is suppressed and not heard by the far end participant/s of the call or Teams Meeting. In this release, the feature is disabled by default. To enable it, please contact AudioCodes support.
- **Shortcut keys have been added to the phones to allow network administrators to manually perform recovery operations.** Besides manual recovery options, the Android phones also feature an independent, automatic problem detection and

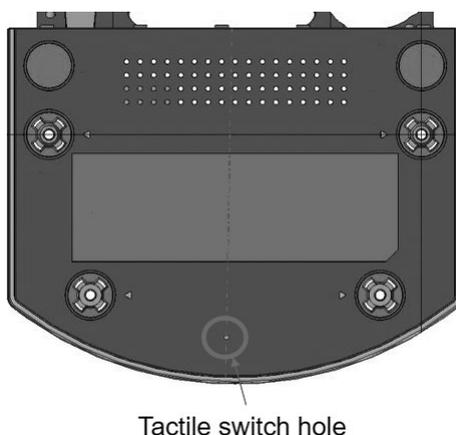
recovery attempt capability that can culminate in recovery mode or in switching image slots. Note too that the Android phones also feature a 'hardware watchdog'. This feature resets the phone if Android is stacked and doesn't respond (though Android stacking is unlikely); there's no recovery process; the phone is only reset.

All AudioCodes devices for Microsoft Teams have a reset key or a combination of keys on the keypad to reset it.

The following figure shows the reset key on the rear panel of the RXV80 Standalone Video Collaboration Bar.



The following figure shows the reset key located on the base of the C470HD.



The C450HD / C448HD and C435HD devices feature a *two-key combination* to activate each action. To activate an action, the user needs to *simultaneously press the two keys for three seconds*.

While a device is powering up, the network administrator can perform recovery operations by long-pressing the device's reset key / two-key combination.

While long-pressing the reset key / two-key combination, the device's main LED changes color after every n seconds; each color is aligned with a recovery operation option.

- Following are the recovery operation options (use either the reset key on the C470HD and the RXV80 or the two-key combination on the C450HD, C448HD and the C435HD):
 - Enter recovery mode - Long-press the reset key for 4 seconds or simultaneously press the 'back' key + the MENU key; the device's LED lights up red.
 - Switch to the other slot - Long-press the reset key for 10 seconds or simultaneously press the '4' key + the '6' key; the device's LED lights up green.
 - Enter the device's boot - Long-press the reset key for 15 seconds or simultaneously press the '1' key + the '3' key; the device's LED lights up blue (all devices) / yellow (C470HD).

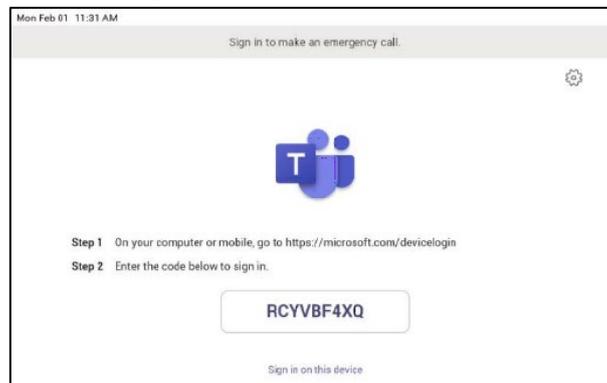
- Switch from Teams Compatible to Teams Native and vice versa - [C450HD only] simultaneously press the 'back' key + the OK key; the phone's LED lights up red + green.
- Restore the phone to its default settings - Long-press the reset key for 25 seconds or simultaneously press the OK key + the MENU key; the device's LED lights up green + blue (all phones) / green + yellow (C470HD).

Network administrators can also restore a device to its default settings *while the phone is already powered up and functioning* by long-pressing the HOLD key for 15 seconds (C435HD, C450HD, C470HD) or the reset key on the rear panel (RXV80).

■ What's New for Microsoft Teams app:

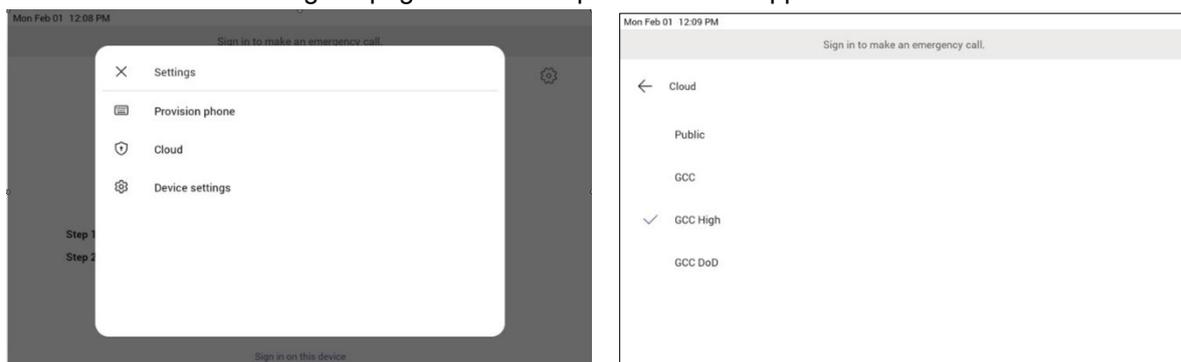
- Upgrade to Microsoft Teams version MicrosoftTeams-2021022403
- Upgrade to Microsoft Company Portal application version 5.0.5045.0
- Upgrade to Microsoft Admin Agent application version 253
- **New and simple sign-in experience**

A simple sign-in user interface has been introduced via the latest Teams update. Starting from this version, users are provided by default with the option to sign in from any browser or smartphone with a prominent device code. If users choose to sign in from the device, they can enter their username and password on-screen via the device keyboard.



- **Multi-cloud sign-in support**

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



- **Remote Provisioning and Sign in from Teams Admin Center**

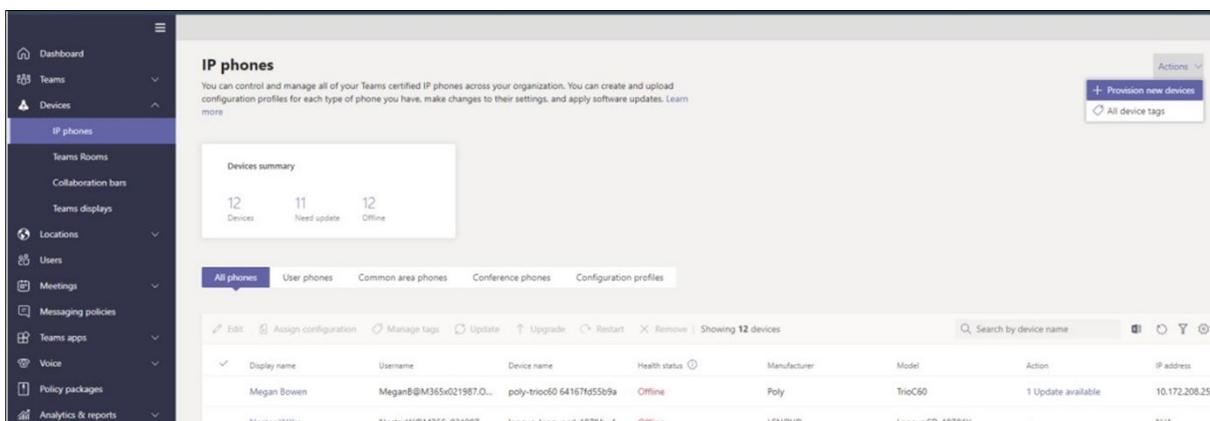
(refer to [Remote provisioning and sign in for Teams Android devices - Microsoft Teams | Microsoft Docs](#) for more information)

IT admins can remotely provision and sign in to a Teams device. To provision a device remotely, the admin 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.



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.

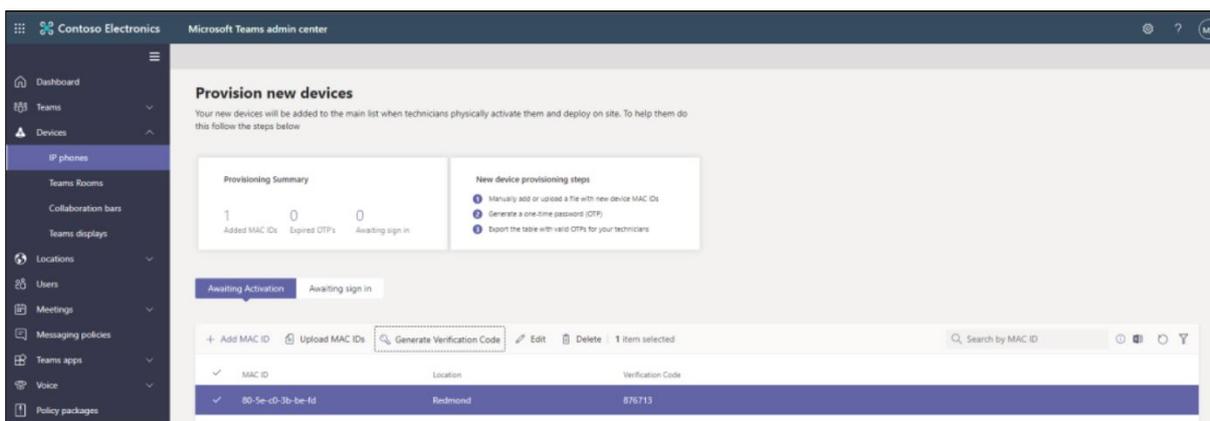
Upload a file to add a device MAC address

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.

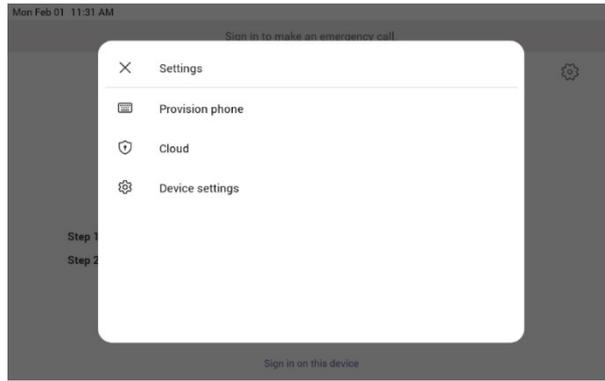
- From the **Awaiting Activation** tab, select an existing MAC ID. A password is created for the MAC address and is shown in the **Verification Code** column.



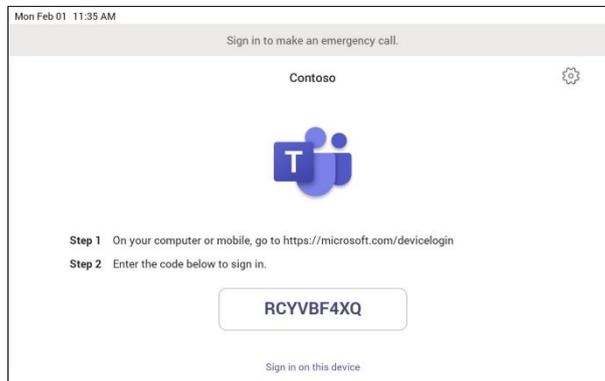
You'll need to provide the list of MAC IDs and verification codes to the field technicians. You can export the detail directly in a file and share the file with the technician who is doing the actual installation work.

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**.



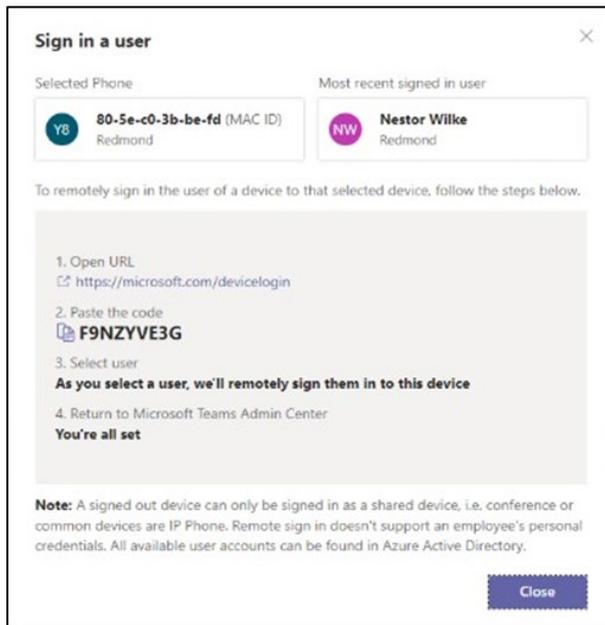
The technician is then expected to enter the device-specific Verification code that was provided in the Teams admin center on the phone's user interface. Once the device is provisioned successfully, the tenant name will be available on the sign in page.



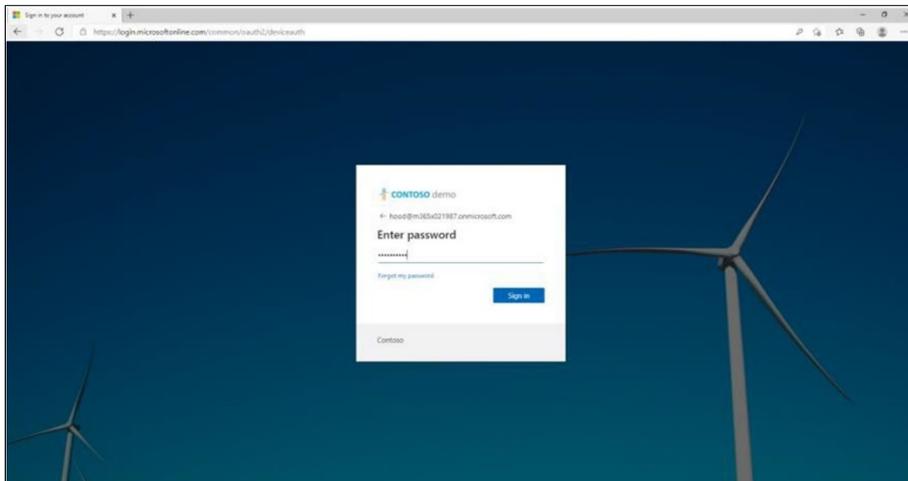
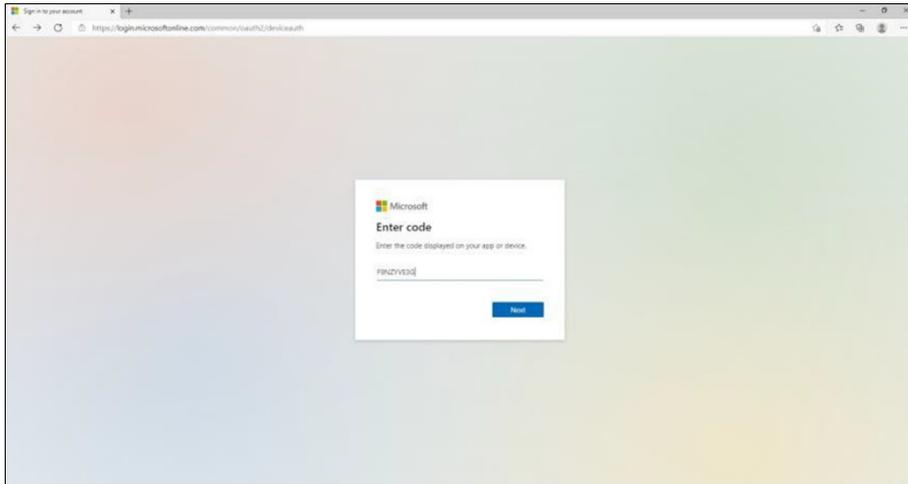
Step 4: Sign in remotely

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

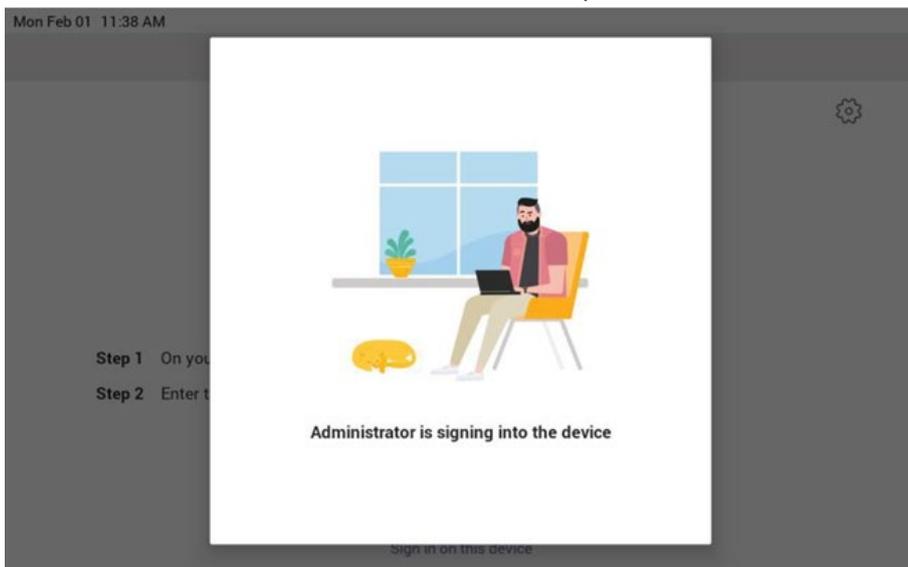
1. Select a device from the **Awaiting sign in** tab.
2. Follow the instructions in **Sign in a user**, and then select **Close**.



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

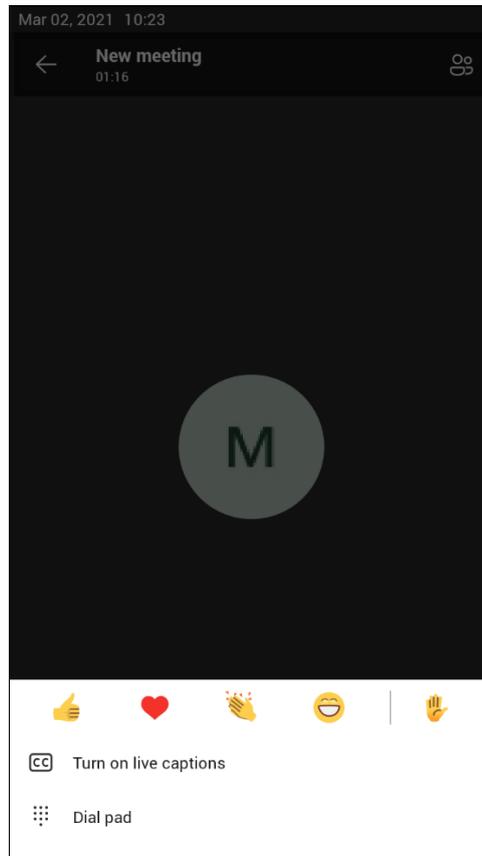


When the tenant admin is signing in from Teams Admin Center, the user interface on the device is blocked to prevent other actions on the phone.



- **New meeting stage with reactions (C470HD only)**

To include silent participants in meetings, we have added support for reactions during meetings. Without hesitation or interruption, users can convey their sentiments or raise their hands to participate in the meeting.

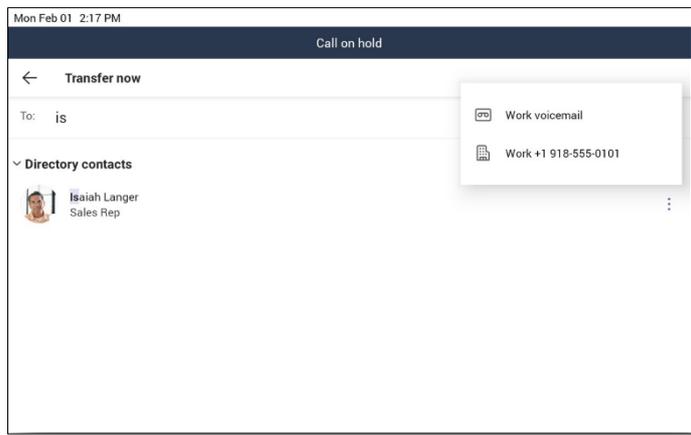


- **LLDP for E911 updates**

LLDP-MED (Link Layer Discovery Protocol – Media Endpoint Discovery) is a standard link layer protocol used by network devices to advertise their identity, capabilities, and neighbors on a local area network based on IEEE802 technology, principally wired Ethernet. In this update, Teams devices connected to the network via Ethernet will dynamically update location information for emergency calling services based on changes to network attributes including chassis ID and port ID.

- **Transfer call to work voicemail**

Users can directly transfer a call into someone’s work voicemail without needing to ring the far-end user. This allows them to discreetly leave voicemails for users without interrupting them.



- **Click to dial support for phone numbers**

All phone numbers that are part of meeting invites or user contact cards can be dialed out directly by clicking/touching them via the user interface.

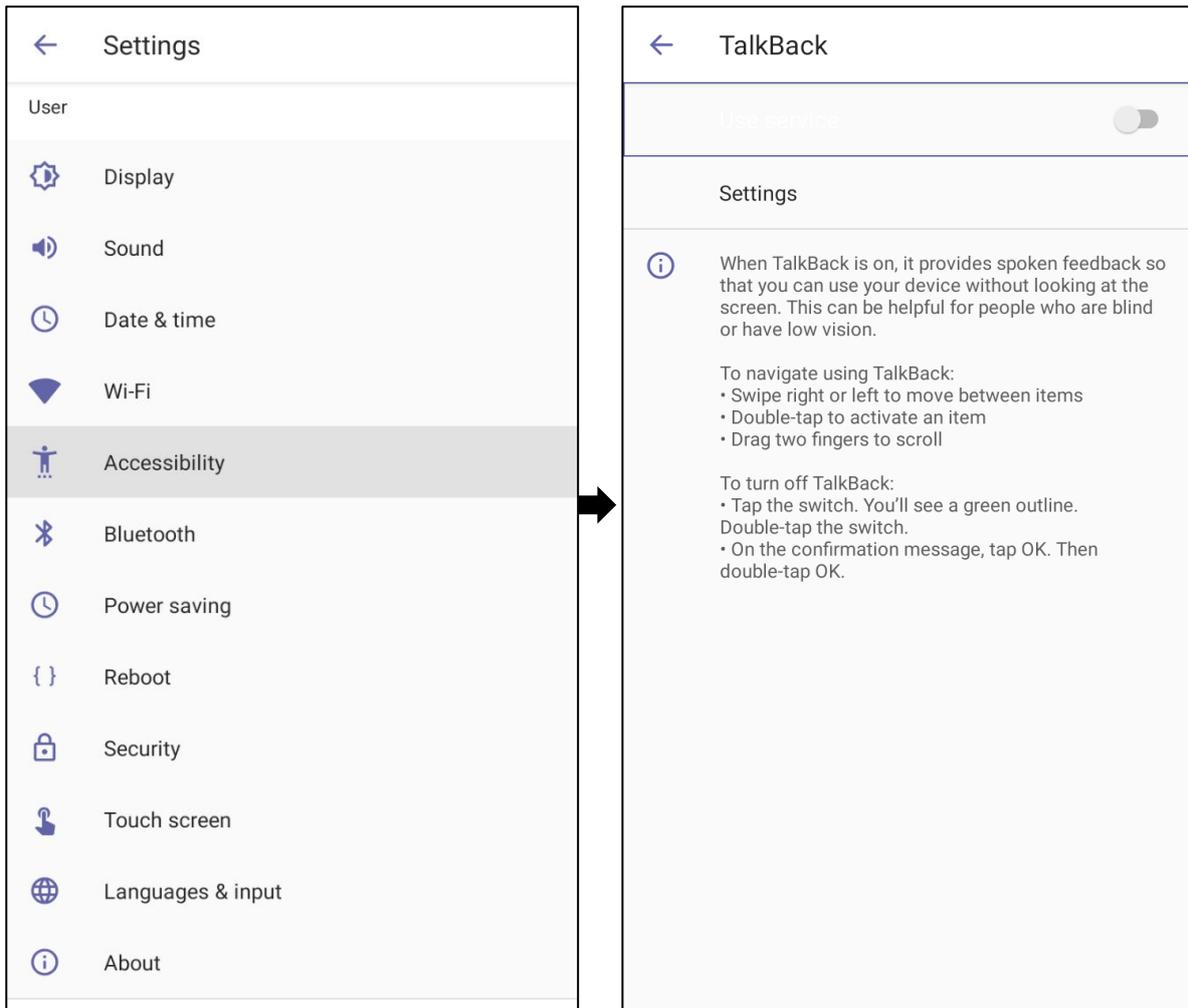
- **Opt out of call queues from Teams phone settings**

Call queue agents can opt out of call queues or opt in based on settings made available on the Teams phones.



- **AudioCodes’ Native Teams Android devices now feature Google TalkBack,** the Android accessibility service that allows users who are unsighted and users whose vision is low to interact with their devices by giving them spoken feedback so they can use their devices without looking at the screen. The feature significantly improves their experience.

Users can enable the feature from the **Accessibility** option in the **Settings > Device settings** screen.

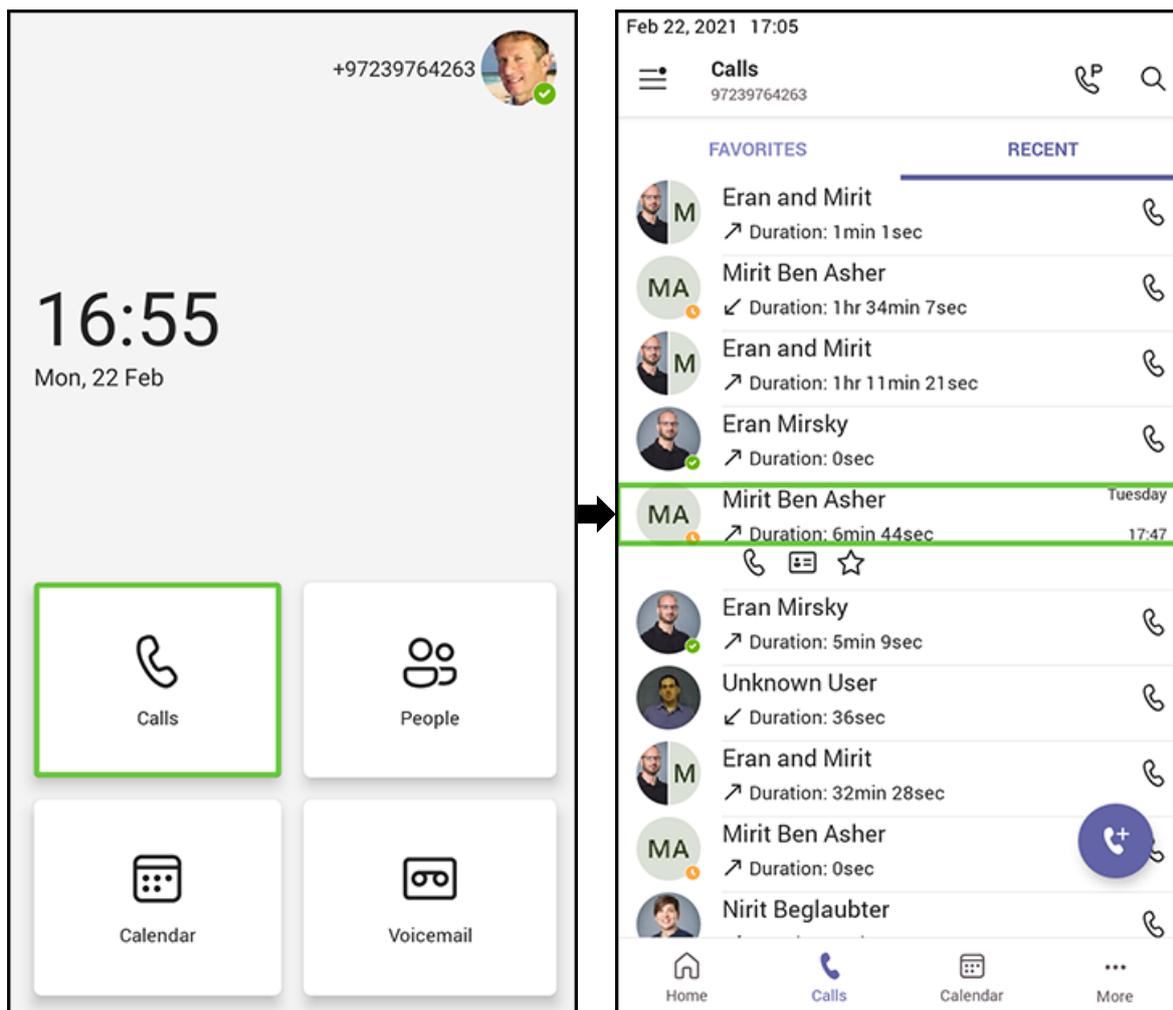
**Note:**

- After TalkBack is switched on, an audio tutorial begins playing. The tutorial instructs users how to interact with the device.
- Users can increase/decrease volume by touching the + key on the phone.



In the volume pop-up, the user *touches the slider* to select it; audio announces the current level; the user then *double-touches* the slider at the required level.

After the tutorial, the user can for example open the Calls screen by touching the home button  on the phone and then in the home screen shown in the figure below left, touch **Calls**; audio informs the user what they touched. The user then *double-touches Calls*; the Calls screen opens, shown in the figure below right.



TalkBack users interact with this screen by:

- *Touching the **Recent** tab*; audio indicates what was touched.
- *Touching a listed call*; audio indicates whether the call was outgoing or incoming, to / from whom it was made and the day on which it was made.
- *Double-touching the selected listed call*; three icons are displayed below it.
 - ◆ *Touch the phone icon to select it*; audio indicates that you can activate the person's profile *by double-touching it*.
 - ◆ *Double-touch the selected icon*; the person's profile screen opens displaying their name, position, email, hyperlinked work phone number and hyperlinked mobile phone number.
 - ◆ *Touch the star icon*; audio indicates you can add it to Favorites; *double-touch* it to activate adding it.

3.1.2 Resolved Limitations in Version 1.10.126

3.1.2.1 Teams Application

Here are the Teams application limitations that have been resolved in Version 1.10.126.

Table 3-1: Resolved Teams Application Limitations in Version 1.10.126

Incident	Description
VSO241596	[C470HD] The Teams app restarts if the user tries to unlock the device during an incoming call.
VSO228837	[C470HD] The Teams app crashes if a call comes in when the screensaver is enabled.
VSO221705	[C450HD with Sidecar] The sidecar gets stuck in a blank white page when connected to the device and kept idle.
VSO245940	[C450HD with Sidecar] The sidecar displays a light theme even though the phone is set to a dark theme.
VSO219244	The 'home' screen presence indication isn't synchronized when the user changes their presence on the phone.
VSO231996	[Hot Desk] The sign-in screen is cut off when the virtual keyboard is open.
VSO240929	[Hot Desk] An incorrect message 'There was a problem with the network. Try signing in again' is displayed after entering an incorrect HotDesk username.
VSO241836	The Teams app displays a cut-off text message in voicemail.
-	For accounts without DID, the Teams app crashes after pressing hard keys randomly.

3.1.2.2 Device

Here are the device limitations that have been resolved in Version 1.10.126.

Table 3-2: Resolved Device Limitations in Version 1.10.126

Incident	Description
IPPAN-1821	[Device Manager] The 'Upgrade Firmware' action via the Device Manager causes an unnecessary reboot when pulling the cfg file with the new URL.
IPPAN-3206	The phone unnecessarily downloads the same available app update repeatedly [in a loop] when trying to update apps from the Teams Admin Center (TAC).
IPPAN-3174	Screensaver is not enabled on the phone when the configuration file is pushed from the Device Manager.
IPPAN-3213	[C450HD] Wi-Fi connectivity gets disconnected on rare occasions.
IPPAN-2888	The user can lock the device without signing-in.
IPPAN-2889	[C450HD] The phone uses the incorrect intent to restart the admin agent. This sometimes causes the device not to appear in the TAC.
IPPAN-2453	The phone sometimes displays 'Teams isn't responding'.
IPPAN-2592	[C470HD] [Multiple incoming calls] During multiple calls, the second call is automatically accepted by the device.
IPPAN-3245	[C470HD] On rare occasions, the phone does not start the Redirect process.

Incident	Description
IPPAN-3161	[Localization] Japanese language - The date format on the phone is incorrect.
IPPAN-2965	[Localization] The Polish translation requires improvement.
IPPAN-3029	[C470HD] The device displays an 'encryption unsuccessful' pop-up on its first bootup after restoring phone to its default settings. Another 'Restore to default' solves it.
IPPAN-2858	When LLDP is configured, the phone gets the access VLAN IP for 15 seconds and then gets the voice VLAN IP.
IPPAN-1913	[C450HD Bluetooth] The scan for a Bluetooth device sometimes in a noisy environment cannot find the Bluetooth headset.
IPPAN-2720	On rare occasions, the phone cannot boot up after two provisioning parameters are set.
IPPAN-2728	[C470HD Certification] The bootup screen doesn't display the message 'Initializing. Please wait.' with Microsoft Teams and AudioCodes logos.
DSP-743	[C470HD] Audio tests (in external laboratories) reveal that tuning/improvements are required as part of the phone certification.
IPPAN-2475	[C470HD] The phone's real time format is 12-hour when the automatic 24-hour format is enabled.
IPPAN-2708	[C450HD] One-way voice in an outgoing direction sometimes occurs with USB Jabra Evolve 20.
IPPUC-3565	On some occasions, the phone does not start provisioning via AudioCodes Device Manager since it tries starting it without making sure that the network is ready.
IPPAN-2733	The phone DHCP Vendor class (Option 60) is wrong.
IPPAN-2600	[C470HD] On some occasions, voice cannot be heard in a call with a Bluetooth headset.
IPPAN-2636	The user name displays '0' in Device Manager Express if the device was previously registered to other users.
IPPUC-6054	The device gets stuck in the 'Acquiring IP' screen after disabling PC Port VLAN.
IPPAN-2495	[C470HD 802.1x] An authentication failure occurs when the phone is configured to EAP-TLS.
IPPAN-2539	On some occasions, a 'Settings app is not responding' message appears when IP changes are made.
IPPAN-2603	[C470HD] The phone remains dim after pressing the 'home' key on the device.
IPPAN-2408	[C470HD] Voice is unexpectedly routed to the handset.
IPPAN-2515	[C470HD] The phone doesn't have side tone (audible feedback) at all.
IPPAN-2496	The phone cannot get a voice VLAN when the Cisco switch supports only LLDP or only CDP.
IPPAN-2517	[C470HD] The phone sometimes doesn't respond after pressing the Reboot softkey on the notification bar when the phone finishes a firmware update.

3.1.3 Known Limitations in Version 1.10.126

3.1.3.1 Teams Application

Here are the known Teams application limitations in Version 1.10.126.

Table 3-3: Known Teams Application Limitations in Version 1.10.126

Incident	Description
VSO240928	Transitioning from the 'home' screen to one of the tabs screens is slow.
IPPAN-3127	The phone gets stuck in a 'Verifying a few things' state after idle.
IPPAN-3064	[C470HD/C435HD] The message 'Company Portal isn't responding' is displayed after restoring a phone to its default settings.
IPPAN-3063	[C470HD/C435HD] Consultation Transfer fails after a party is transferred several times.
IPPAN-2476	[C470HD] The phone displays 'Meeting' after a parked call is picked up.
IPPAN-2270	[RXV80, C450HD] The device sometimes displays 'Poor internet connection' in the main screen.
IPPAN-2566	A muted phone that receives another incoming call and rejects it results in a non-voluntary unmute of the original call.
-	When using right to left languages (Hebrew, for example) the soft dial pad and presented dial string are reverted.
IPPAN-2505	[C450HD with Expansion Module] After configuring the phone to use the dark theme, the sidecar still uses the non-dark theme.
IPPAN-2271	[C450HD with Expansion Module] If the user deletes a speed dial key from the phone screen, it only disappears from the sidecar BLF after a short delay.
VSO 221679	[C450HD with Expansion Module] On some occasions, the sidecar duplicates the main screen instead of displaying the speed dials.
VSO 221683	[C450HD with Expansion Module] On some occasions after signing in, the Teams application doesn't sync the sidecar with the speed dial list and instead displays 'Sign in to your account'.
IPPAN-2520	On some occasions, the phone displays a 'Connecting...' message after boot up even though there is no real network issue.
IPPAN-2270	On some occasions, the phone displays a 'Poor internet connection...' message after booting up even though there is no real network issue.
IPPAN-2476	[C470HD] The phone displays an irrelevant 'Meeting' string when a parked call is picked up.
IPPAN-2413	[C470HD] When accessing the 'Device Settings' menu, or if the Company Portal app pops up during a call, the person using the C470HD phone hears a noise.
IPPAN-2508	The Hot Desk Sign-in screen is cut off when the virtual keyboard is open.
IPPAN-2510	An incorrect date format is displayed when the current language is Simple Chinese.

3.1.3.2 Device

Here are the known device limitations in Version 1.10.126.

Table 3-4: Known Device Limitations in Version 1.10.126

Incident	Description
-	[Device Manager] Administrators are recommended not to provision phones from both the Device Manager and the Microsoft Admin Portal. Monitoring from both Device Manager and the Microsoft Admin Portal at the same time is not an issue.
-	An endless auto-negotiation with the Ethernet switch may occur if the phone is connected to the Power Supply and to PoE simultaneously. It's recommended to avoid connecting them simultaneously even though no damage occurs. If a Power Supply is used, users should disable the power from the ETH port.
IPPAN-3369	[C470HD] A high-pitched noise occurs when starting to talk handsfree from the phone after a long mute/silence or at the outset when the call starts.
IPPAN-2542	[C470HD] Sometimes, touching one of the keys results in the speaker emitting a little noise. This usually happens immediately after phone restart.
IPPAN-3283	When using multiple users on a single phone (i.e., if user A signs out and then signs in with user B), AudioCodes' Device Manager may present the wrong username.
IPPAN-2204	[C450HD, C448HD] On some occasions, disconnecting a USB headset during a call may result in the phone getting stuck and a reboot is then required to recover from this state.
IPPAN-2561	[C450HD] On some occasions, reconnecting a USB headset during a call causes the call to be disconnected.
IPPAN-3343	The date format does not take effect on the phone when the configuration file is loaded from the Device Manager.
IPPAN-2353	[C450HD] The phone cannot answer an incoming call with USB headset Jabra Evolve2 40's key.
IPPAN-2204	[C450HD/C448HD] Disconnecting the USB headset during a call causes a stack on the phone.

3.2 Version 1.8



Note: Version 1.8.288 (C448HD and C450HD phones) and Version 1.8.293 (C470HD phone) includes Microsoft Teams Version **2020111101**.

3.2.1 What's New in Version 1.8

- This version introduces the new **AudioCodes Microsoft Teams-native C470HD IP phone**. The C470HD is a feature-rich, executive high-end business phone for Microsoft Teams. It's equipped with a large, single surface, full touch interface, incorporating an exceptionally sharp 5.5" color touch screen, with optional support for Wi-Fi and Bluetooth.



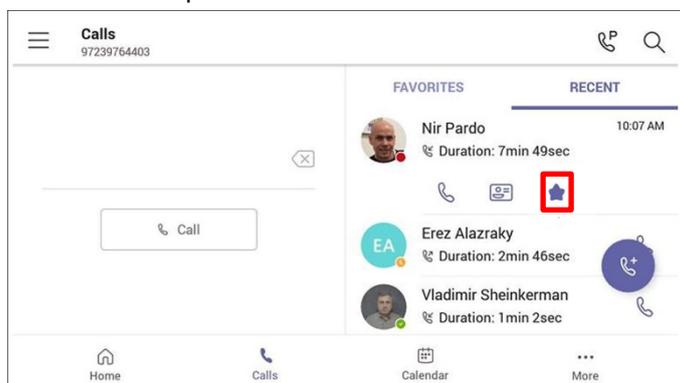
- The version introduces a **new color, touch Expansion Module (sidecar) option for the C450HD IP phone**.



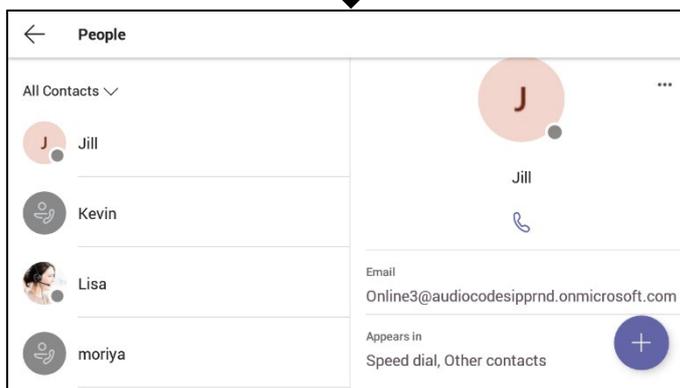
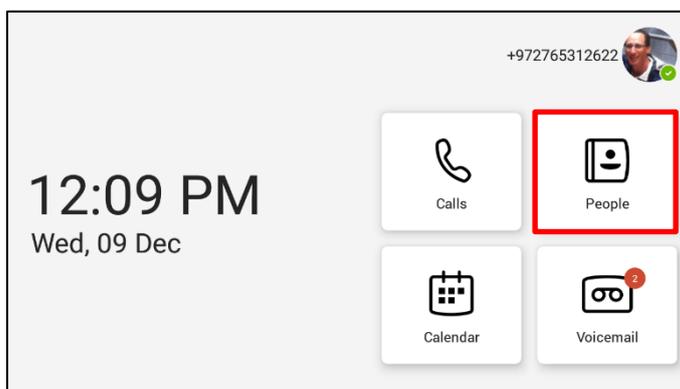
The feature expands the phone's functional capabilities. Users can configure speed dials in the sidecar's BLFs to speed dial frequently-used contacts with the press of a button, determine contacts' presence status from BLF button LEDs, and manage contacts quickly. The feature also allows the user to easily transfer a call to a speed dial contact (adding a speed dial contact to a meeting is not yet supported and is planned to be supported in future releases). The feature significantly increases user productivity in the workplace.

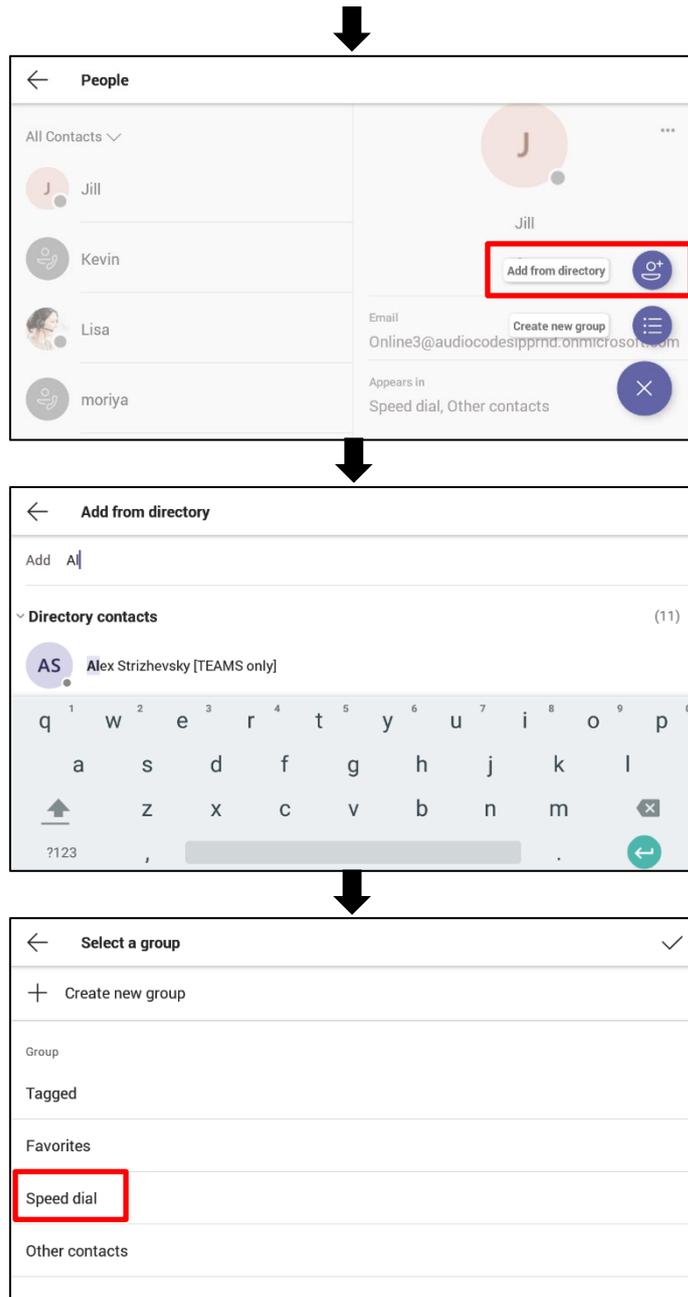
The sidecar displays the user's speed dial list. The list is synchronized on all devices under the same user account. The order on the sidecar corresponds to the order of the speed dial list. Speed dials can be added in a few ways:

- From the Teams PC client; adding a speed dial to the PC client will be reflected on the sidecar as well.
- From the C450HD phone using one of the following options:
 - ◆ Via the **Calls > Recent** tab; touch a user and then select the 'star' icon to add to the speed dial list:



- ◆ Via the **People** tab using **+ > Add from Directory** and then add the users to the speed dial.

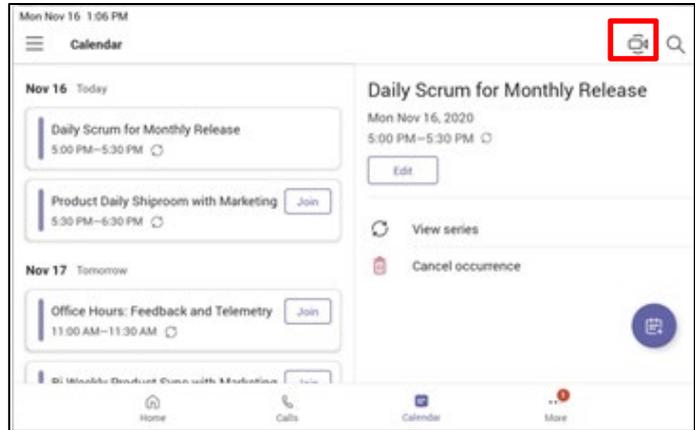




■ **Microsoft Teams Phone Features**

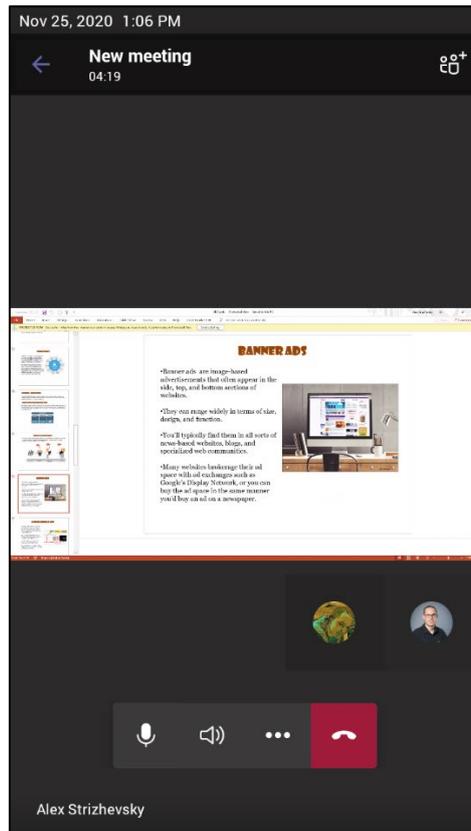
● **Meet Now on Phones**

Users can start an instant meeting on Teams phones from the calendar application. Once the meeting is created, users can add participants by inviting them with a meet now action:



- **Screen sharing on the Phones**

[Supported only on the C470HD phone due to requisite hardware capabilities]
Microsoft has enabled a feature where the phone can also stream incoming app/screen sharing. Users can monitor / view any sharing on the screen during meetings or calls, without needing an external device.



- **Policy changes to enable/disable HomeScreen**

A new setting (AllowHomeScreen) has been added to the TeamsIPPhone policy that will allow tenant admins to enable/disable the home screen on Teams phones.

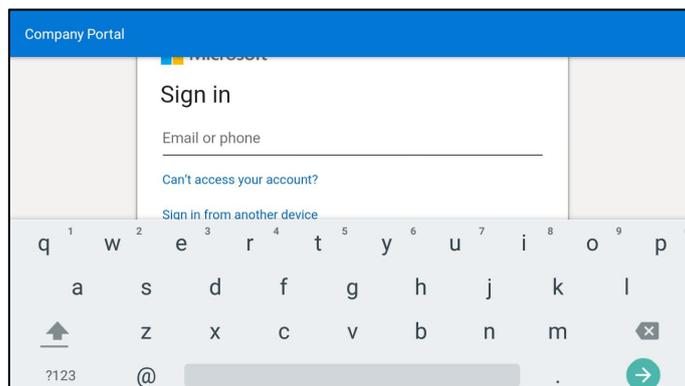
The AllowHomeScreen setting is enabled by default.

```
PS C:\Users\Administrator.vdomain> Set-CsTeamsIPPhonePolicy -Identity Global -AllowBetterTogether Disabled
PS C:\Users\Administrator.vdomain> Get-CsTeamsIPPhonePolicy

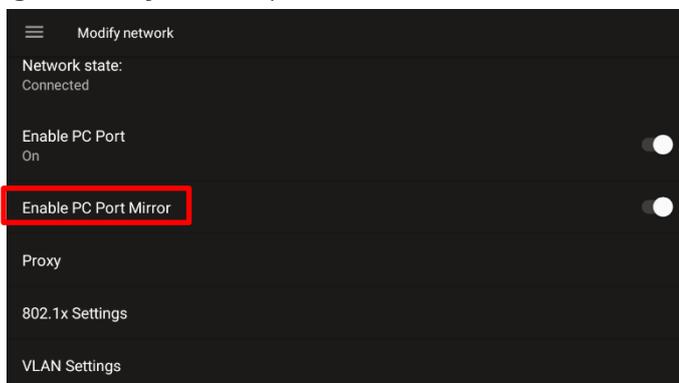
Identity           : Global
Description        :
SignInMode         : UserSignIn
SearchOnCommonAreaPhoneMode : Enabled
AllowHomeScreen    : Disabled
AllowBetterTogether : Disabled
AllowHotDesking    : True
HotDeskingIdleTimeoutInMinutes : 120
```

- **The Olson (TZ) timezone database**, a compilation of information about the world's time zones also known as tzdata, the zoneinfo database or the IANA time zone database and occasionally as the Olson database, **has been updated. Capability to get the Olson ID from the Microsoft Admin Portal has been added.**

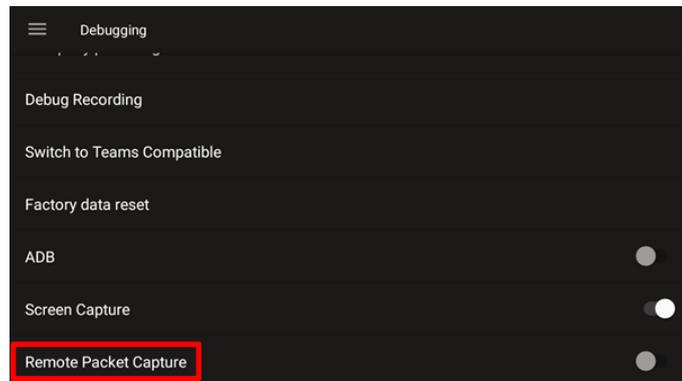
- The **‘Sign in’ interface now dynamically rolls upwards** clear of the virtual keyboard which pops up after touching a field to input user credentials. The enhanced interface allows users to effortlessly view all the characters and keys they input; the fields are fully visible and not in the least obstructed.



- [C450HD and C448HD] Capability has been added to **restore the phone to default after booting it**, by pressing the **MENU+OK** buttons for several seconds after plugging in the power.
Restoring the phone to default by long-pressing the **HOLD** hard button for 15 seconds is still supported.
- The MTU (Maximum Transmission Unit) size can now be obtained and enabled using DHCP Option 26.
- **Dark Theme is now supported in notifications.** If the Dark Theme is selected, popup notifications will also be dark.
- The **virtual keyboard is now supported in Japanese.**
- Microsoft Teams **calling settings for shared user accounts are now accessible only after authentication with ‘Admin’ password**, in compliance with Microsoft’s implementation requirements.
- **Debugging improvements:**
 - [C450HD and C448HD] The phone now supports the **port mirroring network monitoring** technique of copying and sending network packets transmitted as input from a phone port, to another port of a monitoring device for enhanced analysis and debugging capability. A new parameter **Enable PC Port Mirror** has been added to the phone’s ‘Modify network’ screen (**Settings > Device admin settings > Modify network**).



- [C450HD and C448HD] '**rpcapd**' (**Remote Packet Capture**) network sniffer application has been added to the phones allowing the network administrator to debug and analyze Android traffic on their desktop PC using the app's integral SSH server. The feature was added to the phone's Debugging screen.



3.2.2 Resolved Limitations in Version 1.8

3.2.2.1 Teams Application

Here are the Teams application limitations that have been resolved in Version 1.8.

Table 3-5: Resolved Teams Application Limitations in Version 1.8

Incident	Description
VSO 205312	The user's number is not displayed correctly as E.164; it shows 4969xxx instead of +4969xxx.
-	An Admin holding Boss' call does not appear in the list of calls held on the shared line.
-	The username does not get displayed for Speed Dial contacts.
-	Even though a meeting's time frame has lapsed, it continues to be shown in the home screen.
-	Live captions text is incorrectly displayed; it's cut off at the bottom.
-	Message Waiting Indication does not flash for new unseen voicemail when the Voicemail tab is hidden.
-	The 'Data and Storage' option is displayed in the 'App settings' page.
-	The 'No internet. Emergency Calls aren't supported' banner is displayed in duplicate for 'All day' meetings.
-	The Voicemail notification does not auto update when the Voicemail tab is hidden.
-	Call queue agents in-call, the calling screen does not appear.
-	In Better Together mode, a meeting invitation cannot be accepted, neither on the PC nor on the device, when the user tries to accept the meeting invitation from the PC.
-	Resuming a held muted PSTN call automatically unmutes the call.
-	Multiple issues occur when Hot Desking is performed with Accessibility settings enabled.
-	The CAP user LED keeps flashing even when no notification is received.
-	[Company Portal App] The user is automatically re-signed in once signed out from the account.

3.2.2.2 Device

Here are the device limitations that have been resolved in Version 1.8.

Table 3-6: Resolved Device Limitations in Version 1.8

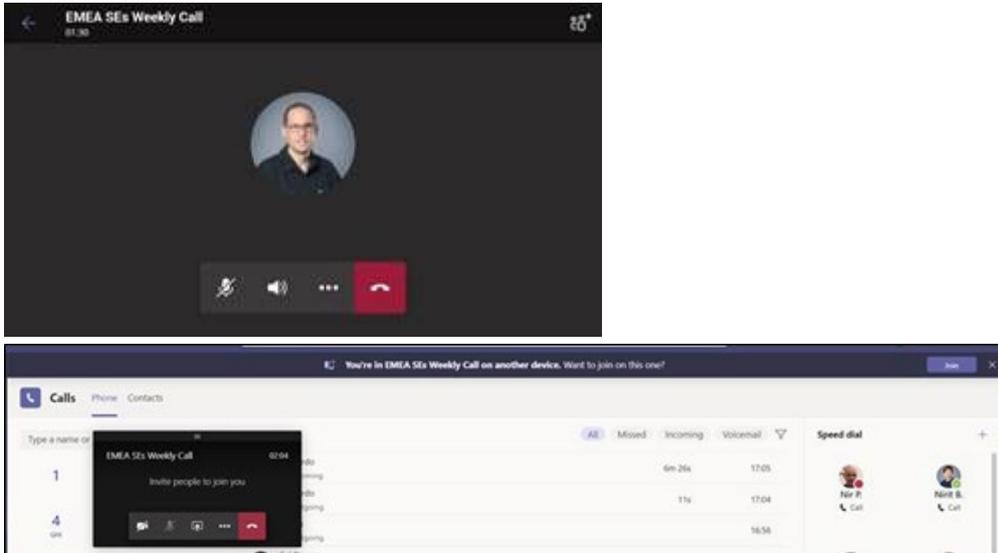
Incident	Description
IPPAN-2414	Updating the Teams app from Microsoft's Admin Portal is displayed as 'Timed out' even though the Teams app was updated.
IPPAN-1743	The phone retains Accessibility settings (high contrast and font size) when a Hot Desk user signs in.
IPPAN-2324	An error message 'Silent installer has stopped' pops up when the Teams app is pushed from Microsoft's Admin Portal.
IPPAN-2252	[Phone Lock] In Lock screen, the number of unsuccessful unlock attempts are not displayed after reboot (the user has a maximum of five unsuccessful attempts before the phone signs out).
IPPAN-2179	V-account login displays a notification message from the Company Portal when in the Lock screen.
IPPAN-1813	[Better Together] The device should automatically get unlocked after the Teams app on the PC is restarted.
IPPAN-2161	[Better Together] A Lock issue occurs on the Calls tab when the dialpad is active.
IPPAN-2209	A System UI crash occurs few seconds after signing in.
IPPAN-2104	The device displays the notification 'No internet access' instead of 'No internet. Emergency calls aren't supported'.
IPPAN-2384	Accepting a call using the Accept softkey when the answering device is a USB headset results in a voice delay of several seconds.
IPPAN-2216	When an external speaker is connected via the USB port and a call is answered via the Accept softkey, the answering device is the speaker (as expected) but the answered call goes to the headset.
IPPAN-2349	A 'No Internet Access' popup message incorrectly appears after reboot/restore when Teams is up and running and no network issue exists.
IPPAN-2262	A 'No Internet Access' message pops up immediately after Restore to default even if there's a real network issue. The message obstructs the user from choosing the default language.
IPPAN-2118	Sometimes after updating the configuration in the Admin Portal with 'Backlight Brightness 100%', the phone displays a black screen.
IPPAN-1705	The C450HD fails to switch on-the-fly from Voice VLAN to Native VLAN.
IPPAN-2037	When the screen saver is off, after pressing the MENU hard key screen brightness is still dark.
IPPAN-2362	AudioCodes' Device Manager's upgrade firmware functionality sometimes fails and requires another attempt.
IPPAN-1929	In AudioCodes' Device Manager, the Language setting fails.
IPPAN-2350	'French Canada' language is incorrect. It should be 'French France'.

3.2.3 Known Limitations in Version 1.8

3.2.3.1 Teams Application

Here are the known Teams application limitations in Version 1.8.

Table 3-7: Known Teams Application Limitations in Version 1.8

Incident	Description
-	[Better Together] Peer-to-Peer (direct) calls are still not supported. It should be supported in the next release.
-	[Better Together] Pairing the phone with the PC client might in some cases fail. Quitting the PC client and restarting it may solve the issue.
-	<p>[Better Together] Though users can join meetings from a phone or from the PC client, it's recommended to join from the phone. After joining, the phone is used as the audio device and the PC client notifies 'You're in a meeting on another device'; the user is then prompted to join the meeting on the PC client as well, for content sharing.</p> <p>The following figures show joining from a phone and from the PC client respectively:</p> 
-	[Better Together] When the phone is the PC client audio device, video cannot be used on the PC client.
IPPAN-2372	On rare occasions, the phone enters a loop or switches between a white screen the idle (home) screen and is unreachable via IP address. A 'Poor internet connection' message is also displayed. Rebooting solves the problem.
IPPAN-2566	A muted phone that receives another incoming call and rejects it results in an non-voluntary unmute of the original call.
-	When using right to left languages (Hebrew for example) the soft dialpad and presented dial string are reverted
IPPAN-2505	[C450HD with Expansion Module] After configuring the phone to use the dark theme, the sidecar still uses the non-dark theme.
IPPAN-2271	[C450HD with Expansion Module] If the user deletes a speed dial key from the phone screen, it only disappears from the sidecar BLF after a short delay.
VSO 221679	[C450HD with Expansion Module] On some occasions, the sidecar duplicates the main screen instead of displaying the speed dials.

Incident	Description
VSO 221683	[C450HD with Expansion Module] On some occasions after signing in, the Teams application doesn't sync the sidecar with the speed dial list and instead displays 'Sign in to your account'.
IPPAN-2520	On some occasions, the phone displays a 'Connecting...' message after boot up even though there is no real network issue.
IPPAN-2270	On some occasions, the phone displays a 'Poor internet connection...' message after booting up even though there is no real network issue.
IPPAN-2476	[C470HD] The phone displays an irrelevant 'Meeting' string when a parked call is picked up.
IPPAN-2413	[C470HD] When accessing the 'Device Settings' menu, or if the Company Portal app pops up during a call, the person using the C470HD phone hears a noise.
IPPAN-2508	The Hot Desk Sign-in screen is cut off when the virtual keyboard is open.
IPPAN-2510	An incorrect date format is displayed when the current language is Simple Chinese.

3.2.3.2 Device

Here are the known device limitations in Version 1.8.

Table 3-8: Known Device Limitations in Version 1.8

Incident	Description
-	[Device Manager] Administrators are recommended not to provision phones from both the Device Manager and the Microsoft Admin Portal. Monitoring from both Device Manager and the Microsoft Admin Portal at the same time is not an issue.
IPPAN-1821	[Device Manager] The 'Upgrade Firmware' action via the Device Manager causes an unnecessary reboot when pulling the cfg file with the new URL.
-	An endless auto-negotiation with the Ethernet switch may occur if the phone is connected to the Power Supply and to PoE simultaneously. It's recommended to avoid connecting them simultaneously even though no damage occurs. If a Power Supply is used, users should disable the power from the ETH port.
IPPAN-2542	[C470HD] Sometimes, touching one of the keys results in the speaker emitting a little noise.
IPPAN-2204	[C450HD, C448HD] On some occasions, disconnecting a USB headset during a call may result in the phone getting stuck and a reboot is then required to recover from this state.
IPPAN-2561	[C450HD] On some occasions, reconnecting a USB headset during a call causes the call to be disconnected.

3.3 Version 1.7.9



Note: Version 1.7.9 includes Microsoft Teams Version **2020091801**.

3.3.1 What's New in Version 1.7.9

- **Upgrade to Microsoft Teams version MicrosoftTeams-2020091801.**
- Listed here are the new features in the Teams app:
 - Better Together has been developed to support calling and meeting scenarios.
- **Upgrade to Microsoft Company Portal application version 5.0.4912.0**
- When a call comes in, **the LED located in the upper right corner of the device flashes red** alerting the user to the incoming call. In previous releases, the LED flashed blue for incoming call alerts.
- **Internet Connectivity check** was modified. If an internet connection exists and the 'Check Connectivity' mechanism fails, **the phone does not display a 'No Internet Access' warning message**; this feature takes into account deployments in which servers - used by the phone to check connectivity - are blocked, yet Teams nonetheless functions normally.
- **Improved audio performance.** When a call starts, **audio performance takes higher priority over other processes to enable a better audio performance.** Note that in contrast to previous releases, the audio process in this release opens faster upon incoming calls but the phone's screen refreshes slightly slower.

3.3.2 Resolved Limitations in Version 1.7.9

3.3.2.1 Teams Application

Here are the Teams application limitations that have been resolved in Version 1.7.9.

Table 3-9: Resolved Teams Application Limitations in Version 1.7.9

Incident	Description
-	The device gets stuck in the 'Verifying a few things' screen.
VSO 204923	The Teams app sometimes crashes when making a call directly from the Home screen using digits and then hanging up before the remote party answers the call.
-	The phone signs out after 90 days because the token expires.
-	The device gets stuck in the 'Signing-in' page if the user clicks the Company Portal option under 'Settings'.
-	A laptop is displayed as connected in Manage Devices even after Desktop Client user logoff.
-	High Contrast Mode is not activated completely unless the Teams app is restarted.

3.3.2.2 Device

Here are the device limitations that have been resolved in Version 1.7.9.

Table 3-10: Resolved Device Limitations in Version 1.7.9

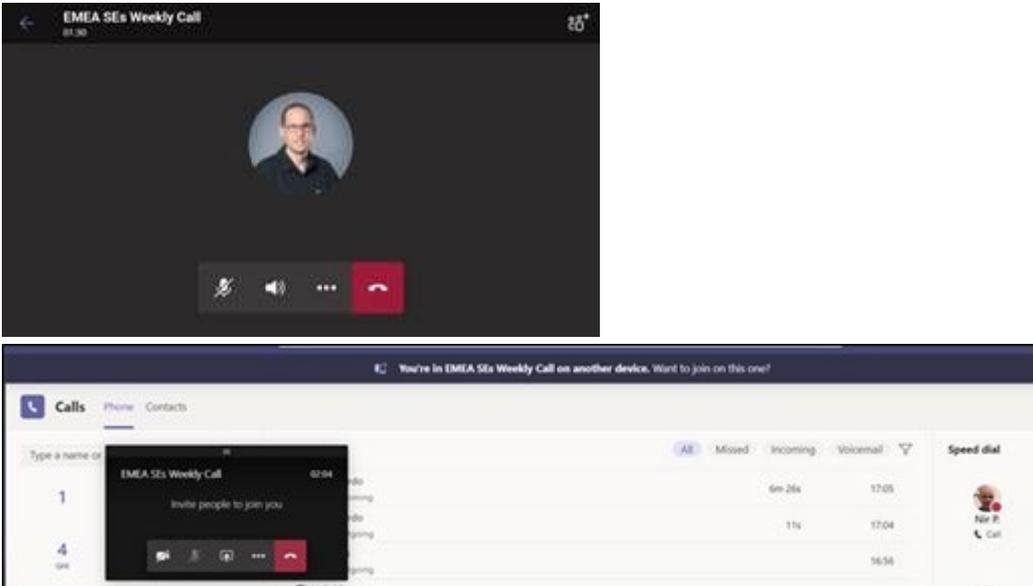
Incident	Description
IPPAN-1988	Microsoft Intune license is unable to select/activate 'device admin app'.
IPPAN-1783	[C450HD] Wi-Fi stability requires improvement.
IPPAN-689	The 'Reset Configuration' option does not reset the language previously selected.
IPPAN-2035	Power consumption is incorrectly reported in CDP packets.
IPPAN-1814	Screen Saver: Night mode is by default enabled but it doesn't take effect until entering into its setting.
IPPAN-1815	Screen Saver: Analog clock configuration doesn't take effect immediately, only after a reboot.
-	General issues related to AudioCodes Device Manager require fixes.
-	General issues relating to 802.1x Authentication require fixes.

3.3.3 Known Limitations in Version 1.7.9

3.3.3.1 Teams Application

Here are the known Teams application limitations in Version 1.7.9.

Table 3-11: Known Teams Application Limitations in Version 1.7.9

Incident	Description
VSO 205312	The user's number is not displayed correctly as E.164; it shows 4969xxx instead of +4969xxx.
-	[Better Together] Pairing the phone with the PC client might in some cases fail. Quitting the PC client and restarting it may solve the issue.
-	<p>[Better Together] Though users can join meetings from a phone or from the PC client, it's recommended to join from the phone. After joining, the phone is used as the audio device and the PC client notifies 'You're in a meeting on another device'; the user is then prompted to join the meeting on the PC client as well, for content sharing.</p> <p>The following figures show joining from a phone and from the PC client respectively:</p> 
-	[Better Together] When making or accepting direct calls using the PC client, the audio in most cases stays on the PC client and is not directed to the phone. It's recommended to accept direct calls with the phone.
-	[Better Together] When the phone is the PC client audio device, video cannot be used on the PC client.

3.3.3.2 Device

Here are the known device limitations in Version 1.7.9.

Table 3-12: Known Device Limitations in Version 1.7.9

Incident	Description
-	[Device Manager] Administrators are recommended not to use both the Device Manager and the Microsoft Admin Portal for provisioning.
IPPAN-1929	[Device Manager] The Language setting does not perform optimally.
IPPAN-1821	[Device Manager] The 'Upgrade Firmware' action via the Device Manager causes an unnecessary reboot when pulling the cfg file with the new URL.
-	An endless auto-negotiation with the Ethernet switch may occur if the phone is connected to the Power Supply and to PoE simultaneously. It's recommended to avoid connecting them simultaneously even though no damage occurs. If a Power Supply is used, users should disable the power from the ETH port.

3.4 Version 1.5.203

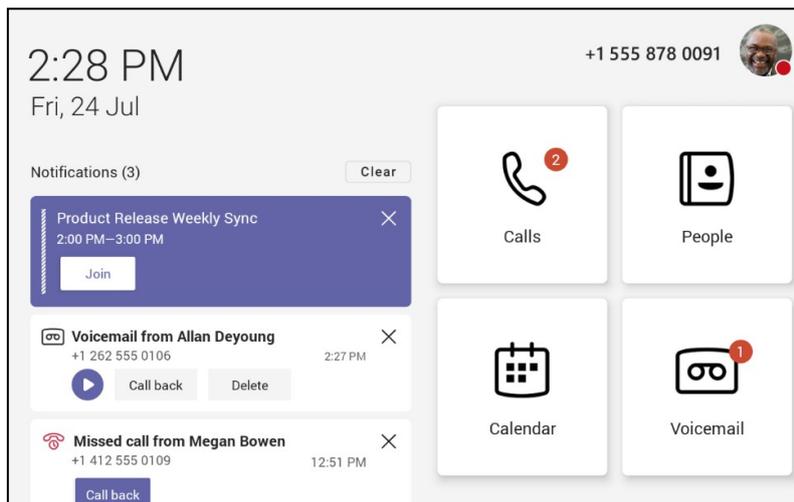


Note: Version 1.5.203 includes Microsoft Teams Version **2020071702**.

3.4.1 What's New in Version 1.5.203

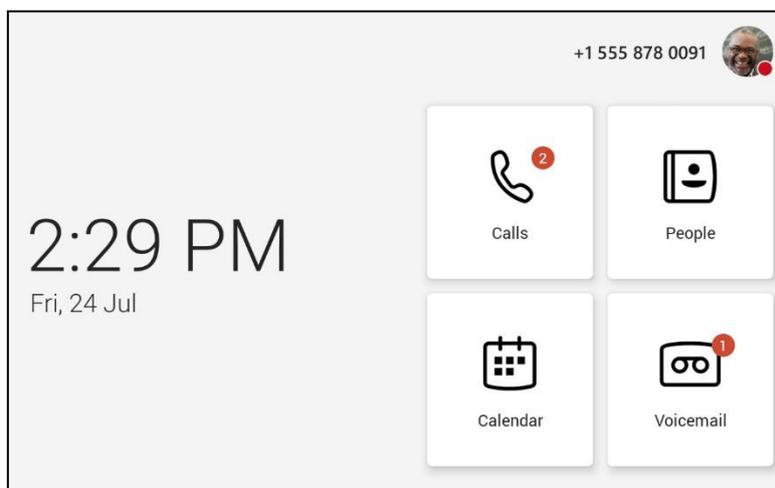
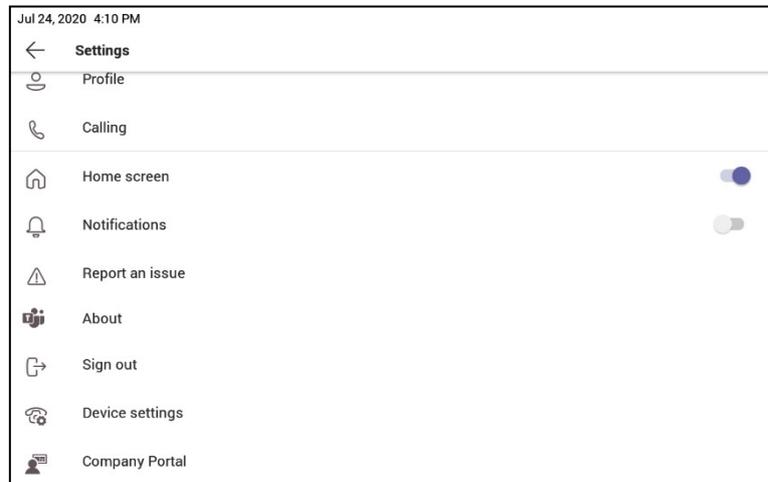
- **Upgrade to Microsoft Teams version MicrosoftTeams-2020071702.** The new Microsoft Teams phone version includes:
- Listed here are the new features in the Teams app:
 - **Home Screen with Meeting Reminders**
 The home screen on Teams phones is a simple view providing up-to-date information about your calling and meeting activity. You can see meeting reminders of your current and upcoming meetings, perform quick actions like joining your current meeting, playing voicemail, or replying to missed calls directly from your home screen. Detailed information about your call history, calendar and people is still just a click away.

Home Screen



Users who would like to restrict the content that shows up on their home screens, notifications on the home screen can be disabled using the option under Settings. Users can also turn off the home screen altogether if they want to keep the current experience.

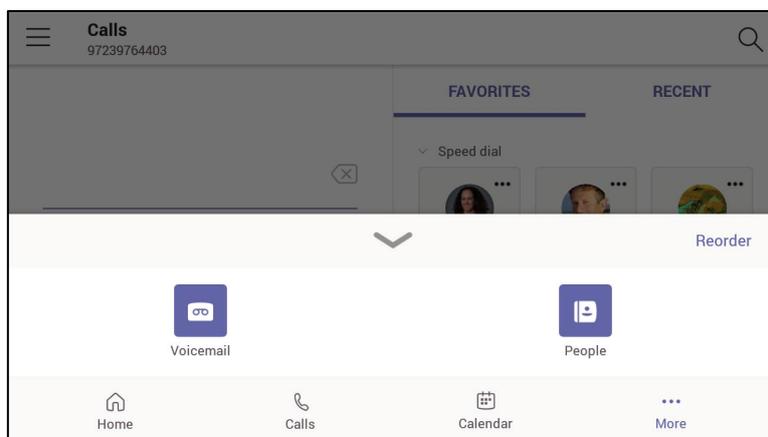
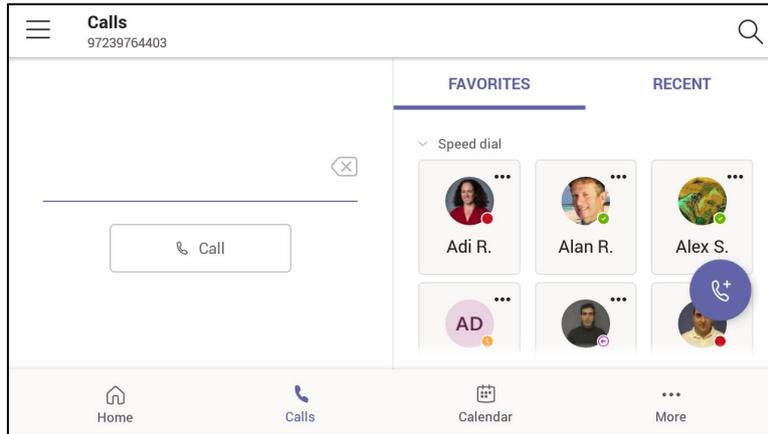
Home Screen and Notification Settings



- **Customize Quick Access to Apps**

Users can customize the default views for your phone if tenant admins have the right settings to allow user pinning. See [here](#) for more details. When user pinning is allowed as part of your app policy, you will see the **More** option that enables you to reorder your apps. For example: Users who need to focus on calling actions might want to see only the Calls and Voicemail apps in their main screen and move the **People** and **Calendar** tabs to the more options. The **Home** button will be available as long as the home screen is enabled in user settings.

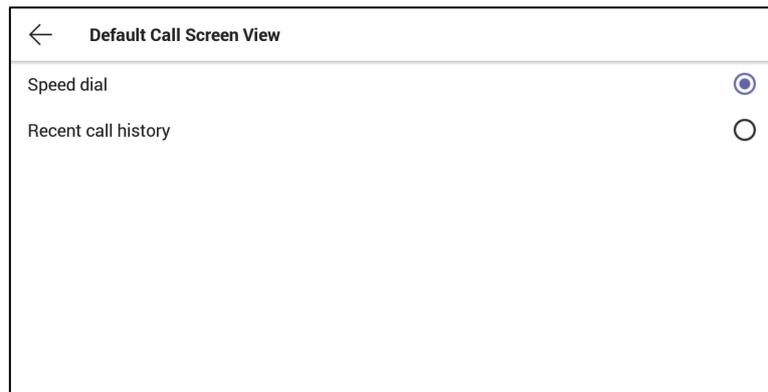
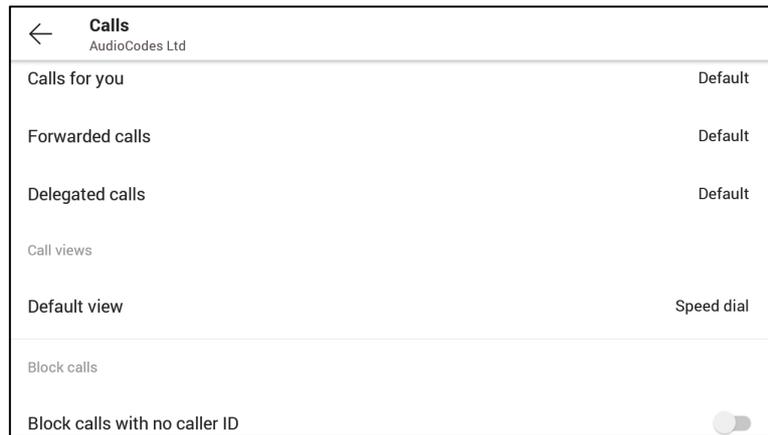
More Options to Reorder Apps



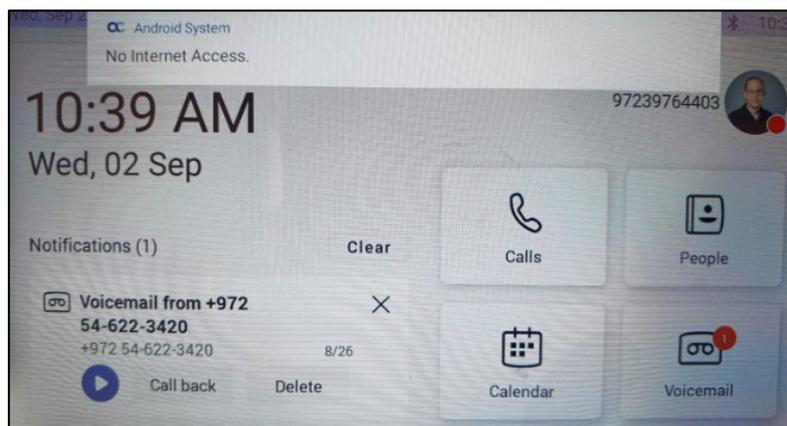
- **Customize Default View for Calls**

Users can customize the landing screens within the Calls app. The current default view is 'Speed dial' but for devices without hardware buttons, it is possible users might prefer **Dialpad** to be the default screen. You can modify this under **Settings > Calls > Call views**.

The  icon can be used to swap between the views.



- **Upgrade to Microsoft Admin Agent application version 216.**
- **Upgrade to Microsoft Company Portal application version 5.0.4826.0**
- **An Internet Connectivity check has been added.** If the connectivity check fails, a 'No Internet Access' warning pops up on the phone screen. This can point to a problem that is preventing the phone from fully functioning in a Teams environment. The user can ignore the message if the Teams application is fully functioning, or can report a problem if the Teams application is not fully functioning.



To allow the connectivity check, the network administrator must make sure the phone can access the following URLs (to check connectivity with the internet):

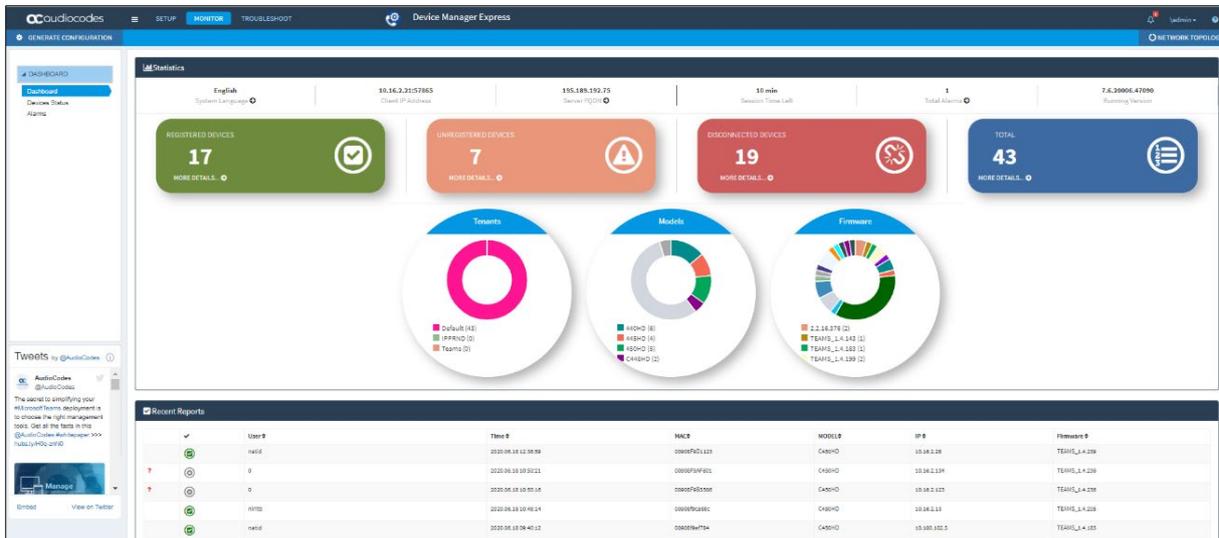
https://www.google.com/generate_204

http://connectivitycheck.gstatic.com/generate_204

http://www.google.com/gen_204

- **Support for AudioCodes Device Manager 7.8.2000 and AudioCodes Redirect Server** for full monitoring, upgrading and configuring the devices.
 - Getting the provisioning URL from AudioCodes' redirect server (if no other provisioning method is defined), or DHCP option 160.
 - Monitoring the phones: The Device Manager presents the username, phone model, version, IP address and MAC address. See the figure of the Device Manager Dashboard below.
 - Upgrade the phone firmware: The phone periodically checks whether there is a new firmware file on the OVOC server and if a new firmware file exists, the phone's firmware is automatically updated.
 - Configuring the phones via the Device Manager: The phone periodically checks whether there is a new .cfg configuration file on the OVOC server and if a new cfg file exists, the phone's cfg file is automatically updated. Currently, the following parameters can be configured:
 - ◆ Phone lock
 - ◆ Timezone
 - ◆ Time DST
 - ◆ Language (will be supported in the next release)
 - ◆ Power saving
 - ◆ Screen saver
 - ◆ Provisioning and Management via HTTPS
 - Perform commands such as Reboot, Switch to Teams Compatible and Upgrade now

Device Manager - Dashboard



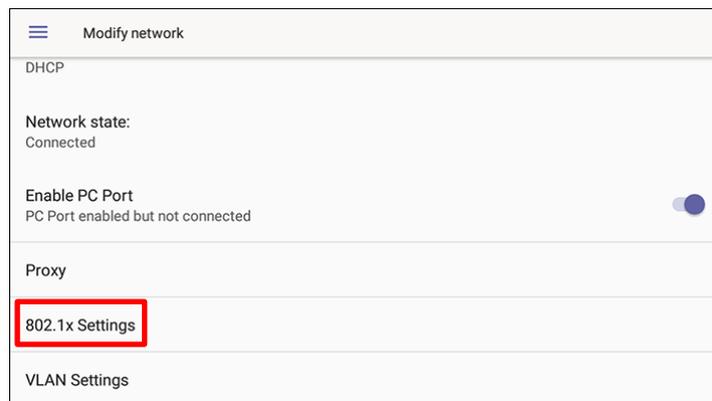
Device Manager – Device Status

Actions	Status	Signal	User Name	Phone Number	Last Update Status	Mac Address	IP Address	Model	Firmware	Tenant	Template	Report Time	Location	Signal Words
Actions	Registered	+	npfcd		2020-06-16 12:36:09	0090F901223	10.16.2.20	C40HD	TEAHS_1_4.239	Default	Audiocodes_C40HD_TEAMS	2020-06-16 13:02:04		
Actions	Registered	+	nvfcd		2020-06-16 10:45:14	0090F90463c	10.16.2.13	C40HD	TEAHS_1_4.205	Default	Audiocodes_C40HD_LYNC	2020-06-16 13:45:14		
Actions	Registered	+	nvfcd		2020-06-16 09:40:12	0090F90784	10.100.102.3	C40HD	TEAHS_1_4.183	Default	Audiocodes_C40HD_LYNC	2020-06-16 13:40:13		
Actions	Registered	+	nvfcd		2020-06-16 09:09:15	0090F901110	10.22.14.97	C40HD	TEAHS_1_4.236	Default	Audiocodes_C40HD_TEAMS	2020-06-16 13:51:37		
Actions	Registered	+	nvfcd		2020-06-16 02:27:24	0090F90977F	192.168.0.102	C40HD	TEAHS_1_4.236	Default	Audiocodes_C40HD_TEAMS	2020-06-16 13:51:24		
Actions	Registered	+	nvfcd		2020-06-16 01:56:18	0090F90CF20	192.168.14.46	C40HD	TEAHS_1_4.236	Default	Audiocodes_C40HD_TEAMS	2020-06-16 13:52:14		
Actions	Registered	+	Amil		2020-06-16 01:44:17	0090F90120A	192.168.1.96	C40HD	TEAHS_1_4.236	Default	Audiocodes_C40HD_TEAMS	2020-06-16 13:52:09		
Actions	Registered	+	nvfcd		2020-06-17 17:21:24	0090F900600	10.22.12.21	C40HD	TEAHS_1_4.236	Default	Audiocodes_C40HD_LYNC	2020-06-16 13:21:24		
Actions	Registered	+	Amil		2020-06-17 09:46:05	0090F90e45c	192.168.1.50	C40HD	TEAHS_1_4.236	Default	Audiocodes_C40HD_TEAMS	2020-06-16 13:52:09		
Actions	Registered	+	Amil		2020-06-17 04:44:54	0090F9087FD	192.168.1.40	C40HD	TEAHS_1_4.236	Default	Audiocodes_C40HD_TEAMS	2020-06-16 13:51:06		
Actions	Registered	+	Amil		2020-06-17 02:47:14	0090F900042	10.16.2.148	C40HD	TEAHS_1_4.236	Default	Audiocodes_C40HD_TEAMS	2020-06-16 13:47:17		
Actions	Registered	+	nvfcd		2020-06-17 01:29:12	0090F901112	192.168.14.64	C40HD	TEAHS_1_4.236	Default	Audiocodes_C40HD_TEAMS	2020-06-16 13:52:14		
Actions	Registered	+	nvfcd		2020-06-16 13:07:41	0090F9087D9	10.100.102.10	C40HD	TEAHS_1_4.236	Default	Audiocodes_C40HD_LYNC	2020-06-16 13:07:46		
Actions	Registered	+	nvfcd		2020-06-16 14:36:44	0090F90C26C	10.33.2.1	C40HD	TEAHS_1_4.236	Default	Audiocodes_C40HD_LYNC	2020-06-16 13:36:46		
Actions	Registered	+	nvfcd		2020-06-16 13:47:47	0090F901210	192.168.1.26	C40HD	TEAHS_1_4.236	Default	Audiocodes_C40HD_TEAMS	2020-06-16 13:51:37		

- Support for more 802.1X Authentication modes besides MD5, including EAP-TLS, has been added. 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.

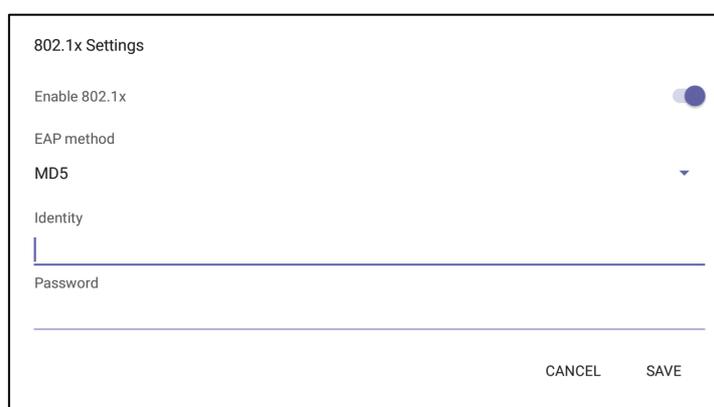
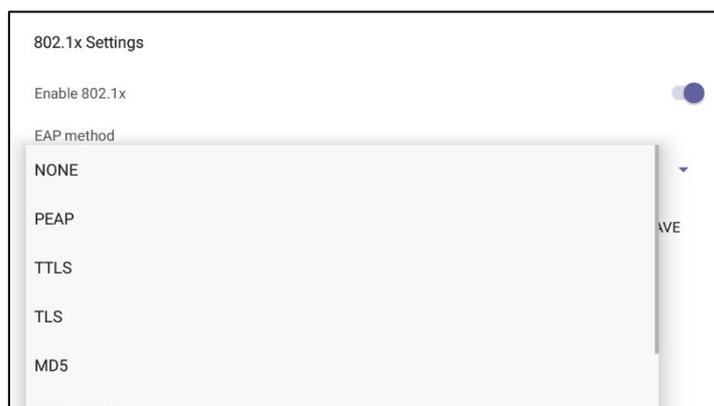
To configure the feature from the phone, open the 'Modify Network' screen (as an Admin) and then the 802.1x Settings screen.



Enable 802.1x.



Configure an EAP method; from the 'EAP method' drop-down, select the method you require.



Enter this information:

- Identity: User ID
- Password
- root certificate (not with every EAP method)
- client certificate (not with every EAP method)

■ **The two USB ports for headset support were changed as follows:**

- The white USB port is the *host* port (same as before)
- The black USB port is the *device* port (default) but it can be configured as the *host* port (see the *C448HD and C450HD Teams Phone UM-AM* for more information)

- The phone's **screensaver is by default disabled** as of this version release but users can opt to enable it (or leave it unchanged at the default). It was disabled to work around a Teams app issue: when the screensaver was active, an incoming call appeared as a pop-up banner rather than on the whole screen, as it should have. When the limitation is resolved, AudioCodes will reenables the phone's screensaver by default.

3.4.2 Resolved Limitations in Version 1.5.203

3.4.2.1 Teams Application

Here are the Teams application limitations that have been resolved in Version 1.5.203.

Table 3-13: Resolved Teams Application Limitations in Version 1.5.203

Incident	Description
-	When joining a Meeting, the Teams app's Mute softkey shows the user is muted yet for a few seconds the Mute hard key remains unmute.
-	The user does not get a group call notification when they're in locked state.
-	[Better Together meetings] Ending the meeting on the device using an audio channel (speaker, handset and headset) should end the desktop client meeting.
-	[Better Together] The device is not getting unlocked after two hours of idle time.
-	'Favorites' sometimes disappears.
-	The More option (...) in the Favorites tab contacts is not highlighted in the dark theme.
-	The Delete icon is not visible in the dark theme when the user deletes the group.
-	The user is unable to edit the tagged group even after the app allows the option to edit the tagged group.
-	The dial pad UI is cut off when large fonts are enabled.
-	The phone number is cut off when large fonts are enabled.
-	Bluetooth lock/unlock does not work after 10 hours of idle timeout.
-	A muted call put on hold unmutes on resume.
-	No notification appears to receive a call for a forwarded group call in the locked screen.
-	Removing contacts in speed dial from the Calls tab is not reflecting/removing under the People tab 'Speed Dial' group.
-	In some cases, the phone screen doesn't show that PC audio is being streamed.
Company Portal App	
-	Common Area Phones (CAPs) and Conference devices are signed out after a few days.
Admin Agent App	
-	Microsoft Device Manager reports the same IP address for several devices.
-	Firmware update reports as failed even though the device is updated.
-	Microsoft Device Manager shows the current version and the available version as the same.
-	The phone is reporting the wrong version even though the update fails.

3.4.2.2 Device

Here are the device limitations that have been resolved in Version 1.5.203.

Table 3-14: Resolved Device Limitations in Version 1.5.203

Incident	Description
IPPAN-1553	Time Zone is not grayed out when 'Automatic time zone' is enabled.
IPPAN-1743	The phone retains the (high contrast and font size) settings of the host for the hot desk user.
IPPAN-1791	[C450HD] [Call Merge] The Teams application user's phone crashes while trying to click the dots (...) in the call controls.
IPPAN-1791	[C450HD] An error message 'Setting isn't responding' is sometimes received.
IPPAN-1661	[People app] An unexpected popup with white space appears on the screen when the user renames the group after entering an incorrect name.
IPPAN-1656	A five-minute warning should be given to the user before rebooting the phone after a firmware update.
IPPAN-1655	[USB headset] When using Plantronics headsets, the controls are not functionally optimally.
IPPAN-1783	Wi-Fi stability requires improvement.
IPPAN-1675	The Emergency button in the lock screen should be hidden when there is no internet access; it's not.
IPPAN-1685	Voice is still heard on the phone's speaker for a short period after a call is disconnected.
IPPAN-1620	The 'Settings' option is not visible in dark mode.
IPPAN-1696	Instead of configured voice VLAN, the phone may be booted up with native VLAN.
IPPAN-1705	The phone fails to switch on-the-fly from voice VLAN to native.
IPPAN-1814	Screensaver: Night mode is by default enabled but it's not taking effect until entering into its setting.

3.5 Version 1.4.208

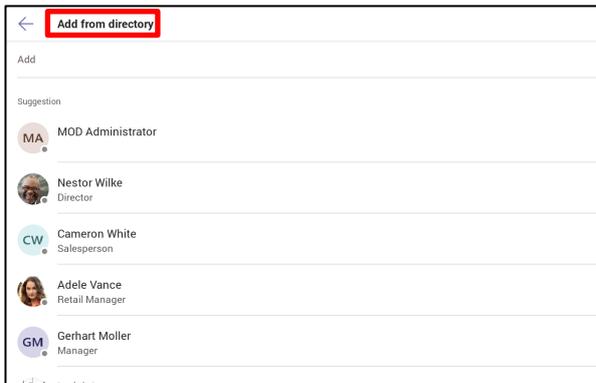
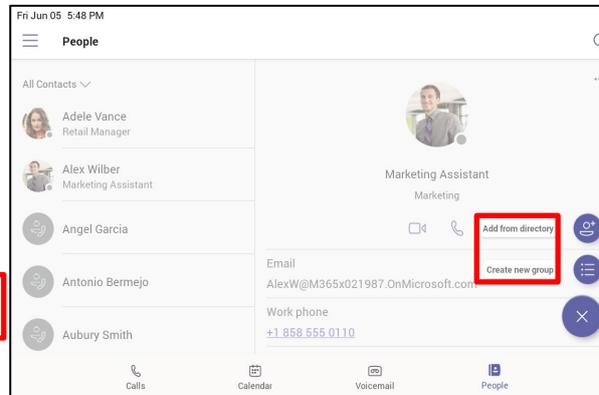
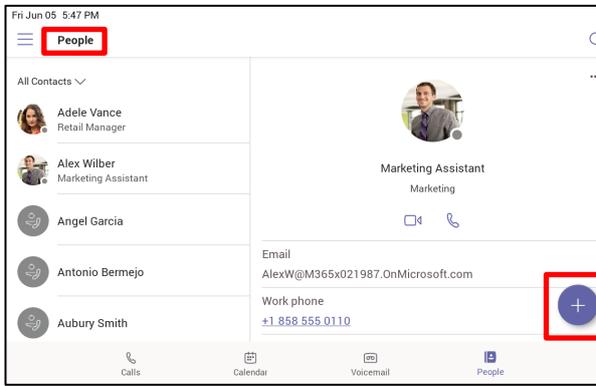


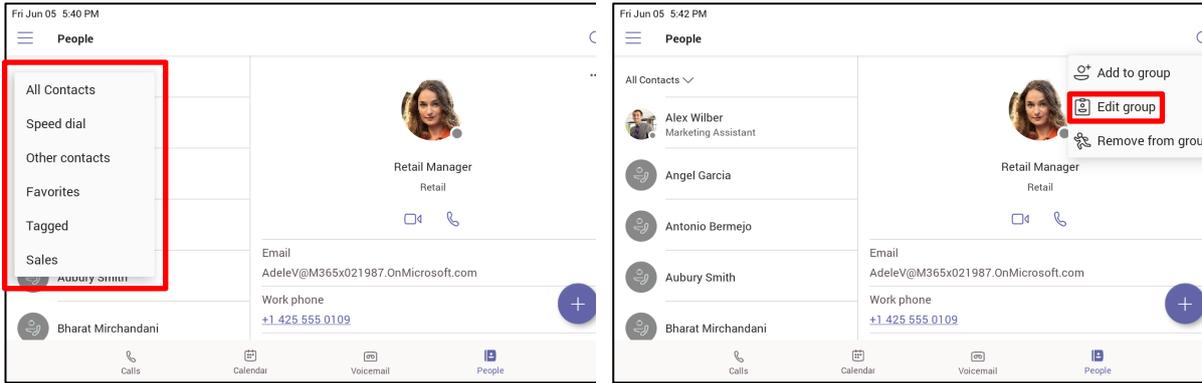
Note: Version 1.4.208 includes Microsoft Teams Version **2020051601**.

3.5.1 What's New in Version 1.4.208

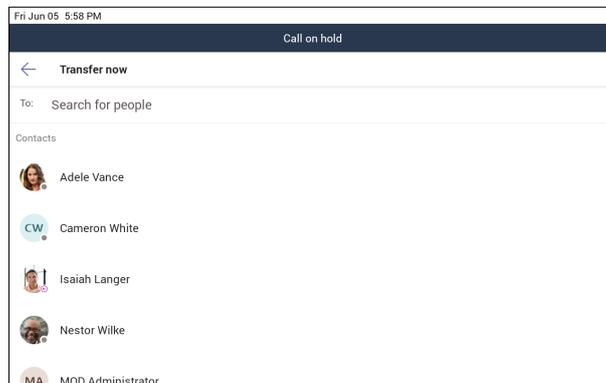
- **Upgrade to Microsoft Teams version MicrosoftTeams-2020051601.** The new Microsoft Teams phone version includes:
 - **People App for Teams Phones**

The People app on Teams phones allows the user to easily connect and collaborate with teammates, colleagues, friends and family in the Teams phones. Through the app, the user can see all their contacts and create and manage contact groups to organize their contacts. The app also provides a simple user experience and aligns with the contacts on the Teams desktop client.

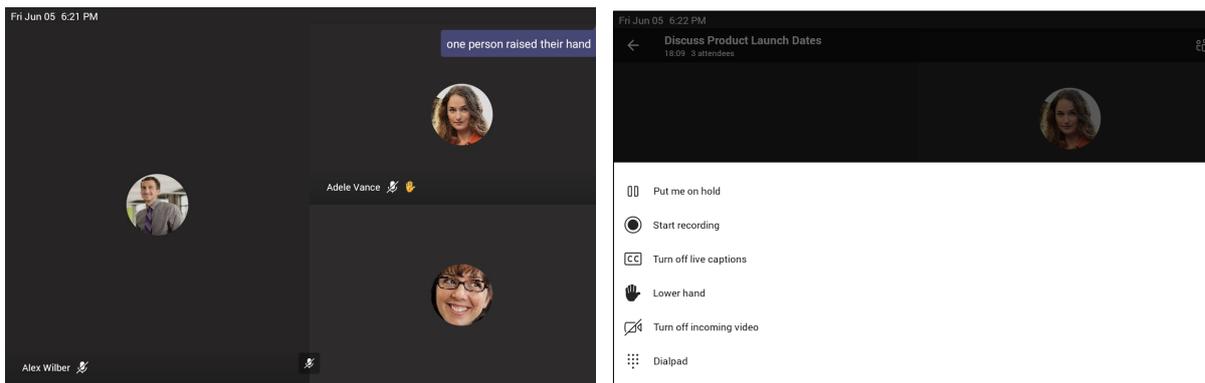




- The **CONTACTS** button is now supported. Users can access the People screen from the People softkey as well as from the hard CONTACTS button on the phone.
- **Transfer to Contacts**
To transfer your calls efficiently to frequent contacts, a new feature has been added to suggest contacts in the transfer screen for a single touch transfer. Contacts not shown in the list could be searched in the search bar, as always.



- **Raise Hand**
During a meeting, you can raise a virtual hand from your Teams phone to let people know you want to contribute without interrupting the conversation. Everyone in the meeting will see that you've got your hand up.



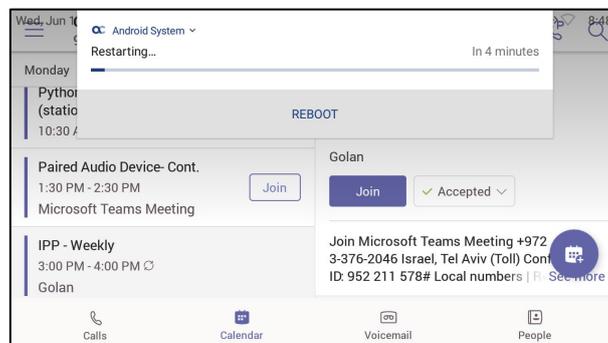
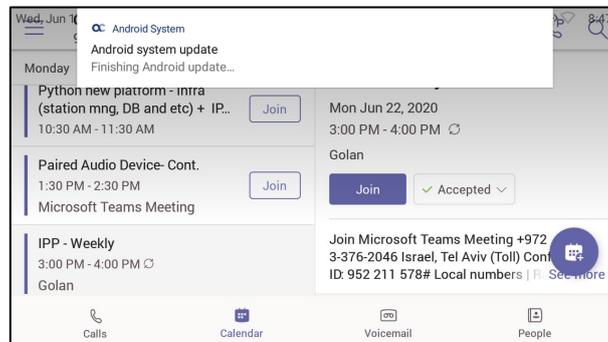
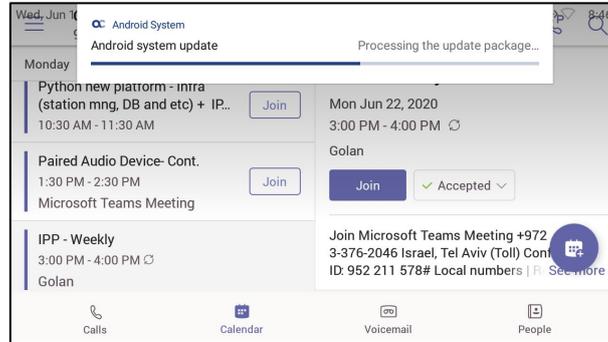
For more information: <https://support.office.com/en-us/article/raise-your-hand-in-a-teams-meeting-bb2dd8e1-e6bd-43a6-85cf-30822667b372>

- **Auto dismiss rate my call and call ended screens**
Support has been added to auto dismiss the call ended screen and rate my call screens (the star rating at the end of the call) for users to continue with their productivity without requiring additional user action to dismiss those screens.

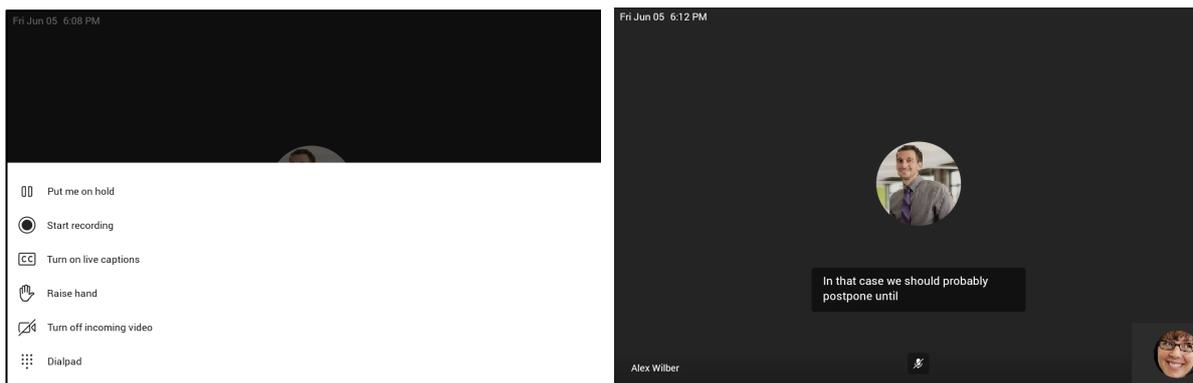
- **Global Network Banner**

A single banner is displayed across all screens indicating that the action cannot be completed when there is network loss.

- **A new notification is displayed during firmware update.** The new feature pops up a notification to notify users that the phone is being updated. When the phone is about to be rebooted, it also notifies. Currently, only firmware update is notified. In the next version release, the phone will include notification also when updating the apps.



- **Voice quality tuning.**
- **Upgrade to Microsoft Admin Agent application version 212.**
- **Upgrade to Microsoft Company Portal application version 5.0.4771.0**
- **Features in preview:**
 - **Live Captions – Teams app feature**
Teams can detect what's said in a meeting or group call and present real-time captions. Note that live captions are a **preview feature** of Microsoft Teams and currently they're only available in English (US) for TAP customers.



For more information: <https://support.microsoft.com/en-us/office/use-live-captions-in-a-teams-meeting-4be2d304-f675-4b57-8347-cbd000a21260#ID0EABAAA=Mobile>

- **Support for AudioCodes Device Management and AudioCodes Redirect Server** for full monitoring, upgrading and configuring the devices. Currently, it's released as a beta with a limited set of features.

Supported in this release:

- ◆ Getting the provisioning URL from AudioCodes' redirect server (if no other provisioning method is defined), or DHCP option 160.
- ◆ Monitoring the phones: The Device Manager presents the username, phone model, version, IP address and MAC address. See the figure of the Device Manager Dashboard below.
- ◆ Upgrade the phone firmware: The phone periodically checks whether there is a new firmware file on the OVOC server and if a new firmware file exists, the phone's firmware is automatically updated.
- ◆ Configuring the phones via the Device Manager: The phone periodically checks whether there is a new .cfg configuration file on the OVOC server and if a new cfg file exists, the phone's cfg file is automatically updated. Currently, the following parameters can be configured:
 - Phone lock
 - Timezone
 - Time DST
 - Language
 - Power saving
 - Screen saver

Not supported in this release but will be in the next release are:

- ◆ Provisioning and Management via HTTPS
- ◆ Commands such as Reboot, Switch to Teams Compatible and Upgrade now

Device Manager - Dashboard



Device Manager – Device Status

The Device Status page displays a detailed list of 17 devices. The table includes columns for Actions, Status, User Name, Phone Number, Last Update Status, Mac Address, IP Address, Model, Firmware, Tenant, Template, Report Time, Location, and BStat. The devices listed are all of model C400HD or C440HD, running various versions of TEAMS firmware.

Actions	Status	User Name	Phone Number	Last Update Status	Mac Address	IP Address	Model	Firmware	Tenant	Template	Report Time	Location	BStat
Actions	✓	natid	2020.06.18.12.38.59	0090F931123	10.16.2.28	C400HD	TEAMS_1.4.139	Default	AudioCodes_C400HD_TEAMS	2020.06.18.13:52:04			
Actions	✗	natid	2020.06.18.10.48.14	0090F931123	10.16.2.133	C400HD	TEAMS_1.4.139	Default	AudioCodes_C400HD_LYNC	2020.06.18.13:45:14			
Actions	✗	natid	2020.06.18.10.48.13	0090F931123	10.16.2.134	C400HD	TEAMS_1.4.139	Default	AudioCodes_C400HD_LYNC	2020.06.18.13:40:13			
Actions	✗	natid	2020.06.18.10.50.16	0090F931123	10.16.2.122	C400HD	TEAMS_1.4.139	Default	AudioCodes_C400HD_LYNC	2020.06.18.13:52:14			
Actions	✓	natid	2020.06.18.10.48.14	0090F931123	10.16.2.133	C400HD	TEAMS_1.4.139	Default	AudioCodes_C400HD_TEAMS	2020.06.18.13:51:37			
Actions	✗	natid	2020.06.18.10.47.12	0090F931123	10.16.2.122	C400HD	TEAMS_1.4.139	Default	AudioCodes_C400HD_TEAMS	2020.06.18.13:51:21			
Actions	✗	natid	2020.06.18.10.50.16	0090F931123	10.16.2.122	C400HD	TEAMS_1.4.139	Default	AudioCodes_C400HD_TEAMS	2020.06.18.13:52:14			
Actions	✓	natid	2020.06.18.10.48.14	0090F931123	10.16.2.133	C400HD	TEAMS_1.4.139	Default	AudioCodes_C400HD_TEAMS	2020.06.18.13:52:09			
Actions	✗	natid	2020.06.18.10.47.12	0090F931123	10.16.2.122	C400HD	TEAMS_1.4.139	Default	AudioCodes_C400HD_TEAMS	2020.06.18.13:51:28			
Actions	✗	natid	2020.06.18.10.47.14	0090F931123	10.16.2.148	C440HD	TEAMS_1.4.139	Default	AudioCodes_C440HD_TEAMS	2020.06.18.13:47:17			
Actions	✗	natid	2020.06.17.01:25.12	0090F931123	10.16.2.148	C400HD	TEAMS_1.4.139	Default	AudioCodes_C400HD_TEAMS	2020.06.18.13:52:44			
Actions	✗	natid	2020.06.18.13:07.41	0090F931123	10.16.2.122	C400HD	TEAMS_1.4.139	Default	AudioCodes_C400HD_LYNC	2020.06.18.13:07:46			
Actions	✗	natid	2020.06.18.14:38.44	0090F931123	10.16.2.122	C400HD	TEAMS_1.4.139	Default	AudioCodes_C400HD_LYNC	2020.06.18.13:38:46			
Actions	✗	natid	2020.06.18.13:47.47	0090F931123	10.16.2.28	C400HD	TEAMS_1.4.139	Default	AudioCodes_C400HD_TEAMS	2020.06.18.13:51:57			

3.6 Version 1.3.51

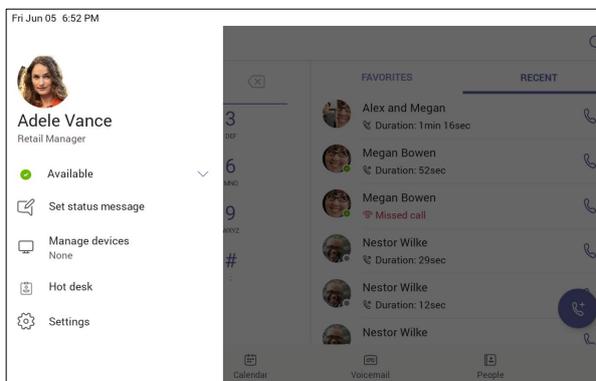


Note: Version 1.3.51 includes Microsoft Teams Version **2020040801**.

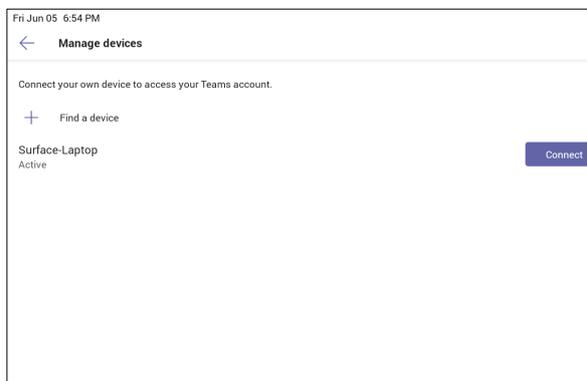
3.6.1 What's New in Version 1.3.51

- **Upgrade to Microsoft Teams version MicrosoftTeams-2020040801.** The new Microsoft Teams phone version includes:
 - **Better Together over Bluetooth with support for:**
 - ◆ Pairing with the Teams PC Client
 - ◆ Lock/unlock synchronization

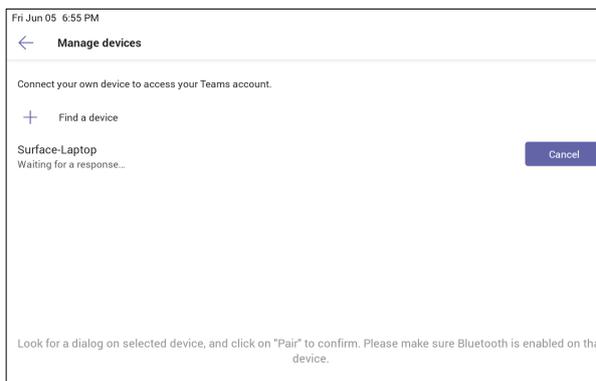
Bluetooth must be enabled on both phone and PC. A new option 'Manage Devices' is used to pair between phone and PC. Here's how Better Together over Bluetooth is set up:



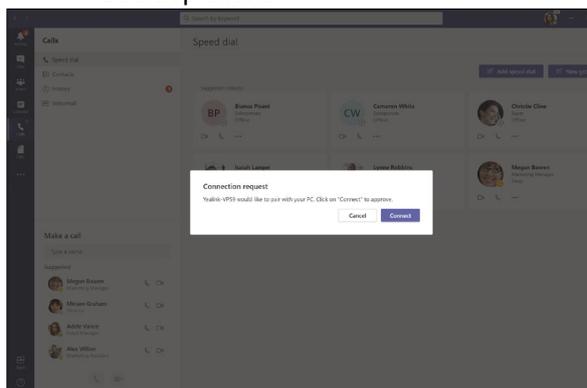
1. Go to **Manage devices** on your Teams phone.



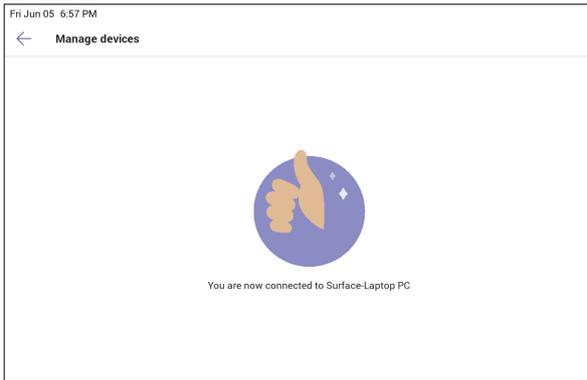
2. Click **Find a device** and **Connect** to setup with your nearby Teams Windows Desktop client.



3. Teams phone is waiting for a response from your Teams Windows Desktop client.



4. Click **Connect** on your Teams Windows Desktop client to complete setup with your Teams phone.



5. Better Together setup is complete.

- Upgrade to Microsoft Admin Agent application version 210.

3.7 Version 1.3.40

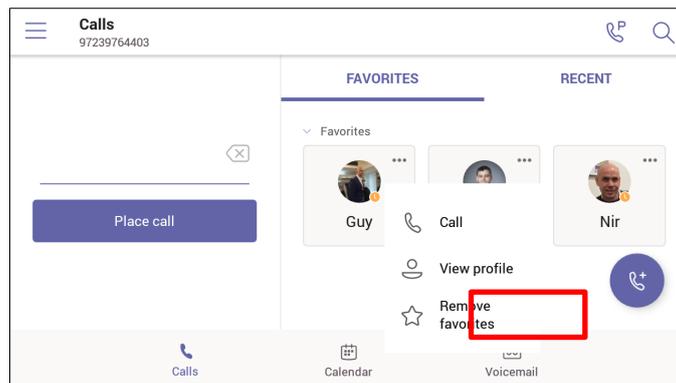


Note: Version 1.3.40 includes Microsoft Teams Version **1.0.94.2020031901**.

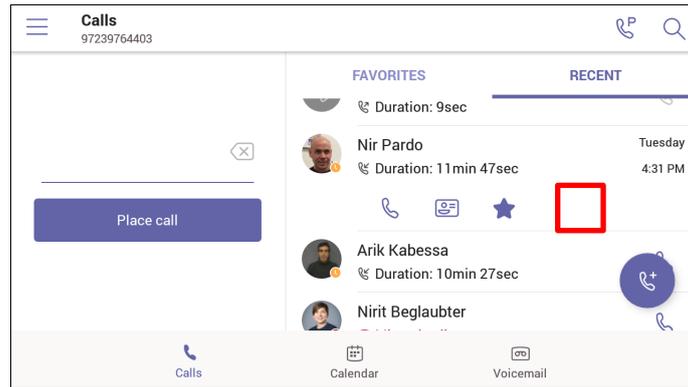
3.7.1 What's New in Version 1.3.40

- **Upgrade to Microsoft Teams version MicrosoftTeams-2020031901.** The new Microsoft Teams phone version includes multiple resolved limitations. Some of these fixes were for major issues. See [Resolved Limitations in , Teams Application](#), to view the full list of fixes.
 - The phone now allows users to add or remove 'Favorites'.

Remove Favorites

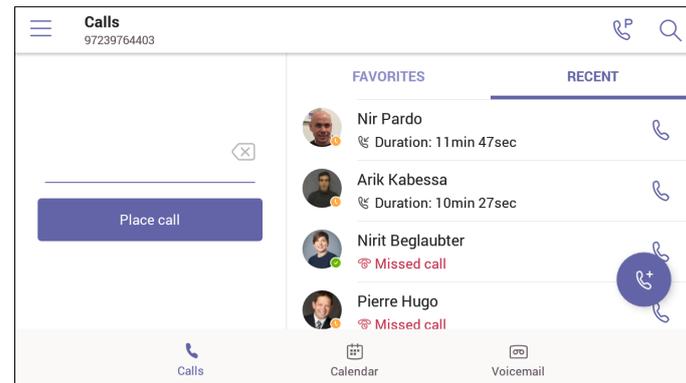
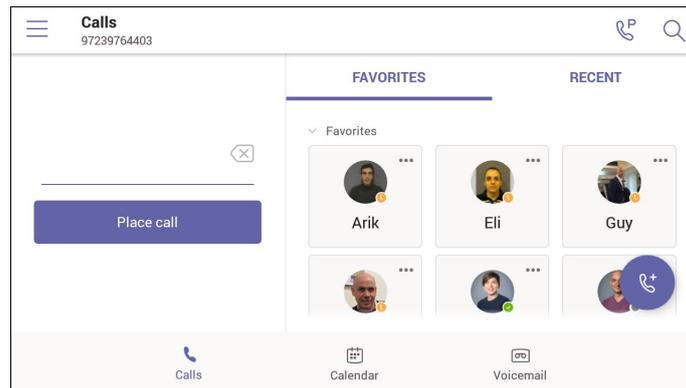


Add Favorites

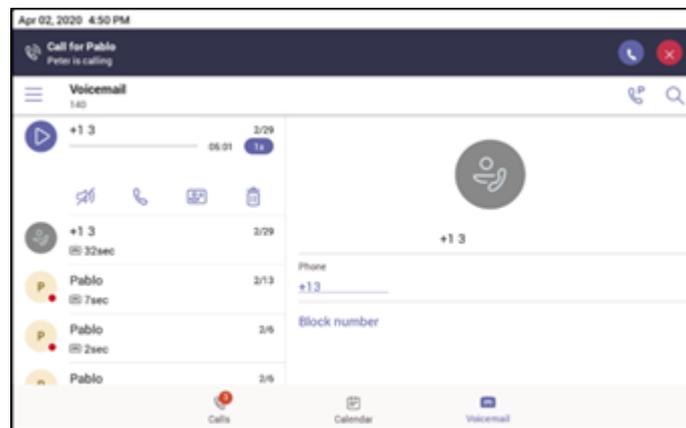


- The Calls application has been improved for basic calls and for advanced features.
 - ◆ Always available dial pad for devices in landscape mode
 - ◆ Quick access with touch-friendly icons for favorite contacts
 - ◆ Hidden but accessible view of recent calls for increased privacy

Here are sample screenshots:

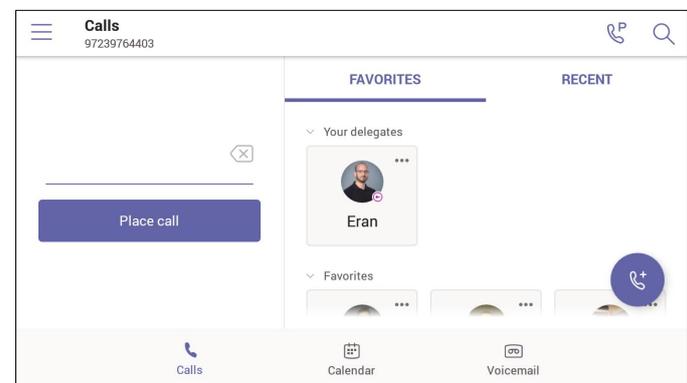
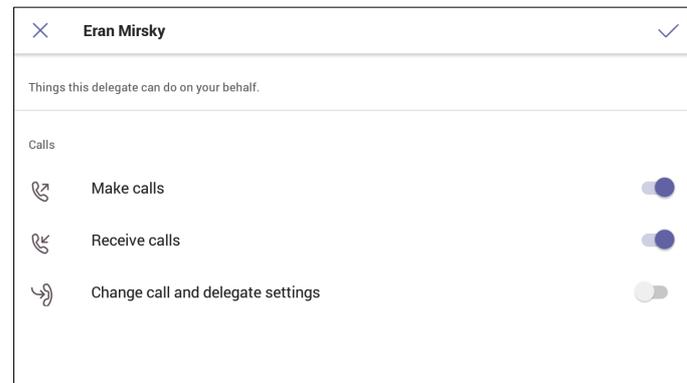
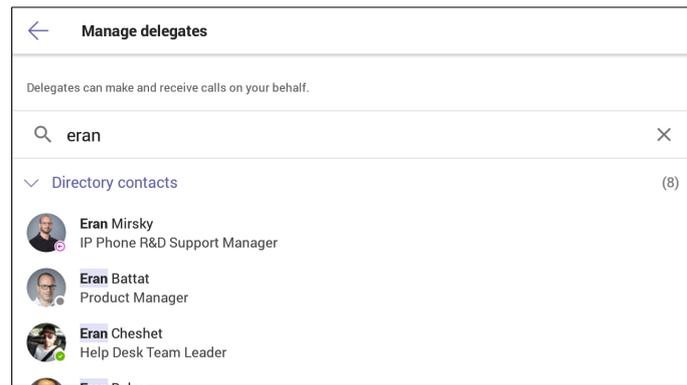
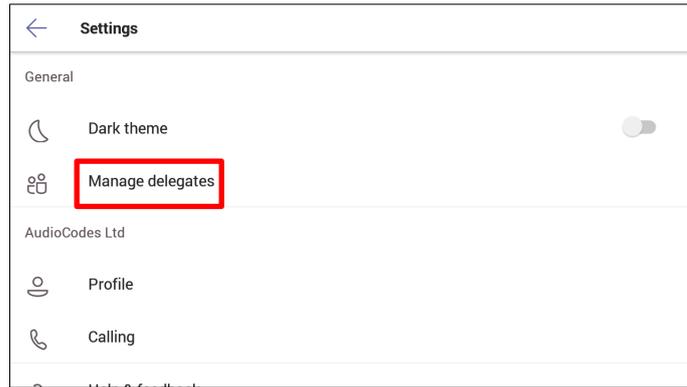


- **Group Call Pickup.** Users can accept / decline incoming call notifications for call groups from anywhere in the app.



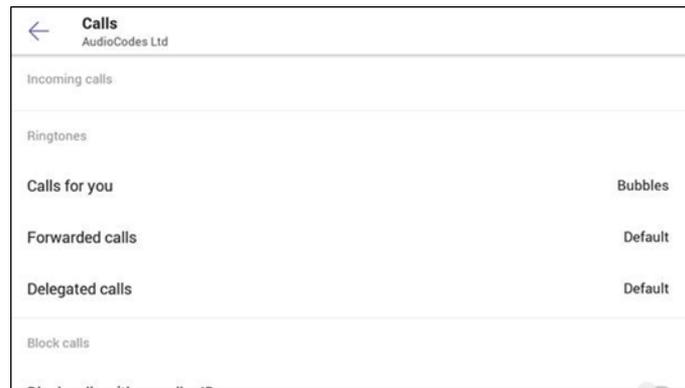
- **Manage delegates on Microsoft Teams phones (Boss/Admin settings) are now supported.** You can pick someone in Teams to be your delegate, to receive and make calls on your behalf. When you add a delegate, you're essentially sharing your phone line with them, so they can see and share all of your calls. In addition to the Teams desktop client, with this new feature support, Teams phones will also provide the ability to setup and manage delegates via Settings on the phone.

A new option 'Manage Delegates' was added under the app 'Settings' page to support this setting.



- The phone now supports **distinctive ringtones per call type**. You can choose custom ringtones from an available list of ringtone options and set different ringtones for incoming calls, forwarded calls and delegated calls.

To allow this setting, go to your profile picture at the top of the app and select **Settings > Calling**.



- The phone now supports **auto-dialing to call an extension**. Tenant admins can add dial plans for their organization with normalization rules to enable extension dialing in Teams. With this new feature release, Teams phones will auto dial in three seconds after an approved extension is dialed by the user using the dial pad.
- **Upgrade to Microsoft Company Portal application version 5.0.4715.0**. See [Resolved Limitations in , Teams Application](#), to view the full list of Company Portal fixes
- **Upgrade to Microsoft Admin Agent application version 207**. See [Resolved Limitations in , Teams Application](#), to view the full list of Admin Agent fixes
- **A dumpstate option has been added to the Admin's debugging capabilities**. The feature allows the Admin who needs to get logs from the device, to dump the logs with a single touch to the phone's Secure Digital (SD) Card. The logs can be collected later using Secure Copy Protocol (SCP) based on Secure Shell (SSH) protocol.

In the phone's 'Device Settings', a new **Diagnostic Data** option was added (**Device Administration > Debugging**):



- Touch the **Diagnostic Data** option.



- Touch **OK** to confirm; the phone creates all necessary logs and copies them to its SD Card / Logs folder.
- To get the logs, the Admin must use SCP.
- The term 'Switch to Skype for Business' has been changed to 'Switch to Teams Compatible' (in the device's Admin's 'Debugging' screen).

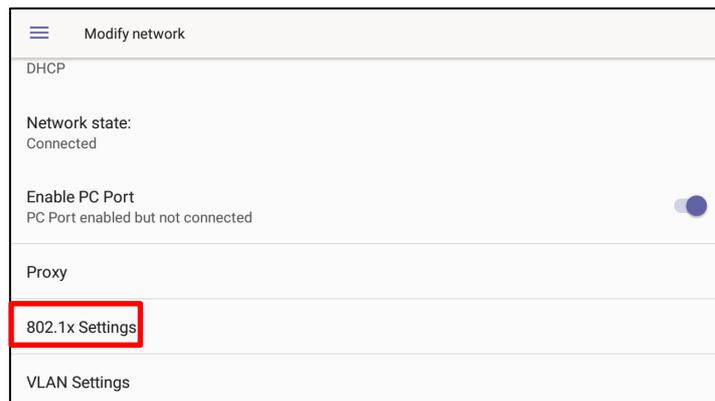
3.8 Version 1.2.196

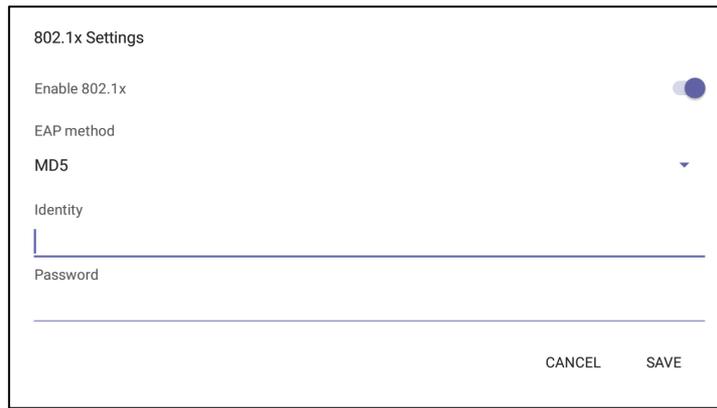


Note: Version 1.2.196 includes Microsoft Teams Version **1.0.94.2020020601**.

3.8.1 What's New in Version 1.2.196

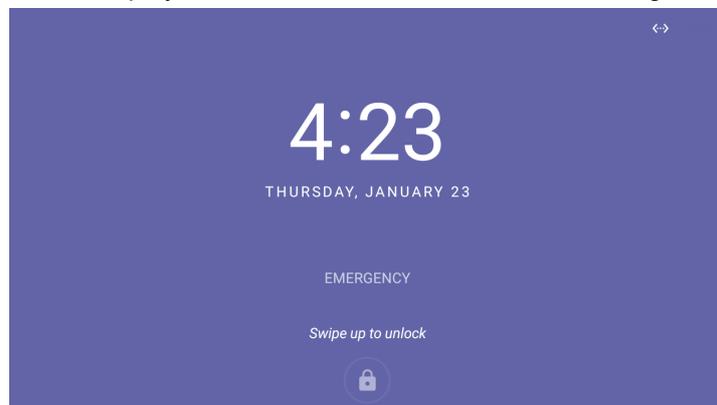
- **Upgrade to Microsoft Teams version MicrosoftTeams-2020020601.** The new Microsoft Teams phone version includes multiple resolved limitations. Some of these fixes were for major issues. See [Resolved Limitations in , Teams Application](#), to view the full list of fixes.
 - Dynamic 911 support as per Kari's law
- **Upgrade to Microsoft Company Portal application version 5.0.4623.0.** See [Resolved Limitations in , Teams Application](#), to view the full list of Company Portal fixes
- **Upgrade to Microsoft Admin Agent application version 204.** See [Resolved Limitations in , Teams Application](#), to view the full list of Admin Agent fixes
- **New model C448HD phone for Microsoft Teams** is now supported. The C448HD phone for Microsoft Teams is identical to the C450HD phone for Microsoft Teams except for:
 - Bluetooth and Wi-Fi
 - Only one USB port
 - Does not support Expansion Module
- **Support for 802.1X Authentication.** IEEE Standard for Port-based Network Access Control (PNAC). See <https://1.ieee802.org/security/802-1x/> for more information. 802.1X Authentication is currently supported for MD5 only. Support for EAP-TLS will be added in the next release. To enable the feature from the phone, open the 'Modify Network' screen (as an Admin) and then the 802.1x Settings screen:



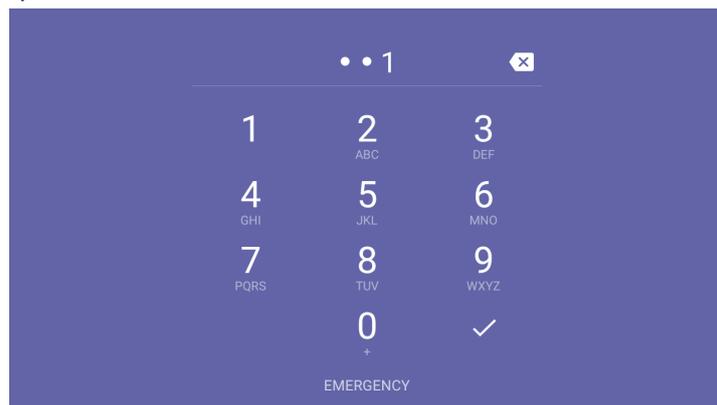


■ **Enhanced E911**

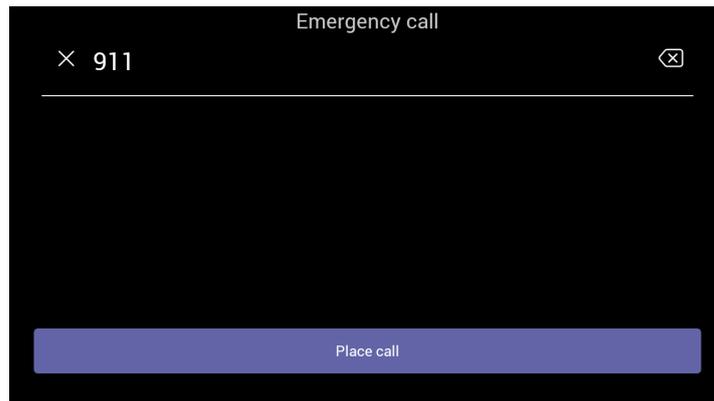
- A new 'Emergency' key was added to the phone's idle lock screen, i.e., to the screen displayed before the screen that allows entering the PIN code/pattern.



- Users can dial the E911 service from a locked screen without needing to press the 'Emergency' key. They only need to dial 911 and then trigger the call from the speaker/handset or wait for the timeout; they can pick up the handset or press the speaker button and dial 911 from the lock screen:



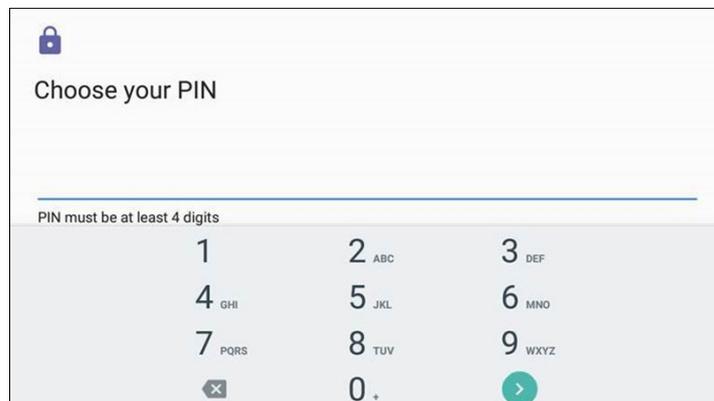
- The 'Emergency call' screen with the emergency dialed number is then displayed. Users can then perform the dialing.



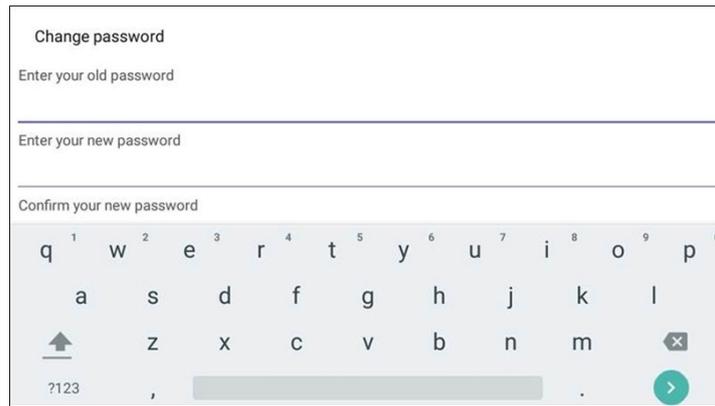
- **Bluetooth support now provided under Android as a Beta.** Handsfree profile where the phone is able to connect to Bluetooth headset or speaker.
- The **unlock feature on the phone for Microsoft Teams has been improved** using a smart PIN unlock mechanism. When users now use the PIN to lock the phone, to unlock they just need to type the PIN number for the phone to automatically unlock without requiring users to confirm using the **OK** button.
- All 'Settings' fields that pop up and require the virtual keypad for inputting characters and/or numbers - such as when the network administrator needs to enter an IP address to debug or when they need to enter their PIN lock for the security tab - were improved so that **the keyboard/keypad now only takes up half the screen and not the full screen as was the case previously.**

Example:

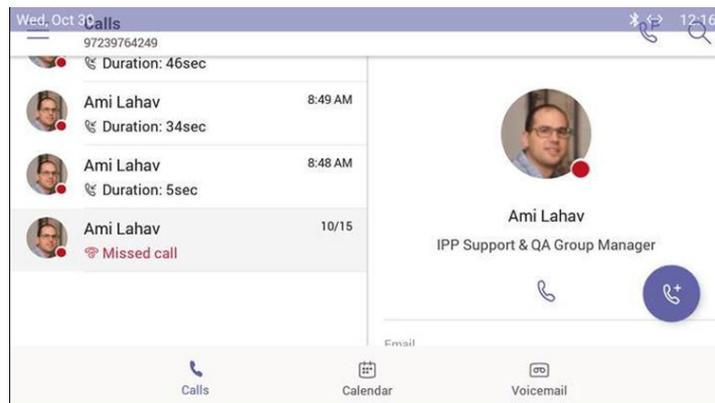
Numeric Keypad



QWERTY Keypad



Transparent upper bar



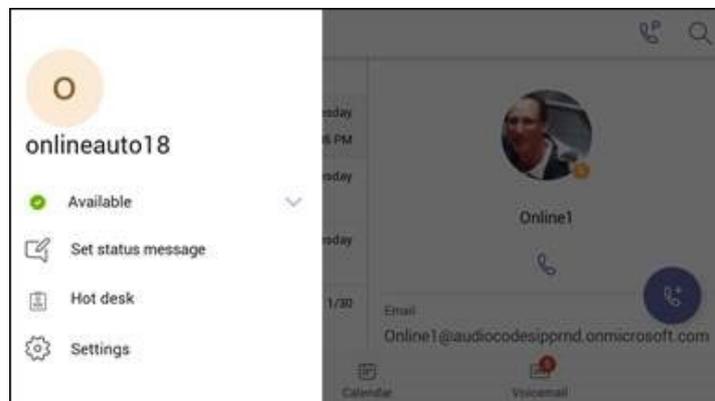
The main screen is now free of obstructions and the status bar displays the date

Refresh icon



Improved look and feel compared to the previous

- **Hot Desking.** Allows signing in to a phone that is already signed in by another user without signing out the original user to whom the phone was assigned for primary use. Access the Hot Desking feature from the Hot desk option in the Teams application settings.



3.9 Version 1.1.96



Note: Version 1.1.96 includes Microsoft Teams Version **1.0.94.2019110802**.

3.9.1 What's New in Version 1.1.96

- **Upgrade to Microsoft Teams version MicrosoftTeams-2019110802.** See [Resolved Limitations in , Teams Application](#), to view the list of fixes in this release.

3.10 Version 1.1.92



Note: Version 1.1.92 includes Microsoft Teams Version 1.0.94.2019110101.

3.10.1 What's New in Version 1.1.92

- **Upgrade to Microsoft Teams version MicrosoftTeams-2019110101.** The new Microsoft Teams phone version includes multiple resolved limitations. Some of these fixes were for major issues. See [Resolved Limitations in , Teams Application](#), to view the full list of fixes.
- **Upgrade to Microsoft Company Portal application version 5.0.4569.0.** The new Company Portal application includes the following new features:
 - Consistent GUI design for IP phone enrollment
- **Upgrade to Microsoft Admin Agent application version 201.** The new Company Portal application includes the following new features:
 - **Resiliency.** The Admin Agent is resilient and can recover from crashes.

3.11 Version 1.1.77



Note: Version 1.1.77 includes Microsoft Teams Version 1.0.94.2019082001.

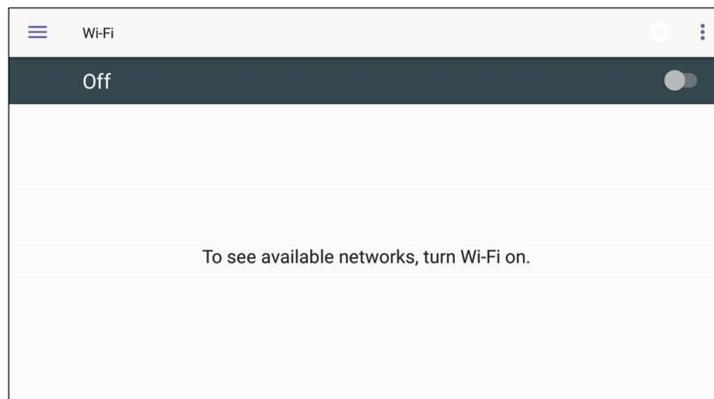
3.11.1 What's New in Version 1.1.77

- **C450HD Wi-Fi capability.** The phone can connect to an Access Point via Wi-Fi. To enable Wi-Fi, users must:

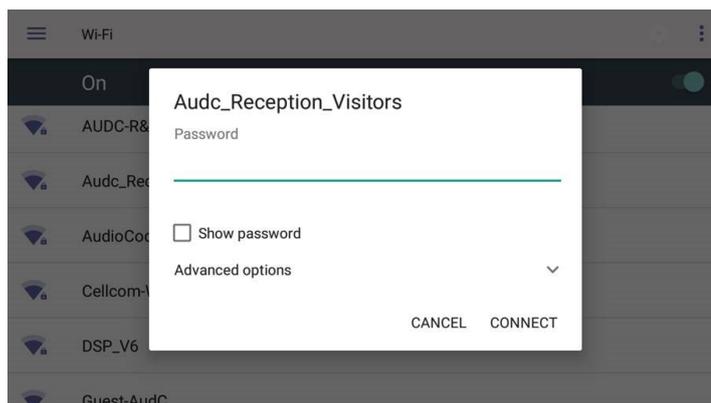
1. Access the Device Settings screen and select **Wi-Fi**.



2. Switch Wi-Fi to **On** to view the list of possible SSIDs:



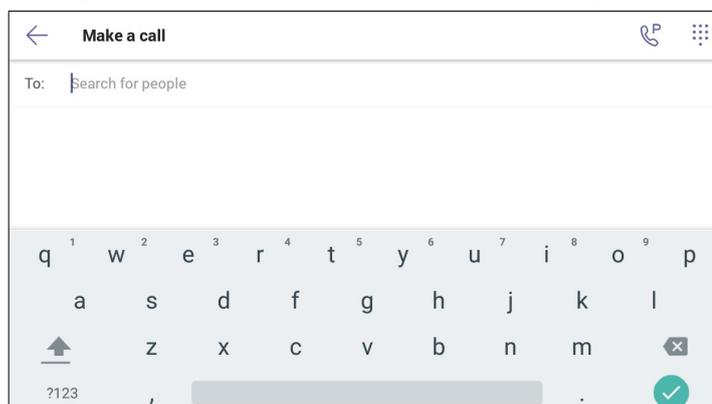
3. Select an SSID, configure the required credentials, and then touch **CONNECT**:



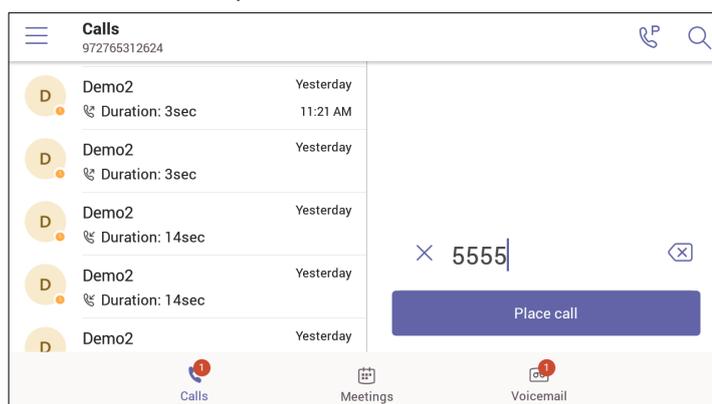
- **Support for an unrooted device.** Starting from this release, the C450HD device will no longer be defined as a 'rooted/jailbroken device'.
- **Upgrade to Microsoft Teams** version *MicrosoftTeams-2019082001.apk*. The new Teams version includes the following new features:

- **Improved user dialing experience.** Here are some examples:

- ◆ Touching the keypad icon located in the upper right corner of the screen shown in the figure below results in the phone activating the speaker, playing a dial tone and allowing the user to dial digits to make a call.



- ◆ After activating the speaker and then starting to dial a number, the user can touch the  key (shown in the figure below) if they decide they don't want to make the call; the speaker LED turns off.



- ◆ User experience was improved with **multiple incoming calls ringing** scenarios.
- ◆ Support for **Common Area Phone (CAP)** users who can sign in with a CAP account. See the next feature (below) for how to use TeamsIPPhonePolicy to correctly sign-in to the device as a CAP user.

- ◆ Support for **IP phone policies**. Using TeamsIPPhonePolicy, the following users can be created who can then sign in to the phone:
 - UserSignIn: All features are available, i.e., calls, meetings and voicemail
 - MeetingSignIn: Only meetings are available
 - CAP SignIn (SearchOnCommonAreaPhoneMode=Enabled): The user has calling and searching capability
 - CAP SignIn (SearchOnCommonAreaPhoneMode=Disabled): The user has calling capability
- The **Microsoft Admin agent** has been updated to version 49.
- **LLDP/CDP can be configured** via the Admin device settings.
- **Regional tone settings can be configured** from the Admin device settings.
- **Support for enterprise HTTP/S proxy servers** enabling phones in an enterprise to send packets via the enterprise's proxy server instead of sending packets directly to the server. The new support enables customers to leverage their proxy as security when accessing cloud services.

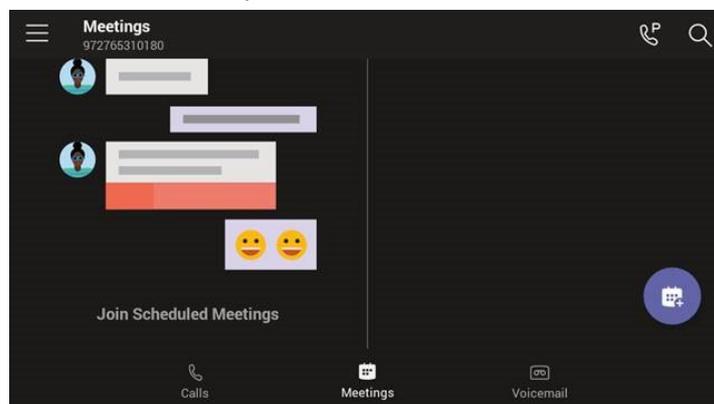
3.12 Version 1.0.69



Note: Version 1.0.69 includes Microsoft Teams Version 1.0.94.2019052106.

3.12.1 What's New in Version 1.0.69

- **Upgrade to Microsoft Teams** version *MicrosoftTeams-2019062601.apk*. For more information about the resolved limitations, see Section 2.2.2 below.
 - **Dark Theme.** Example screen:



- **Link Layer Discovery Protocol (LLDP) and Cisco Discovery Protocol (CDP)** support, allowing directly connected LLDP and CDP-capable neighbors to advertise themselves and their capabilities to one another. The feature is enabled/disabled from SSH. By default, it is enabled.
- **A 'No Network' indication is displayed** in a locked screen if the network is down.
- **Voice quality was improved** after equalizer coefficients were added and the gains fine-tuned.

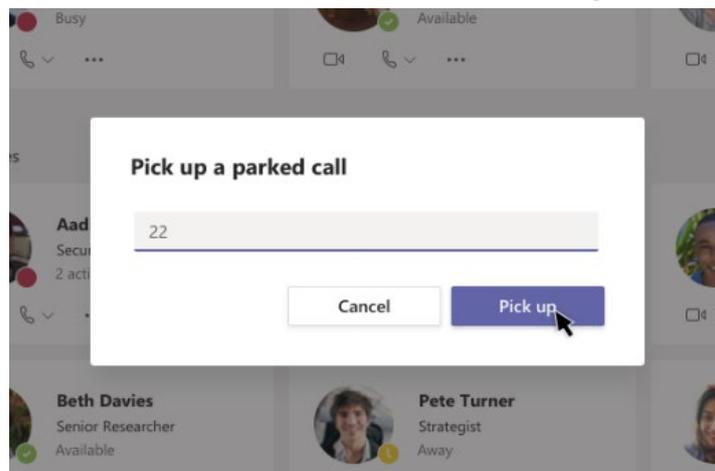
3.13 Version 0.314



Note: Version 0.314 includes Microsoft Teams Version 1.0.94.2019052106.

3.13.1 What's New in 0.314

- **Upgrade to Microsoft Teams** version *MicrosoftTeams-2019052106.apk* and **Company Portal** *com.microsoft.windowsintune.companyportal_20190204.apk*.
 - New Microsoft Teams capability allowing a user to **park a call**, i.e., put a call on hold, park it, receive from the Teams application a unique code, communicate the code to another user who can then pick up the call on their device.
 - ◆ The user on the other device touches a new **Call park**  icon displayed in their device's main Calls screen; the following screen opens:



- ◆ The user on the other device enters the code communicated to them and then touches the 'Pick up' button to pick up the call.
- A **Lock now** option has been added to the phone. Long-pressing the **x** button on the phone for three seconds displays it. To enable it, the phone must first be configured with the option to be locked, via the Settings menu > Security.
- The **phone can be accessed via SSH** (Secure Shell daemon). Although SSH access is opened by default, network administrators must know their user name and password (Default: 'admin' and '1234'). The new SSH support gives network administrators more debugging capabilities.
- **Remote Logging** (Syslog) is now supported in addition to the Device Diagnostics Logs that are collected via the Microsoft Admin Portal. Remote logging gives the same log level as the Device Diagnostics Logs with some additional information that may be relevant to *device* issues (not *Teams application* issues). The main difference between Syslog and the Device Diagnostics Logs is that the Device Diagnostics Logs are saved to the device's sdcard via the Microsoft Admin Portal and collected after the event, while Remote Logging (Syslog) collects logs in real time.
- The phone's Settings Language Wizard now displays the languages that users can select as the phone's user interface language, **in the names of the languages**, for example, **Español** is displayed to indicate the option to select Spanish as the phone's user interface language.
- The phone's **default sleep timeout is now by default set to 10 minutes**.
- The **Android Debug Bridge (ADB) command-line tool can be enabled** on the phone from the Admin Debug page. ADB is by default disabled.
- The following items in the Settings menu are newly modified:

- Settings > More - options such as VPN, etc. were removed until they become available
- Settings > Security - the **Power** button instantly locks
- Settings > Languages and Input methods - the **Point Speed** option was removed
- Settings > Sound - the **Do not disturb** option was removed
- Localization: The Device Settings menu fully supports the following languages:
 - Hebrew
 - German
 - Dutch
 - Spanish
 - Italian
 - German
 - French Canadian

3.14 Version 0.225



Note: Version 0.256 includes Microsoft Teams Version 1.0.94.2018121201.

3.14.1 What's New in 0.225

This is the first version release of the C450HD IP phone for Microsoft Teams.

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