



# Configuration Guide for 2N IP intercoms

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## Revision History

Version	Date	Author	Change
1.0	18.10.2022	Anna Bezverkhnia	Config Guide version 1.0 created
1.1	16.11.2022	Jakub Kuba	Revisions of version 1.0
1.2	4.12.2022	Jakub Kuba	Function description and revision
1.3	8.12.2022	Jakub Kuba	Update based on Zoom feedback
1.4	19.9.2023	Jakub Kuba	Added: <ul style="list-style-type: none"> <li>- setup notes for bidirectional video support between Yealink T58W SIP Phone and 2N IP Style.</li> <li>- Auto-provisioning section 3.3</li> <li>- Minor revisions</li> </ul>
1.5	13.2.2024	Jakub Kuba	Additional list of SIP phones supporting bidirectional video with 2N IP Style, added support for 2N IP Force in automatic provisioning section, added table of basic supported functions

## Supported 2N IP Intercom Versions

Manufacturer	Device	Firmware Version
2N TELEKOMUNIKACE a.s.	2N IP Intercom range	2.39.2+











2N IP Intercoms share the same SIP Stack, ensuring compatibility across the product range in FW version 2.35 and higher. Supported models:

- 2N® IP Style
- 2N® IP Verso
- 2N® IP Verso 2.0
- 2N® IP Solo
- 2N® IP Force
- 2N® IP Safety
- 2N® IP Base
- 2N® IP Uni
- 2N® IP Audio Kit

## Supported Features

Features supported during calls 2N Intercoms with Zoom

- Audio calls from 2N Intercom to Zoom (desktop, mobile)
- Calls from Zoom (desktop, mobile) to 2N Intercom
- DTMF Switch control (Zoom desktop, mobile)
- Call transfer (Zoom desktop, mobile)
- Call conference (Zoom desktop, mobile)
- Call recording (Zoom desktop)
- Bidirectional video calls between IP Style and Yealink T58W SIP Phone
- Automatic provisioning for supported 2N Intercoms

2N® IP Intercom FW version	Model(s)	Assisted provisioning**	Registration	Audio Calls	Video Calls	Secure RTP (SRTP)
2.39+	<ul style="list-style-type: none"> <li>• 2N® IP Style*</li> <li>• 2N® IP Verso</li> <li>• 2N® IP Solo</li> <li>• 2N® IP Force</li> </ul>					
2.35+	All other supported 2N intercoms					

\*2N IP Style is currently the only IP Intercom model that supports 2-way video calls with certain hardware SIP phones. More information on this can be found in the configuration manual section 3.6.

\*\*Assisted provisioning is currently only supported on the specified 2N IP Intercom models. All other compatible 2N intercoms require manual provisioning.

## 1. Overview

This document provides instructions on how to configure and add your 2N IP intercoms to the Zoom Web Portal.

2N IP intercom can register to Zoom Phone as a third-party SIP Endpoint and provide Telephony features and capability such as calling and other phone system/PBX functions.

2N IP intercoms can be connected via Zoom Phone subscription, which is a Zoom licensed feature.

## 2. Configuration Steps - Zoom Web Portal

This section provides instructions on how to configure SIP Endpoint in Zoom Web Portal (does not include steps for configuring Vendor Endpoint specifically).

Prerequisites:

- A subscription to Zoom Phone is required to provision a 2N device. To obtain a subscription please visit [Zoom Plans & Pricing](#) and contact Zoom sales.
- Zoom approval is required for provisioning of 2N devices, account administrator should contact Zoom representative.

To register a SIP Endpoint to Zoom Phone you can use either a User or a Common Area to which you will assign a new device.

In order to set up a call between multiple devices, it is best to set up users and common areas respectively, depending on intended use of the Zoom Phone service in combination with 2N Intercoms.

### 2.1 User Creation

When using Zoom account, you are starting with your user account as the only user linked to the account. However, you can invite multiple users to be joined under your plan and allow them to receive calls via Zoom from 2N devices. To create a new user, simply follow these steps:

1. **Sign in** to the Zoom Web Portal
2. Click **User management > Users**
3. Click the **+Add Users** button

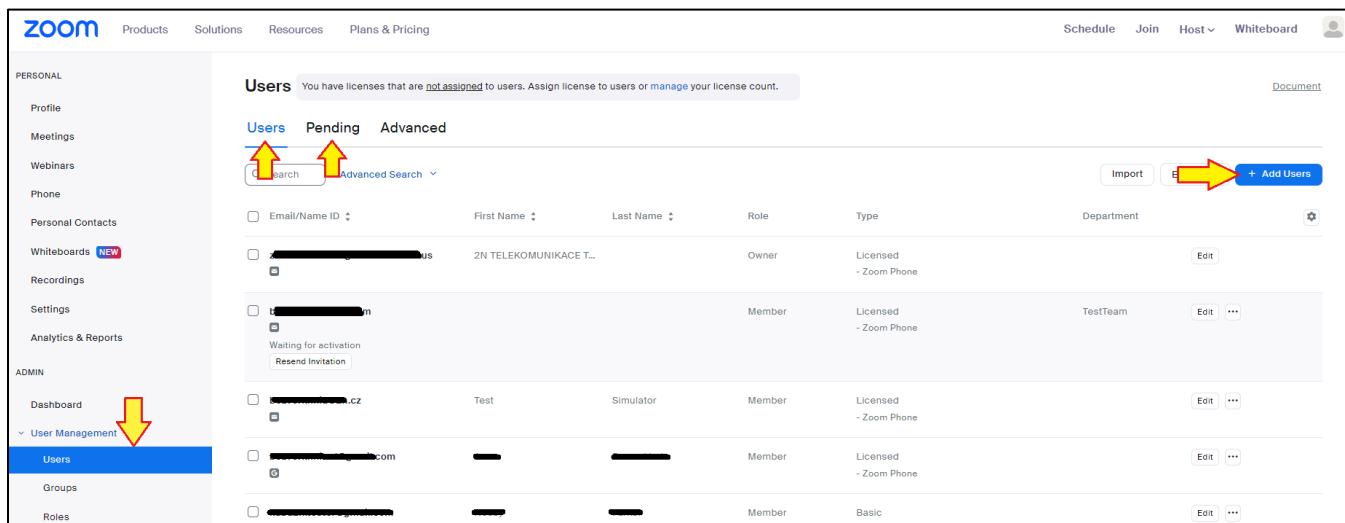


Figure 1 - Add a new user to your Zoom account

4. Click **Add** and enter the following information:
  - a. **Add users with their e-mail addresses**
    - i. List the e-mail address of a user you wish to add to your account
    - ii. Additional information about the user can be added now or edited later

### Add Users

**Add users with their email addresses**  
You can add users of all types to your account. If you enter the email address of account owners, all users on their accounts will be added to this account.

Use comma to separate multiple email addresses.  
**Enter e-mail**

User Type <sup>?</sup>  Basic  Licensed  On-Prem <sup>?</sup>

**Meeting (4 available)**  Large Meeting (500 participants) (10 available)  Zoom Webinars (500 attendees) (10 available)

Department   
Manager   
Job Title   
Location

**Add** Cancel

Figure 2 - Enter the e-mail(s) of invited user(s) and optionally fill in their additional details

5. Click **Add**
6. Invited users will be listed in the **Pending** tab until they accept the invitation

## 2.2 Common Area Creation

You may wish to set up an account to be associated with a 2N Device that is publicly accessible as opposed to a dedicated user account. In that case, follow these steps to create a common area. The credentials created here can be used to set up a 2N Device and link it to other created accounts for calling purposes. You can also visit the [Zoom support site](#) for more information about managing Common Area Phones.

1. **Sign in** to the Zoom Web Portal
2. Click **Phone system management** > Users & Rooms
3. Click the **Common Area** tab

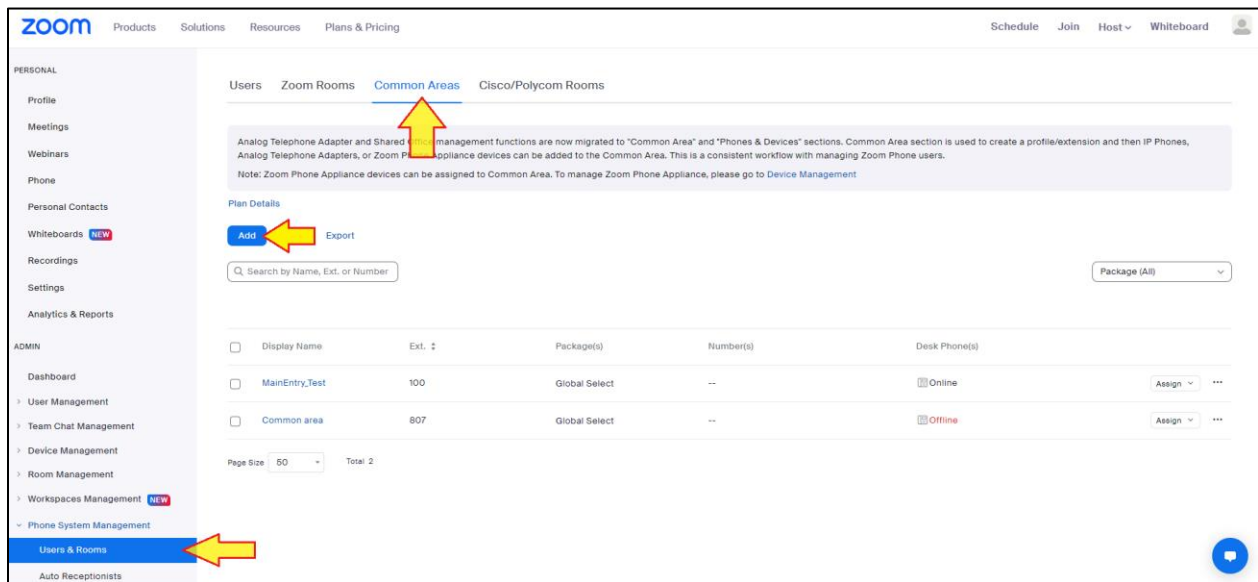
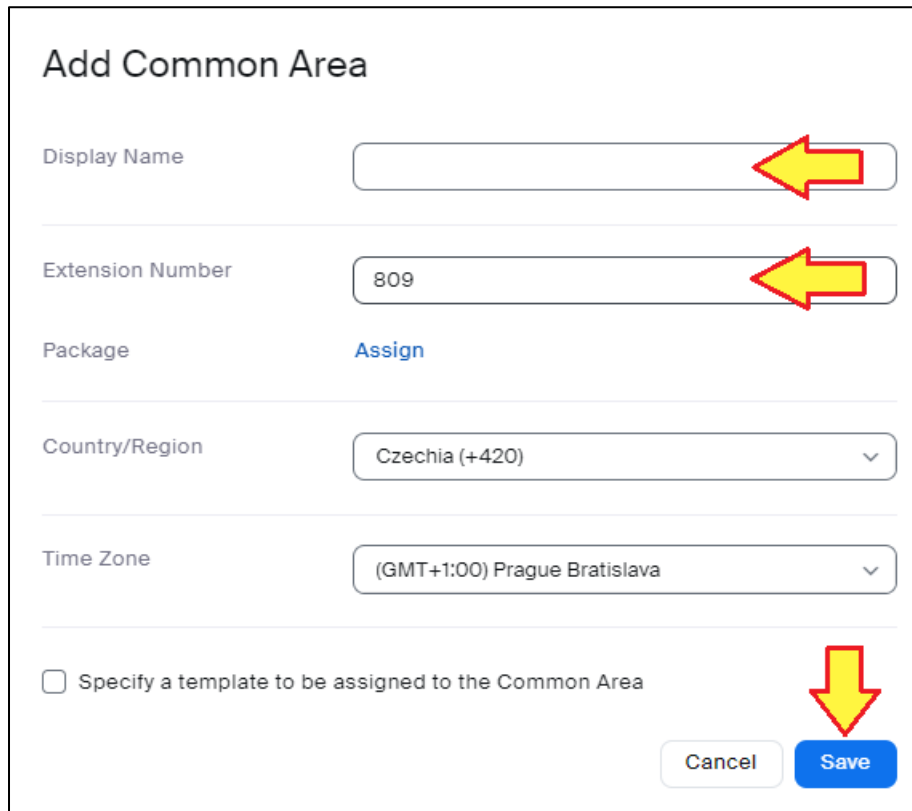


Figure 3 - Common area creation page



4. Click **Add** and enter the following information
  - a. **Display Name:** Enter a display name to identify the area
  - b. **Extension Number:** Enter an extension number to assign it to the device
  - c. **Package:** Select a Zoom Phone Package
  - d. **Country/Region:** Select the country and country code
  - e. **Time Zone:** Select the time zone and the city



The screenshot shows a form titled "Add Common Area" with the following fields and options:

- Display Name:** An empty text input field with a yellow arrow pointing to it from the right.
- Extension Number:** A text input field containing the number "809" with a yellow arrow pointing to it from the right.
- Package:** A dropdown menu with the option "Assign" selected.
- Country/Region:** A dropdown menu with "Czechia (+420)" selected.
- Time Zone:** A dropdown menu with "(GMT+1:00) Prague Bratislava" selected.
- Specify a template to be assigned to the Common Area
- Buttons:** "Cancel" and "Save" buttons at the bottom right. A yellow arrow points down to the "Save" button.

Figure 4 - Common area creation detail

5. Click **Save**

### 3. Configuration Steps – 2N IP intercom

This section provides instructions on how to manually configure 2N IP Intercom's SIP Endpoint (does not include steps for configuration in Zoom Web Portal – refer to [2. Configuration Steps - Zoom Web Portal](#) for Zoom portal settings). **IP Style**, **IP Verso** and **IP Solo** can be provisioned automatically. If you are configuring one of these intercoms, refer to [3.3 Automatic Provisioning of 2N Intercoms](#).

#### 3.1 Getting SIP credentials

To register a 2N IP intercom you need to have a User or a Common area, which will be assigned to the intercom. After creating the User or Common area, follow the instructions below.

1. **Sign in** to the Zoom Web Portal
2. Click **Phone system management** > Phones & Devices

The screenshot shows the Zoom Web Portal interface. The left sidebar contains the navigation menu. The 'Phone System Management' option is highlighted with a red box and a yellow arrow pointing to it. Below it, the 'Phones & Devices' option is also highlighted with a red box and a yellow arrow pointing to it. The main content area displays a table of devices with columns for Display Name, Device Type, MAC Address, Assigned to, Status, Firmware Version, IP Address, Hot Desking (Signed In), Provision Template, and Call Control from Desktop Client. The table lists four devices: Desk Phone, 2N IP Style, Simulator, and VoIP. Each device has a 'Provision' button next to it.

Figure 5 - Navigate to Phones and Devices

The screenshot shows the Zoom Web Portal interface. The left sidebar contains the navigation menu. The 'Add' button is highlighted with a red box and a yellow arrow pointing to it. The main content area displays the 'Assigned' tab with a search bar and filters. Below the search bar, there is a table of devices with columns for Display Name, Device Type, MAC Address, Assigned to, Status, Firmware Version, IP Address, Hot Desking (Signed In), Provision Template, and Call Control from Desktop Client. The table lists two devices: Desk Phone and 2N IP Style. Each device has a 'Provision' button next to it.

Figure 6 - Add new device

3. Click **Add** and enter the following information:

The screenshot shows a web form titled "Add Device". The form contains the following fields and controls:

- Display Name:** A text input field with a yellow arrow pointing to it.
- Description (Optional):** A larger text input field.
- MAC Address:** A text input field with a yellow arrow pointing to it.
- Device Type:** A dropdown menu with "Select Brand" selected and a yellow arrow pointing to it.
- Assigned to:** A dropdown menu with "Assign" selected and a red box around it, with a yellow arrow pointing to it.
- Save/Cancel:** Two buttons at the bottom right, with a yellow arrow pointing to the "Save" button.

Figure 7 - Enter device information to create new device

- a. **Display Name:** Enter a display name to identify the device
  - b. **Description(Optional):** Enter the description for the device
  - c. **MAC Address:** enter the 12-digit device MAC address.
  - d. **Device type:** Select **Other**.
  - e. **Assigned To:** Select a User or a Common area to be assigned to this device
4. Click **Save**
  5. Return to device overview and click **Provision** to view the SIP credentials. You will need this information to complete the provisioning on the device side.

The screenshot shows the Zoom Admin console interface. At the top, there are navigation tabs for 'Assigned' and 'Unassigned'. Below these, there is a search bar and filters for 'Device (All)', 'Brand (All)', and 'Status (All)'. A message states: 'You have 1 device(s) that need to be provisioned.' Below this is a table with the following data:

Display Name	Device Type	MAC Address	Assigned to	Status	Firmware Version	IP Address	Hot Desking (Signed In)	Provision Template	Call Control from Desktop Client
2N IP Verso	Other	7c-1e-b3-f2-3d-63	MainEntry_Test Ext.100	Offline	--	--	Unsupported	Unsupported	Unsupported

A red box highlights the 'Provision' button for the device in the table. A yellow arrow points to this button. Another yellow arrow points to the 'Assigned' and 'Unassigned' tabs at the top.

Figure 8 - Device provision information

6. Provisioning overview of the device contains the necessary SIP credentials which will be added to your 2N Intercom in part [3.2 Setting up the intercom](#) as well as 3 certificates which will need to be uploaded to your 2N device.

### Provisioning

MAC Address 7c-1e-b3-03-ee-bb

Device Type Other

You will need to enable TLS1.2 for SIP registration and enable SRTP for secure calling on your IP phone. Please refer to your manufacturer's instructions for these processes.

**You'll need following information for manual provisioning.**

**SIP Account 1:**

1. SIP Domain: 10000330.zoom.us
2. Outbound Proxy: gossip0h.sc.zoom.us:5091
3. User Name: 4406[REDACTED]33
4. Authorization ID: 849687841467
5. Password: 78[REDACTED].IV

3 certificates

Please download [DigiCert Global Root CA](#), [DigiCert Global Root G2](#), [DigiCert Global Root G3](#) and import to your IP phone if they are not in the trust list of the device.

**Note:** Please note that Zoom support team will not be able to troubleshoot or configure IP phones that are provisioned in this manner. Some Zoom Phone features may not work on manually provisioned phones. It may vary depending on your desk phone model.

Figure 9 - SIP Provisioning information and location of certificates

## 3.2 Setting up the intercom

To use intercom calling features firstly download the certificates from the Provision part and upload it to the device. You can find the guide where to download the certificates in part [3.1 Getting SIP credentials](#).

Use the instructions below to register your device to Zoom Phone.

### 1. Sign in on intercom's website



Figure 10 - IP Intercom Homepage - Services

2. Click **Services** > Phone
3. **Choose one of the two SIP accounts** (Figure 11 – SIP account settings) and enter the provision credentials, which have been obtained in [3.1 Getting SIP credentials](#).
  - a. if the SIP account is not enabled, use checkbox to enable the selected SIP account
  - b. **Display Name:** Enter a display name to identify the device
  - c. **Phone Number:** Enter User Name from provision details on Zoom assigned device
  - d. **Domain:** Enter SIP Domain
  - e. **Authentication ID:** Enter Authorization ID
  - f. **Password:** Enter Password
  - g. **Proxy address:** Enter Outbound Proxy without port
  - h. **Proxy Port:** Enter 5091
  - i. **Registrar Address:** Enter Outbound Proxy address

4. Click on Advanced Settings:
  - a. Sip Transport Protocol: TLS
  - b. Lowest Allowed TLS Version: TLS 1.2

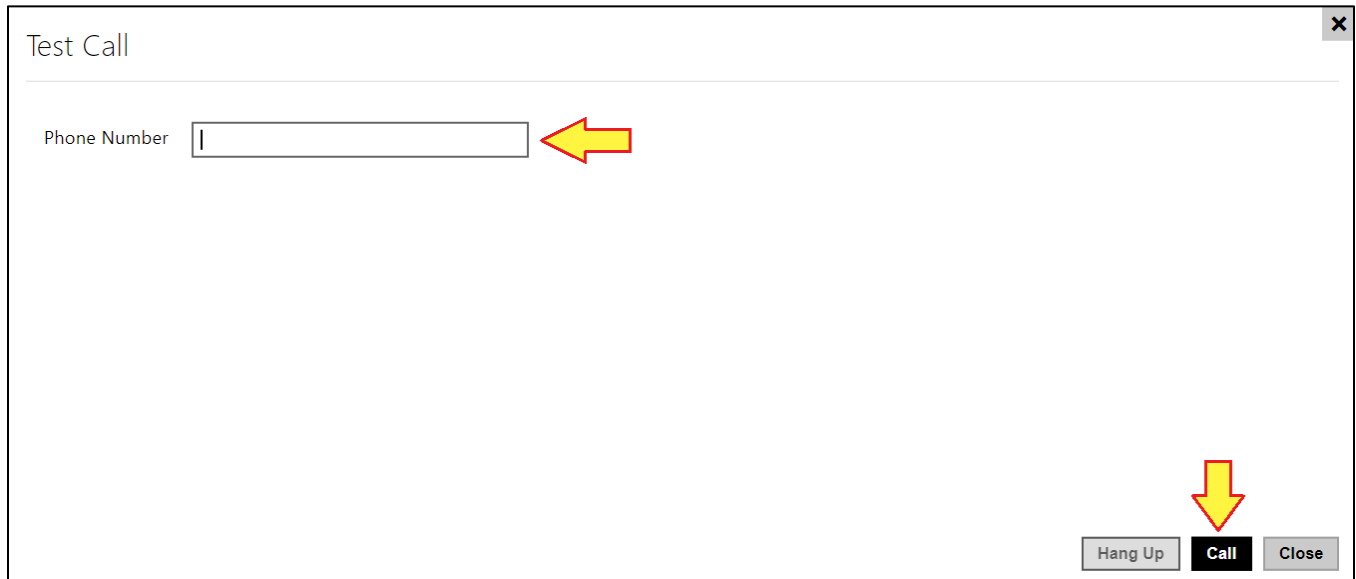
The screenshot displays the Zoom SIP account settings for 'SIP 1'. The interface includes a left-hand navigation menu with options like Phone, Access Control, Streaming, E-Mail, Automation, HTTP API, User Sounds, Web Server, Audio Test, and SNMP. The main content area is divided into several sections:

- Device Identity:** Contains fields for Display Name (2N IP Verso), Phone Number (ID) (44069394384293076533), and Domain (10000330.zoom.us). A 'Test Call' button is highlighted with a red box and an arrow.
- Authentication:** Includes a checked 'Use Authentication ID' checkbox, an Authentication ID field (849687841467), and a Password field.
- SIP Proxy:** Features Proxy Address (gosp0h.sc.zoom.us), Proxy Port (5091), Backup Proxy Address, and Backup Proxy Port (Default).
- SIP Registrar:** Shows Registration Enabled (checked), Registrar Address (gosp0h.sc.zoom.us), Registrar Port (5091), Backup Registrar Address, Backup Registrar Port (Default), and Registration Expiry (120 [s]). The Registration State is highlighted with a red box and labeled 'REGISTERED'.
- Advanced Settings:** Includes SIP Transport Protocol (TLS), Lowest Allowed TLS Version (TLS 1.2), and a Verify Server Certificate checkbox.

Figure 11 - SIP account settings

5. Save settings
6. In case of successful registration, the registration State switches to **REGISTERED**.

2N IP Intercoms allow users to create a test call from both SIP accounts with test call button marked in screen capture image in [3.2 Setting up the intercom](#) step 4. After you have successfully set up the SIP account and the state has changed to **REGISTERED**, you can use the feature.



The image shows a 'Test Call' dialog box. It features a title bar with the text 'Test Call' and a close button (X) in the top right corner. Below the title bar, there is a 'Phone Number' label followed by an empty text input field. A yellow arrow points to the input field. At the bottom right of the dialog, there are three buttons: 'Hang Up', 'Call', and 'Close'. A yellow arrow points to the 'Call' button.

Figure 12 - Enter phone number and click call

**Test call:** Click on Test call button in configured SIP account section. Enter another **Zoom User** or **Common area extension number** and click on **Call**.

### 3.3 Automatic Provisioning of 2N Intercoms

Following 2N IP Intercoms can be provisioned automatically:

- 2N IP Style
- 2N IP Verso
- 2N IP Solo
- 2N IP Force

If you are setting up one of these supported devices, the SIP account on your device will be automatically provisioned following these steps:

1. Sign in to the Zoom Web Portal
2. Click **Phone system management** > **Phones & Devices**

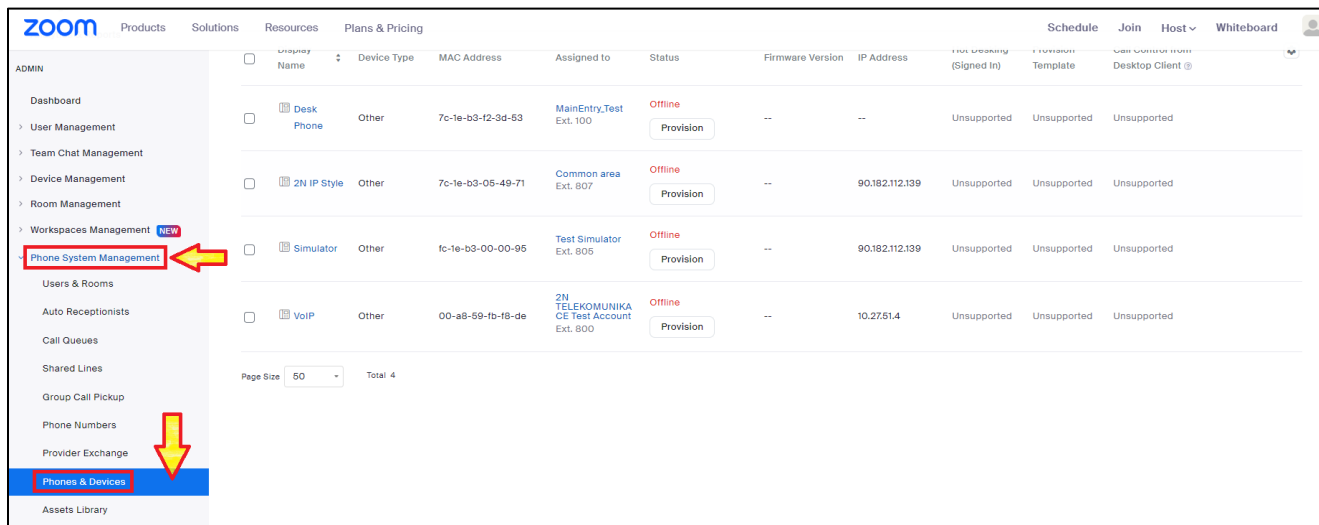


Figure 13 - Navigate to Phones and Devices

3. Add a new device

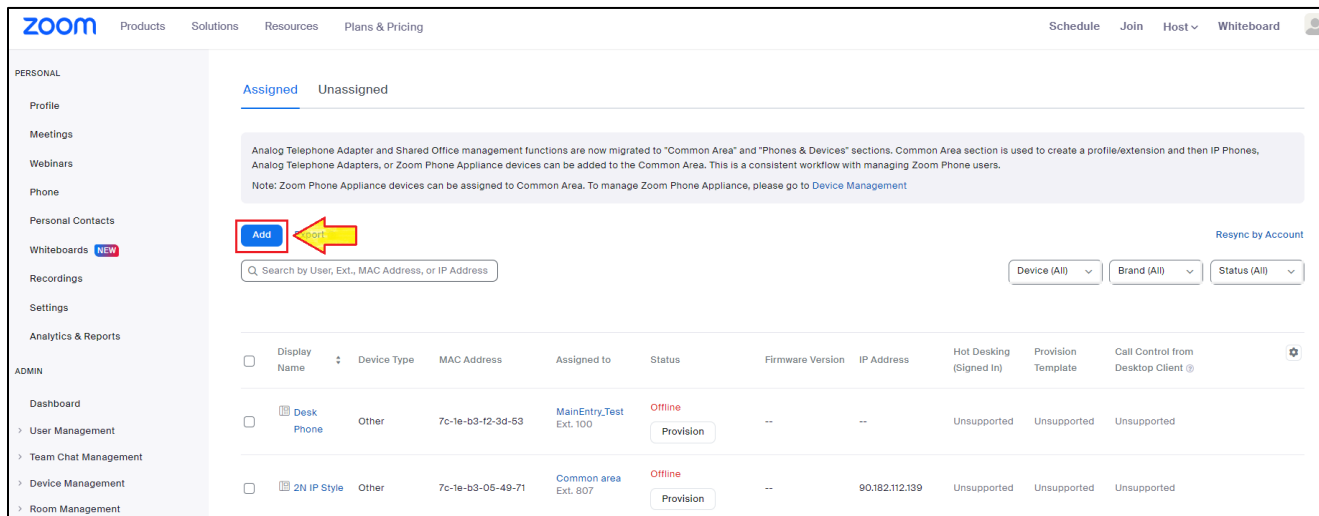
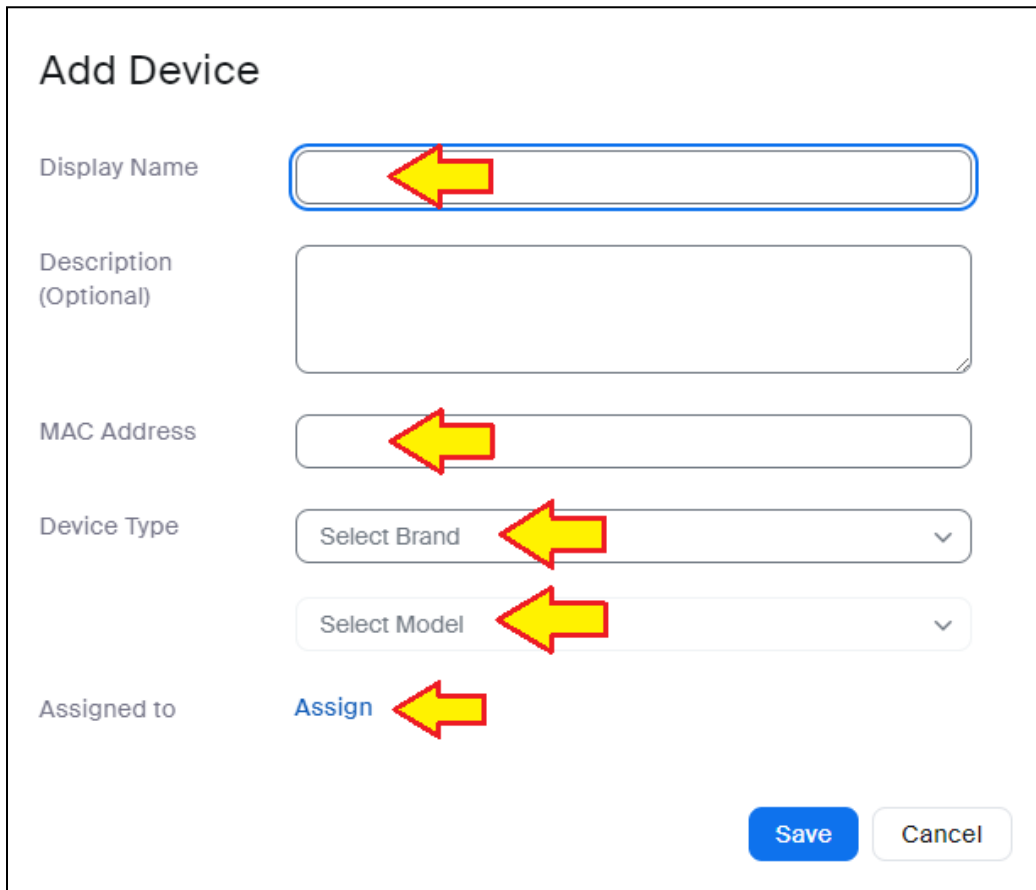


Figure 14 - Add a new device



4. enter the following information:



The screenshot shows a form titled "Add Device" with the following fields and controls:

- Display Name:** A text input field with a yellow arrow pointing to it.
- Description (Optional):** A larger text input field.
- MAC Address:** A text input field with a yellow arrow pointing to it.
- Device Type:** A dropdown menu with "Select Brand" and a yellow arrow pointing to it.
- Device Model:** A dropdown menu with "Select Model" and a yellow arrow pointing to it.
- Assigned to:** A button labeled "Assign" with a yellow arrow pointing to it.
- Buttons:** "Save" (blue) and "Cancel" (grey) buttons at the bottom right.

Figure 15 - Enter device information to create new device

- Display Name:** Enter a display name to identify the device
  - Description(Optional):** Enter the description for the device
  - MAC Address:** enter the 12-digit device MAC address
  - Device type:** Select **2N**
  - Select Model:** Select your device model: **ip-style, ip-verso, ip-solo, ip-force**
  - Assigned To:** Select a User or a Common area to be assigned to this device
5. Click **Save**

6. Return to device overview (step 2.) and click **Provision**

The screenshot shows the Zoom Admin console interface. The left sidebar contains navigation options under 'ADMIN', with 'Phones & Devices' selected. The main content area is titled 'Assigned' and shows a table of devices. A red box highlights the 'Provision' button for a device that is 'Offline' and has a 'Last Provision Date' of 'Sep 25, 2023 (UTC)'. A yellow arrow points to this button.

Display Name	Device Type	MAC Address	Assigned to	Status	Firmware Version	IP Address	Hot Desking (Signed In)	Provision Template	Call Control from Desktop Client
<input checked="" type="checkbox"/>	Other	[REDACTED]	Common area Ext. 807	Offline Last Provision Date: Oct 19, 2022 (UTC)	--	[REDACTED]	Unsupported	Unsupported	Unsupported
<input type="checkbox"/>	2N ip-style	[REDACTED]	Ext. 811	Offline Last Provision Date: Sep 25, 2023 (UTC)	[REDACTED]	[REDACTED]	--	Unsupported	Unsupported

Figure 16 - Get provisioning information

## 7. Follow the provisioning information provided:

## Provisioning

MAC Address	<span style="background-color: black; color: black;">XXXXXXXXXX</span>	
Device Type	2N ip-style	
Provisioning URL	<a href="https://gopbx2n.zoom.us/api/v2/pbx/provisioning/2N/ip-style">https://gopbx2n.zoom.us/api/v2/pbx/provisioning/2N/ip-style</a>	<a href="#">Copy to Clipboard</a>

### 1 Step 1

**Note:** Please check with your supplier if your 2N devices come shipped with GOLD license, which is required for assisted provisioning. See details [here](#).

1. Click to download the [DigiCert Global Root CA](#), [DigiCert Global Root G2](#), and [DigiCert TLS RSA4096 Root G5](#).
2. In a web browser, enter **http://** followed by the device's IP address to access the device web page. To find out the IP address, install and run the [2N Network Scanner](#) utility on a computer in the same local network as the device.
3. Navigate to **System > Certificates > CA Certificates**. Click "+" to upload the 3 DigiCert certificates respectively.
4. Navigate to **System > Auto Provisioning > Configuration**. Make sure **Automatic Configuration Update** is checked.
5. Under **Server Settings**, select **Manual Settings** for **Address Retrieval Mode**. In the **Server Address** field, enter "https://gopbx2n.zoom.us". In the **File Path** field, enter "/api/v2/pbx/provisioning/2N/ip-style". Make sure **Verify Server Certificate** is checked.
6. Click **Save**. Then click **Apply & Update** to complete the provisioning.

[Next](#)[Close](#)

Figure 17 - Provisioning information for supported devices

- a. Download the 3 certificates:
  - i. DigiCert Global Root CA
  - ii. DigiCert Global Root G2
  - iii. DigiCert TLS RSA4096 Root G5

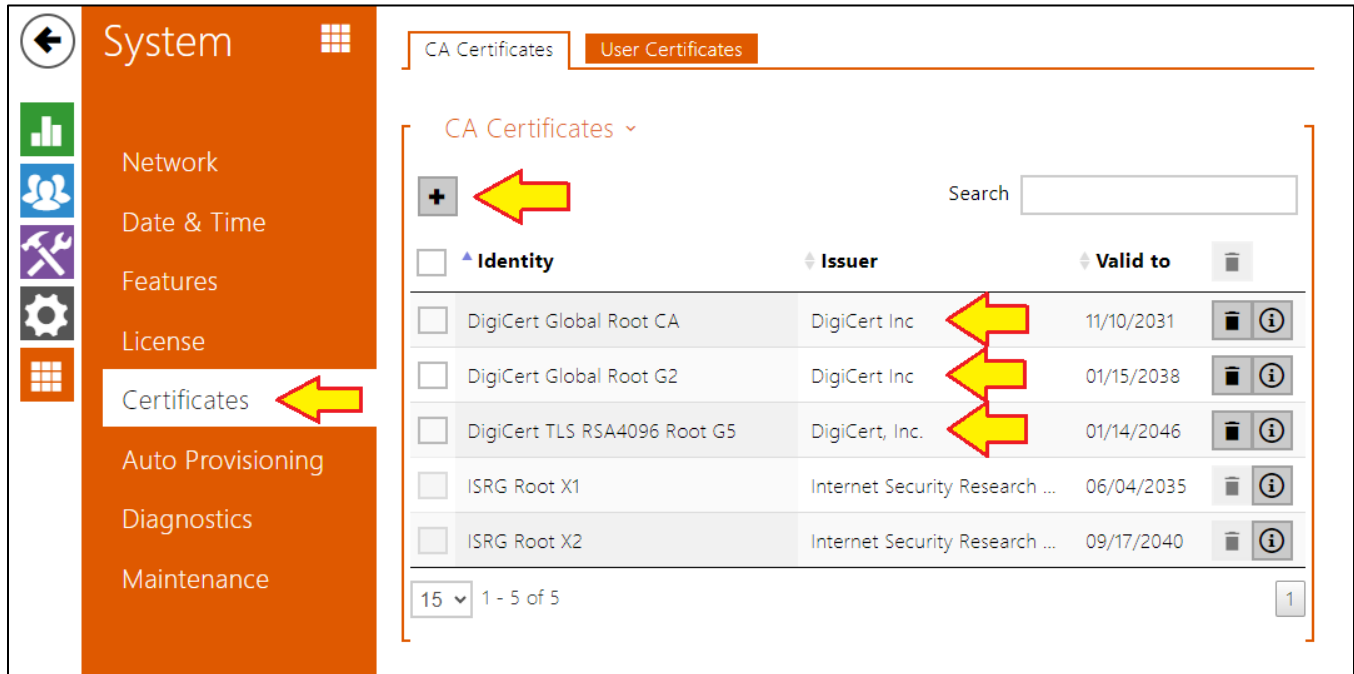


Figure 18 - Upload certificates to IP Style

- b. Open your device's web interface (in a web browser, enter http:// followed by the device's IP address to access the device web page. To find out the IP address, install and run the 2N Network Scanner utility on a computer in the same local network as the device.)
  - i. Navigate to **System > Certificates > CA Certificates**. Click "+" to upload the 3 DigiCert certificates respectively.
  - ii. Navigate to **System > Auto Provisioning > Configuration**. Make sure Automatic Configuration Update is checked.

- iii. Under **Server Settings**, select **Manual Settings** for **Address Retrieval Mode**. In the **Server Address** field, enter "https://gopbx2n.zoom.us". In the **File Path** field, enter "/api/v2/pbx/provisioning/2N/ip-style". Make sure **Verify Server Certificate** is checked.
- iv. Click **Save**. Then click **Apply & Update** to complete the provisioning.

The screenshot shows the 'System' configuration page for a Zoom device. The left sidebar contains navigation options: Network, Date & Time, Features, License, Certificates, Auto Provisioning (selected), Diagnostics, and Maintenance. The main content area is titled 'Configuration' and includes tabs for 'My2N', 'Firmware', and 'TR069'. Under 'Automatic Configuration Update', the 'Server Settings' section is expanded. It contains the following fields: 'Address Retrieval Mode' (set to 'Manual Settings'), 'Server Address' (https://gopbx2n.zoom.us), 'DHCP (Option 66/150) Address' (redacted), 'File Path' (/api/v2/pbx/provisioning/2N), 'Use Authentication' (unchecked), 'Username' (empty), 'Password' (empty), 'Verify Server Certificate' (checked), and 'Client Certificate' ([Factory Certificate]). The 'Update Schedule' section below shows 'At Boot Time' (Check for Update), 'Update Period' (Daily), 'Update At' (01:00), and 'Next Update At' (10/13/2023 23:00:00). A red arrow points to the 'Apply & Update' button at the bottom right.

Figure 19 - IP Style Auto Provisioning > Configuration

8. Click **Next** in Zoom provisioning (continuing step 7. as shown in image Figure 17)
9. Click **Check**

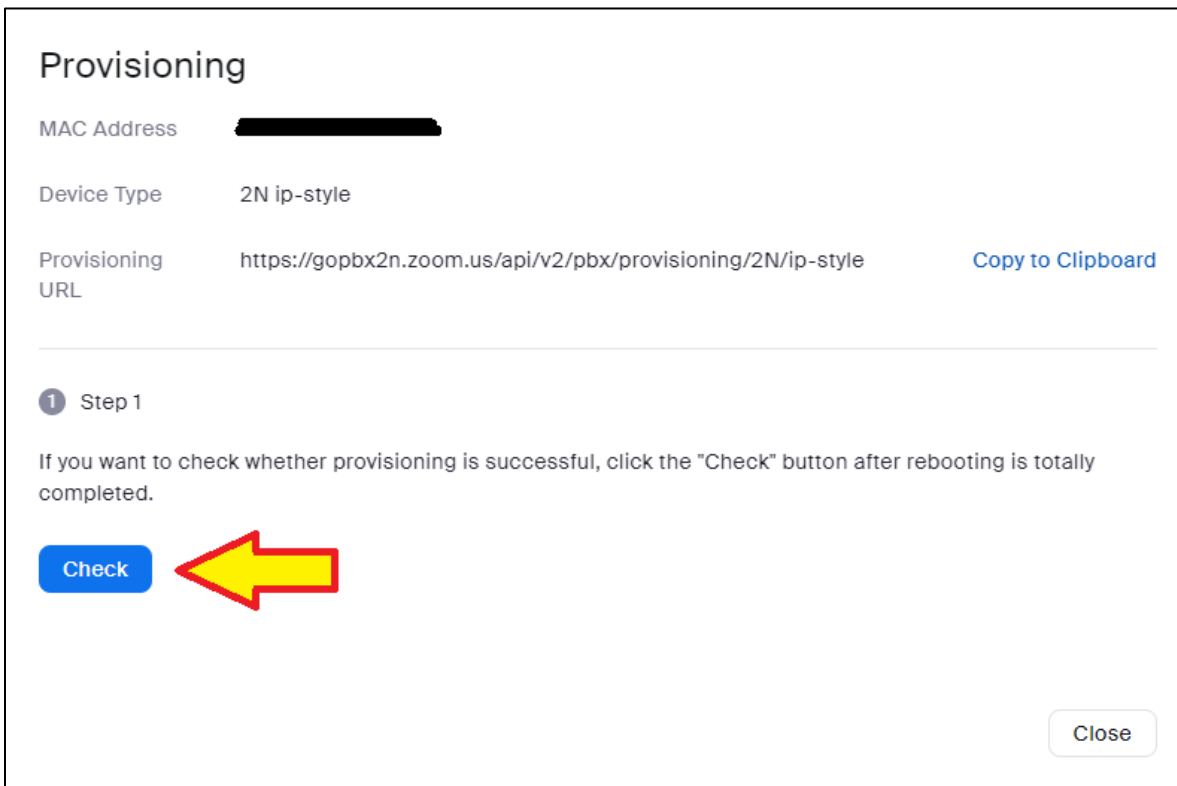
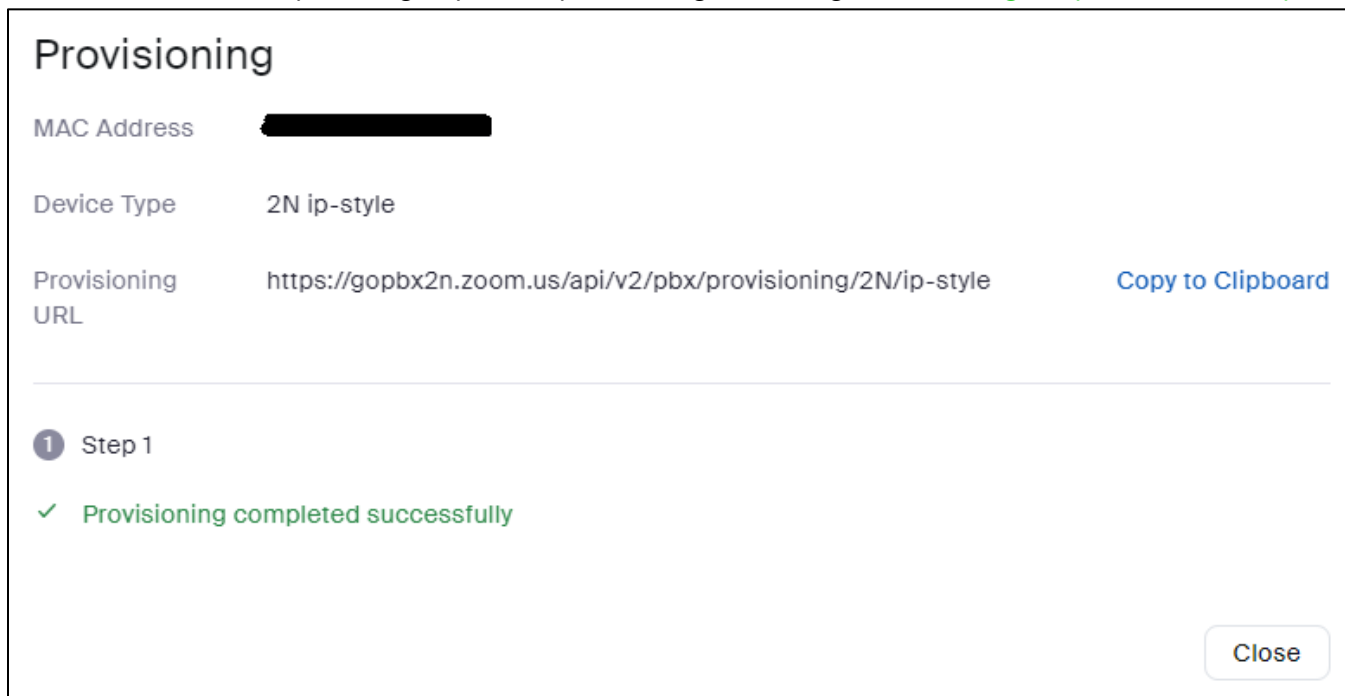


Figure 20 - click Check button to confirm provisioning

10. After successfully finishing steps 7-10, you should get a message "Provisioning completed successfully"



11. You can confirm that the provisioning has been successfully applied to your device by navigating to your device's web interface **Services > Phone > SIP 1**, which will now contain all the account information and registration state will be shown as **REGISTERED**.

### 3.4 Setting up a user on your 2N Intercom and assigning the user to a call button

To call a Zoom account from your intercom, you must set up one or more users on the 2N IP Intercom and assign it to call buttons on the device. NOTE: IP Style does not require user assignment to a button.

1. Log in to your intercom
2. Navigate to **Directory > Users** and create a new user



Figure 21 - Click button to create a new user

3. Enter a name of the user and a phone number
  - a. If you only have one SIP account active, the phone number is sufficient. If you have multiple SIP accounts active, make sure to set up the number followed with /1 or /2 to define which SIP account is to be used with the phone number

Figure 22 - Create user and assign Name and Phone Number

4. **Save** the new user
5. Navigate to **Hardware > Buttons** section on the intercom and add the newly created user to desired available button on your 2N IP intercom

Figure 23 - Assign user to button

6. Click Add and you are ready to use your intercom for calls to your Zoom application.



### 3.5 Switch control

Zoom application allows you to control 2N IP Intercom's Switch and unlocking door during a call.

1. Log in to your intercom
2. Navigate to **Hardware > Switches** and create a new user



Figure 24 - Homepage - Hardware

3. Choose from Switches which one you would like to set up
  - a. **Enable switch** with checkbox
  - b. Select **controlled output**
  - c. **Test switch** – allows you to check if the controlled output works properly
  - d. Set up **activation code**
  - e. Choose accessibility type (for our purposes we selected **DTMF Only**)

The screenshot displays the Zoom Hardware configuration page for Switch Control. On the left is a navigation menu with categories: Switches, Audio, Camera, Buttons, Backlight, Display, Digital Inputs, Extenders, and Lift Control. The main content area is titled 'Hardware' and has tabs for Switch 1, Switch 2, Switch 3, Switch 4, and Advanced. The 'Switch 1' tab is active.

Under 'Switch 1', the 'Switch Enabled' checkbox is checked. Below it, the 'Output Settings' section includes: 'Switch Mode' (Monostable), 'Switch-On Duration' (5 [s]), 'Controlled Output' (Relay 1), and 'Output Type' (Normal). The 'Switch Control' section shows: 'Current Switch State' (OFF), 'Current Switch Function' (Normal), 'Switch Locking' (OFF), 'Switch Hold' (OFF), and 'Switch Hold by Time Profile' ([not used]). A 'Test the switch' button is present. The 'Activation Codes' section contains a table with two rows:

	CODE	ACCESSIBILITY	TIME PROFILE
1	12345	DTMF Only	[not used]
2		Keypad, DTMF	[not used]

Red arrows highlight the 'Switch Enabled' checkbox, the 'Controlled Output' dropdown, the 'Test the switch' button, and the 'CODE' field in the first row of the Activation Codes table. A 'Save' button is located at the bottom right.

Figure 25 - Switch Control

Once you have successfully set up and tested your Switch, you can start using Zoom applications to control the switch remotely during call. This feature works both on Zoom mobile and Zoom desktop.

1. Set up a call between your 2N Intercom and Zoom application and open keypad in your application.

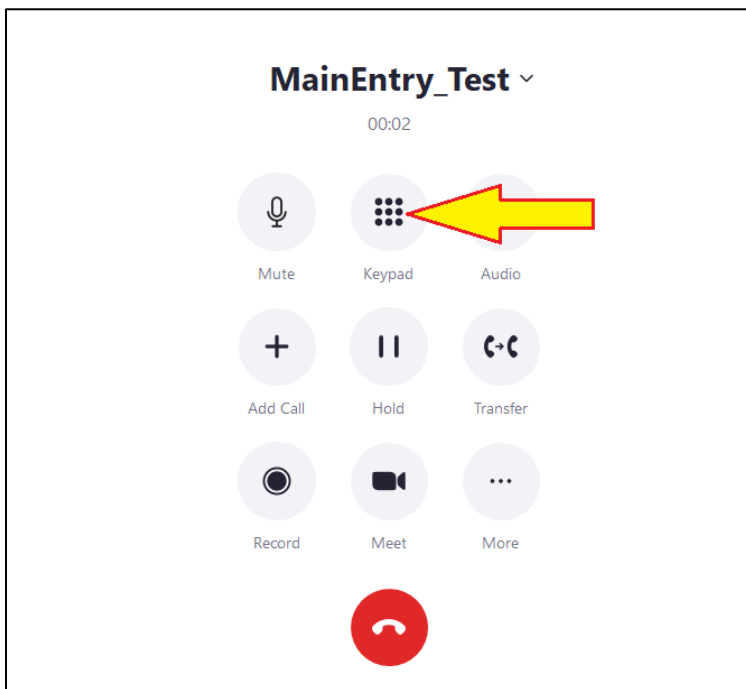


Figure 26 - Switch to keypad during call

2. On your keypad dial up the same DTMF code you set up on your IP Intercom (Figure 17 - Switch Control) and follow the code with a \* sign

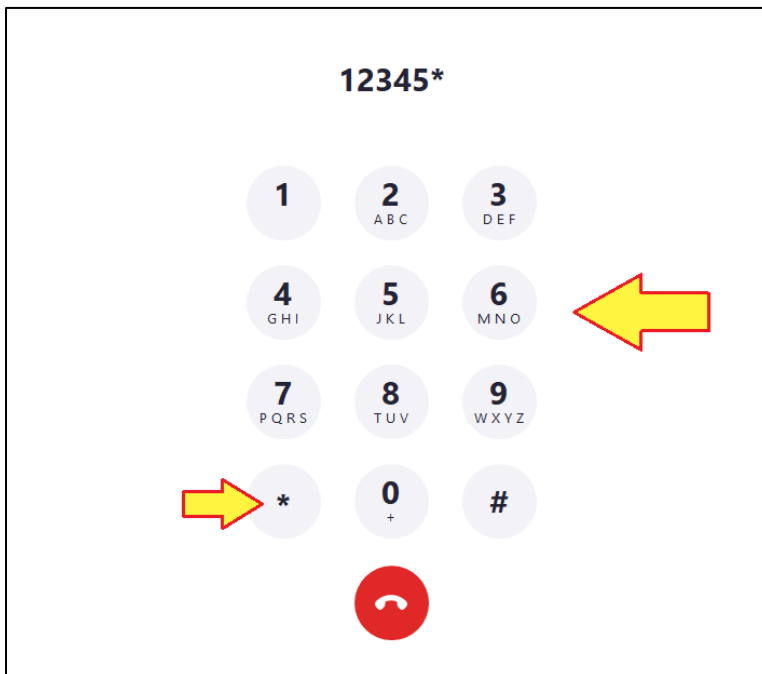


Figure 27 - Dial DTMF code followed by a \* sign.

### 3.6 Video calling between 2N Intercoms and Zoom Phone certified desk phones with video enabled

Following 2N IP Intercoms has been tested for video calls with selected ZOOM Phone certified desk phones:

- 2N IP Style\*
- 2N IP Verso
- 2N IP Solo
- 2N IP Force

Video must be enabled for the intercom during setup as shown in step 2 below, as outlined in screenshot "Figure 28 – Turn on Video Intercom switch in Zoom device detail".

\*2N IP Style video intercom supports bidirectional video calls with selected Zoom Phone certified desk phones. This chapter will provide you with setup information for 2N IP Style and Yealink T58W SIP Phone.

1. 2N IP Style can be provisioned automatically as described in [3.3 Automatic Provisioning of 2N Intercoms](#)
2. After provisioning your IP Style, navigate to **Phones & Devices > Click on {Your Created Device} name > Policy** and allow **Video Intercom** switch

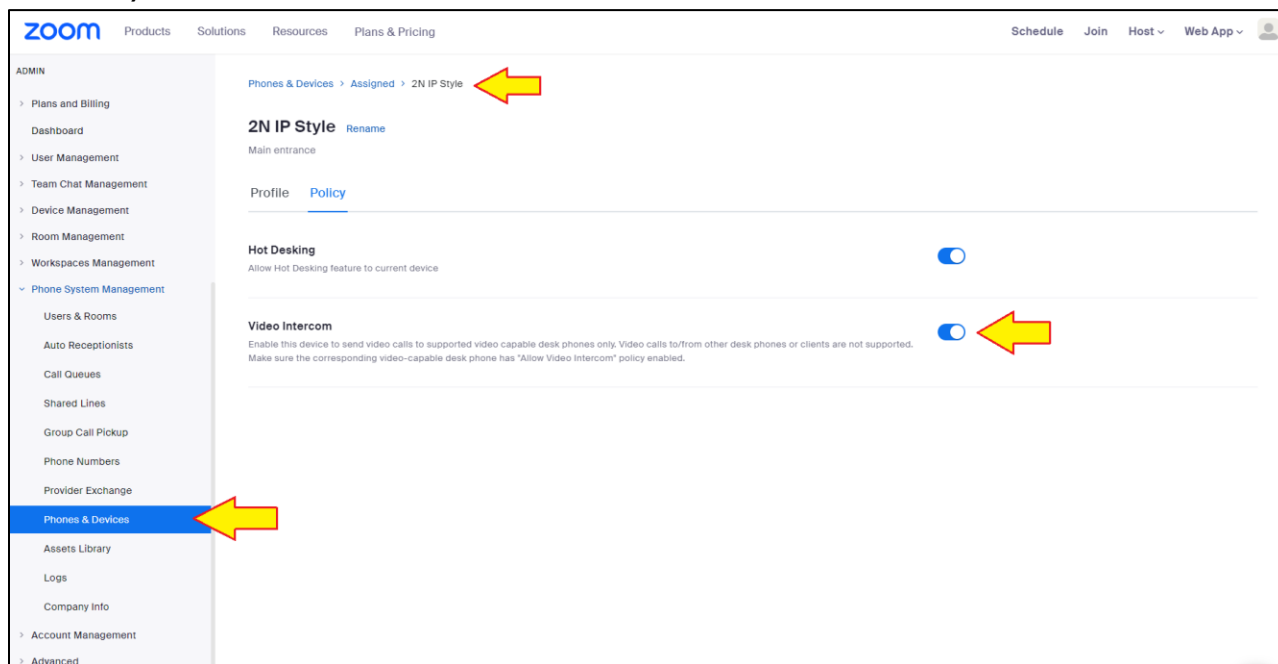


Figure 28 - Turn on Video Intercom switch in Zoom device detail

- 3. Navigate to your intercom's web interface **Services > Phone > Video**
- 4. If you want to enable bidirectional video with 2N® IP Style, continue to **Services > Phone > Video > Bidirectional video**

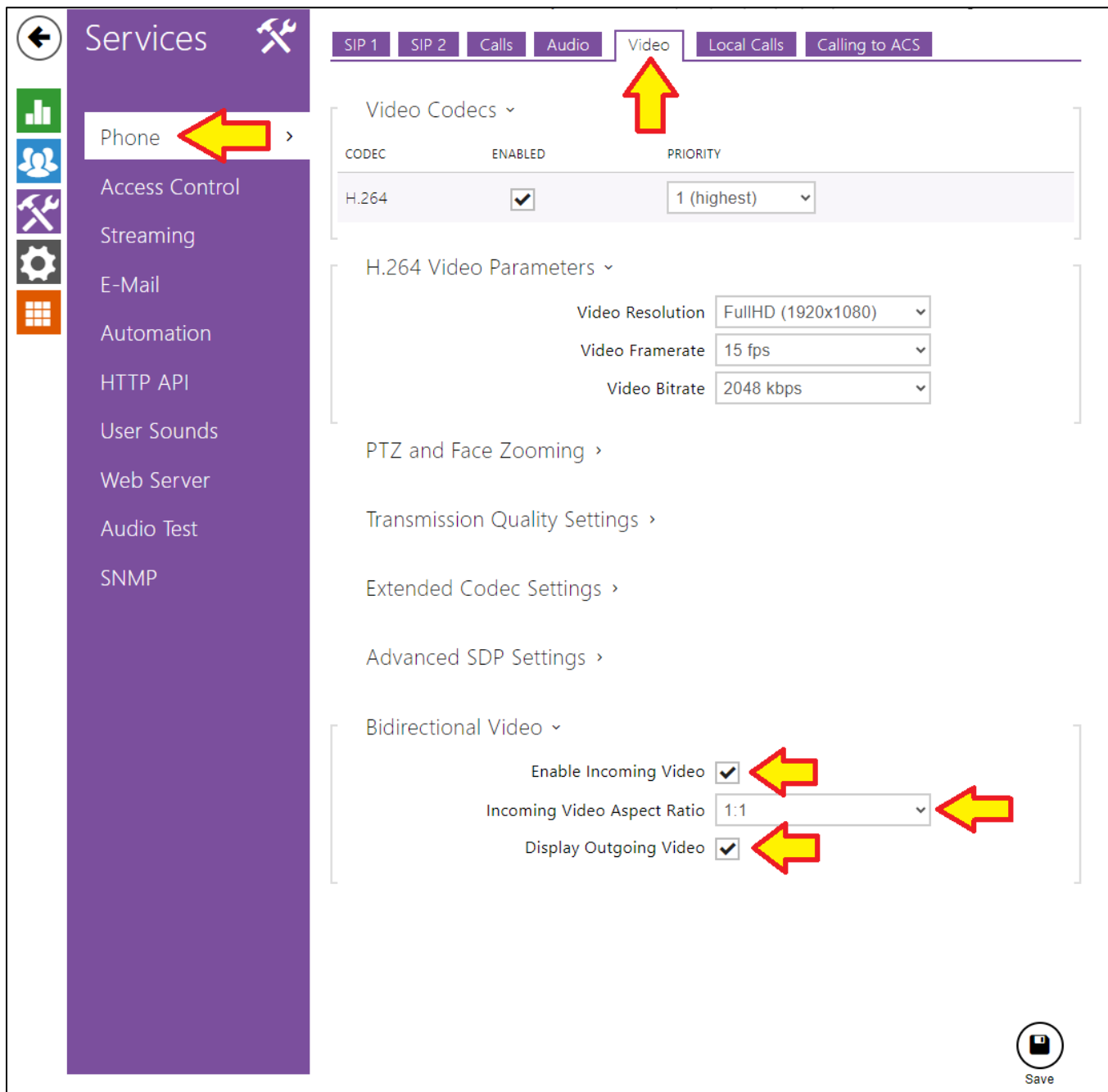


Figure 29- Enable Bidirectional Video on IP Style

- 5. Check **Enable Incoming Video** checkbox
- 6. Select preferred **Incoming Video Aspect Ratio**
- 7. (optional) Check **Enable Outgoing Video** checkbox
- 8. **Save**

Your Yealink T58W SIP Phone must be added to Zoom account and provisioned as well.

1. As in section [3.3 Automatic Provisioning of 2N Intercoms](#), **Add** new device

**Add Device**

Display Name

Description (Optional)

MAC Address

Device Type

Assigned to [Assign](#)

Figure 30 - Adding New Device

2. Fill in the following information:
  - a. **Display Name:** Name your device
  - b. **MAC Address:** Fill your device's MAC address
  - c. **Select Brand:** Yealink
  - d. **Select Model:** t58w
  - e. **Assign:** Select a user or a common area
  - f. **Save**
3. Provision your Yealink T58W SIP Phone. Click Provision Info button to get additional information

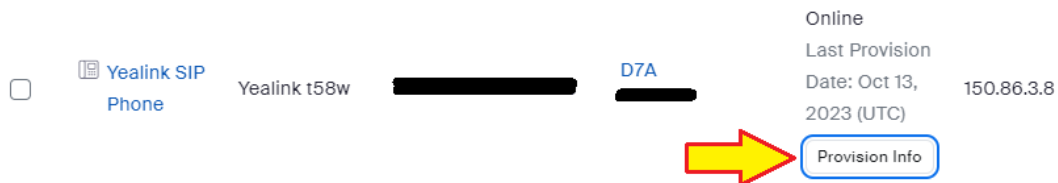


Figure 31 - Yealink SIP Phone provisioning information

## 4. Follow the provisioning instructions for your Yealink T58W SIP Phone

## Provisioning

MAC Address	[REDACTED]	
Device Type	Yealink t58w	
Provisioning URL	<a href="https://gopbxyp.zoom.us/api/v2/pbx/provisioning/Yealink/t58w">https://gopbxyp.zoom.us/api/v2/pbx/provisioning/Yealink/t58w</a>	<a href="#">Copy to Clipboard</a>

---

1 Step 1
 2 Step 2

**Upgrade firmware:**

1. Click to download the [firmware](#).
2. Press the **OK** button on the phone's display, or press the **Menu > Status** to obtain the phone's IP address.
3. Enter the IP address into your web browser and log in to the phone's web interface.
4. Go to **Settings > Upgrade** section.
5. Go to **Upgrade > Select And Upgrade Firmware**, browse the directory of where you've downloaded the firmware and select **Upload**. The phone will upgrade and reboot, this process will take 3-5 minutes, please do not turn off or unplug the device.

***NOTE:** You will be prompted to enter administration login credentials. The default username and password is **admin/admin**. If you do not know the username and password, contact the vendor of the phone.*

Click **Next**.

Next
Close

Figure 32 - Yealink T58W SIP Phone provisioning instructions

## 5. Yealink T58W SIP Phone provisioning steps:

- a. Click to download the firmware (downloads latest version of Yealink firmware for your phone)
- b. Press the **OK** button on the phone's display or press the **Menu > Status** to obtain the phone's IP address.
- c. Enter the IP address into your web browser and log in to the phone's web interface
- d. Go to **Settings > Upgrade** section.
- e. Go to **Upgrade > Select And Upgrade Firmware**, browse the directory of where you've downloaded the firmware and select **Upload**. The phone will upgrade and reboot, this process will take 3-5 minutes, please do not turn off or unplug the device.

- f. **NOTE:** You will be prompted to enter administration login credentials. The default username and password is **admin/admin**. If you do not know the username and password, contact the vendor of the phone.
6. Click **Next** in Zoom provisioning process to continue next steps of Yealink provisioning
    - a. Reset existing Yealink T58W SIP Phone configuration:
      - i. Log in to the phone's web interface.
      - ii. Go to **Settings > Upgrade** section.
      - iii. Go to **Reset to Factory** and select **Reset Now** or **Reset to Factory**.
    - b. Configure Provisioning server
      - i. Log in to the phone's web interface.
      - ii. Go to the Setting tab, and select Auto Provision. In the Server URL field, enter the provisioning URL: <https://gopbxyp.zoom.us/api/v2/pbx/provisioning/Yealink/t58w> and leave the **User Name** and **Password** fields blank. Click Confirm to save the configuration.
    - c. **NOTE:** After provisioning your Yealink T58W SIP Phone through this automated process, you might lose direct access to the phone's web interface. If this happens and you would like to continue having access to the phone's web interface, turn this on in Zoom interface by navigating to Phone System Management > Company Info > Account Settings > Desk Phone and turn on the switch for Web Interface
  7. Navigate to device detail on **Zoom > Admin > Phones & Devices > Policy** and enable checkbox for **Allow Video Intercom**

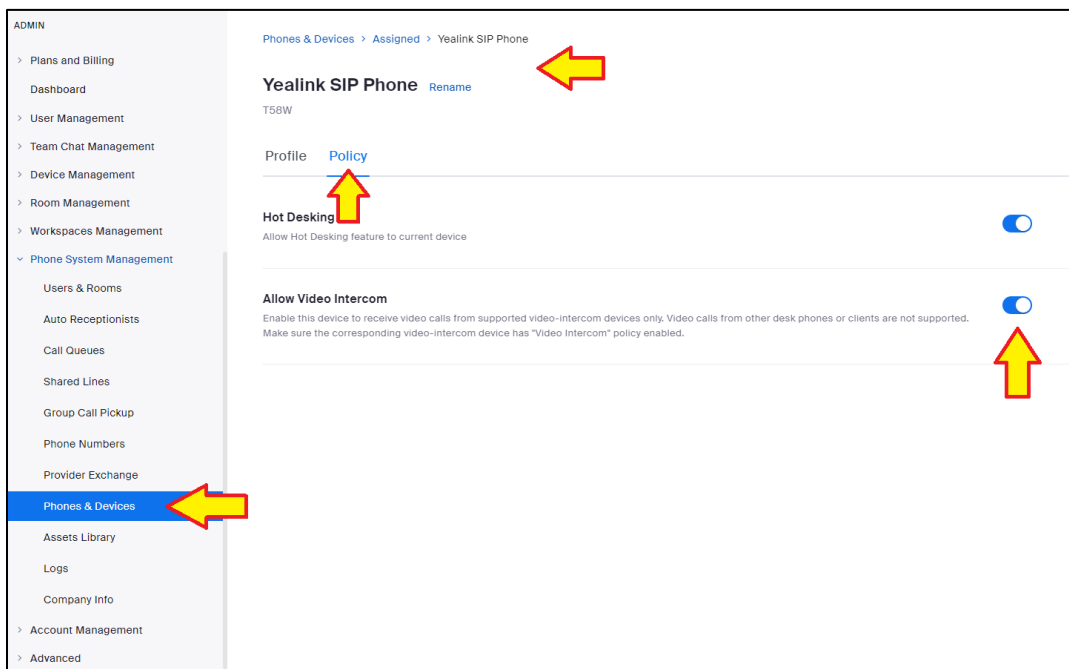


Figure 33 - Allow Video Intercom for Yealink T58W SIP Phone

After completing the setup for IP Style and Yealink T58W in this chapter ([3.6 Bidirectional video setup between 2N IP Style and Yealink T58W SIP Phone](#)) you are ready to make bidirectional video calls. Simply create a new user on your IP Style as outlined in [3.4 Setting up a user on your 2N Intercom and assigning the user to a call button](#) or dial the extension number assigned to the intercom on your Yealink T58W SIP Phone.

Additional SIP Phones supporting the Bidirectional video calls with IP Style are Yealink VP59 and Poly CCX700.



Reference table of supported functions:

	<b>2N IP-Solo (Assisted Provision)</b>	<b>2N IP-Verso (Assisted Provision)</b>	<b>2N IP-Style (Assisted Provision)*</b>	<b>All other 2N models (Other/generic)</b>	<b>All IP-phones (video and non-video)</b>
<b>Yealink T58A/W (open-SIP)</b>	Video call (1-way) + open door	Video call (1-way) + open door	Video call (2-way*) + open door	ZP audio call + open door	ZP audio call ONLY**
<b>Yealink VP59 (open-SIP)</b>	Video call (1-way) + open door	Video call (1-way) + open door	Video call (2-way*) + open door	ZP audio call + open door	ZP audio call ONLY**
<b>Poly CCX600 (open-SIP)</b>	Video call (1-way) + open door	Video call (1-way) + open door	Video call (1-way*) + open door	ZP audio call + open door	ZP audio call ONLY**
<b>Poly CCX700 (open-SIP)</b>	Video call (1-way) + open door	Video call (1-way) + open door	Video call (2-way*) + open door	ZP audio call + open door	ZP audio call ONLY**
<b>Cisco CP8845 (open-SIP)</b>	Video call (1-way) + open door	Video call (1-way) + open door	Video call (1-way*) + open door	ZP audio call + open door	ZP audio call ONLY**
<b>Cisco CP8865 (open-SIP)</b>	Video call (1-way) + open door	Video call (1-way) + open door	Video call (1-way*) + open door	ZP audio call + open door	ZP audio call ONLY**
<b>All other SIP phone endpoints</b>	ZP audio call + open door	ZP audio call + open door	ZP audio call + open door	ZP audio call + open door	ZP audio call ONLY**

**NOTE:**

Zoom Phone features are NOT supported over video calls. This means that call recording, call transfer, conference calls, hold, shared line, etc. will not work with video calls. This feature ensures strictly P2P direct video calls.

## 4. Call Transfer, Call Conference and Call recording

Once you have set up your Zoom account with multiple users and common areas, it is possible to use additional Zoom application features to allow you increased call control within your organization. All functions except for the from **Meet** function are supported with 2N Intercoms.

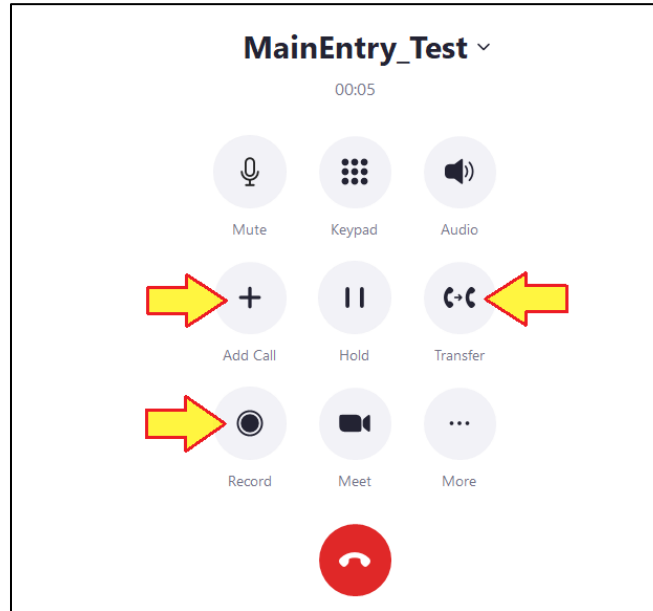


Figure 34 - Zoom call supported features

Of these, three are key with 2N IP Intercom control and access control – Call transfer, Call Conference and Call Recording.

## 4.1 Call Transfer

During call, you can use the Transfer button to transfer the call to a new caller within your organization, for example having a call transferred from receptionist directly to a member of your organization that is expecting a visitor.

During a call:

- a. the **Transfer** button
- b. type a name or a number where you want to transfer the call and dial it
- c. choose in which way should the call be transferred
  - i. **Warm Transfer**
    - This transfer requires additional action in form of transfer finalization
  - ii. **Blind Transfer**
  - iii. **Transfer to Voicemail**

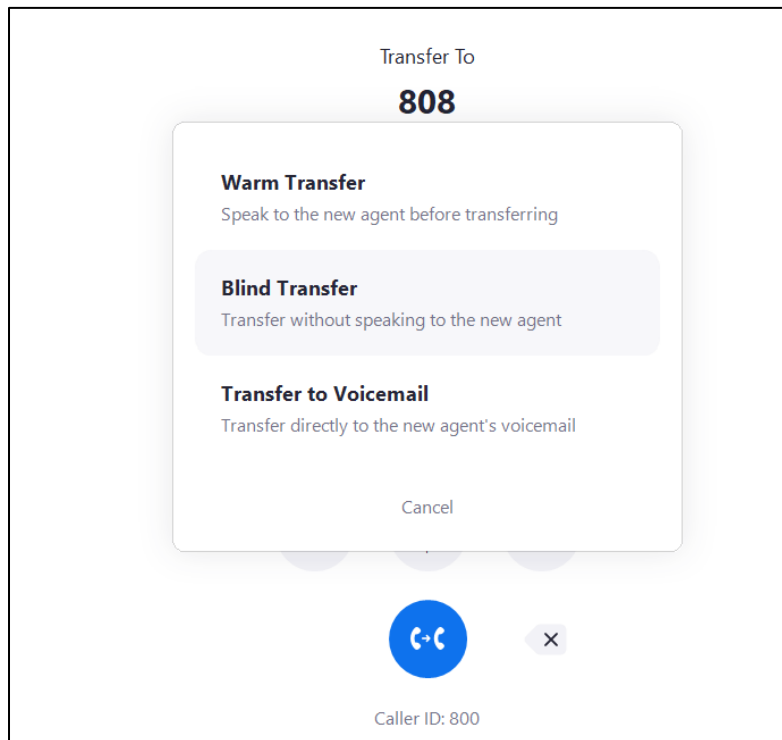


Figure 35 - Call transfer options

## 4.2 Call Conference

Zoom application allows you to invite another user to the call. In this case, you can invite another user to the call with a 2N Intercom.

During call:

- d. Click the **Add Call** button
- e. Type a name or a number of the contact you wish to add to your call and dial it
- f. Your original call will be on hold until the additional call is answered
- g. Once the additional call is answered, click the merge button to re-connect the original call

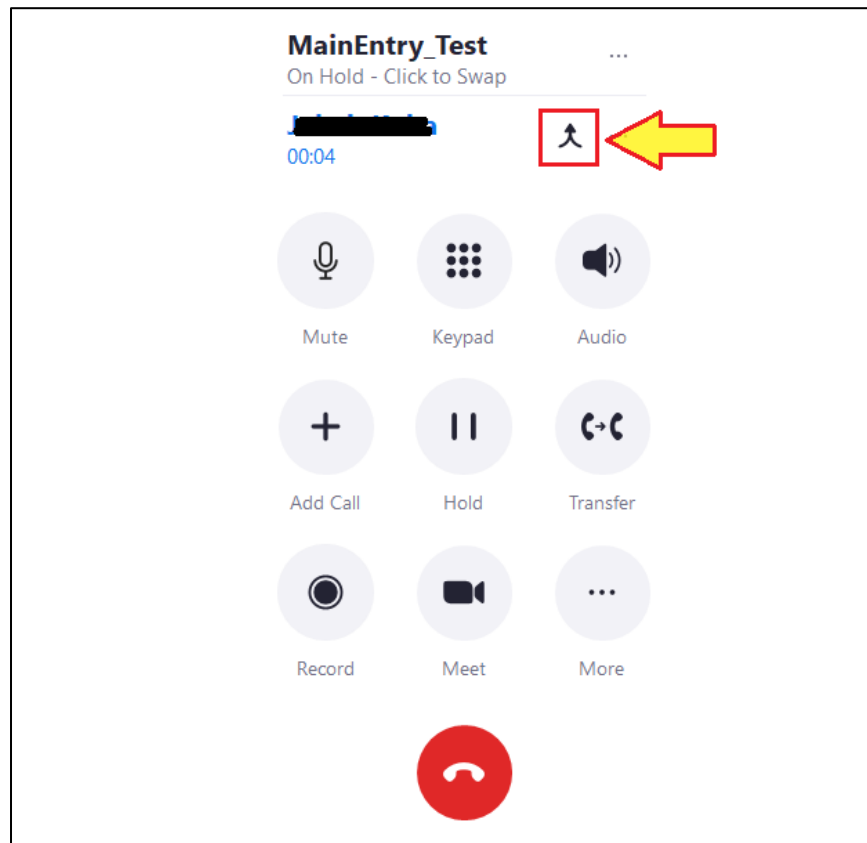


Figure 36 - Call a new contact and merge it to the original call

## 4.3 Call Recording

Zoom application also provides the option to record calls within the Zoom desktop application. Both parties to the call are audibly notified that a call recording has been started.

During call:

- h. Click the **Record** button
- i. You will hear an audio message that the recording has started
- j. Recording can be stopped at any time during the call with Stop Recording button, or it will be automatically stopped and saved when the call is terminated
- k. Recording from your call can be played back from call log

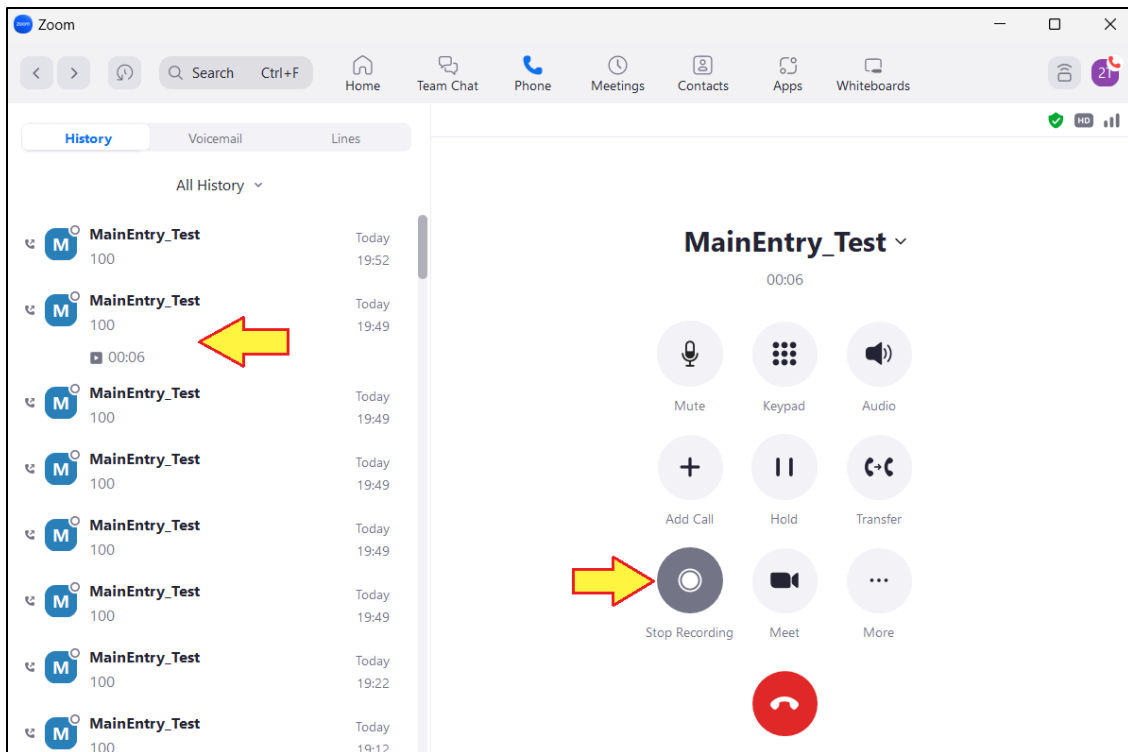


Figure 37 - Play a recording from call log. Cancel recording during call

## 5. Troubleshooting

Visit 2N FAQ section for dealing with troubleshooting issues: [FAQ](#).

In case of difficulties setting up the 2N IP intercom, kindly follow this [link](#) for intercom detailed installation and configuration manuals, including additional information.

To create a ticket with 2N Technical Support team, please [use this form](#). 2N Technical Support is also available during business hours through live chat with on call technicians directly on the company website at [2n.com](#).

For detailed user guide for Zoom Phone, visit [Getting started with Zoom Phone \(users\)](#) or if you are looking for help with administration of Zoom Phone, visit [Getting Started with Zoom Phone \(admin\)](#).

This section provides instructions on how to resolve common issues. Below are examples of how to format etc. (if applicable)

### **SIP Registration State = “NOT REGISTERED” / Failure reason: Registration failed**

Definition: The server received the register request from the endpoint and responds with an unauthorized message.

- Ensure the SIP credentials (extensions, authentication ID, password) are correct.
- Under Basic Settings > SIP, click on the blue circular arrows to the right of the password field. If the Password is not what it should be, the web browser is probably auto filling the password field. If so, any change on a page containing a password could be filled in an undesired string.

### **SIP Registration Status = “No reply from Server”**

Definition: The device is not able to communicate across the network to the phone server.

- Double check the “SIP Domain (Proxy Server)”, under Basic Settings > SIP tab fields if filled out correctly with the address of your server and port number.
- Ensure the firewall (if present) is not blocking the incoming packets from the server.
- Ensure TLS is configured for SIP Transportation Method (Advanced Settings > Advanced SIP).