ZKBio CVSecurity V6.3.0 SIP Video Intercom Solution

Content

1. Solution Composition

1.1 Solution Composition:

a.   **SIP Server**

    PBX Server or **Cloud SIP** is utilized for system integration.

b.   **Door Unit:**

    Speedpalm V5L with firmware version ZAM180-NF50VA-Ver3.6.16 or higher.

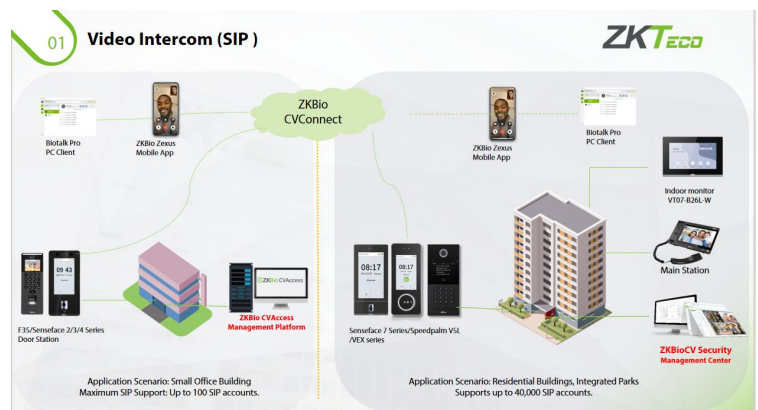   Senseface 7A/7B with firmware version ZAM70-NF70VA-Ver1.0.19 or higher.

c.   **Software:**

    ZKBio CVSecurity with version V6.3.0_R or later.

d.   **Mobile APP:**

    ZKBio CVSecurity Mobile APP version V1.1.0 or later.

    ZKBio CVConnect version V1.1.0 or later.

e.   Indoor Monitoring:

VT07-B22 / VT07-B26L/ VT10-B21

f.   Phone:

VG10-B21A

g.   PC Client:

  BioTalk Pro

1.2 Application Scenarios:

1.2.1 Residential Building Complex

1) Family Model: One SIP account can be used free of charge by 3 family members.

2) Terminal Intercom: Visitors call from the device to the APP or indoor unit to open the door, the APP remotely releases the floor button to the visitor, who then needs to press the button manually.

3) SIP Interruption Assurance: After a SIP server disconnection, devices can still communicate with each other without any noticeable difference in user operation; ZKBio CVSecurity has implemented a conversion between extension numbers and direct dial addresses, so even if the SIP service is interrupted, users can continue to dial the extension number on the device to reach the direct dial address without having to enter the complete terminal IP address. -- PBX feature

4) Intelligent Voice Interaction to Improve Property Management Efficiency: Similar to 10086, the property can define a service number, such as 1000, and pre-record service voice prompts. This way, residents can dial 1000 and follow the voice prompts to operate, for example, press 1 to automatically transfer to the engineering maintenance department, press 2 to automatically transfer to the cleaning team; press 3 to play property welfare activities, press 8 to replay, press 9 to hang up. -- PBX   feature

5) Economical and Smart Upgrade: Each guard room, by installing a PC client, can implement video calls and door opening applications. The guard room can better confirm the on-site environment and achieve safe scheduling through video calls with on-site personnel via the PC client, which offers more advantages than traditional phones.

1.2.2 Park office security management:

1) **Remote door opening:** the visitor device calls to the APP to open the door

2) **The alarm is linked to the mobile phone to avoid missing emergency situations:** in case of emergency situations, such as forced opening of the door, the mobile phone can be linked to the designated SIP mobile phone APP, and the mobile phone will automatically play the alarm voice to avoid missing.

3) **Safety scheduling:**After the monitoring room finds an emergency alarm, it can quickly dispatch the nearby security police to come in and check through the client. Through the PC client, it can synchronize the on-site situation with the real-time video call of the nearby police force's Mobile APP, and can also record the call process to effectively trace the situation of problem handling.

2. Operation Methods

2.1 SIP Server Configuration

ZKBio CVSecurity supports 2 kinds of SIP server: cloud SIP and PBX server, users can choose 1 according to the actual situation.

- **Cloud SIP mode:** Users do not need to purchase additional SIP servers, only need to purchase SIP account permission.
- **PBX server:** You need to purchase an PBX server for local deployment. You do not need to purchase an additional SIP account.
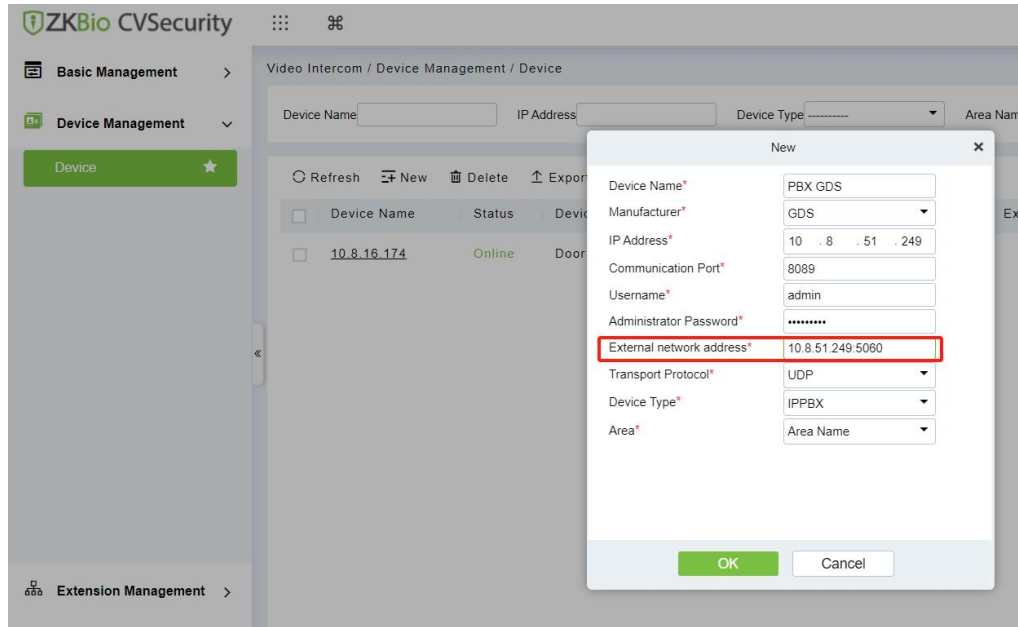
2.1.1 Cloud SIP

Enable Cloud SIP: Go to the **System ->System Management ->Cloud Setting** menu and select **Yes** enabled Is cloud sip.
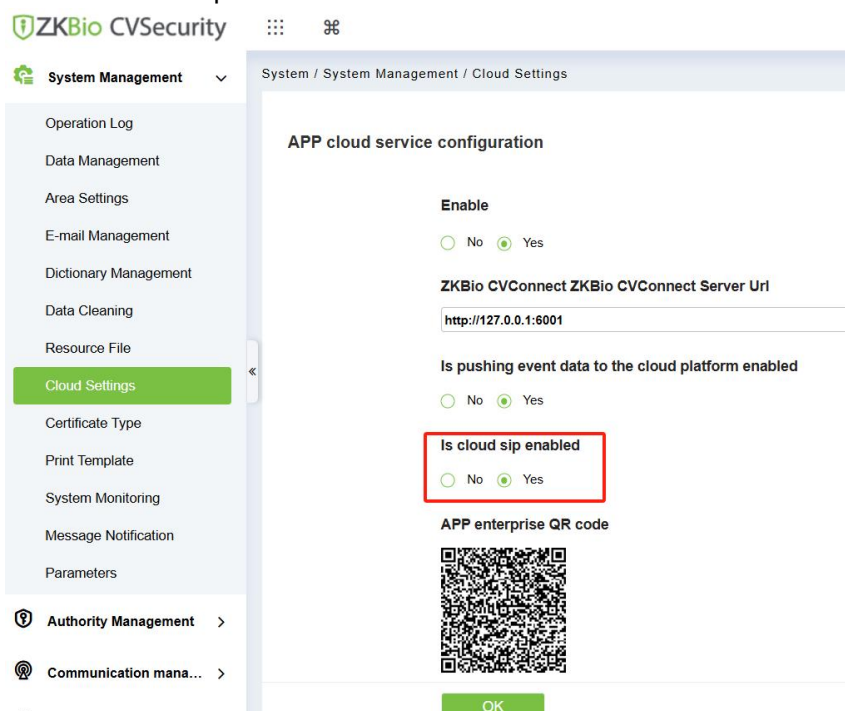
Note: *Ensure the ZKBio CVConnect client is installed if Cloud SIP is activated.*
After cloud SIP is enabled, the device network needs to be able to connect to the external network before it can be used.
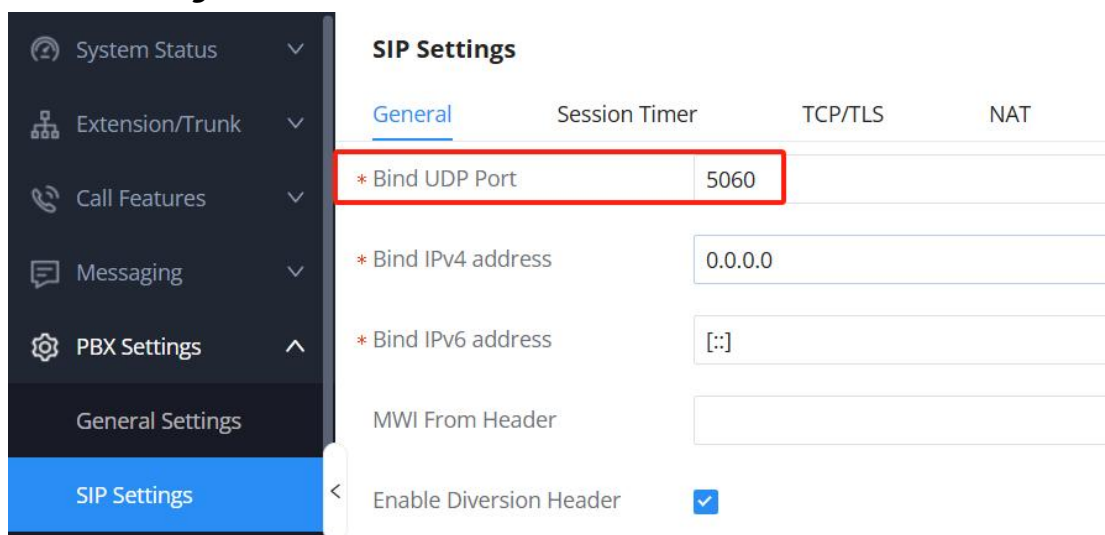
2.1.2 PBX Server Integration

Go to **Video Intercom ->Device Management ->Device**, click **New** to add PBX Server, please fill in the relevant parameters of PBX:
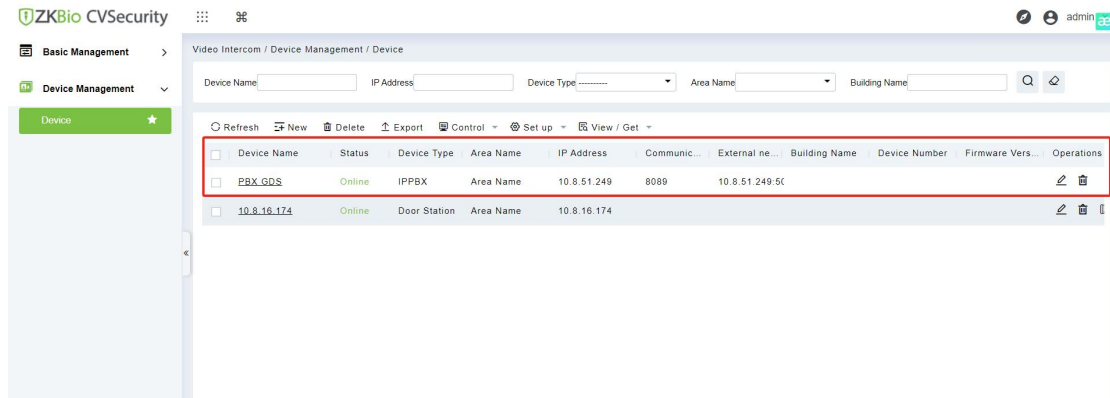

Note: *External the Network Address is used to configure the SIP server, please fill in the correct format as IP:port. UDP,TCP/TSL port number defaults to 5060, you can also log in to **PBX Server Web-SIP Settings** to view.*

After successful addition, it will appear in the list:

2.2 Adding Speedpalm V5L or Senseface 7A/7B Devices

Step 1 : Access Control Module :Search and add: Configure the device Cloud Server Setting(ADMS function) and connect to the **ZKBio CVSecurity- Access Control module**. For more information, see how to add a PUSH device.
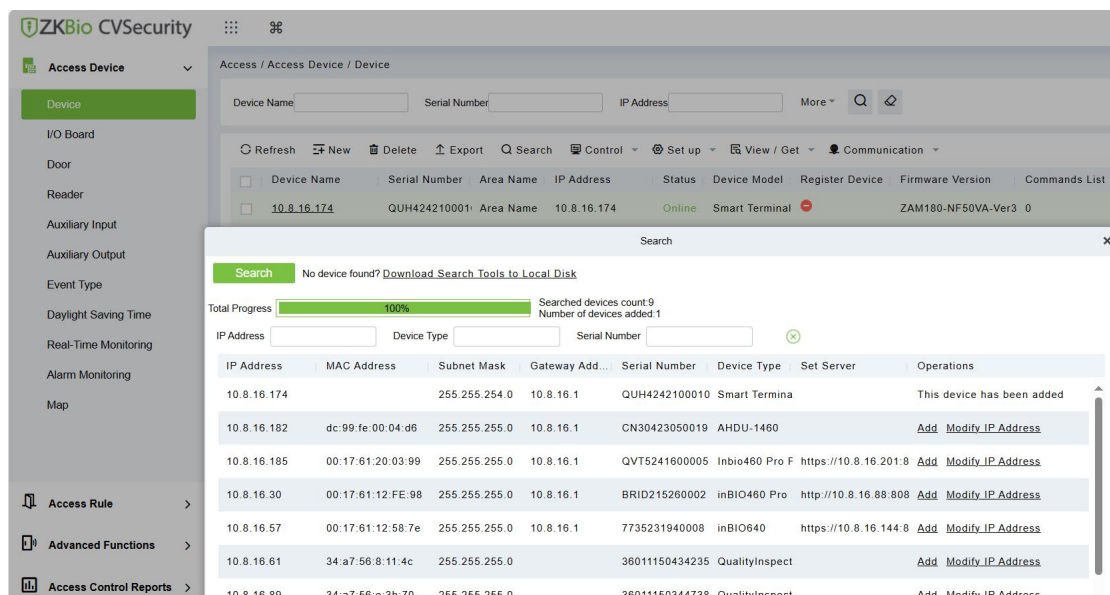
Step 2: After adding to the access control module, the device will be automatically synchronized to the Video Intercom module.

Note: This means that the device will take both access and video intercom license points. You need to license 2 modules, but you only need to purchase the access control module, please refer to the price list.
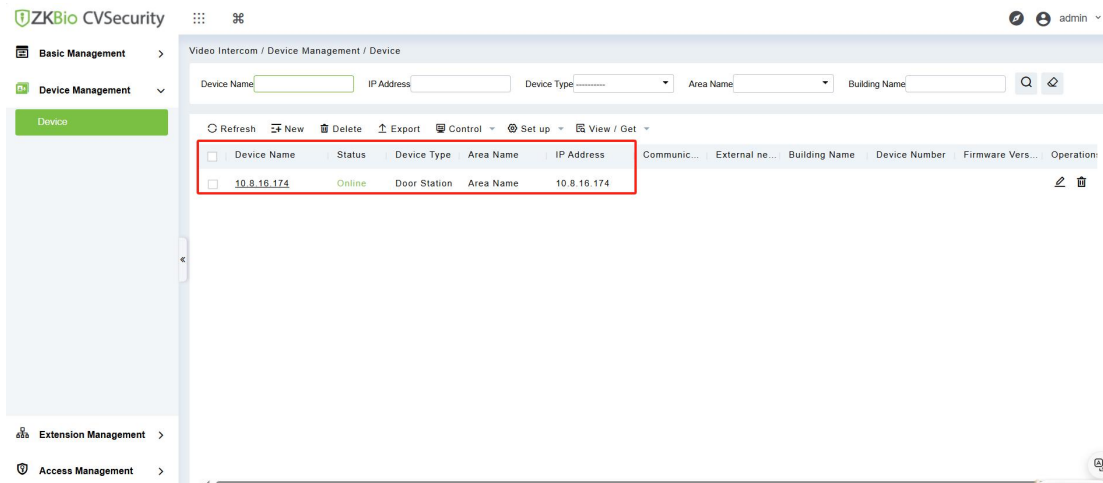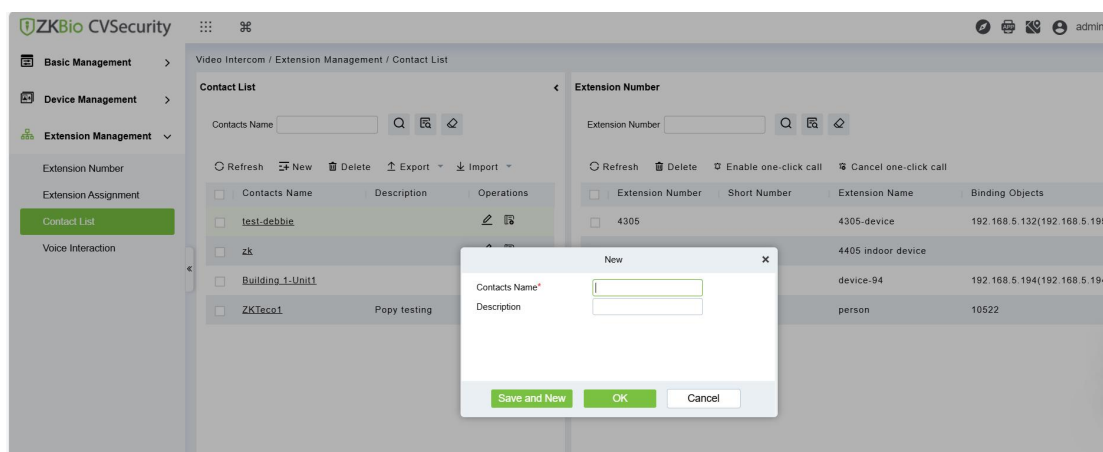
2.3 Contact List

If you need to enable different devices or personnel to view a limited number of contacts, you can configure the contact list.

Please note: *1) ZKBioCVSecurity version 6.4.0 and above supports this feature. The device firmware must also be updated to support synchronization of the address book from the software to the device. (Senseface firmware V3.3.1 and above)*
To implement the application of devices dialing room numbers/extensions, it is necessary to update to support this address book feature.

Step 1 ： Create contact list
Click **New** ,then you can create a contact list.

Step 2 ： Add extension numbers to the contact list.

After clicking on the icon to the right of the address book, you can add extension numbers to the address book. During the process of adding extension numbers, you can define a short

number for the extension on the right, for example, if the number for Room 101 is defined as 101. After defining and synchronizing the short number to the device, the device can then dial the short number 101 to call that room.

Please note: *If you add an extension number to the address book without editing the short number, and you wish to edit it later, you will need to delete the short number from that contact and then edit it when re-adding, or delete it and use the import function afterward.*
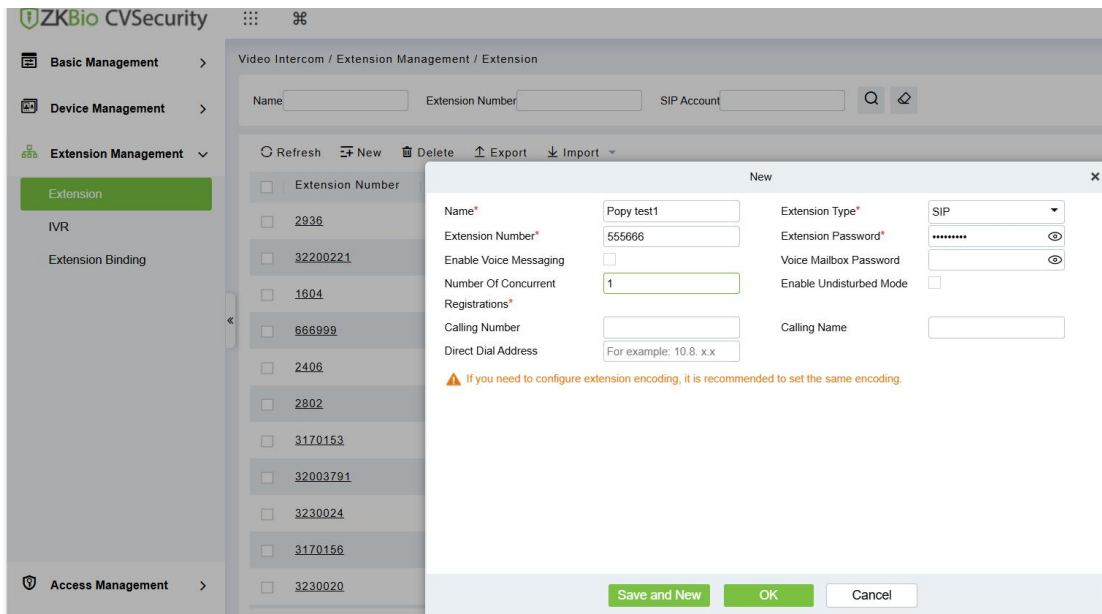
2.4   Assignment of Extension and SIP Accounts

Extension Number: Users can customize the number, for example, for room 401 in unit 1 of building 1, the extension number can be customized to 11401;
**SIP Account:** After the user creates the extension number, the system will automatically generate a SIP account, which is only automatically generated when using the cloud SIP mode.

For example, assuming the user is using the cloud SIP mode and has created the extension number 11401, the system automatically generates the SIP account as 113, so the SIP User Name used on the terminal is 113.

Step 1: click **New** in **Video Intercom -> Extension Management -> Extension** to add an extension number

Enabling **Cloud SIP** will automatically generate the extension number. If you use a PBX, the extension number will be directly used, and the SIP account list will be empty.
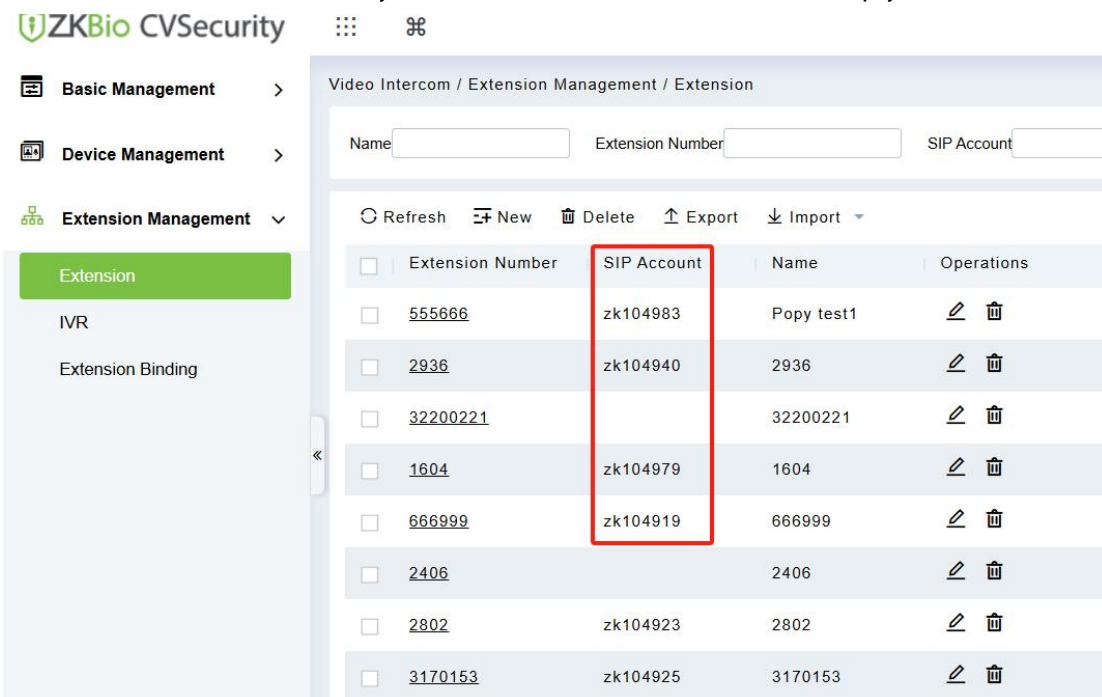

Step 2: Extension Assignment**:** assign extension number or SIP account number to personnel, devices or system users; After allocation, personnel and users' APP will be able to directly use video intercom for communication. The device can also be used directly without manual additional configuration.
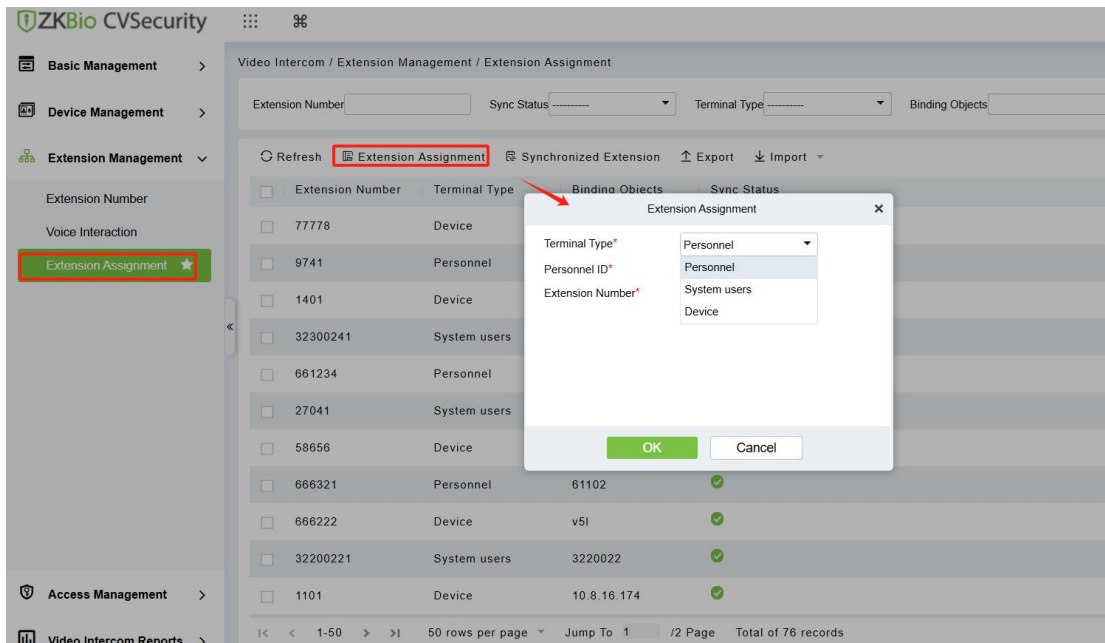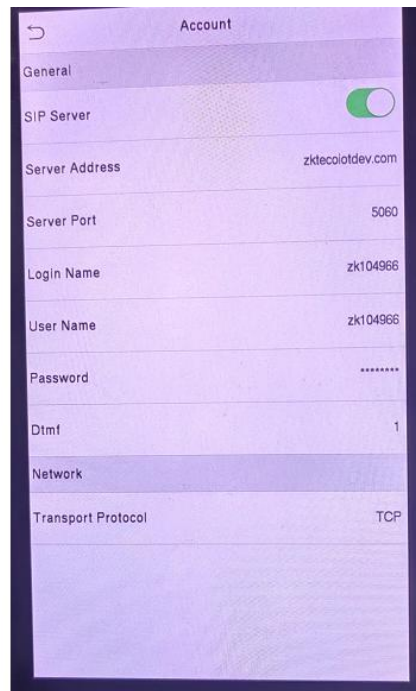
2.4.1 Device Account Assignment

Select **Binding Type as Device**, Device Name as the device to be bound, and select the extension number. The account information will be automatically synchronized to the device. **Authorized Contact** assigns the address book to the device; only after the assignment can the device call room numbers/short numbers or make calls through the address book search.
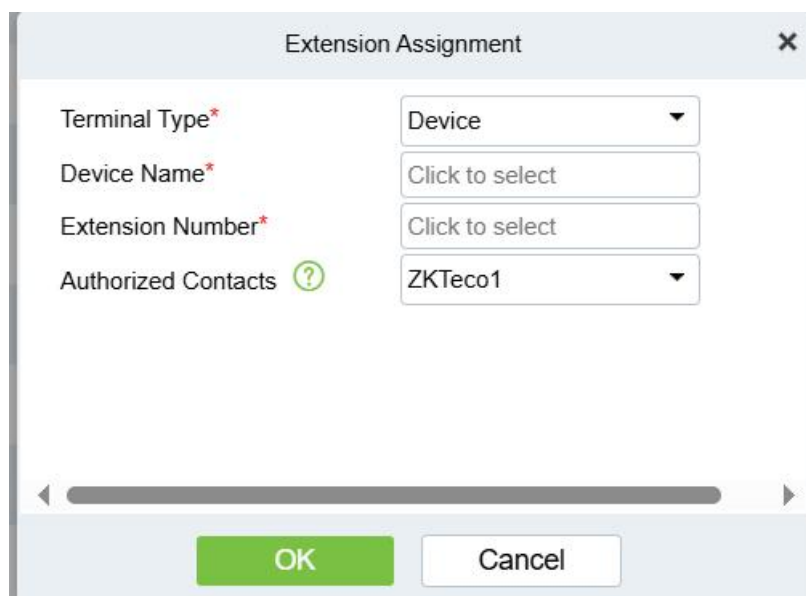
Results Verification:

Device Video Intercom-Account can see that SIP server and account information have been

automatically written, as shown in the following figure.

2.4.2 Personnel Account Assignment (App)

Binding Type is selected as Personnel;
Personnel ID to select the person to be assigned an account;
Extension Number : Select the Extension number in Number.

Authorized Contact assigns the address book to the individual, and after the

assignment, the individual can view the contacts in the assigned address book

upon logging into the APP.

Once a person has enabled APP login, they can directly access the Video Intercom feature upon logging into the APP.

Result validation:

After logging in to the APP, the person enters the Video Call application, and the status of the interface will be displayed as Connected. If the person has not assigned an extension number, entering the application will prompt "you have not assigned an extension number, please contact the administrator"
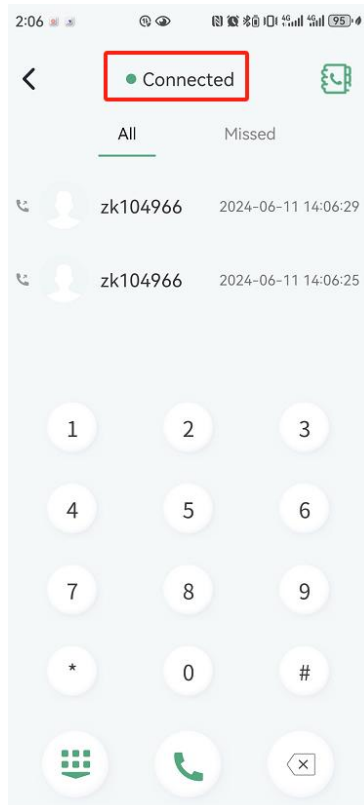
2.4.3 System User Account Assignment(App)

Binding Type is selected as System User;

User Name Select the system user who needs to assign an account;

Extension Number : Select the Extension number in Number.

Authorized Contact assigns the address book to the administrator; after the assignment, the administrator can view the contacts within the assigned address book upon logging into the APP.

Result validation:

After the system logs in to the APP, it enters the Video Call application, and the status of the interface will be displayed as Connected. If no extension number is assigned, entering the application will prompt "you have not assigned an extension number, please contact the super administrator"
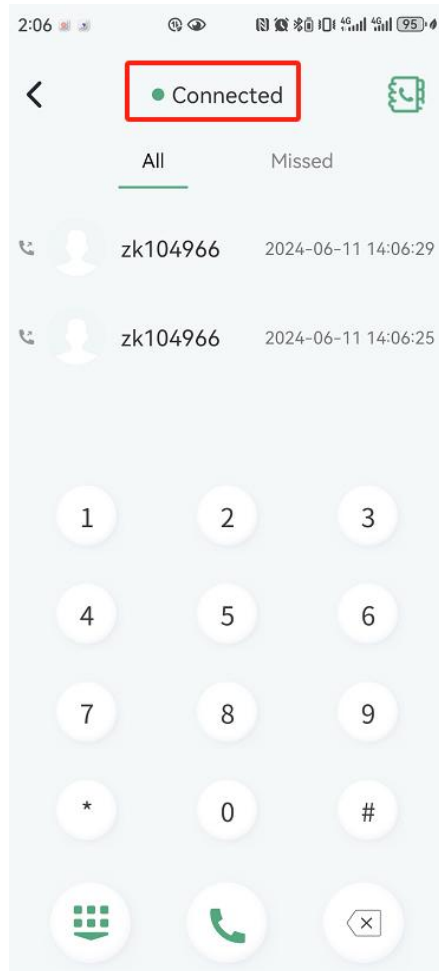
ZKBio CVSecurity Mobile APP complete operation steps please refer to the document


ZK_ZKBio CVSecu
rity Mobile APP UN

2.5 Indoor Unit and Third-Party SIP Device Operations

Since the indoor unit or the third-party SIP device is not connected to the ZKBio CVSecurity, the SIP address cannot be quickly configured through the ZKBio CVSecurity, so the user needs to configure the device interface by himself. Example: You can go to the web page of a third-party indoor unit to configure the SIP account.

- **User Name:** the extension number or SIP account you created in the ZKBio CVSecurity (if you are using a PBX Server, the user name is the extension number; if it is cloud SIP, the user name is the SIP account)
- **Password:** Password is the password you entered when you created the extension number
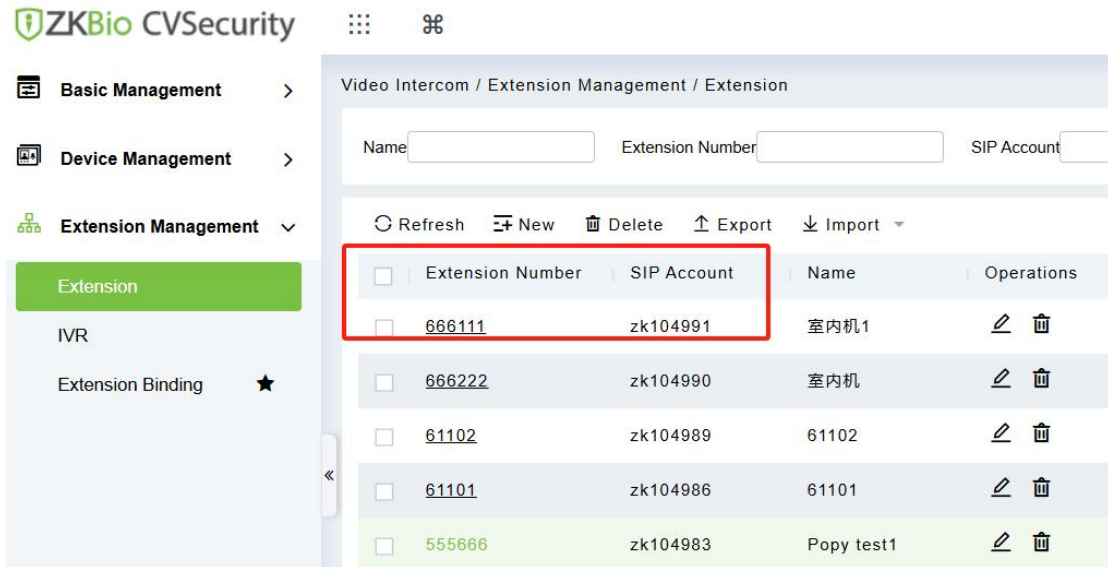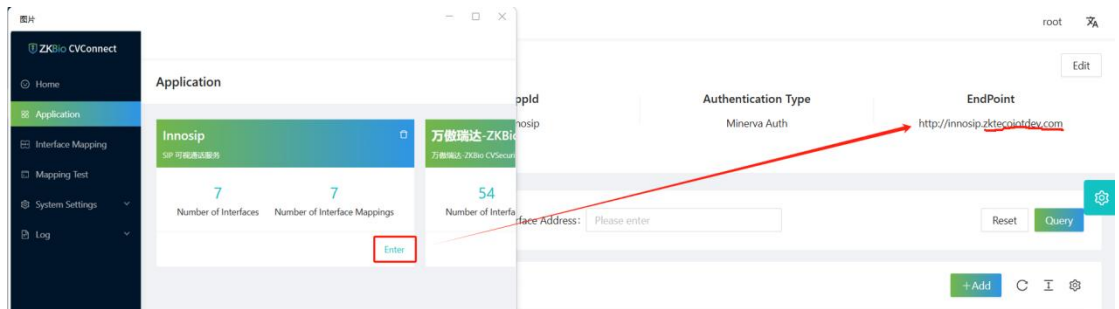
- **Sip Server Host:**
  - For a PBX Server setup, the SIP Server Host should be set to the **External Network Address.**
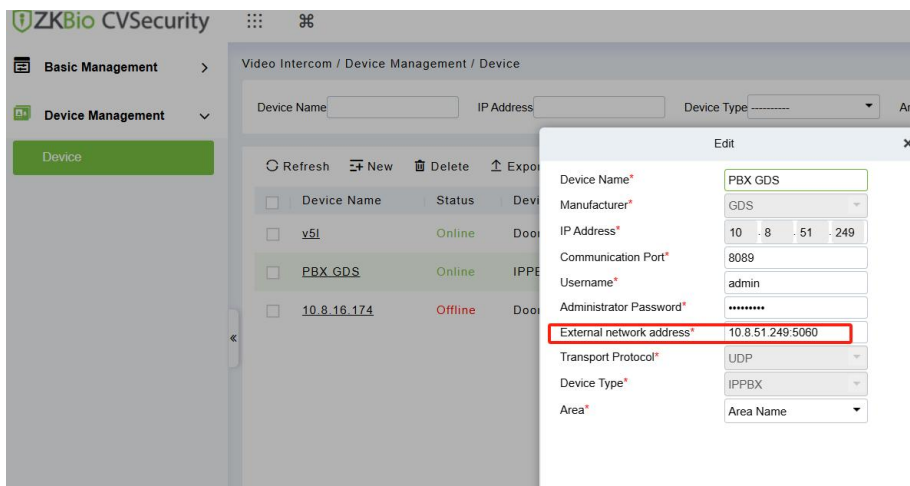
  - If it is a cloud SIP, you can find the address of the Sip Server Host in the ZKBio CVConnect-Sip intercom application, such as the Singapore Dev selected by Area when my ZKBio CVConnect Client is activated, Application the application of Innosip is found in it, click Enter, and check that the End Point address is "http://innosip.zktecoiotdev.com", Then '**zktecoiotdev.com**' is the actual SIP address you need to enter on the device or PC Client.

  *Please note: The Innosip address is automatically generated based on the Cloud Server Area you select in your ZKBio CVConnect. It is crucial **not to modify the End Point address**. The segment of the address that comes after 'innosip' is the actual SIP host address utilized. For instance, if the address is 'innosip.zktecoiot.com', you should enter 'zktecoiot.com' into the SIP Server HOST field on **your third-party device** to*

make it functional, as shown in the diagram provided below.

The following is an example of the web configuration page for a third-party device:

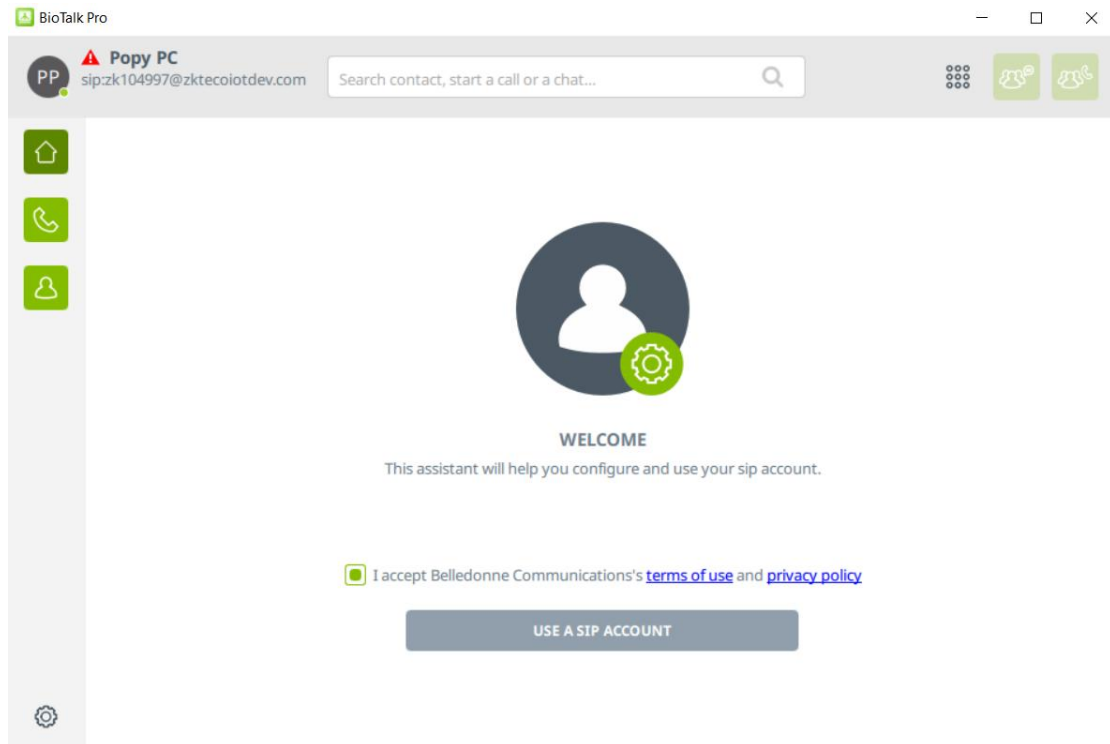| * SIP Server Host	* Port ⓘ
zktecoiotdev.com	5060

- **Transport Protocol:**
  - PBX Server: Supports UDP,TCP,TSL protocols
  - Cloud SIP: supports TCP and TSL protocols

2.6 PC Client Functionality

To use the BioTalk Pro PC client, please contact the appropriate person for an installation package.

Operation Guide

Step 1 : Create an account:Click **USE A SIP ACCOUNT** button
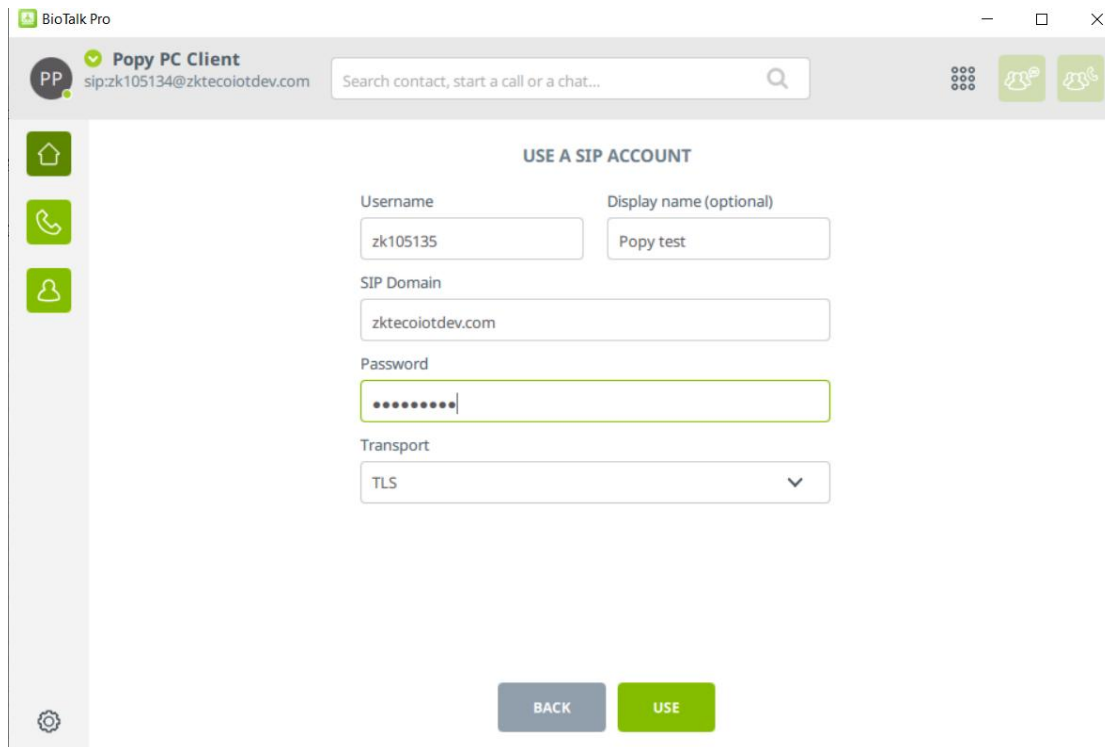
Step 2: Fill in the SIP account information in order

Username:SIP Account
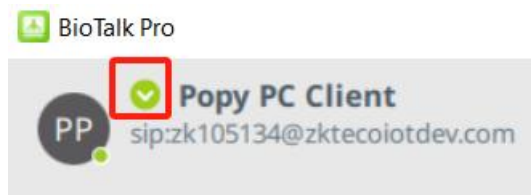
Display Name: Caller ID Name

SIP Domain:SIP Server Domain

Password: The password of sip account

Transport : Transportation Protocol

Wait 1 minute until the status shows Connected, as shown below:

Note: In the Cloud SIP mode, if dialing is required, the PC Client should dial directly to the target SIP account. For example, if the extension number created on ZKBio CVSecurity is 401, the corresponding generated SIP account is 111, then the PC Client should dial 111 when making a call. Therefore, it is recommended to directly create a contact in the address book with the number 111.

At this point you can start to use it normally, the PC client, the device and the app can call and answer each other!

Validation of results:

When the PC Client receives a call, a window alert will pop up in the lower right
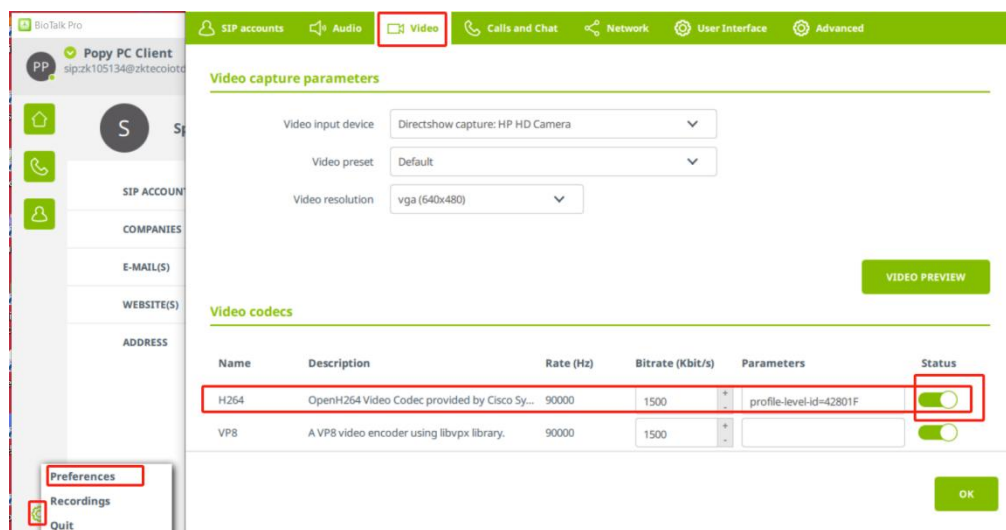
corner of the desktop.
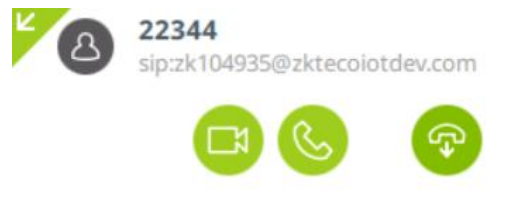
Note：

① What should I do if the PC client does not display the device site's screen

when a call is made from the Speedpalm V5L device?

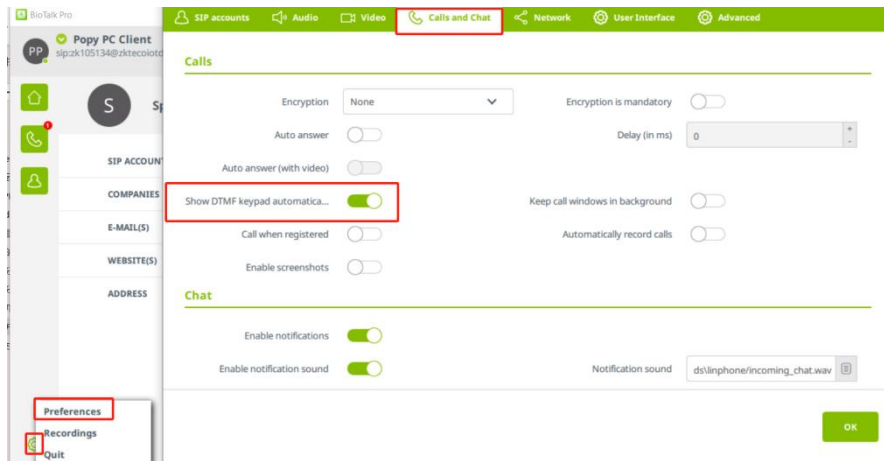   **A:** Click **Settings** button-->**Preferences**, enter the configuration page, then click

**Video-->Video codecs** to **enable H.264**.

② How can I remotely open the device's door from the PC client?

   A: Click **Settings** button --> **Preferences**, enter the configuration page, click

Call and Chat, and **enable Show DTMF keypad automatically** under Calls menu;

After calling from the device to the PC client, you can open the door by clicking on the keypad and entering the DTMF value of the device, e.g. the default value of ZKTeco device is 1, so you can click on 1 at the keypad.
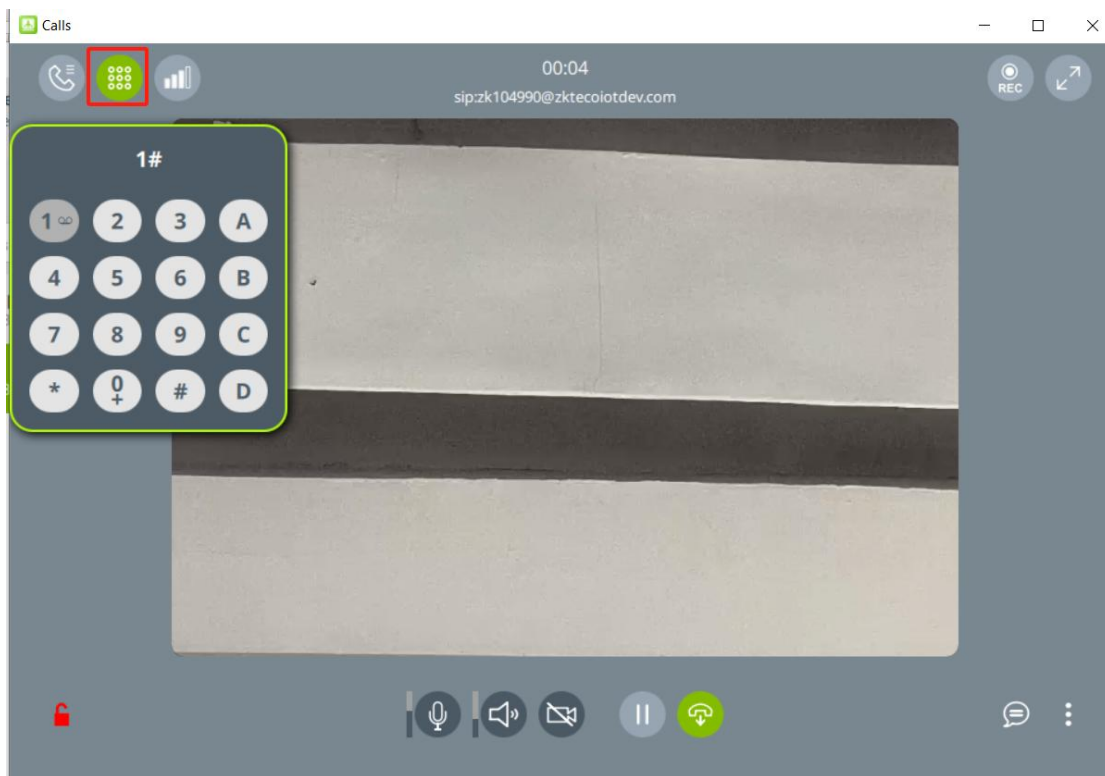
2.7 Voice Interaction and Access Control Linkage

This feature is only supported on PBX servers.
This function can be used for two major applications: access control linkage IVR ; IVR intelligent

voice interaction.

## 2.7.1IVR intelligent voice interaction

The IVR system can improve service efficiency, reduce labor costs, and provide users with 24-hour uninterrupted service. For example, assuming that the extension number of IVR configured by the user is 10086 and the voice guidance content has been configured in advance, the user can automatically play the guidance content after calling the 10086 through APP. The user can press the button according to the guidance, such as pressing 1 to call the manual service, pressing 5 to hang up, etc. (At present, ZKBio CVSecurity Mobile App does not support keyboard input during calls, which is supported in the next version; The current version can be used with indoor units)
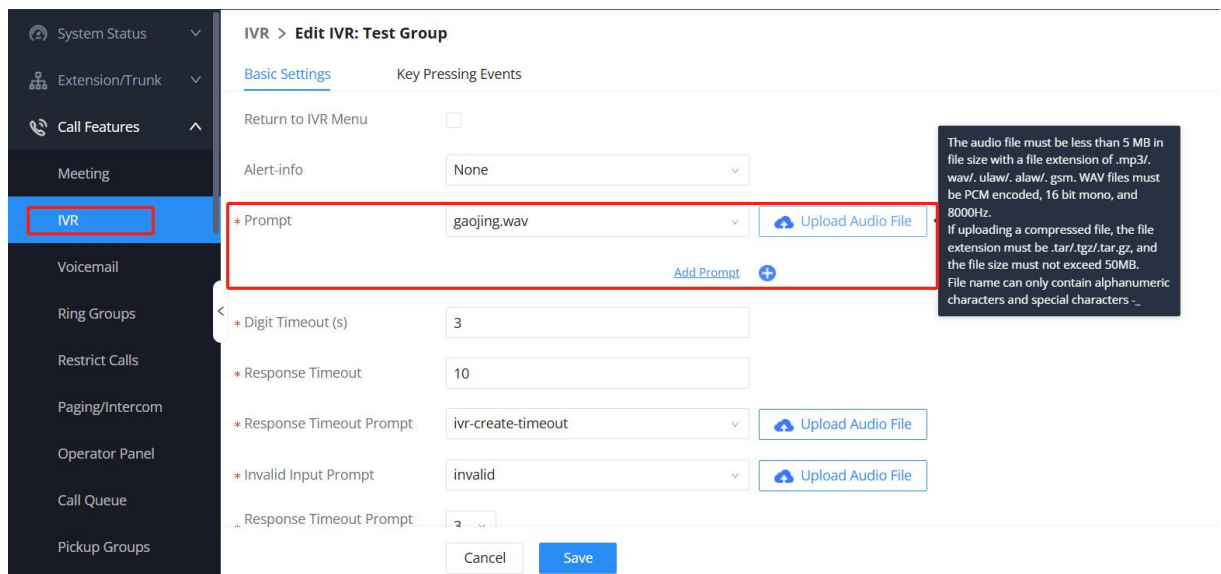
Configuration Steps

Click **New** in **Video Intercom -> Extension Management ->Voice Interaction** to start configuring the intelligent voice interaction function.
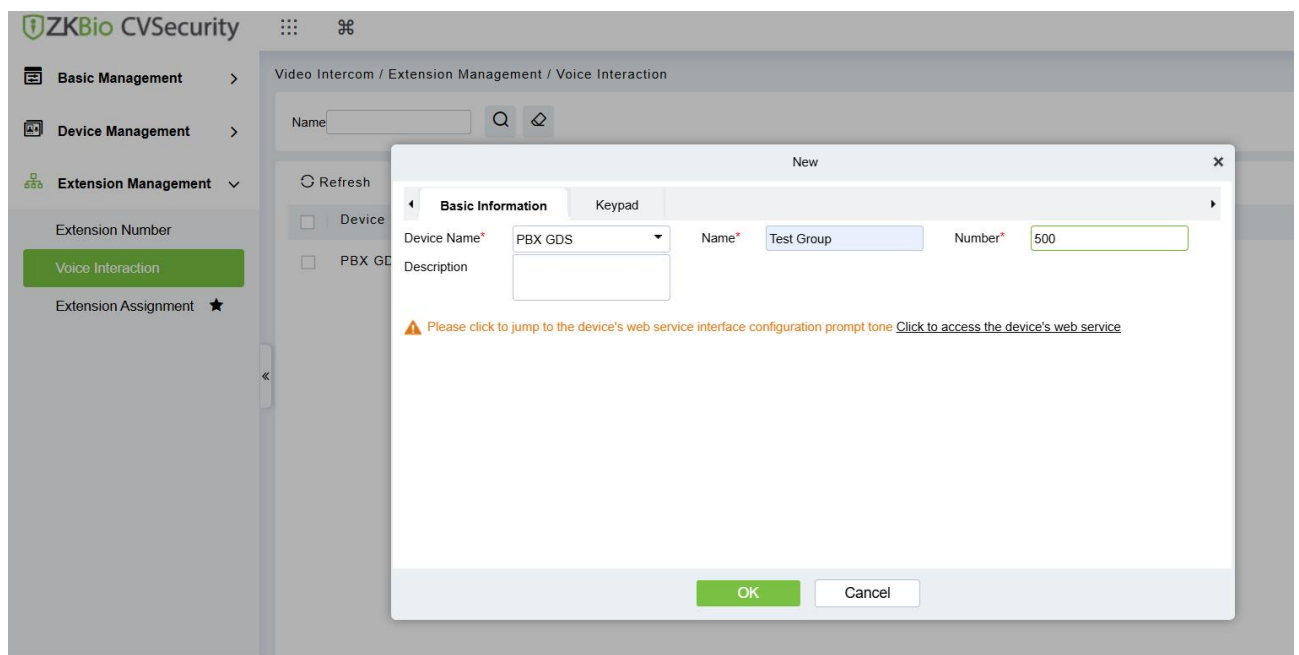
- **Basic Information:** Select PBX server and enter the extension number of IVR to configure basic information.
- **Keypad:** Configure the content of keyboard input and the corresponding output action.
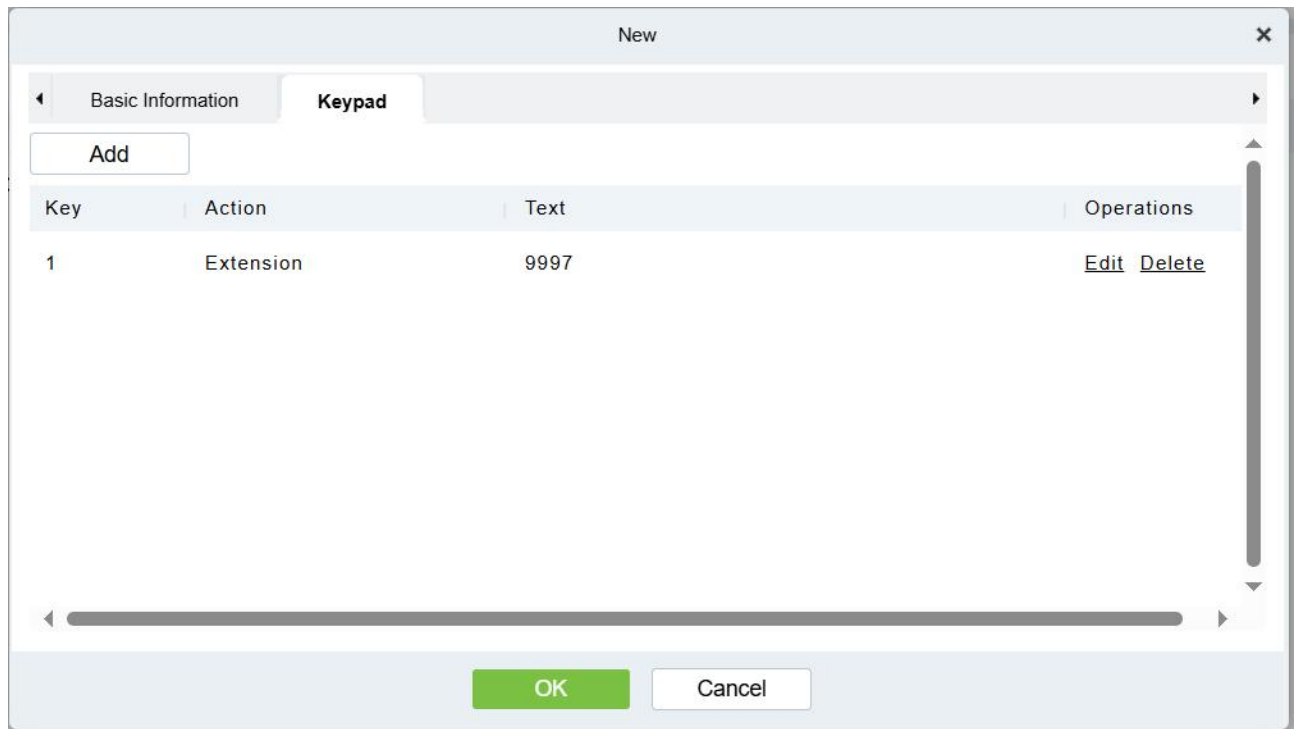
Please note: After the configuration is completed, you need to enter the PBX Web-IVR page to find the IVR configuration information, and click "Edit" to update the voice information.


2.7.2 Access control linkage

Go to **Access ->Access Rule ->Linkage** and click New to start configuring linkage. The Video Intercom can be found in the output action. You can select the IVR and the extension number to call.

Once the configuration is complete, upon the occurrence of a trigger condition, the system will route the call to the designated extension number, and the IVR voice message will

play, ensuring that security personnel do not overlook any emergency alarms.
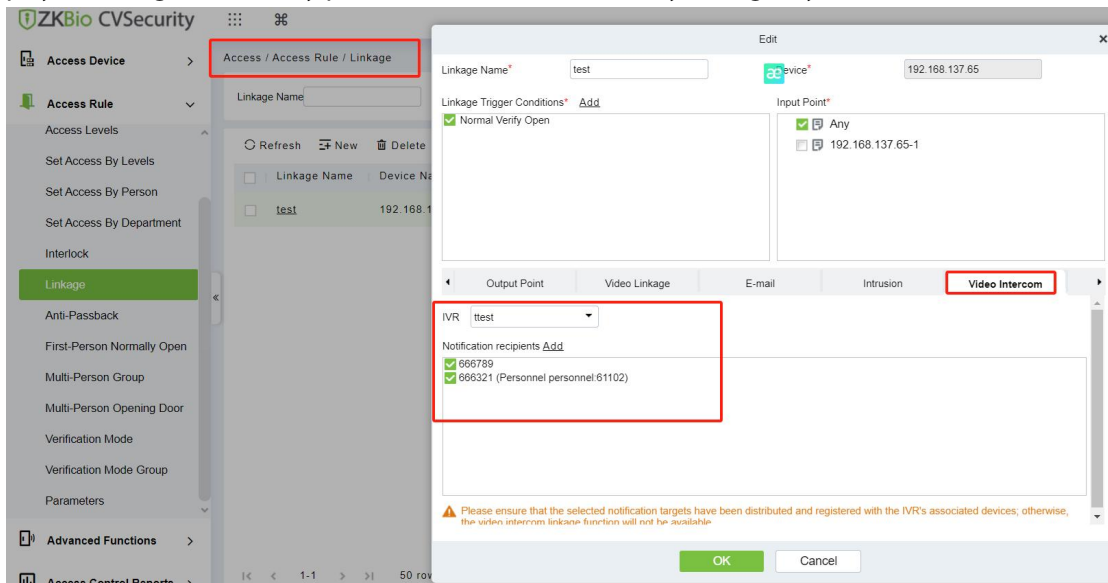
3.FAQ:

1. How to unbind an already assigned extension number?

A: You can go to the Extension Assignment page, find the extension number that needs to be unbound, and click on the unbind icon in the Operation column to complete the unbinding.