Hikvision video intercom SIP function Introduction

（2019-12-03）

Product involved:

Device Model	Firmware
DS-KH8350-WTE1	v2.1.2_build191014
DS-KH8350-TE1	v2.1.2_build191014
DS-KH6320-WTE1	v2.1.2_build191014
DS-KH6320-TE1	v2.1.2_build191014
DS-KH8520-WTE1	v2.1.2_build191014
DS-KH6320-WTE2	v2.1.2_build191014
DS-KD8003-IME1	v2.0.8_build191029
DS-KD8003-IME2	v2.0.8_build191029

List of supported SIP servers:

Logo-Company	SIP Server	Version	interoperability
Asterisk	Asterisk	All	★
Yeastar	Yeastar	All	★
MYVOIPAPP	Minisip	v34/v36	★▲
bicom SYSTEMS	Pbxware	v.4.1/v5.2/ v5.3	✔▲
brekeke	Brekeke	V3.4.9	★

★: Support Video and Audio ✔: Only support Audio ▲: Support alarm upload

✘: Not support now

Note:

1. Since standard SIP services involved DDNS, signaling forwarding, diverse audio and video formats, The function of existing Hikvision standard SIP is limited.
2. If you have any questions about SIP, please complete this excel sheet and contact Hikvision's technical support.

SIP information.xlsx

3. In the public network environment, the video transmission of the device is limited by many factors. It will cause poor picture quality, inability to display pictures, and so on when congestion, long latency and packet loss.

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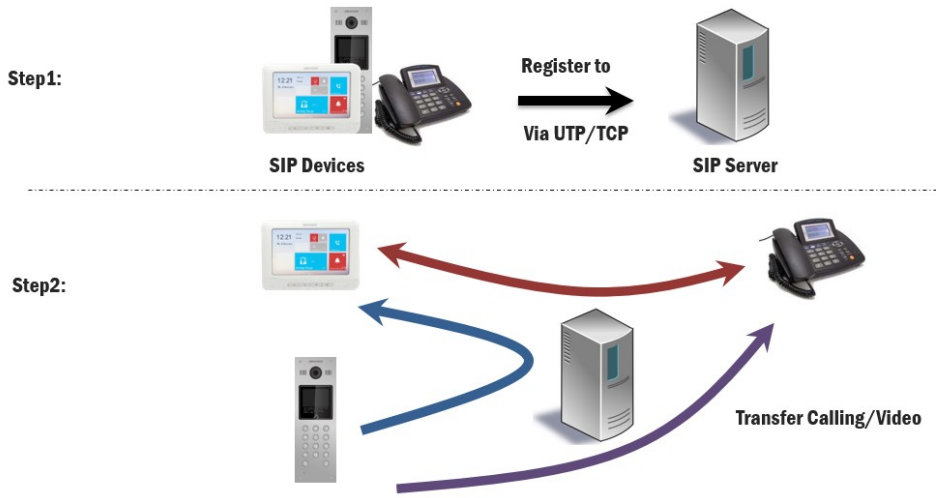
If you still have questions about the Hikvision SIP service, please contact your local Hikvision technical support team. https://www.hikvision.com/en/Corporate/Contact-Us

What's SIP

The Session Initiation Protocol (SIP) is a signaling protocol used for initiating, maintaining, and terminating real-time sessions that include voice, video and messaging applications. The SIP system works flow as below figure.



Hikvision video intercom version1.5.0 and above support private SIP and standard SIP switchable. Standard SIP is a common protocol which means device could be integrated with 3rd Party standard SIP devices. The Comparison of private protocol and standard SIP protocol as below table.

Indoor station	Private Protocol	SIP Protocol
HikConnect APP	√	×
Indoor extension	√	×
Live view	√	×
Call to the door station	√	×
Private password	√	×
Automatic capture picture	√	×

Door station	Private Protocol	SIP Protocol
Sub-door station	√	×
Doorphone Mode	√	×
Outer door station	√	×
Public password	√	√

So we strongly suggest to use Hikvision private protocol when all intercom video equipment from Hikvision company. If need to interconnect with 3rd party SIP terminal, we have to change intercom protocol from private protocol to SIP Protocol on the related Hikvision intercom video equipment. This document will introduce how to configure SIP Protocol between Hikvision intercom video equipment and 3rd party's.

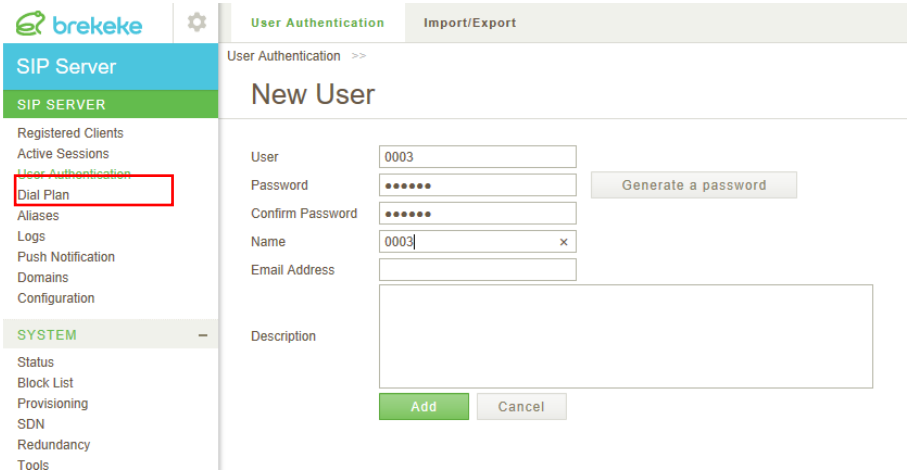
How to add new user in brekeke SIP server

1. Login the SIP server via IE web and add the new users for indoor station / door station / 3rd party SIP phone / etc.

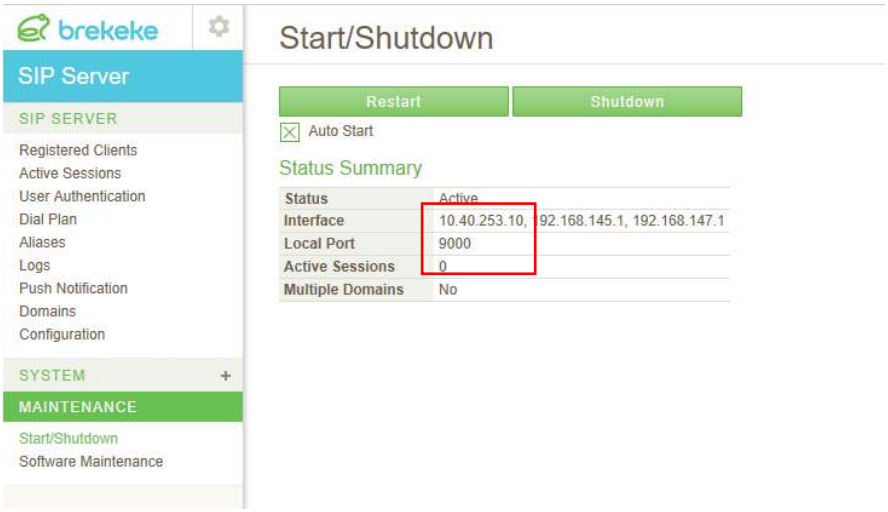
1) User is unique in same SIP server.

2) Name is local parameter for reference in SIP database.

3) Email address and Description are option.

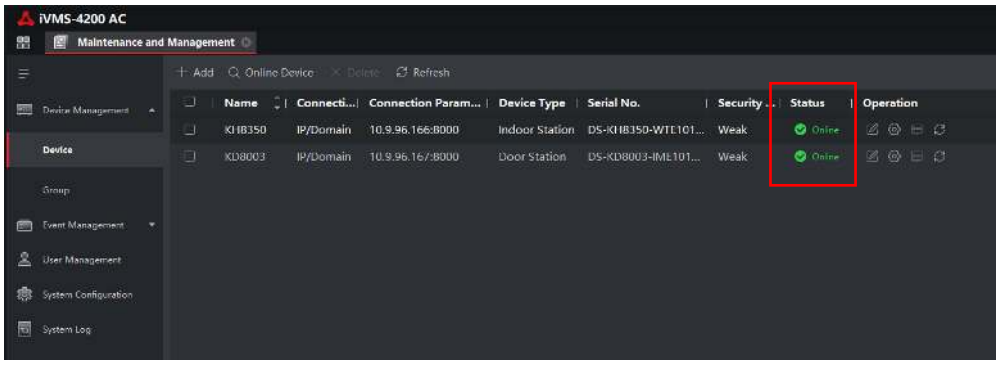


2. Click MAINTENANCE button and record SIP server IP & local port which will be used in SIP client (indoor station / door station / 3rd party SIP phone / etc) configuration.

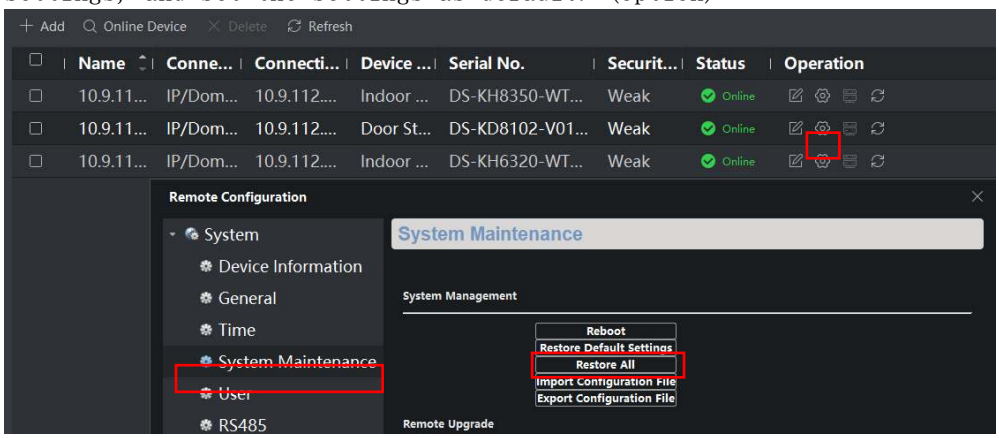


How to configure device's SIP service through the client

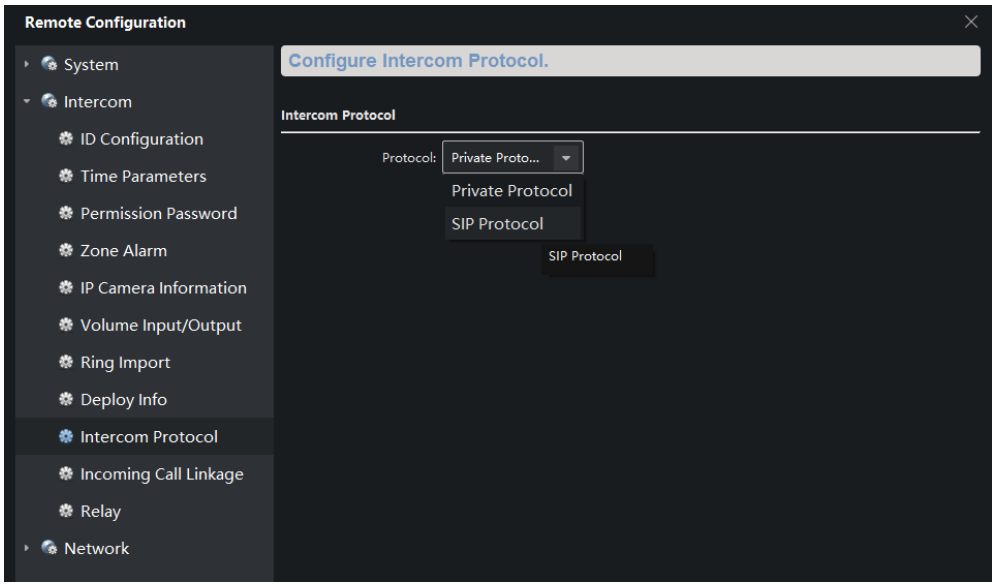
1. Add the device to the Client and status is online.



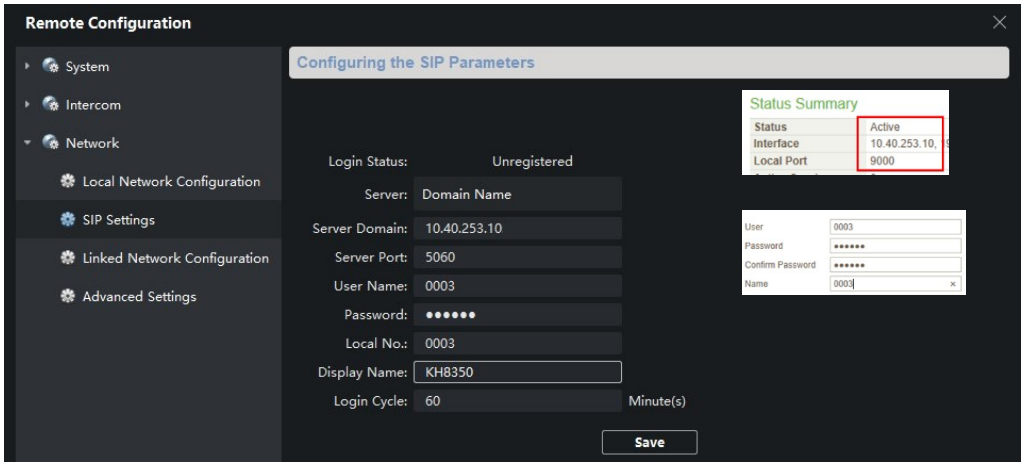
2. Click the remote configuration → System Maintance → restore default settings, and set the settings as default. (option)



3. Click the remote configuration → Intercom → Intercom Protocol, and change the protocol to 'SIP protocol', then click reboot the device.



4. Click the remote configuration → Network → SIP settings, check the user data which you set in your SIP server, then fill the corresponding column.



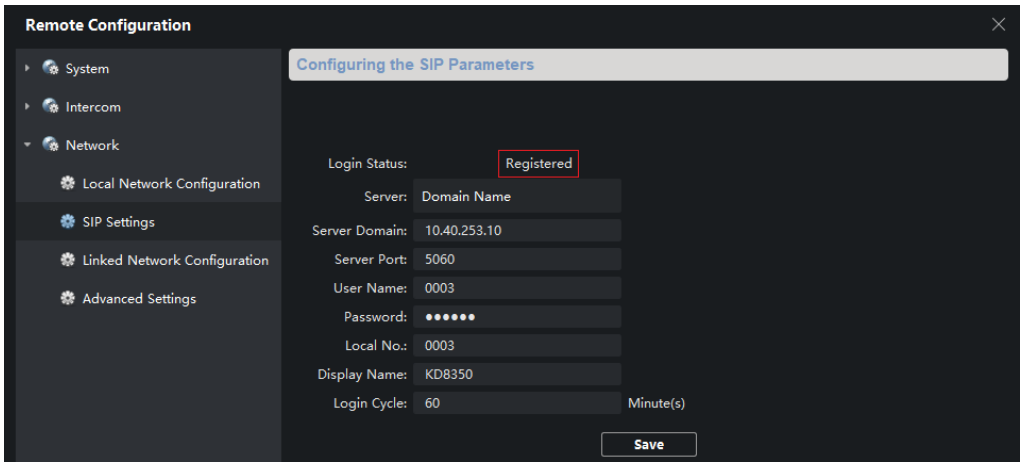
Server Domain: SIP server IP address

Server Port: SIP local port

User Name: SIP user

Local No.: If no No. in SIP server setting, re-use SIP user as local No.

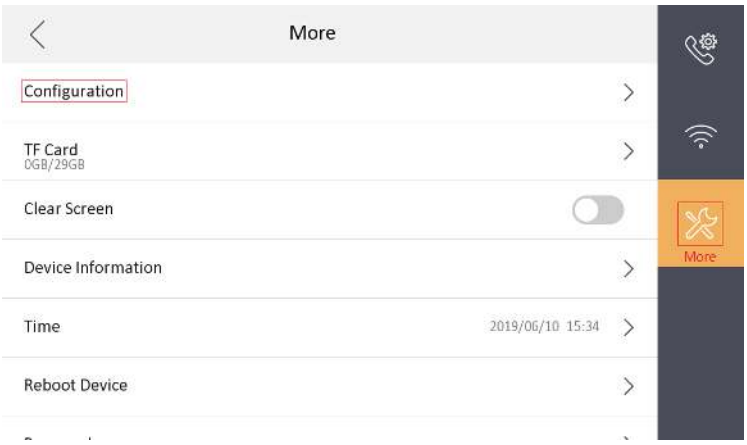
5. Click save button to register device on SIP server. Refresh the window and check whether the device has been registered or not. If yes, login status will be updated as below.



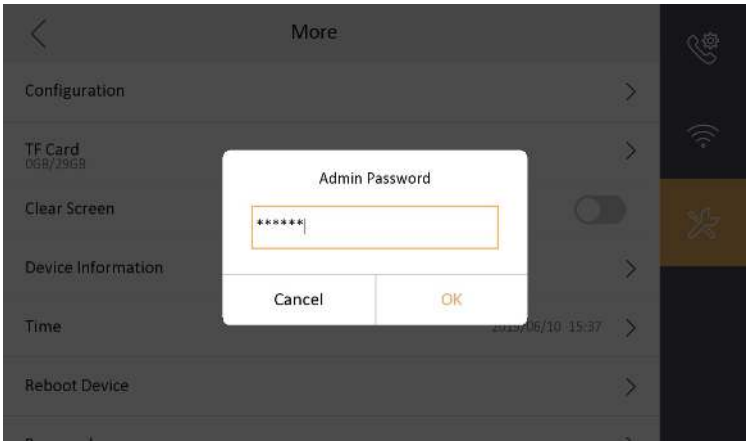
How to configure indoor station’s SIP service through local interface

1. click the Settings button

2. Select ‘More’ interface then click the Configuration

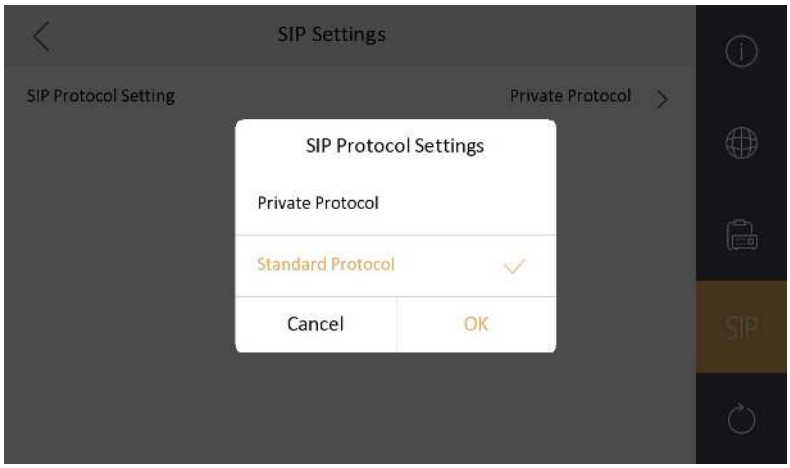


Then input the admin password which is 888999.

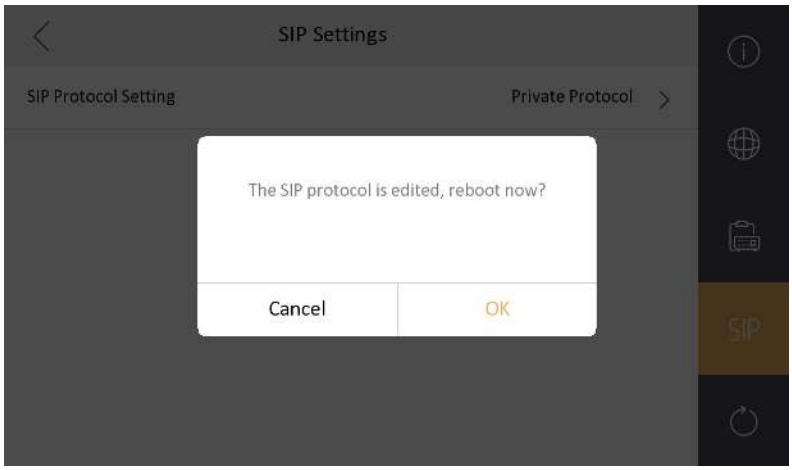


3. Select ‘SIP Settings’ interface and click the SIP Protocol Settings

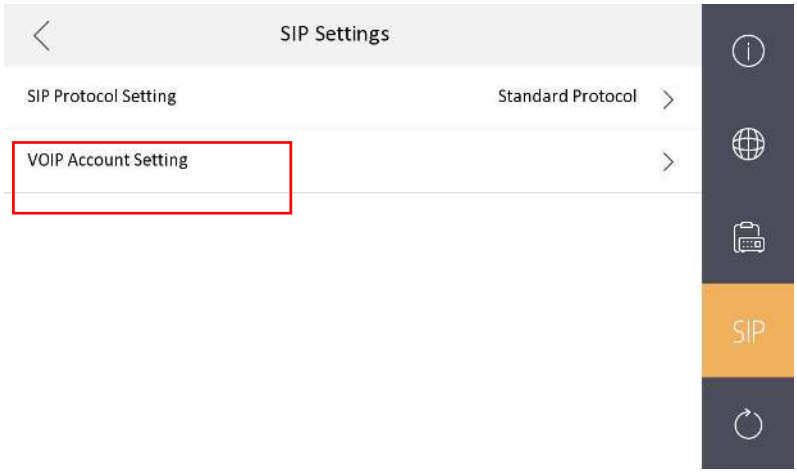
Select Standard Protocol



Then click OK to reboot the device.



4. The SIP Settings window will be changed like below picture. Click the VOIP Account Setting to set the SIP register information..



5. Input SIP user information, same from SIP server side.

Please enter the user name: local parameter for reference.
Please enter your number: If no No. in SIP server setting, re-use SIP user as your No.
Please enter your User Name: SIP user
Please enter The SIP Server Domain: SIP server IP address
Please enter The SIP Server Port: SIP local port
Please enter the expiration date: as your system design

6. Go back to the main window and below icon shows SIP registered successes.

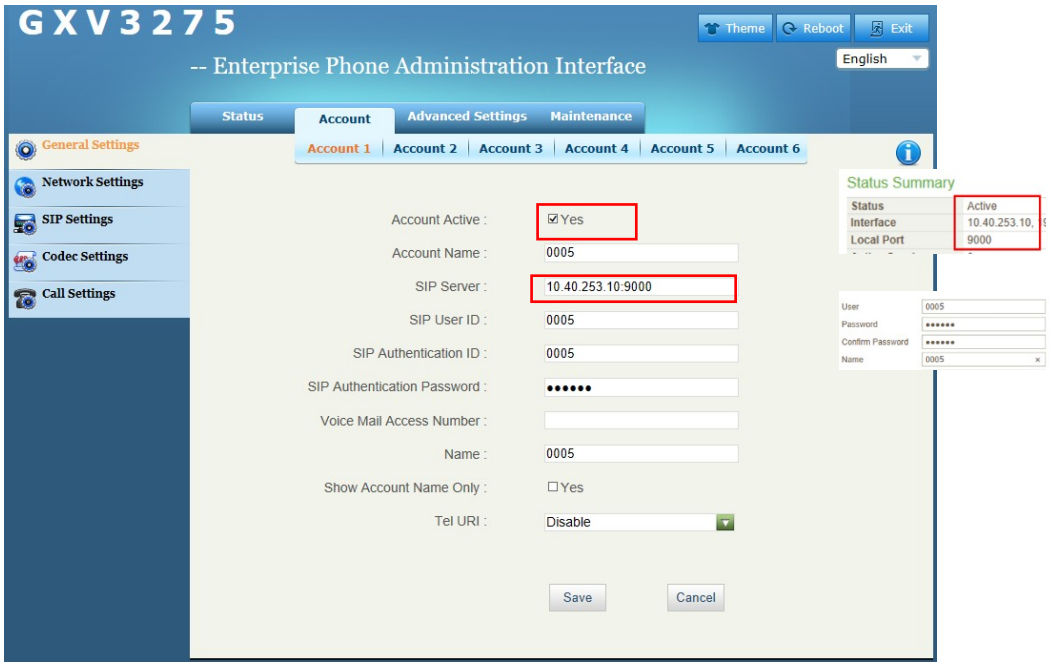
How to set the SIP phone and how to use the SIP phone to open the door

Note: Test example product is GXV3275 of Grand Stream. Firmware: 1.0.1.54

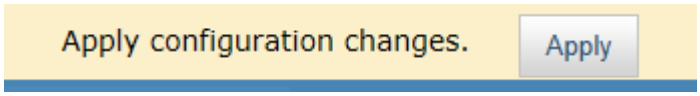
a. Configuring the GXV3275 Using Web Browser

The default username and password for administrator are “admin” and “admin”;
The default username and password for user are “user” and “123”.

Click the Account → Account1 (any Account 1~6 is ok) to set the SIP account. The interface is shown below and input SIP user information, same with server side.

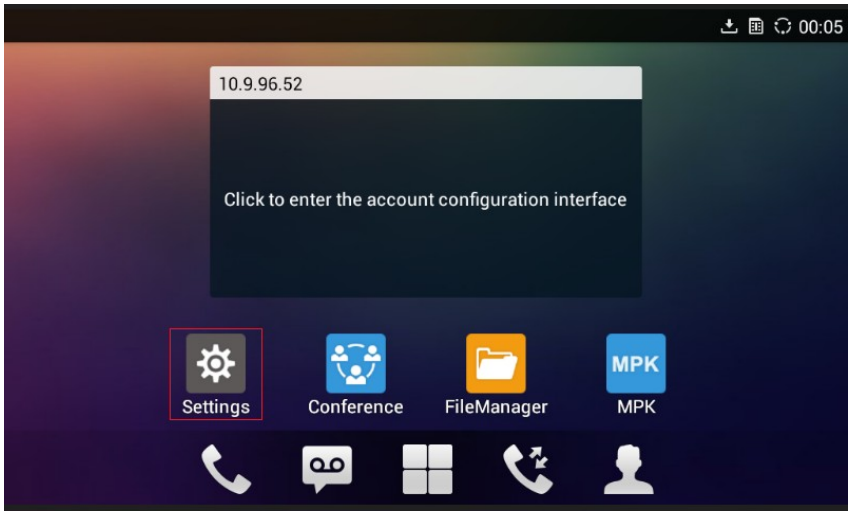


Click the Save icon and select ‘Apply’

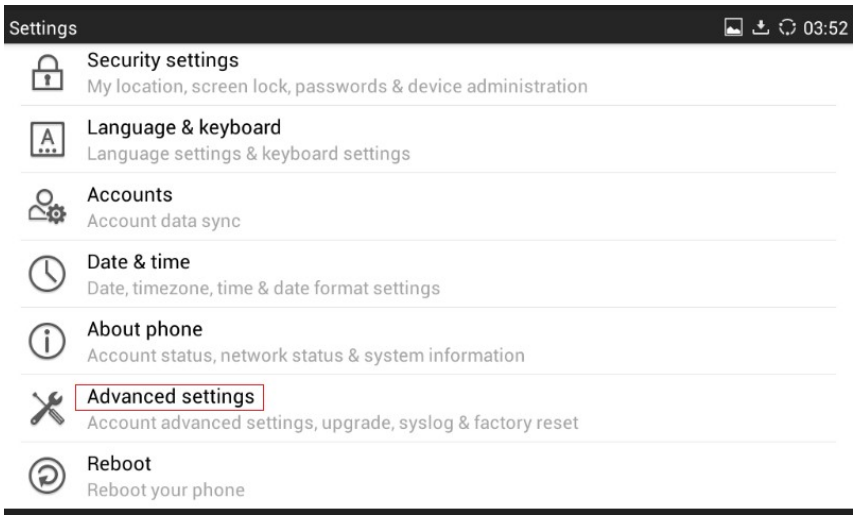


Then go back to the status interface to confirm that the device is registered to the sip server

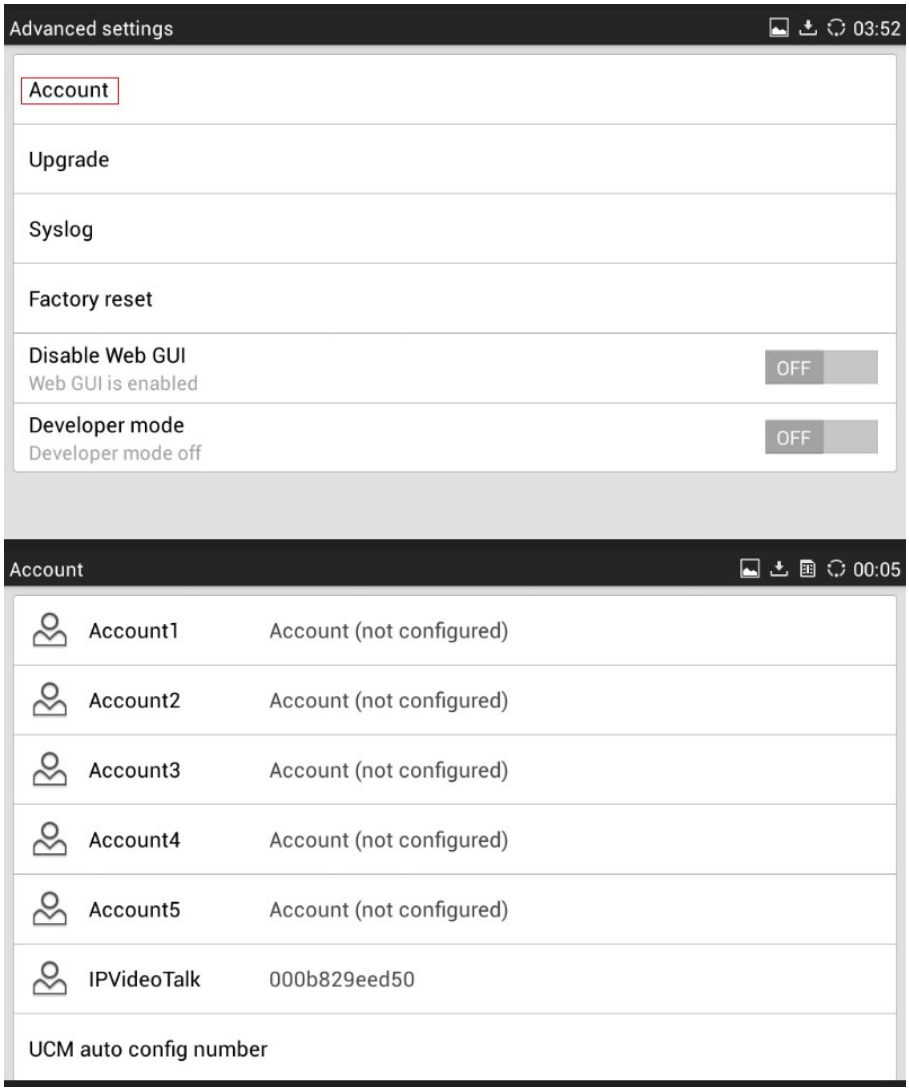
b. Configuring the GXV3275 by local interface



Click the Settings to enter settings interface

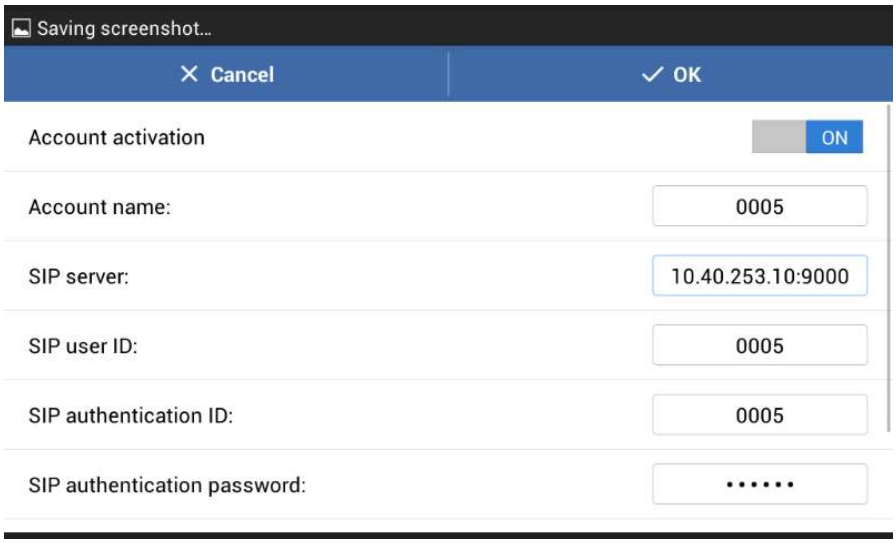


Click Account to enter the SIP account interface

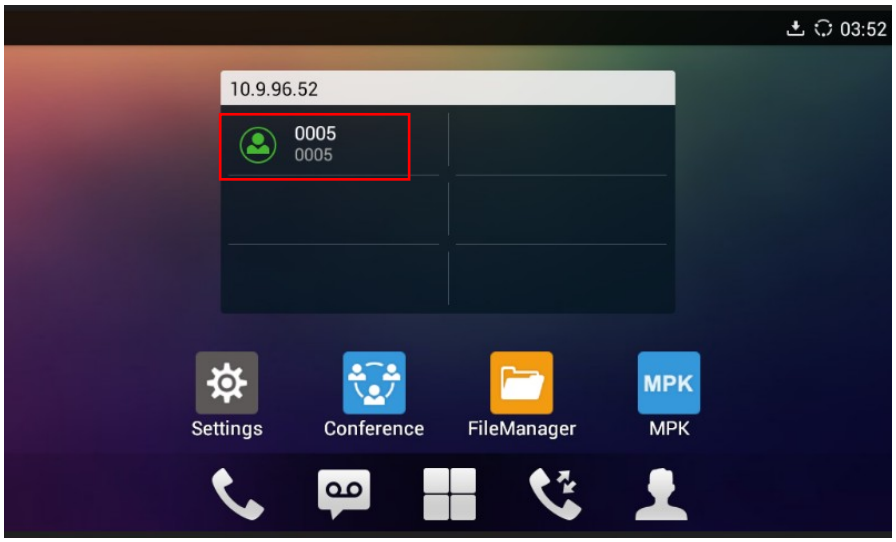


We only use the Account1 (any Account 1~6 is ok), so enter the account1 interface

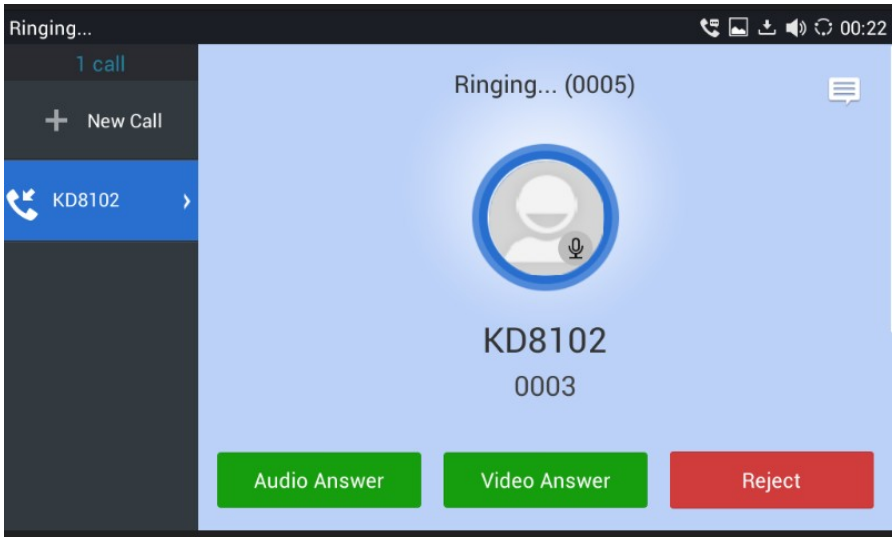
SIP server example and finished condition



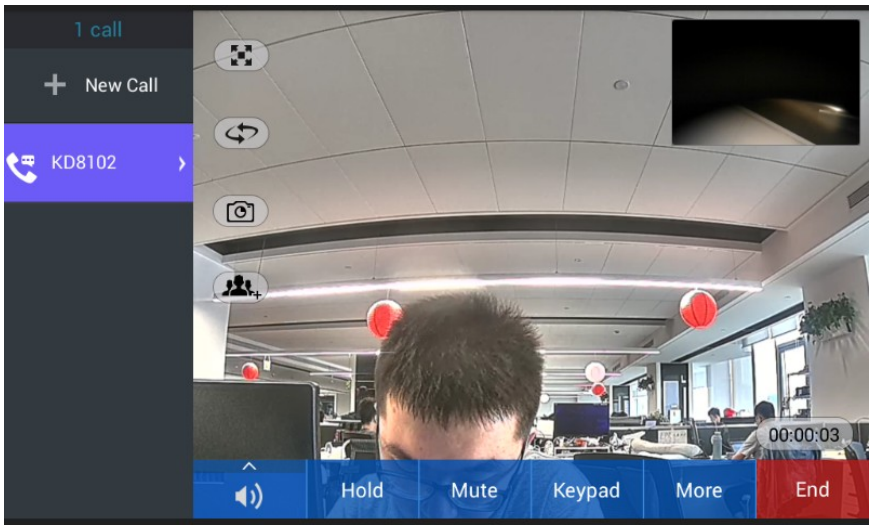
Go back to the main interface and below shows the SIP phone connected to SIP server.



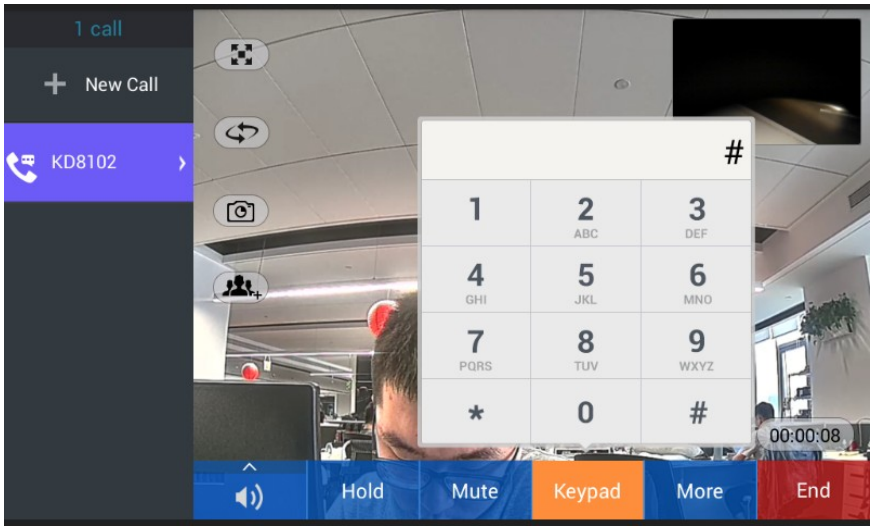
c. Test to use the door station to call the SIP phone

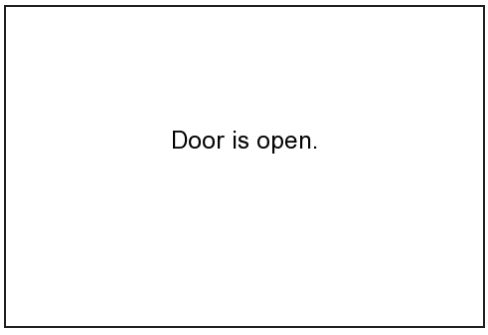


Click the Video Answer to answer the call



And you can choose to use the keypad, press key '#' to open the door





List of supported SIP phone

GrandStream GXV3275
Yealink SIP-T46G

First Choice for Security Professionals

HIKVISION **Technical Support**