

# V4.41 VDP Baseline

Release Notes

## Disclaimer

- These release notes are for reference only, and the actual product shall prevail.
- Succeeding products and release notes are subject to change without notice.
- If there is any uncertainty or controversy, please refer to our final explanation.

## Trademarks

All the company names and trademarks mentioned herein are the properties of their respective owners.

# Table of Contents

<b>Foreword</b> .....	<b>1</b>
<b>Release Notes</b> .....	<b>1</b>
1.1 Overview .....	1
1.2 New Features .....	1
1.3 Fixed Bugs .....	1
1.4 Compatibility .....	1
1.4.1 Program .....	1
1.4.2 Browser .....	2
1.4.3 Third Party Access .....	2
1.5 Software Environment .....	2
1.6 Pending Issues .....	2
1.7 Update Guide .....	2

## 1.1 Overview

Item	Description
Product model	VTO2202F VTO4202F VTH2421F VTH1550CH-S2 VTH5221D-S2
Version	Refer to software package information
Software package information	DH_VTHX421H_MultiLang_SIP_V4.410.0000000.4.R.20200221.zip General_VTHX421H_MultiLang_SIP_V4.410.0000000.4.R.20200221.zip DH_VTHX421L_MultiLang_SIP_V4.410.0000000.4.R.20200221.zip General_VTHX421L_MultiLang_SIP_V4.410.0000000.4.R.20200221.zip DH_VTO2202F_MultiLang_PN_SIP_V4.410.0000000.4.R.20200221.zip General_VTO2202F_MultiLang_PN_SIP_V4.410.0000000.4.R.20200221.zip DH_VTO4202F-P_MultiLang_PN_SIP_V4.410.0000000.4.R.20200221.zip General_VTO4202F-P_MultiLang_PN_SIP_V4.410.0000000.4.R.20200221.zip General_VTH52X1D-MCU_V4.000.0000000.3.R.20200109.zip
Release date	2020-1-20

## 1.2 New Features

No.	Function
1	Support the third party server (3CX, FreePBX, ZYCOO).
2	Support the third party video door phones (Grandstream GXV3140 and YeaLink_T21P_E2)
3	If the third party server is used, cards and fingerprints (VTO4202F) can be managed on video door phones.

## 1.3 Fixed Bugs

Fixed bugs	Description
1	When making calls on the door station, voice prompt was intermittent.
2	Door station unlock indicator could not be on.
3	Villa/apartment system cannot be selected on the modular door station web interface.
4	Modular station image on the web was out of proportion.

## 1.4 Compatibility

### 1.4.1 Program

Platform	Description
----------	-------------

VTH	General_VTHX421H_MultiLang_SIP_V4.410.0000000.4.R.20200221.zip
VTH	General_VTHX421L_MultiLang_SIP_V4.410.0000000.4.R.20200221.zip
VTO	General_VTO4202F-P_Eng_PN_SIP_V4.410.0000000.4.R.20200221.zip
VTO	General_VTO2202F_MultiLang_PN_SIP_V4.410.0000000.4.R.20200221.zip

## 1.4.2 Browser

IE9, IE10, IE11, Edge, Firefox, Chrome

## 1.4.3 Third Party Access

Not involved.

## 1.5 Software Environment

Platform	Description
idmss plus	4.90.002
gdmss plus	4.90.000
VTS	General_VTS5240B_Eng_P_SIP_V4.300.0000000.6.R.20181116.zip
Config Tool	General_VDPConfig_Eng_V1.008.0000000.0.R.20180919
ARD	General_ARD1611-W_EFM32ZG110_MCU_V1.105.0000000.0.R.20180403.zip
ARD	General_ARD1231-W_EFM32ZG110_MCU_V1.105.0000000.0.R.20180403.zip
ARD	General_ARD311-W_EFM32ZG110_MCU_V1.105.0000000.0.R.20180403.zip
ASR	General_ASR1102A_APP_V2.003.0000.0.R.20170421
DEE	General_DEE1010A_MCU_V3.000.0000000.5.R.20181204
DSS	General_DSS-Express_win32_IS_V1.000.0000003.1.R.20190817
YeakLink	52.81.0.115
GrandStream	1.0.7.80

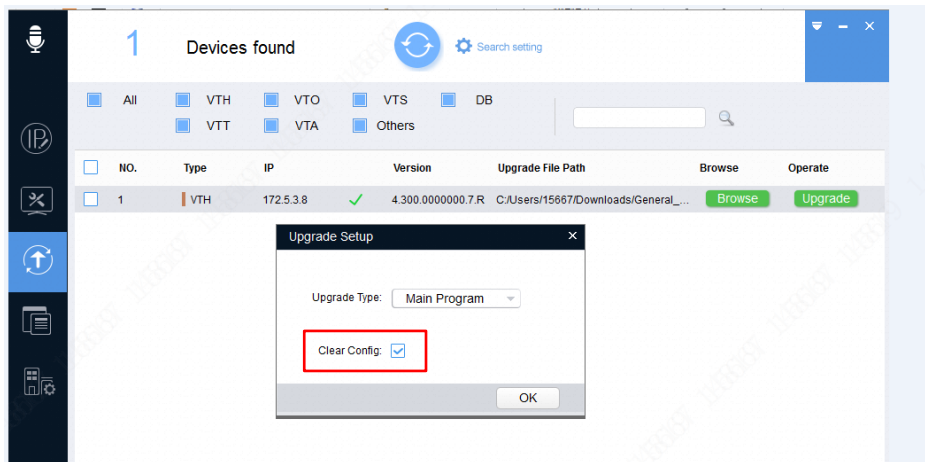
## 1.6 Pending Issues

No.	Description
1	When the door station that works as the SIP server and indoor monitors are in the same group, the call will not be ended when the countdown stops.
2	The Accept Audio button cannot be used by the third party indoor monitors to answer calls.
3	When video codec of the third party server is enabled, you cannot make calls on the door stations to SIP video door phones.
4	Video door phones do not support voicemail, the third party phone transfer/conference/forward, and multiparty session.
6	ZYCOO server does not support 2M stream and streamgreater than 2M.
7	When there are answer to the ZYCOO server, voice prompt after the countdown is different.

## 1.7 Update Guide

Recommend VDPConfig V1.08, Material No.: 2.8.02.01.00077

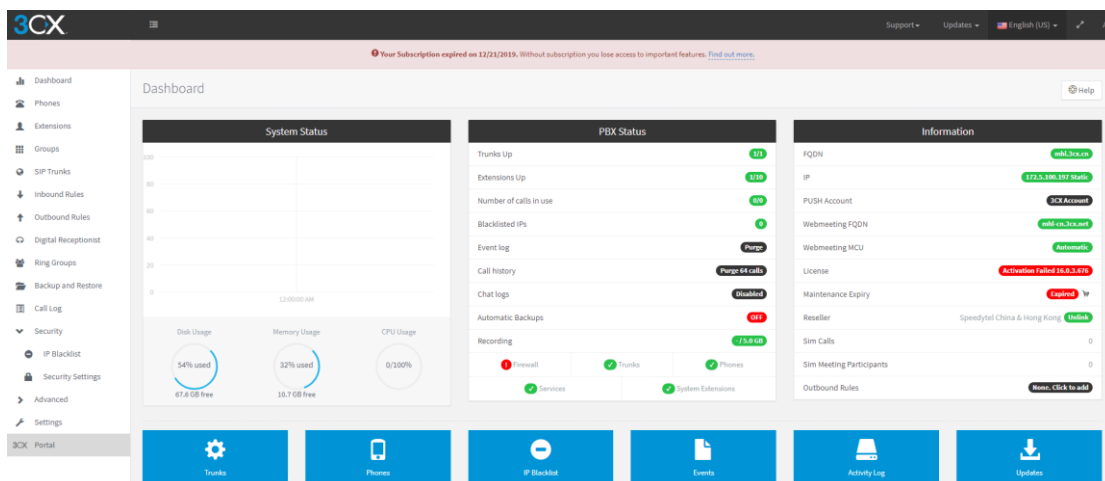
- a) Scenario: the old programs can be upgraded with this tool to its security baseline version, and the security baseline indoor units will be upgraded by each other.
- b) The upgrade program can automatically determine the device port, no user-defined ports needed.
- c) SCM upgrade and main program selection upgrade
- d) After upgrade, auto clear config marked in red in the following figure.



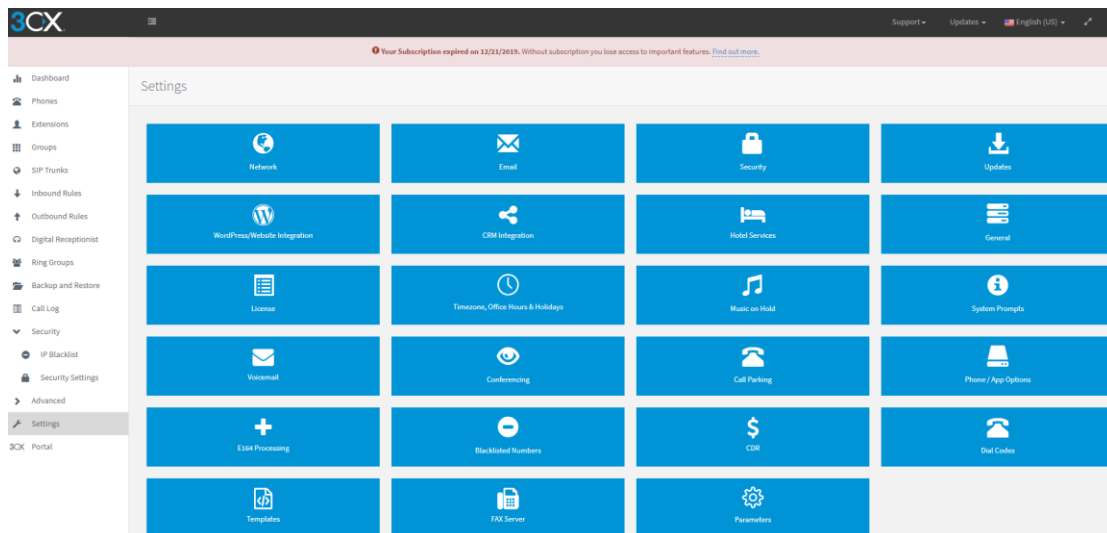
## 1.8 3CX Operational Manual

### 1.8.1 Server Configuration (admin/Admin123456)

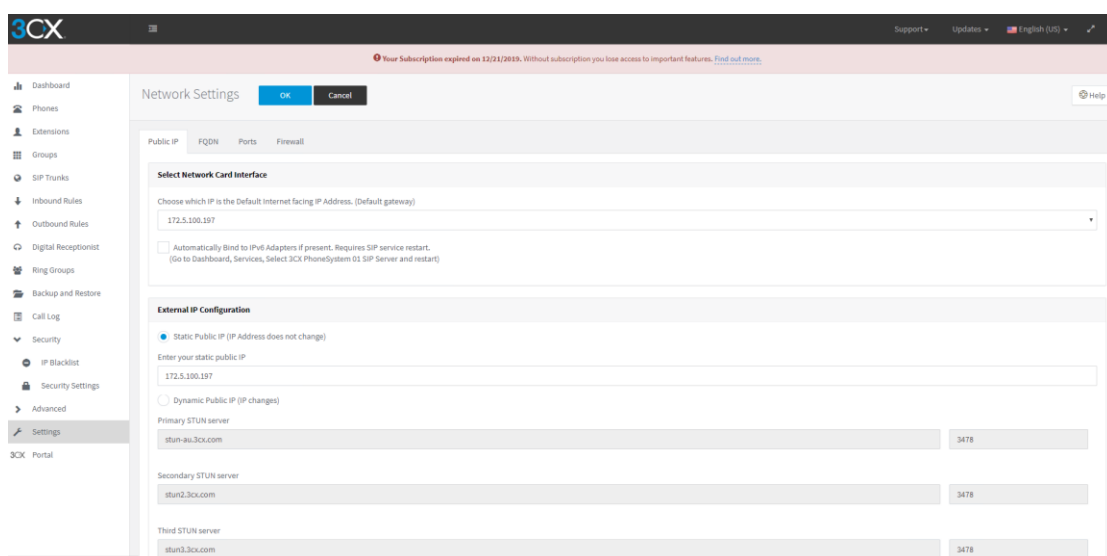
1. Log in to the 3CX Management Console interface.



2. Select **Settings > Network**, and then the Network Settings interface is displayed.

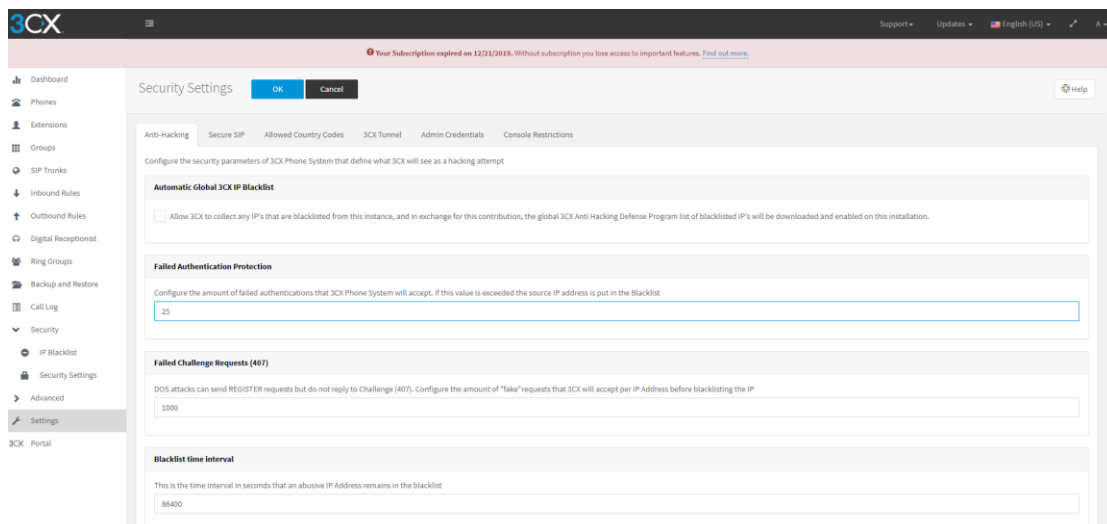


3. Click **Public IP**, and then in the **Select Network Card interface**, enter the server IP address (devices will do SIP registration at this IP address).

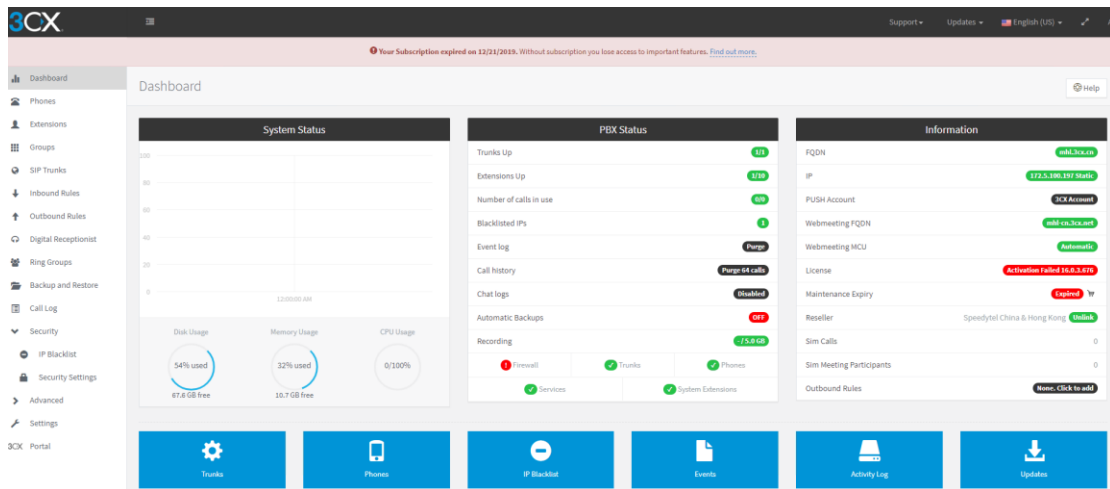


## 1.8.2 Registering Blacklist

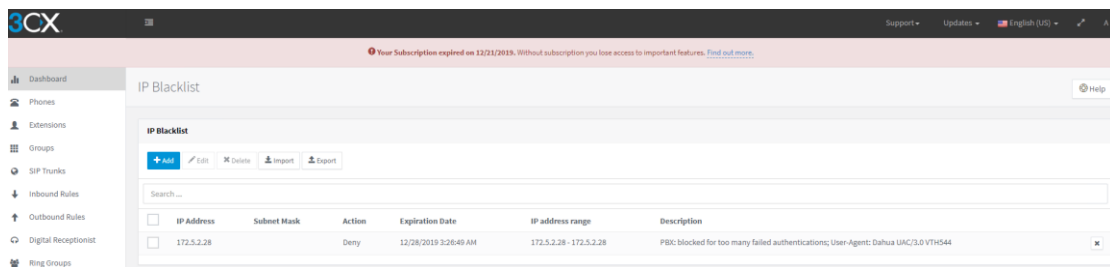
1. Select **Settings > Security Settings**, and then you can set **Failed Authentication Protection** and **Blacklist time interval**.



- If continuous registration time of a device exceeds the time you set, the server will add the IP address of the device to the blacklist. When the device does SIP registration at the server IP address within the blacklist time interval, the registration will be rejected. You can view the blacklist by selecting **Dashboard > Blacklisted IPs** or **Dashboard > IP BlackList**.

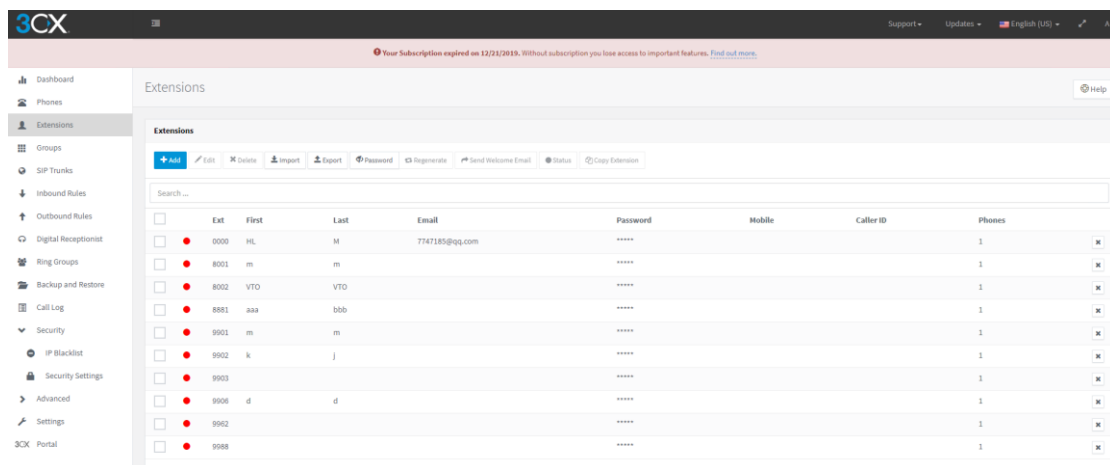


- You can delete devices in the blacklist or you can modify device IP address, and then do SIP registration again.



## 1.8.3 Adding Extensions

- Click **Extensions** on the navigation bar, and then the Extensions interface is displayed.



- Click **Add**, and then enter extension number, extension name, ID, and password.
  - Extension number is the number you can call. They can be door station numbers and room numbers (indoor monitor number).
  - Extension name is custom.
  - The ID and the password are the Username and Password of the SIP server you entered on the SIP configuration interface of door stations and indoor monitors.

Attention: Extension number and the ID are different. When installing 3CX, extension number length is fixed, and it can only be maximum five numbers. The ID must contain numbers and letters; otherwise the SIP registration will fail. As a result, you need to enter username on both door stations and indoor monitors.

3CX

Your Subscription expired on 12/21/2019. Without subscription you lose access to important features. [Find out more.](#)

8001 m m

Dashboard  
Phones  
Extensions  
Groups  
SIP Trunks  
Inbound Rules  
Outbound Rules  
Digital Receptionist  
Ring Groups  
Backup and Restore  
Call Log  
Security  
IP Blacklist  
Security Settings  
Advanced  
Settings  
3CX Portal

General Voicemail Forwarding Rules Phone Provisioning BLF Options Rights Click2Talk/Click2Meet

**User Information**

Extension  
8001

First Name  
m

Last Name  
m

Email Address  
Email Address

Mobile Number  
Mobile Number

Outbound Caller ID  
Outbound Caller ID

Scan this QR code from the 3CX Android or iOS app to provision it for this extension

3CX

Your Subscription expired on 12/21/2019. Without subscription you lose access to important features. [Find out more.](#)

3CX Portal

Outbound Caller ID

**Authentication**

Authentication details used by phones & client. Reprovision after a change

ID  
Admin123456

Password  
\*\*\*\*\*

WEB SERVICE 2.0

Local Setting Household Setting Network Log Management English

Basic

Video & Audio

Access Control

System

Security

Onvif User

**Device Properties**

Device Type Villa Station

Villa Call No. 9988

No. 8001

Centre Call No. 888888

Call Centre Time 00:00:00 23:59:59

**Events**

SD Total Capacity 0 M

SD Used Capacity 0 M

Format

Format the SD card if it can not be recognized.

Auto Snapshot(unlock)  ON  OFF

Auto Snapshot(talking)  ON  OFF

Leave Message Upload  ON  OFF

Confirm Refresh Default

WEB SERVICE 2.0

Local Setting Household Setting Network

Basic

**SIP Server**

Firewall

SIP Server  Enable

Server Type ThirdParty

IP Address 172.5.10.31

Port 5060

Username Admin123456  Enable

Password \*\*\*\*\*

SIP Domain

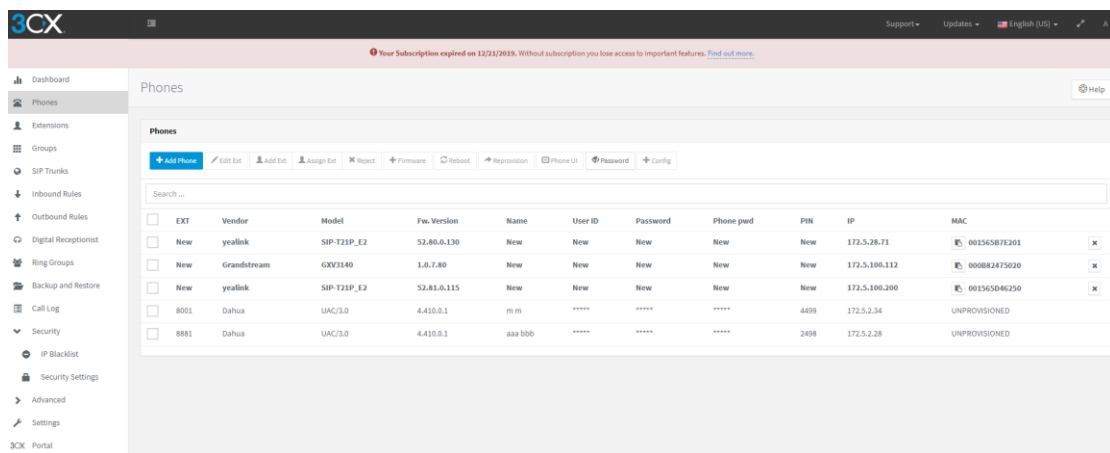
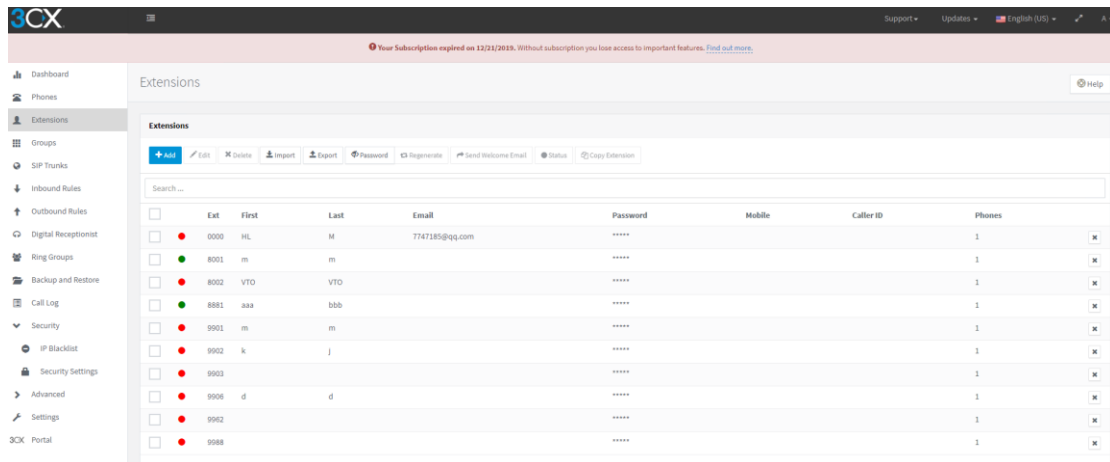
SIP Server Username admin

SIP Server Password \*\*\*\*\*

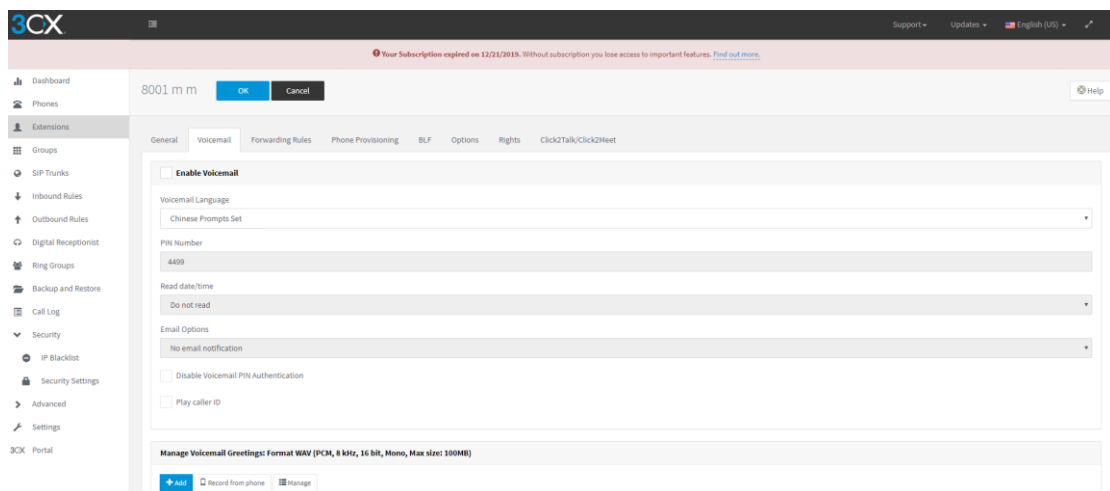
Warning: The device will be rebooted after modifying the SIP server enable status.

3. After you have entered extension number, extension name, ID, and password, devices that have been registered will be displayed on the **Extensions** and **Phones** interface.

- On the Extensions interface, green dots means that the devices have been registered; and red dots means that the devices have not been registered.
- On the Phones interface, you can see detailed information of the devices.
- After all devices have been registered, you can make and answer calls among all the devices.

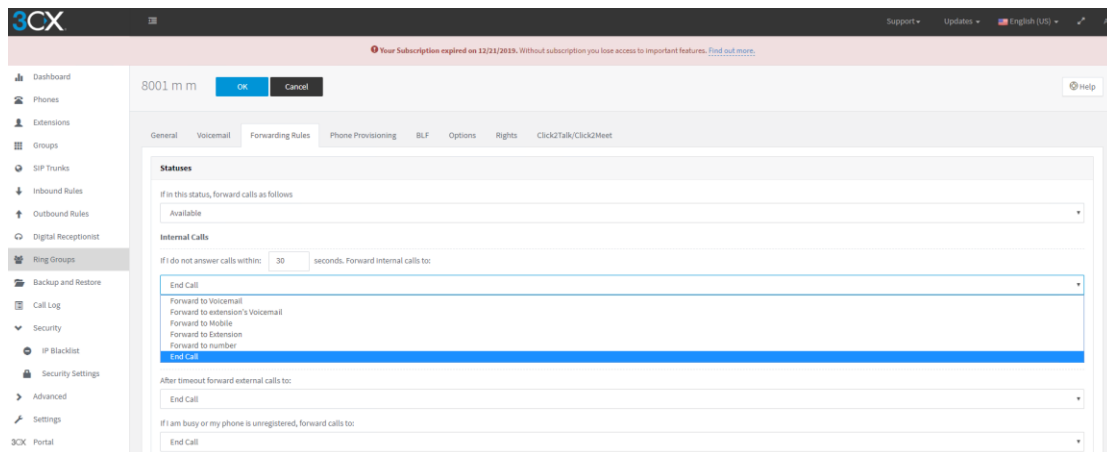


- Voicemail function is not supported by door stations and indoor monitors currently, so you need to disable the voicemail function.



Attention: If no answer forward and busy forward to voicemail is set, when you did not answer calls on the indoor monitor, door stations will prompt visitors at the door stations to leave messages to the voicemail rather than end the call.

- Set forwarding rules. Extensions support more than one forwarding rules, select as needed.



6.

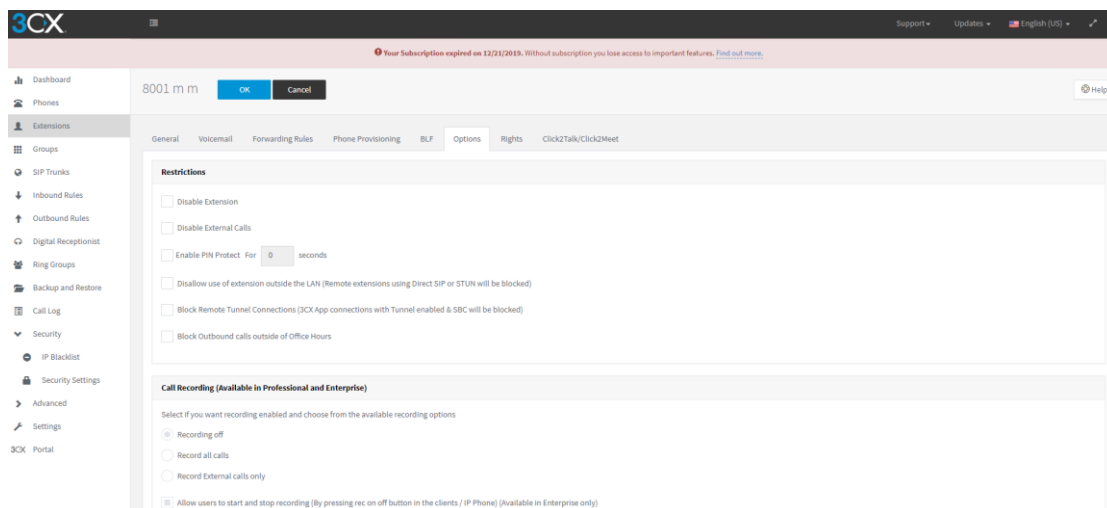
External IP addresses are restricted by the 3CX server, and only three types of IP address are retained.

A: 10.0.0.0~10.255.255.255

B: 172.16.0.0~172.31.255.255

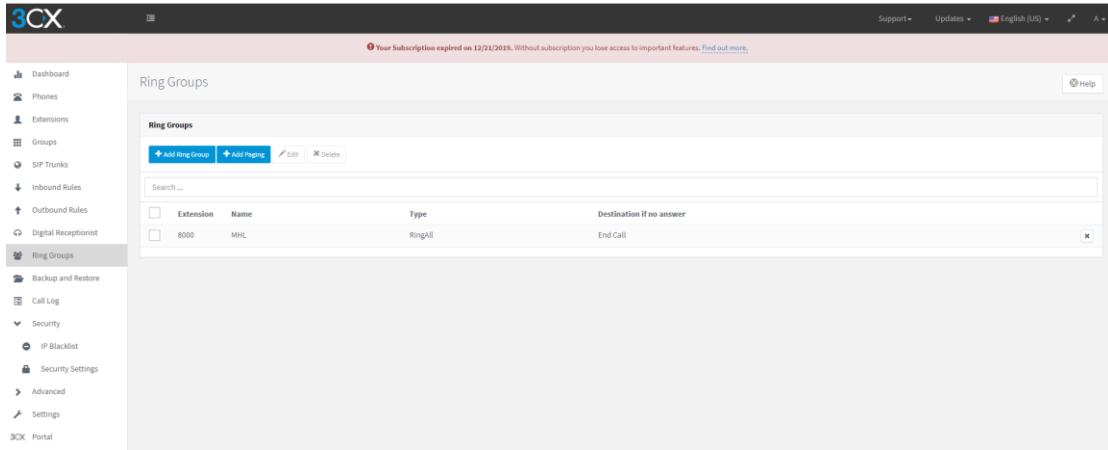
C: 192.168.0.0~192.168.255.255

Except IP addresses in A, B, and C, 3CX regards all other IP addresses as public addresses. As a result, when adding extensions, you need to disable **Disallow use of extension outside the LAN (Remote extensions using Direct SIP or STUN will be blocked)** (enabled by default) in **Extension > Options**; otherwise SIP registration for extensions will fail.

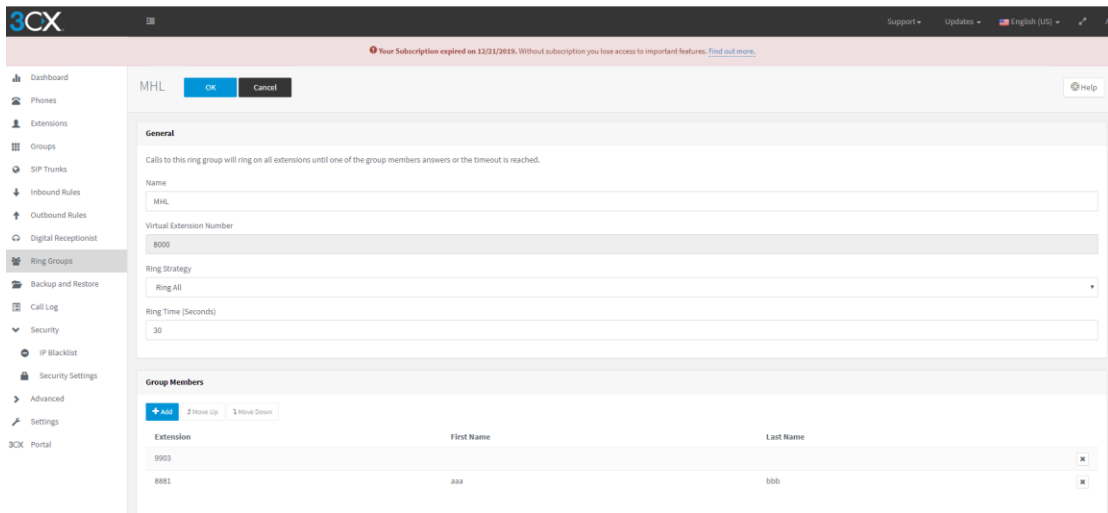


## 1.8.4 Ringing Groups

1. Select **Ring Groups**, and then click **Add Ring Group**.  
The Ring Group setting interface is displayed.



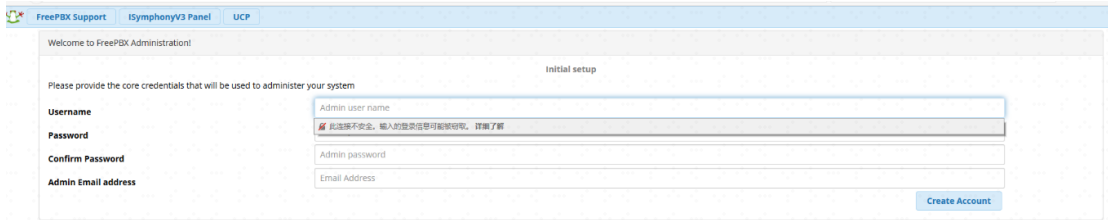
2. Set general settings, add group members, and then call extension numbers, the group call functions can be enabled.



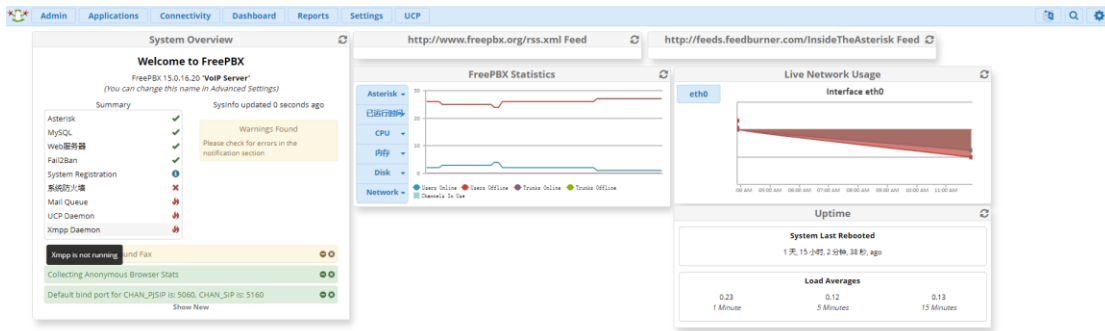
## 1.9 FreePBX Operation

### 1.9.1 Software

1. Enter FreePBX IP address to go to the freepbx interface, and then you can set administrator parameters. Here you need to set administrator username and password (admin/admin123).



2. Click Create Account. The main interface is displayed.

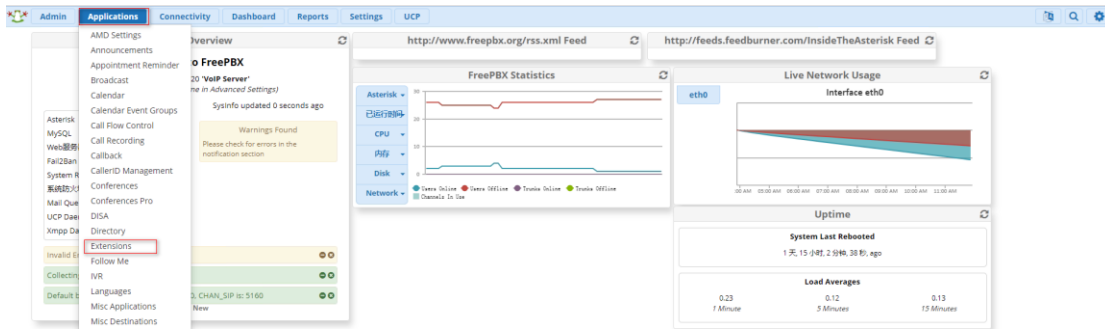


FreePBX is a registered trademark of Sangoma Technologies Inc. FreePBX 15.0.16.20 is licensed under the GPL. Copyright© 2007-2019



## 1.9.2 Adding SIP Extensions

1. On the main interface, select **Applications > Extensions**.

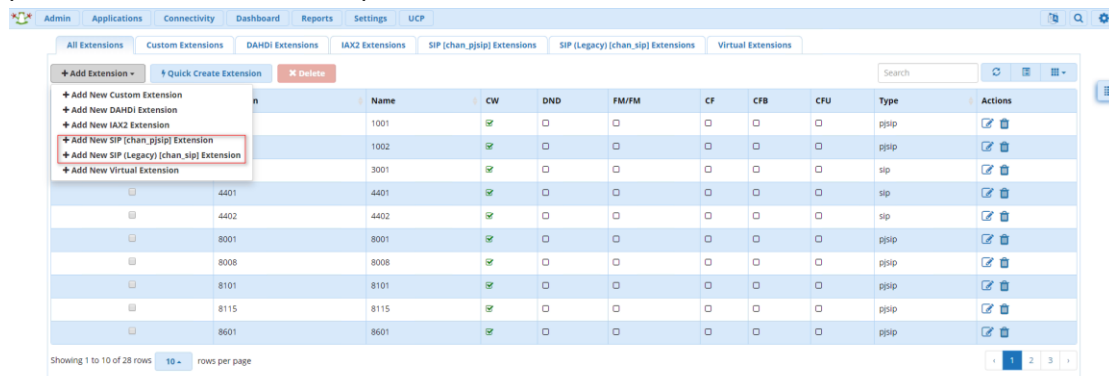


FreePBX is a registered trademark of Sangoma Technologies Inc. FreePBX 15.0.16.20 is licensed under the GPL. Copyright© 2007-2019



2. Select **Add Extension**.

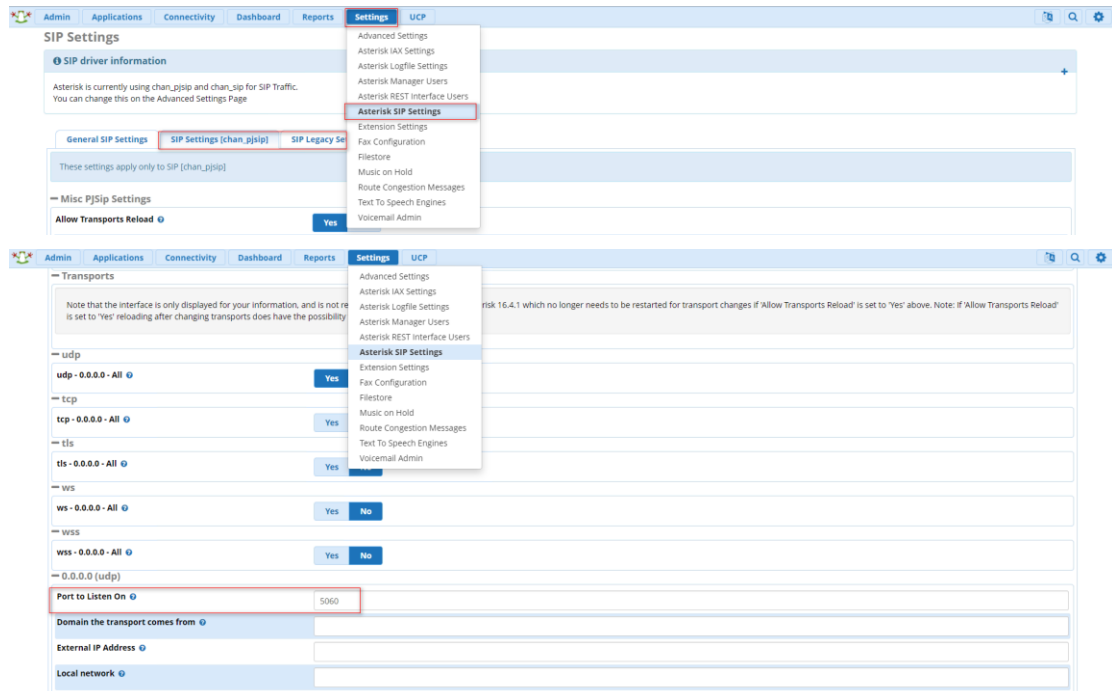
FreePBX of new version contains PJSIP and Chan\_SIP protocols. Default port number of PJSIP protocol is 5060 and default port number of Chan\_SIP is 5160.



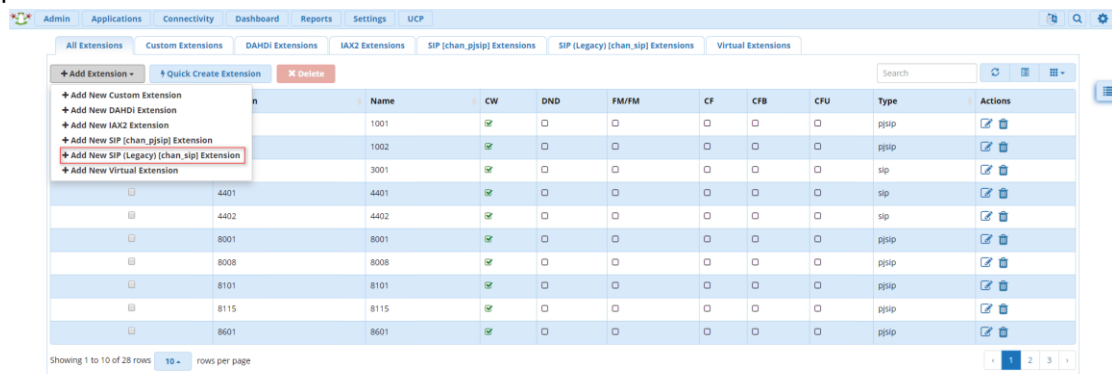
FreePBX is a registered trademark of Sangoma Technologies Inc. FreePBX 15.0.16.20 is licensed under the GPL. Copyright© 2007-2019



Attention: You can set port number by selecting **Settings > SIP Settings[chan\_pjsip]** or through **Port to Listen On** in **SIP Legacy Settings[chan\_sip]**.



3. Select Add New SIP (Legacy) [chan\_sip] Extension to create a new Chan\_SIP Extension. The port number is 5160.



You only need to enter the following items.

- User Extension: The extension number.
- Display Name: Username.
- Secret: Password.

For example: User Extension: 2018    Display Name: 2018    Secret: 2018

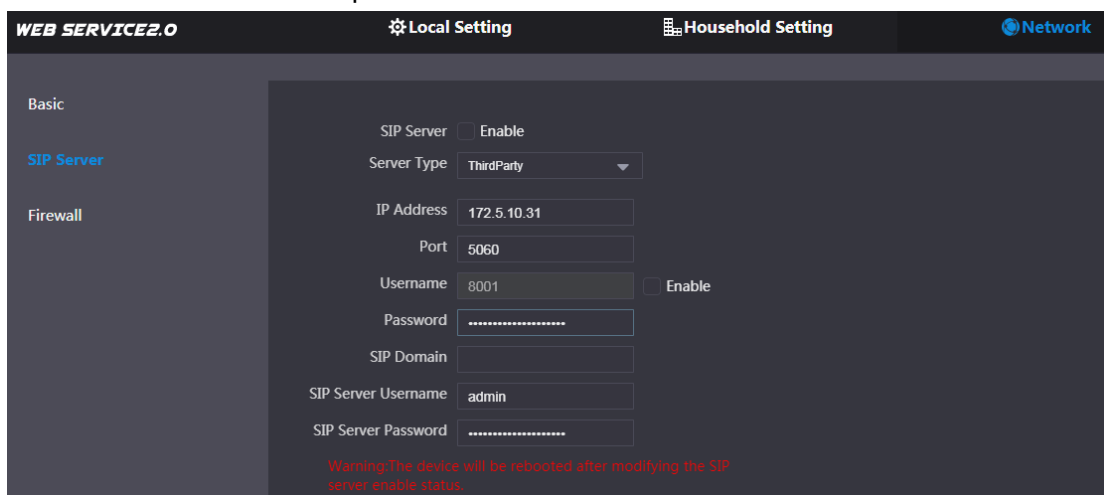
After you have created extensions, you need to click apply config to make the configuration effective.

#### 4. Adding JSIP Extensions

For adding procedures, refer to the adding of Chan\_SIP extensions. The port is 5060.

#### 5. Do SIP server settings on device web interface.

Select **Network > SIP Server**, select **ThirdParty** from the **Server Type** drop-down list, and then enter server IP address and password.



### 1.9.3 Adding Group Call Devices

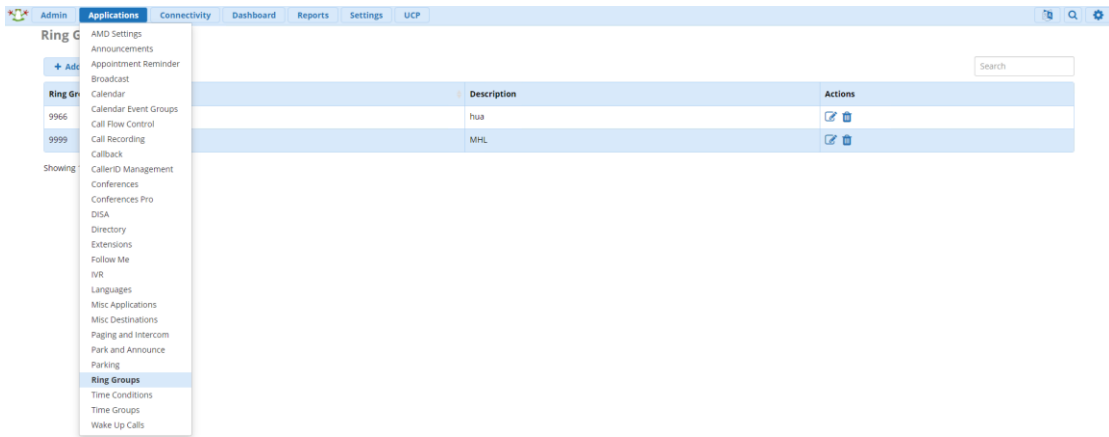
Once indoor monitor numbers are added to an Asterisk group, all devices in the group can receive calls.

#### 1. Add indoor monitors.

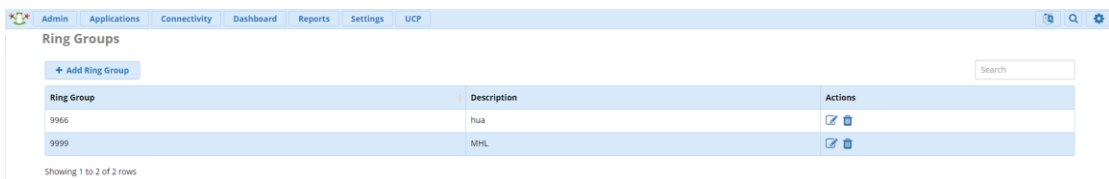
Indoor monitors 8001 and 8008 are added.

Extension	Name	CW	DND	FM/FM	CF	CFB	CFU	Type	Actions
1001	1001	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	pbip	<a href="#">Edit</a> <a href="#">Delete</a>
1002	1002	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	pbip	<a href="#">Edit</a> <a href="#">Delete</a>
3001	3001	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	sip	<a href="#">Edit</a> <a href="#">Delete</a>
4401	4401	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	sip	<a href="#">Edit</a> <a href="#">Delete</a>
4402	4402	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	sip	<a href="#">Edit</a> <a href="#">Delete</a>
8001	8001	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	pbip	<a href="#">Edit</a> <a href="#">Delete</a>
8008	8008	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	pbip	<a href="#">Edit</a> <a href="#">Delete</a>
8101	8101	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	pbip	<a href="#">Edit</a> <a href="#">Delete</a>
8115	8115	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	pbip	<a href="#">Edit</a> <a href="#">Delete</a>
8601	8601	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	pbip	<a href="#">Edit</a> <a href="#">Delete</a>

#### 2. Select **Applications > Ring Groups > Add Ring Groups**, and then create ring groups.

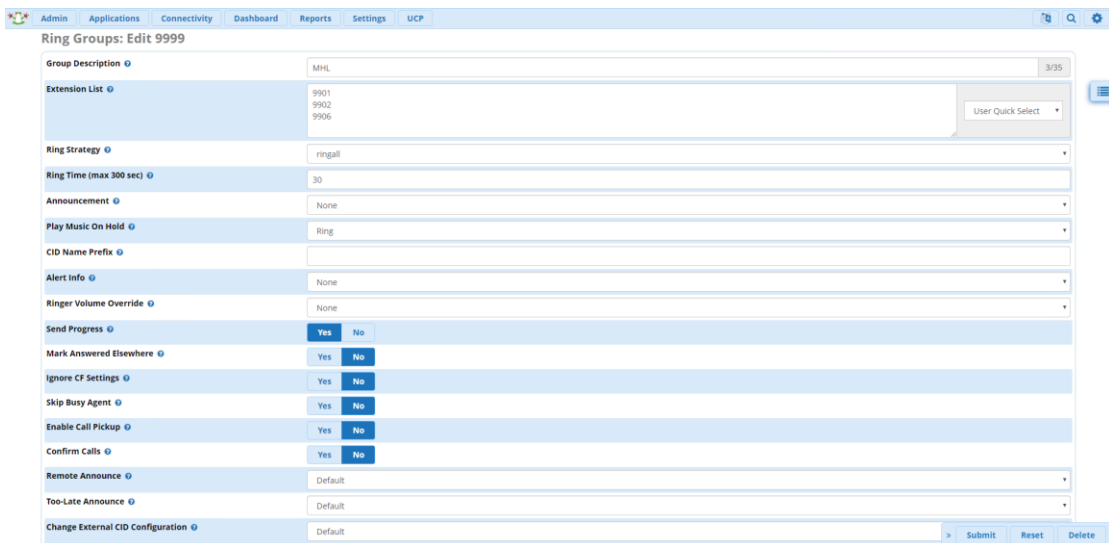


FreePBX is a registered trademark of Sangoma Technologies Inc.  
FreePBX 15.0.16.20 is licensed under the GPL.  
Copyright© 2007-2019



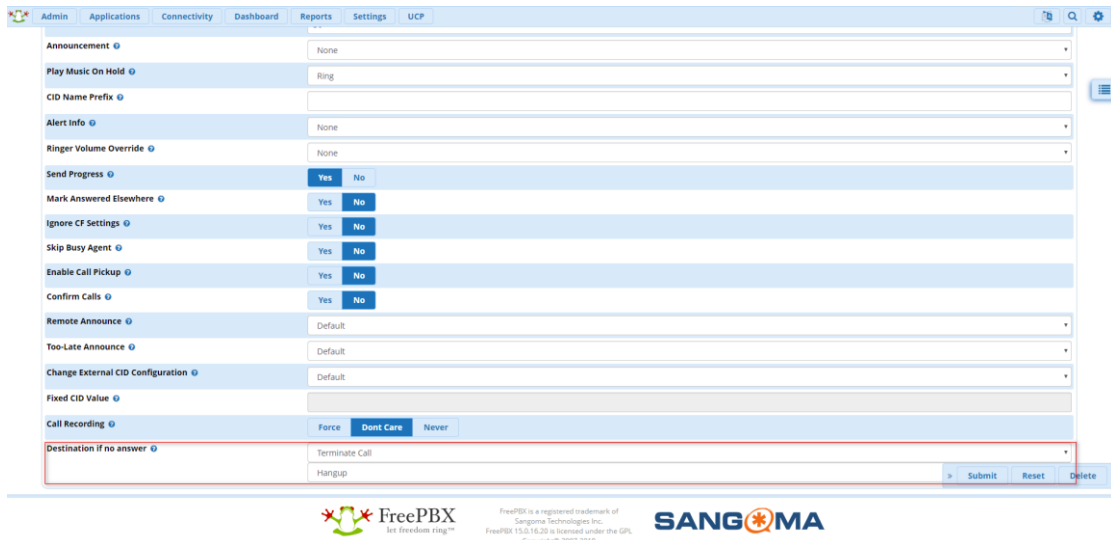
3. Select numbers as needed from the **User Quick Select** drop-down list, and then add the numbers to the **Extension List**.

Attention: Ring group numbers and indoor monitor numbers cannot be the same; otherwise the numbers cannot be saved.



4. Go to the bottom of the Ring Group interface, in the Destination if no answer row, select Terminate Call or Hangup.

Attention: You must select Terminate Call or Hangup; otherwise the settings cannot be saved.



5. After selecting Terminate Call or Hangup, click **Submit**, and then you must click **Apply Config** at the top of the interface.



6. After all above operations have been done, you can call group numbers on door stations, and then indoor monitors in the group can all receives calls.

## 1.10 ZYCOO Server Configuration

### 1.10.1 Adding Devices

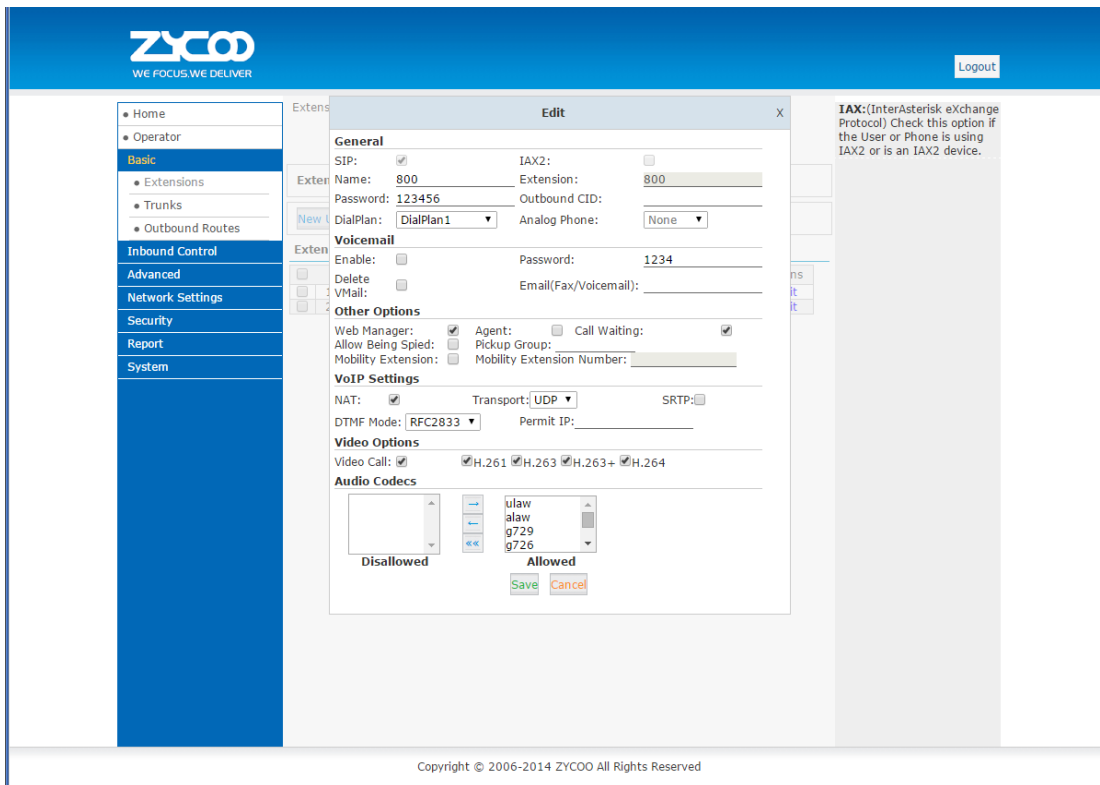
1. Add an indoor monitor or a door station.

On the following image, select **Basic > Extensions > New User**, edit new user information, and then click **Save**.

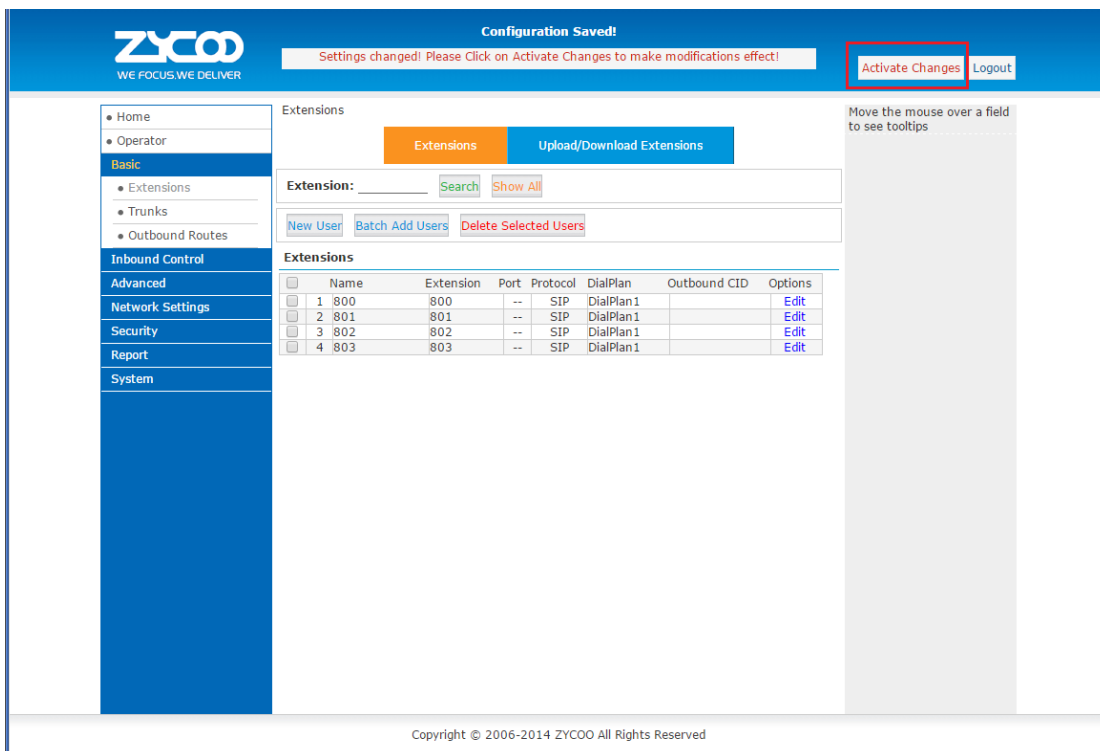
The default name is 800 by default. All configurations are the same except name.

#### Attention:

- In the **Audio Codecs**, you need to select ulaw and alaw for door stations and indoor monitors from the **Allowed** list; otherwise there will be no audio.
- In Video Options, select proper video format for door stations. H.264 is recommended; otherwise there will be no video during calls.
- Voicemail is not supported by door stations and indoor monitors. As a result, you need to disable voicemail function.



2. Click **Activate Changes** on the upper right corner of the interface, and then all configurations can be effective.



## 1.10.2 Adding SIP Address

The screenshot shows the ZYCOO web interface. The top navigation bar includes the ZYCOO logo and a 'Logout' button. The left sidebar contains a menu with categories like Home, Operator, Basic, Inbound Control, Advanced, Network Settings, Security, Report, and System. The main content area is titled 'SIP Allowed Address' and features a table with the following data:

List of SIP Allowed IP Address		Add Allowed IP	
	Allowed IP	Options	
1	172.5.3.69/255.255.0.0	Edit	Delete
2	172.5.3.70/255.255.0.0	Edit	Delete
3	172.5.3.66/255.255.0.0	Edit	Delete
4	172.5.3.67/255.255.0.0	Edit	Delete
5	172.8.3.66/255.255.0.0	Edit	Delete

At the bottom of the page, there is a copyright notice: 'Copyright © 2006-2014 ZYCOO All Rights Reserved'.

## 1.10.3 VTO Configuration

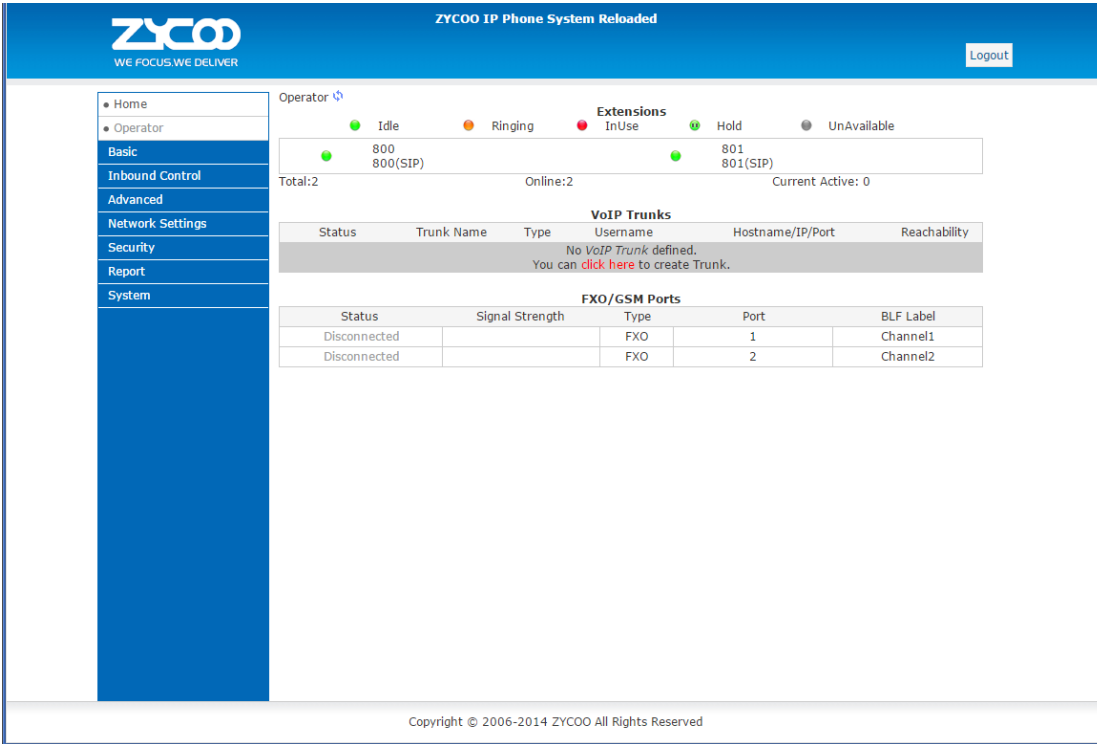
1. Select ThirdParty from the **Server Type** drop-down list.
2. Enter door station number in the **Username** box.
3. The port number is 5060 by default.
4. Password is 123456 and it is the same as the one you entered when adding devices on the ZYCOO interface.

The screenshot shows the 'WEB SERVICE2.0' configuration interface. The 'Local Setting' tab is active. The 'SIP Server' section is expanded, showing the following configuration:

- SIP Server:  Enable
- Server Type: ThirdParty (dropdown)
- IP Address: 172.5.10.31
- Port: 5060
- Username: 8001  Enable
- Password: [masked]
- SIP Domain: [empty]
- SIP Server Username: admin
- SIP Server Password: [masked]

A warning message at the bottom states: 'Warning: The device will be rebooted after modifying the SIP server enable status.'

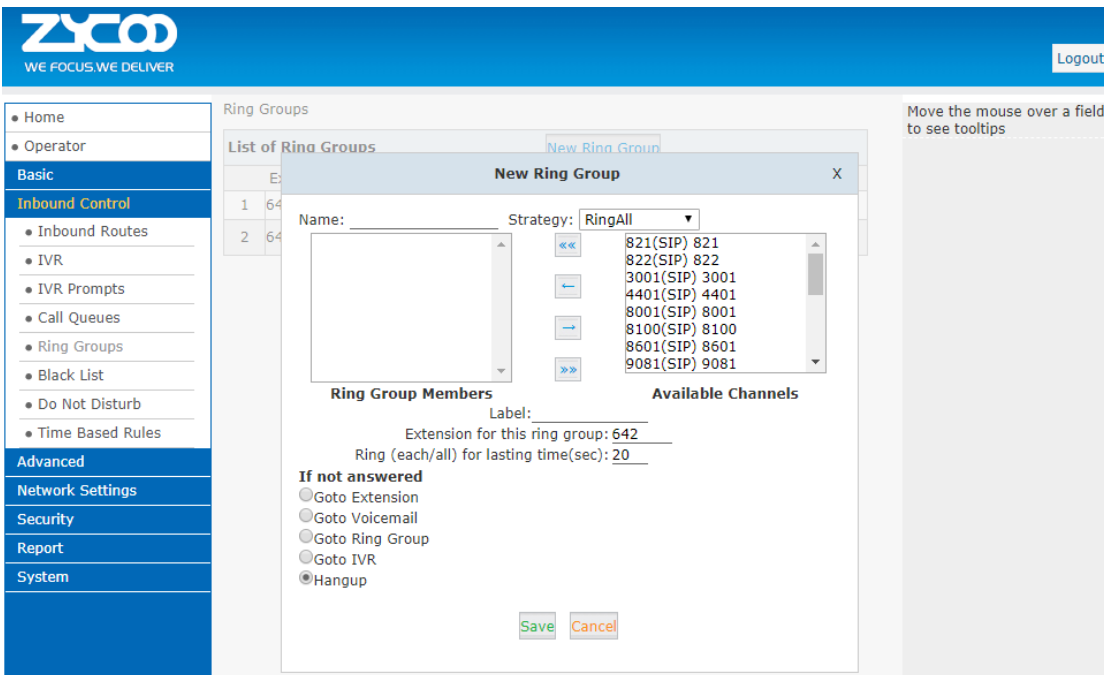
5. SIP registration of devices has been completed.



## 1.10.4 Group Call Configuration

If you want to use group call function, you need to do configurations through ZYCOO.

1. Add extensions in the Available Channels to the Ring Group Members.
2. Enter the name, label, extension number (you can call extensions in the group by this number) for this ring group.
3. The number range of the Ring Group Members can be adjusted in Advanced > Options.



- Home
- Operator
- Basic
- Inbound Control
- Advanced
  - Options
  - Voicemail
  - SMTP Settings
  - Email to Fax
  - Conferences
  - Music Settings
  - DISA
  - Follow Me
  - Call Forward
  - Paging and Intercom
  - PIN Sets
  - Call Recording
  - Smart DID
  - Callback
  - Phone Book
  - Feature Codes
  - Phone Provisioning
- Network Settings
- Security
- Report
- System

General

- General
- Global Analog Settings
- Global SIP Settings

**Local Extension Settings**

Operator Extension:

Global Ring Time Set(sec):

Enable Transfer:

Enable Attended Transfer Caller ID:

Enable Music On Ringback:

Auto-Answer:

Record Format:

**Default Settings for New User**

SIP:  IAX2:  Web Manager:  Call Waiting:

Agent:  Voicemail:  Delete VMail:  VM Password:

NAT:  Transport:  SRTP:

**Audio Codecs**

ulaw alaw G.722 G.729 G.726 GSM Speex

**Extension Preferences**

User Extensions	3000	to	9999
Conference Extensions	900	to	909
IVR Extensions	610	to	629
Queue Extensions	630	to	639
Ring Group Extensions	640	to	659
Paging Group Extensions	660	to	679

**Codecs:** The allowed codecs can be selected. By default only alaw, ulaw and G.729 are allowed.

- Home
- Operator
- Basic
- Inbound Control
- Advanced
  - Options
  - Voicemail
  - SMTP Settings
  - Email to Fax
  - Conferences
  - Music Settings
  - DISA
  - Follow Me
  - Call Forward
  - Paging and Intercom
  - PIN Sets
  - Call Recording
  - Smart DID
  - Callback
  - Phone Book
  - Feature Codes
  - Phone Provisioning
- Network Settings
- Security
- Report
- System

General

- General
- Global Analog Settings
- Global SIP Settings

**Local Extension Settings**

Operator Extension:

Global Ring Time Set(sec):

Enable Transfer:

Enable Attended Transfer Caller ID:

Enable Music On Ringback:

Auto-Answer:

Record Format:

**Default Settings for New User**

SIP:  IAX2:  Web Manager:  Call Waiting:

Agent:  Voicemail:  Delete VMail:  VM Password:

NAT:  Transport:  SRTP:

**Audio Codecs**

ulaw alaw G.722 G.729 G.726 GSM Speex

**Extension Preferences**

User Extensions	3000	to	9999
Conference Extensions	900	to	909
IVR Extensions	610	to	629
Queue Extensions	630	to	639
Ring Group Extensions	640	to	659
Paging Group Extensions	660	to	679

**Codecs:** The allowed codecs can be selected. By default only alaw, ulaw and G.729 are allowed.