



Asterisk & Dnake User Manual

Contents

1 Establishment of Asterisk Server	1
1.1 Get Asterisk installation package	1
1.2 Configuring SIP files	1
1.3 Configure dialing rules	2
2 Register Indoor Monitor and Outdoor Station to Asterisk server ...	3
2.1 Network settings	3
2.2 Fill Asterisk accounts in the Indoor Monitor	3
2.3 Fill Asterisk accounts in the Outdoor Station	4
3 Asterisk user registration confirmation.....	7
3.1 Confirm Asterisk server user.....	7

1 Establishment of Asterisk Server

1.1 Get Asterisk installation package (version 16.2.1 environment (Ubuntu))

1. Download asterisk installation package in Linux system environment.

```
# sudo apt-get install wget  
# wget https://downloads.asterisk.org/pub/telephony/asterisk
```

1.2 Configuring SIP files

◆ Step 1: Open Asterisk server:

```
#cd /etc/asterisk
```

◆ Step 2: Enter the sip.conf file:

```
#vim sip.conf
```

◆ Step 3: Configure the sip.conf file of asterisk

1. For basic configuration of asterisk server, please add the following contents to the file:

```
[general]  
realm=192.168.0.96  
  
domainsasrealm=192.168.0.96  
udpbindaddr=192.168.0.96:5060  
tcpenable=no  
tcpbindaddr=0.0.0.0  
transport=udp  
videosupport=always  
directmedia=no
```

2. Add a custom SIP user. Define two users 2005 and 2006 as follows:

```
[2005]
username=2005
secret=2005
accountcode=2005
callerid="2005" <2005>
mailbox=2005
context=lrn
type=friend
host=dynamic
compensate=yes
hassip = yes
videosupport=always

disallow=all
allow=ulaw
allow=alaw
allow=h263
allow=h264
```

```
[2006]
username=2006
secret=2006
accountcode=2006
callerid="2006" <2006>
mailbox=2006
context=lrn
type=friend
host=dynamic
compensate=yes
hassip = yes
videosupport=always

disallow=all
allow=ulaw
allow=alaw
allow=h263
allow=h264
```

1.3 Configure dialing rules

- ◆ Step 1: Enter the extensions.conf file

```
# vim extensions.conf
```

- ◆ Step 2: Add a section in the header to configure the dialing scheme so that 2005 and 2006 can dial each other

```
exten => _[1-6]XXX,1,Dial(SIP/${EXTEN})
exten => _[1-6]XXX,n,Hangup()
```

2 Register Indoor Monitor and Outdoor Station to Asterisk server

Before you start:

- Make sure the device is in good condition and all the assembly parts are included.
- Make sure your network functions well. The Outdoor Station, the Indoor Monitor and computer are under the same LAN. Only when they are under the same LAN can they communicate.
- Download **Remote Upgrade Tool** from the link below.
(<https://mega.nz/file/hglDVYxB#6Igsmo031nupq30DosaSxHay0WzwwgFQh5ew521hkAA>)

2.1 Network settings

1. Connect the Ethernet cable to Outdoor Station, Indoor Monitor, and computer. Please keep them under **the same LAN**.

2.2 Fill Asterisk accounts in the Indoor Monitor

1. The followings are the steps to fill in **Proxy, Realm, User and Password** in the Indoor Monitor

- ◆ Step 1: after the setting, you can double-click the indoor monitoring IP address on the remote upgrade page to open the website. You can also enter the IP address of indoor monitoring in the search bar of the browser and log in to its web page with account: admin and password: 123456.
- ◆ Step 2: enter the VoIP option on the indoor unit web page, open the SIP server, configure proxy and realm, and fill in the username and password configured in asterisk:

Streaming Media Solution

Main
Network
RoomNo.
VOIP
Advanced
Webkit
Others
Debug
Logout

SIP Settings

SIP enable:

Proxy:

Realm:

Outbound:

STUN IP:

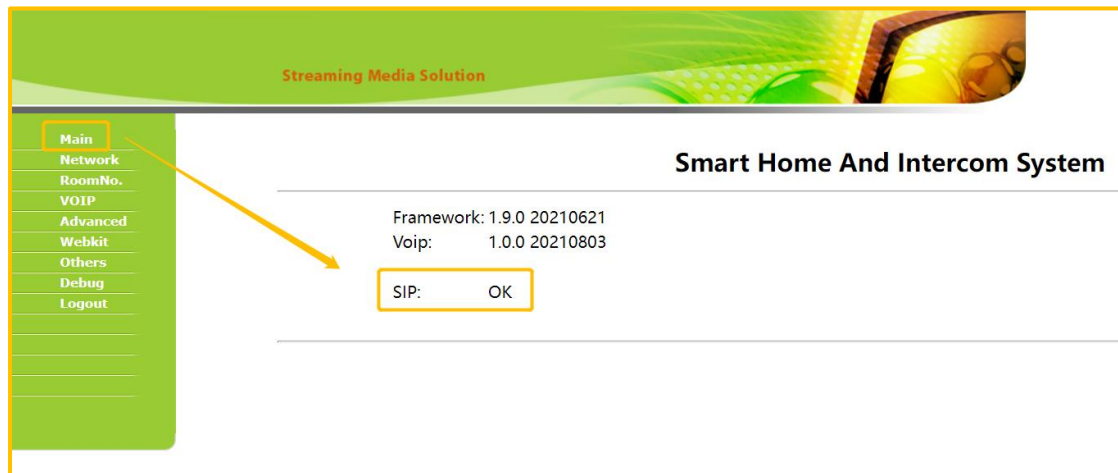
STUN Port:

User:

Password:

Timeout:

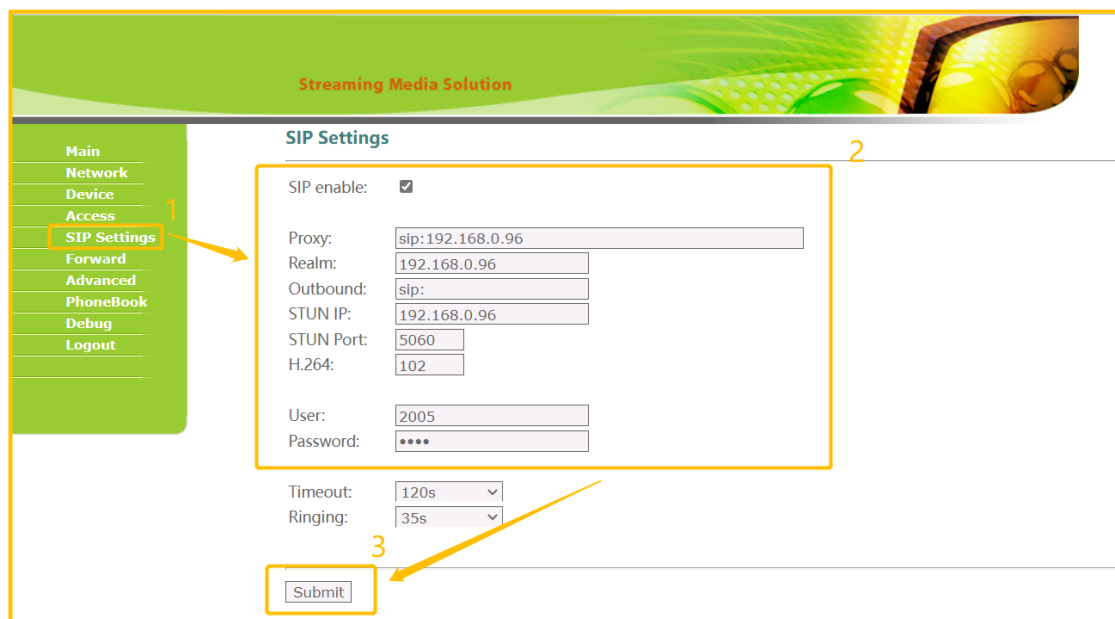
- ◆ Step 3: after the configuration is completed, you will see SIP: OK in main, indicating that the device has been successfully registered with the asterisk server



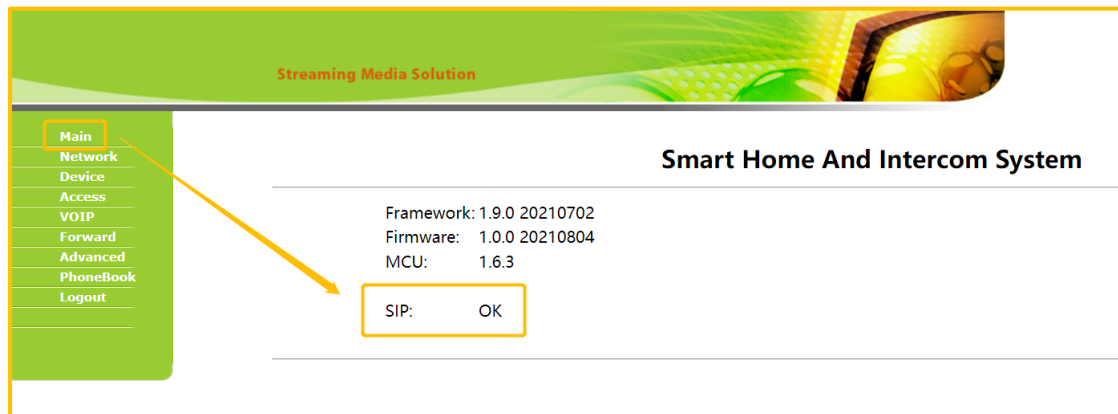
2.3 Fill Asterisk accounts in the Outdoor Station

1. The followings are the steps to fill in **Proxy, Realm, User and Password** in the outdoor station.

- ◆ Step 1: after setting, you can double-click the indoor monitoring IP address on the remote upgrade page to open the website. You can also enter the IP address of indoor monitoring in the search bar of the browser and log in to its web page with account: admin and password: 123456.
- ◆ Step 2: enter the VoIP option on the outdoor station web page, open the SIP server, configure proxy and realm, and fill in the username and password configured in asterisk:



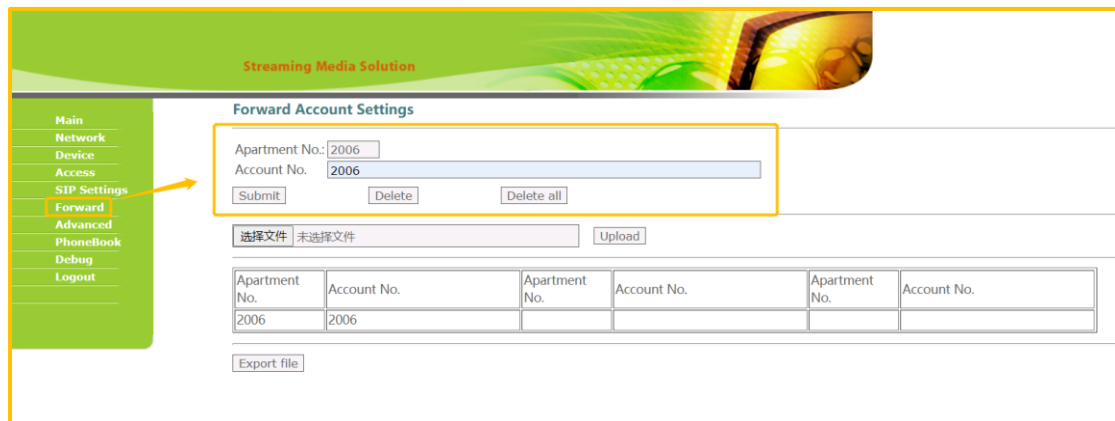
- ◆ Step 3: after the configuration is completed, you will see SIP: OK in main, indicating that the device has been successfully registered with the asterisk server.



2. Forward settings of **Apartment Outdoor Station**: In the web setting of Dnake Intercom, go to the section "Forward" over there you need to fill "Apartment No" and "Account No".

- Apartment No is the number you dial in the Outdoor Station.
- Both Apartment No and Account No should be the same with the extension you filled in Indoor Monitor. For example, both Apartment No and Account No should be 2006 if the extension number (User in VOIP) is 2006 in Indoor Monitor. Remember to **Submit** and then it will show up in the chart below.

(Both Apartment No and Account No can be deleted by ticking up Delete, filling in the numbers you want to delete and Submit.)



After settings, you can dial RoomNo in the Outdoor Station to call the corresponding Extension.

3. Settings of **Villa Panel**: In the web setting of Dnake Intercom, go to the section "Forward" over there you need to fill "RoomNo" and "Account No".
 - RoomNo in the Forward page should be the same as the RoomNo of Villa Panel in the Device page.
 - Account should be the same with the extension you filled in Indoor Monitor. For example, Account should be 2006 if the extension number (User in VOIP) is 2006 in Indoor Monitor. Remember to **Submit** and then it will show up in the chart below.
 - (Both RoomNo and Account can be deleted by ticking up Delete, filling in the numbers you want to delete and Submit.)

Streaming Media Solution

Forward Account Settings

RoomNo:

Account:

Delete:

RoomNo:	Account:	RoomNo:	Account:	RoomNo:	Account:
1111	2006				

Streaming Media Solution

Device Settings

BuildNo:

UnitNo:

RoomNo:

No:

Password:

Mode:

Ringing:

Timeout:

Language:

Media Volume:

Talk Volume:

Video:

Forward:

Dial Mode:

D200:

After settings, you can press the button in the Villa Panel to call the corresponding Extension.

3 Asterisk user registration confirmation

3.1 Confirm Asterisk server user

- ◆ Step 1: enter asterisk server

```
# /usr/sbin/safe_asterisk
```

- ◆ Step 2: enter the asterisk server console

```
# asterisk -gcrvvvvvv
```

Entering the Asterisk console will output the following:

```
== Parsing '/etc/asterisk/asterisk.conf': == Found
```

```
== Parsing '/etc/asterisk/extconfig.conf': == Found
```

Connected to Asterisk 1.6.2.9-2ubuntu2.1 currently running on ubuntu (pid = 2662)

Verbosity was 0 and is now 6

ubuntu*CLI> (You can enter help here to view the relevant commands.)

- ◆ Step 3: View SIP user information as follows

```
#ubuntu*CLI> sip show peers
```

Name/username	Host	Dyn Nat	ACL Port	Status
2005/2005	192.168.0.111	D	5060	Unmonitored
2006/2006	192.168.0.106	D	5060	Unmonitored
0/0	(Unspecified)	D	5060	Unmonitored

2 sip peers [Monitored: 0 online, 0 offline Unmonitored: 2 online, 1 offline]

The above indicates that the 2005,2006 users have been successfully registered.