



**FTA5120**

**SAS User Guide**

# Catalogue

|   |    |
|---|----|
| SAS Introduction .....                                | 1  |
| 1. SAS Local Mode .....                               | 2  |
| 1.1. Logical Topology of SAS Local Mode .....         | 2  |
| 1.2. Configuration of SAS User .....                  | 2  |
| 1.2.1. PNP Auto Configuration .....                   | 3  |
| 1.2.2. Manually Register SAS users .....              | 4  |
| 1.2.3. Config File Import and Export .....            | 5  |
| 1.3. Check SAS Status .....                           | 5  |
| 1.4. Calls through PSTN .....                         | 6  |
| 1.5. Answer a Call from PSTN .....                    | 7  |
| 2. SAS+ Cloud IP PBX .....                            | 8  |
| 2.1. Logical Topology of SAS+ Cloud IP PBX Mode ..... | 8  |
| 2.2. Configuration of SAS User .....                  | 8  |
| 2.2.1. Config File Import and Export .....            | 9  |
| 2.2.2. Batch Automatic Creation of SAS Users .....    | 10 |
| 2.2.3. Manually Add SAS User .....                    | 10 |
| 2.1. PNP Configuration Distributed .....              | 10 |
| 2.2. Other Distribution Method .....                  | 11 |
| 2.2.1. Provision URL .....                            | 11 |
| 2.2.2. Manually Configuration .....                   | 12 |
| 2.3. Check SAS Status .....                           | 13 |
| 2.4. FXO Port Related Settings .....                  | 14 |
| 2.4.1. SIP Trunk Registration .....                   | 14 |
| 2.4.2. Call Route Setting for FXO Port .....          | 14 |
| 2.5. SAS Settings .....                               | 16 |
| 2.7.1 Calls through PSTN .....                        | 16 |
| 2.7.2. Answer a Call from PSTN .....                  | 17 |
| 2.6. Emergency calls via external trunk .....         | 18 |

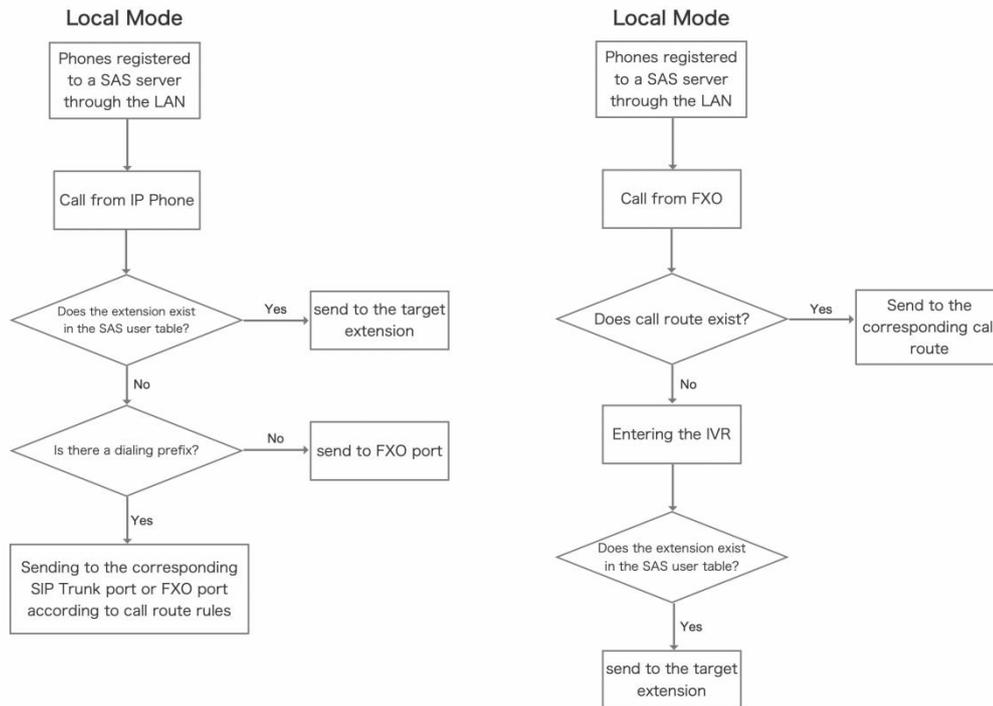
## SAS Introduction

SAS stands for Standalone-Survivability, a feature designed to provide a redundancy solution for PBX or a low-cost internal communications solution for small and medium-sized businesses without a PBX. The following section describes the configuration and use of SAS in local mode and with Cloud IP PBX mode. The following operations are required to work with Flyingvoice IP Phones

# 1. SAS Local Mode

In this mode, the enterprise IP phone registers SAS local users, the registration request is received by FTA5120, all calls are handled independently by FTA5120, and outbound and inbound calls are realized by connecting the FXO port of FTA5120 to the PSTN network. This mode is suitable for small and medium-sized enterprises' voice call solutions.

## 1.1. Logical Topology of SAS Local Mode



## 1.2. Configuration of SAS User

When the following prompt appears:

**WARNING: Please save&apply the setting to make the last setting effective!**

Please Click Save & Apply to make changes take effect.

When the following prompt appears:

**Please REBOOT to make the changes effective!**

Please reboot the device for the changes to take effect.

- Note:**
- When using PnP, the phone and FTA5120 need to be in the same network segment, otherwise the configuration may fail to be sent. If your environment is normal, but can not send the configuration, you can try to disable the LLDP and CDP function of the phone.
  - If you are unable to add SAS users, please try to reset the SAS account by checking the box. This operation will clean up the information of the existing SAS extensions.

## 1.2.1. PNP Auto Configuration

### Automatically Add Users:

1. Login to the web interface of FTA5120Web ;
2. Navigate to SAS -> SAS, enable SAS ;
3. Fill in the range of extension number, the user list and information will be generated automatically after filling in the blank, the default maximum range is 50 ;
4. Enable PNP and Send Account ;
5. After filling in the above settings, click save & apply, connect the FTA5120 and the phone to be configured to the same subnet, the configuration will be automatically distributed to the phone.

The screenshot shows the FLYING VOICE web interface. The top navigation bar includes 'Status', 'Network', 'SAS', 'FXO', 'Security', 'Application', and 'Administration'. The 'SAS' menu is expanded, showing 'SAS User Register Status', 'SAS User', 'SAS Call Route', and 'SAS Exten Dialplan'. The 'SAS Setting' page is displayed, featuring a 'Basic Setting' section with the following fields:

|                       |               |                       |                 |
|-----------------------|---------------|-----------------------|-----------------|
| SAS                   | Enable        |                       |                 |
| SAS User              | 1001 - 1005   | <input type="radio"/> | Reset SAS Users |
| PNP                   | Enable        |                       |                 |
| Send Account          | Enable        |                       |                 |
| Provision URL         |               |                       |                 |
| Extern Proxy Addr     |               | Extern Proxy Port     | 5060            |
| Outbound Proxy        |               | Outbound Port         | 5060            |
| SAS Local UDP Port    | 5070          |                       |                 |
| Option Detect Time    | 4000ms        |                       |                 |
| Option Detect Freq(s) | 10            |                       |                 |
| Record Route          | On            |                       |                 |
| NAT IP                | 192.168.77.18 |                       |                 |

At the bottom of the settings section are buttons for 'Save & Apply', 'Cancel', and 'Reboot'. The 'Help' sidebar on the right provides the following instructions:

- SAS Setting:** SAS Users -> Fill in the range of SAS extensions to create, the maximum extension number is 50
- Reset SAS Users ->** Delete all the existing SAS extensions information and add new extension
- PNP ->** Enable or disable PNP, enable to automatically distribute configuration to IP Phone, default for TFTP
- Send Account ->** Enable or disable PNP distribution function of SAS user extension, enable to automatically distribute extension numbers via LAN, work only when SAS is enable
- Provision URL ->** Fill in the Provision URL of the PBX, if it is empty, it will point to the SAS local Provision URL by default, work only when PNP is enable and Send Account is disable

### Manually Add Users

1. Login to the web interface of FTA5120Web ;
2. Navigate to SAS -> SAS, enable SAS ;
3. Enable PNP and Send Account ;
4. Navigate to SAS -> SAS User, Click "Add" in "Register Manager" and fill in the Display Name, User name, Auth ID and Passwor, If you want to send a specific account to the phone, you need to fill in the MAC address of the phone in the Bind MAC blank ;
5. After filling in the above settings, click save & apply, connect the FTA5120 and the phone to be configured to the same subnet, the configuration will be automatically

distributed to the phone.

|  |  |   |   |   |       |
|--|--|---|---|---|-------|
| 5  | <input type="checkbox"/>               | 5 | 5 | 5 | ***** |
| <input type="button" value="Delete Selected"/> <input type="button" value="Add"/> <input type="button" value="Edit"/> <input type="button" value="Show Password"/> |  |   |   |   |       |
| Add or Edit a User:  |  |   |   |   |       |
| Display Name   | <input type="text" value="1001"/>      |   |   |   |       |
| User Name  | <input type="text" value="1001"/>      |   |   |   |       |
| Auth ID  | <input type="text" value="1001"/>      |   |   |   |       |
| Password   | <input type="password" value="*****"/> |   |   |   |       |
| Bind MAC   | <input type="text"/>                   |   |   |   |       |
| <input type="button" value="Apply"/> <input type="button" value="Cancel"/>   |  |   |   |   |       |
| <b>Extension Config File Import and Export</b>   |  |   |   |   |       |

## 1.2.2. Manually Register SAS users

If your phone does not support PNP, please refer to **this section** to manually configure your phone:

1. Add SAS users according to the first three steps of "Automatically Add Users " and "Manually Add Users " in **section 1.2.1**;
2. Login to the Web interface of IP Phone to be registered ;
3. Navigate to VOIP-> Account x, fill in the IP address of the FTA5120 and port for SAS server (default for 5060);
4. Fill in the registration information according to the information of "SAS User";
5. Click save & apply.

Firmware Version V0.6.28.1  
Current Time 2023-08-24 18:00:42  
Admin Mode [Logout] [Reboot]

Status Network Wireless **SIP Account** Phone Administration

Line 1 Line 2 Line 3 Line 4 Line 5 Line 6 Line 7 Line 8 Line 9 Line 10 SIP Settings VoIP QoS Ring

**Basic**

**Register Status**  
Register Status Registered

**Basic Setup**  
Line Enable Enable

**Subscriber Information**  
Display Name 5051 Phone Number 5051  
Account 5051 Password \*\*\*\*\*

**Proxy and Registration**  
Proxy Server 192.168.50.165 Proxy Port 5060  
Outbound Server Outbound Port 5060  
Backup Outbound Server Backup Outbound Port 5060  
Allow DHCP Option 120 to Override SIP Server Disable Transport UDP

**Help**

**Basic:**  
Set the basic parameters provided for by your VoIP Service Provider: Phone Number and Account Details.

**Audio Configuration:**  
Select the relevant audio Codecs to match your VoIP Service Provider's settings.

**Supplementary Service Subscription:**  
*Call Waiting* - This call feature informs the user if there is one more call is coming on his number

**Proxy Port:**  
Different proxy port numbers need to be configured on each FXS setting when the device is used as an intercom - i.e. without the presence of a SIP server.

### 1.2.3. Config File Import and Export

1. Login to the Web interface of FTA5120, navigate to SAS -> SAS User;
2. In the "Config File Import and Export", click "Export" to download Config File template;
3. Fill in the extension information in the csv file as shown in the figure below;
4. Import the Config file to the FTA5120;
5. Click "Save & Apply", you can check all the information of added extension in SAS -> SAS User.

|    | A      | B         | C        | D            | E            | F      | G            | H              | I    |
|----|--------|-----------|----------|--------------|--------------|--------|--------------|----------------|------|
| 1  | Number | FirstName | LastName | EmailAddress | MobileNumber | AuthID | AuthPassword | WebMeetingFrie | WebM |
| 2  | 1001   | Albert    | Yuan     |              |              | 1001   | Aa123456     |                |      |
| 3  | 1002   |           |          |              |              | 1002   | Aa123456     |                |      |
| 4  | 1003   |           |          |              |              | 1003   | Aa123456     |                |      |
| 5  | 1004   |           |          |              |              | 1004   | Aa123456     |                |      |
| 6  | 1005   |           |          |              |              | 1005   | Aa123456     |                |      |
| 7  | 1006   |           |          |              |              | 1006   | Aa123456     |                |      |
| 8  | 1007   |           |          |              |              | 1007   | Aa123456     |                |      |
| 9  | 1008   |           |          |              |              | 1008   | Aa123456     |                |      |
| 10 |        |           |          |              |              |        |              |                |      |

软件版本 V0.1.3  
当前时间 2023-08-24 10:28:40  
超级管理员模式 [退出] [重启]

状态 网络 SAS FXO FXS 安全 应用 管理

SAS SAS用户注册状态 SAS用户 SAS 呼叫路由 SAS Exten Dialplan

分机管理 帮助

分机管理:

| 编号                         | 显示名称        | 用户名称 | 认证名称 | 认证密码  | 绑定MAC |
|----------------------------|-------------|------|------|-------|-------|
| 1 <input type="checkbox"/> | Albert Yuan | 1001 | 1001 | ..... |       |
| 2 <input type="checkbox"/> |             | 1002 | 1002 | ..... |       |
| 3 <input type="checkbox"/> |             | 1003 | 1003 | ..... |       |
| 4 <input type="checkbox"/> |             | 1004 | 1004 | ..... |       |
| 5 <input type="checkbox"/> |             | 1005 | 1005 | ..... |       |
| 6 <input type="checkbox"/> |             | 1006 | 1006 | ..... |       |
| 7 <input type="checkbox"/> |             | 1007 | 1007 | ..... |       |
| 8 <input type="checkbox"/> |             | 1008 | 1008 | ..... |       |

### 1.3. Check SAS Status

After the configuration is distributed successfully or the users are added successfully, you can see all the added extension numbers in SAS -> SAS Users.

In SAS -> SAS User Registration Status, you can view the status of all the currently registered extensions.

After successful registration on IP Phone, the IP address of the phone will be displayed in the corresponding extension column, and "Idle" will be displayed in the registration status, and "Unavailable" will be displayed if the registration fails or no phone is registered.

**FLYINGVOICE** Firmware Version V0.1.3  
Current Time 2023-08-24 19:22:31  
Admin Mode [Logout] [Reboot]

Stand Alone Survivability

Status Network **SAS** FXO Security Application Administration

SAS SAS User Register Status SAS User SAS Call Route SAS Exten Dialplan

**Register Status**

| Register User | IP            | MAC          | Register Status |
|---------------|---------------|--------------|-----------------|
| 1             | 192.168.77.26 | 0021f24383e5 | Idle            |
| 2             | 192.168.77.3  | 0021f243834d | Idle            |
| 3             | 192.168.77.4  | 0021f2438241 | Idle            |
| 4             |               |              | Unavailable     |
| 5             |               |              | Unavailable     |

## 1.4. Calls through PSTN

FTA5120 provides two FXO port, you can make a phone call through PSTN by connecting FTA5120 to PSTN or convey an emergency call through PSTN when network fails.

1. Navigate to SAS -> SAS Call Route
2. Select an empty route item, click "edit";
3. Fill in the route name to identify the route for management;
4. Select sas\_exten in "Origin", select FXO\_1 in origin (please connect FXO 1 to the telephone port before setting );
5. Fill in the 8 for "Dial Prefix", 1 for "Strip" and 0 for "Priority";
6. Click "Save & Apply".

|                |  |
|----------------|--|
| Name           | <input type="text" value="S-&gt;O1"/>  |
| Origin         | <input type="text" value="sas_exten"/> |
| Destination    | <input type="text" value="FXO1"/>      |
| Dial Prefix    | <input type="text" value="8"/>         |
| Strip          | <input type="text" value="1"/>         |
| Priority       | <input type="text" value="0"/>         |
| Changed Number | <input type="text"/>                   |

At this time there will be a new SAS call routing, you can dial 8 + external number to call the phone on PSTN:

If you need to use two FXO ports, you need to add another route item:

|                                     |  |
|-------------------------------------|--|
| <input type="button" value="Edit"/> | <input type="button" value="Delete"/>  |
| Name                                | <input type="text" value="S-&gt;O2"/>  |
| Origin                              | <input type="text" value="sas_exten"/> |
| Destination                         | <input type="text" value="FXO2"/>      |
| Dial Prefix                         | <input type="text" value="9"/>         |
| Strip                               | <input type="text" value="1"/>         |
| Priority                            | <input type="text" value="0"/>         |
| Changed Number                      | <input type="text"/>                   |

At this time you can dial 9 + external number to call the phone on PSTN:

## 1.5. Answer a Call from PSTN

1. Navigate to SAS -> SAS Call Route
2. Select an empty route item, click "edit";
3. Fill in the route name to identify the route for management;
4. Select FXO1 in "Origin", you can select IVR, Reception, Ringing Group(Ring\_Grp) in destination;
5. Please check the information below to fill in the blank;
6. Click "Save & Apply" .

|                  |  |
|------------------|--|
| Name             | <input type="text" value="FXO1-&gt;Ring_Grp"/> |
| Origin           | <input type="text" value="FXO1"/> ▾            |
| Destination      | <input type="text" value="Ring_Grp"/> ▾        |
| Dial Prefix      | <input type="text"/>                           |
| Strip            | <input type="text"/>                           |
| Priority         | <input type="text" value="0"/> ▾               |
| Extension Number | <input type="text" value="1001,1002,1003"/>    |
| Dial Time        | <input type="text" value="10"/>                |

**Reception** -> All calls from FXO will be forwarded to this extension.

Example: Fill in the extension number 1001 in the "extension number" configuration blank, when receiving an incoming call from FXO port, the 1001 will ring.

**Ringing Group** -> When receiving an incoming call from FXO port, the extensions in the group will ring in sequence. (use " , " to divide numbers, e.g. 1001,1002,1003) .

Example: Fill "1001,1002,1003" in the "extension number" configuration blank, when receiving an incoming call from FXO port, 1001 will ring first, 1002 and 1003 will ring in sequence after the end of ringing of 1001.

**IVR** -> When receiving an incoming call from FXO port, a voice prompt will be play to help dialing.

**Dial Time:** Duration time of FXO port ringing, only available when Reception or Ringing group is enable.

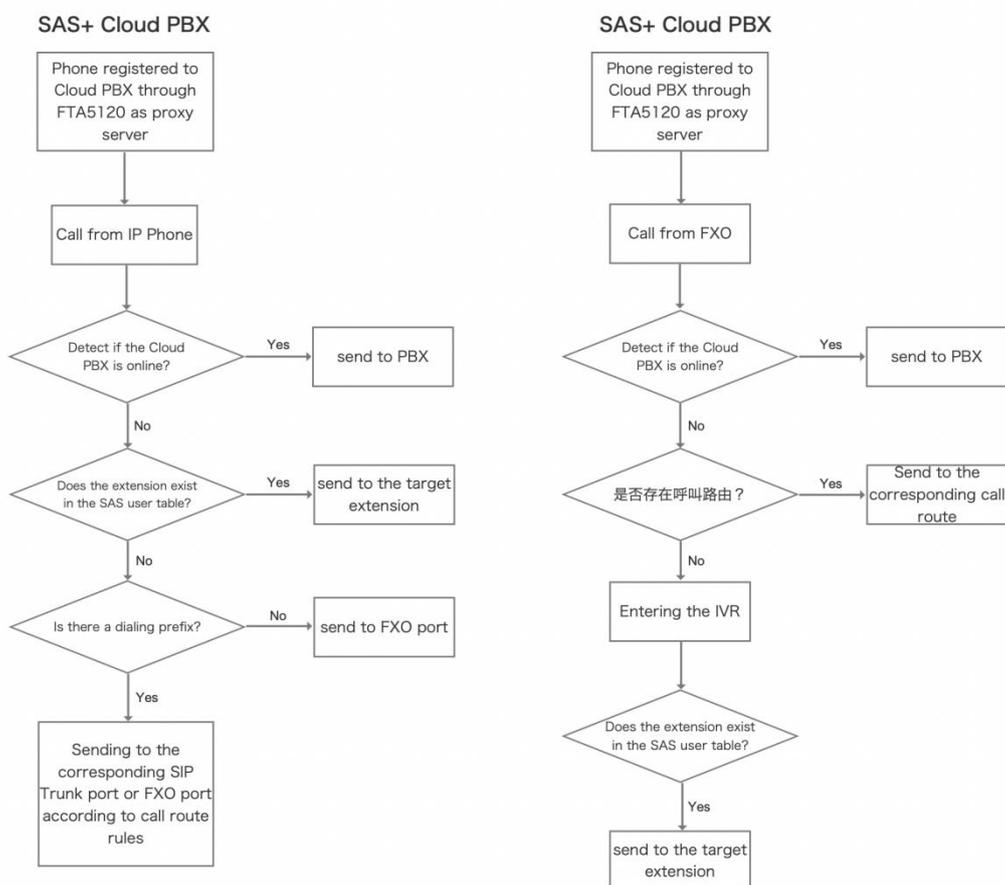
Note: When Reception is enable, Dial Time is the duration time of single extension.

## 2. SAS+ Cloud IP PBX

In this mode, the IP phone is registered to the cloud PBX, and the SAS gateway is responsible for forwarding all the registration requests sent by the IP phones. the FTA5120 will add the successfully registered IP phones to the SAS registration database.

When an emergency occurs, such as when the cloud IPBX is not online, the SAS gateway will act as a proxy to handle all the registration requests sent by IP phones, maintain normal internal calls, and route external calls to the PSTN to maintain the normal call functions of the enterprise to ensure the smooth operation of the business.

### 2.1. Logical Topology of SAS+ Cloud IP PBX Mode



### 2.2. Configuration of SAS User

When the following prompt appears:

**WARNING:Please save&apply the setting to make the last setting effective!**

Please Click Save & Apply to make changes take effect.

When the following prompt appears:

**Please REBOOT to make the changes effective!**

Please reboot the device for the changes to take effect.

- Note:**
1. When using PnP, the phone and FTA5120 need to be in the same network segment, otherwise the configuration may fail to be sent. If your environment is normal, but can not send the configuration, you can try to disable the LLDP and CDP function of the phone.
  2. If you are unable to add SAS users, please try to reset the SAS account by checking the box. This operation will clean up the information of the existing SAS extensions.
  3. If you can't make a call, please fill in Nat external IP, if you don't know how to fill in, we suggest you navigate to SIP setting-Stun setting to enable Stun. If you don't know how to fill in, we suggest you open SIP Settings-Stun Settings to enable Stun. fill in the stun address: **prv5.flyingvoice.net** to automatically set the NAT IP.

If you have not deployed IP phones, please follow **this section** to configure; if you have deployed IP phones and registered to Cloud PBX, you can skip this step and check the **next section**.

### 2.2.1. Config File Import and Export

1. Login to the Web interface of FTA5120, navigate to SAS -> SAS User;
2. In the "Config File Import and Export", click "Export" to download Config File template;
3. Fill in the extension information in the .csv file as shown in the figure below;
4. Import the Config file to the FTA5120;
5. Click "Save & Apply", you can check all the information of added extension in SAS -> SAS User.

|    | A      | B         | C        | D            | E            | F      | G            | H              | I    |
|----|--------|-----------|----------|--------------|--------------|--------|--------------|----------------|------|
| 1  | Number | FirstName | LastName | EmailAddress | MobileNumber | AuthID | AuthPassword | WebMeetingFrie | WebM |
| 2  | 1001   | Albert    | Yuan     |              |              | 1001   | Aa123456     |                |      |
| 3  | 1002   |           |          |              |              | 1002   | Aa123456     |                |      |
| 4  | 1003   |           |          |              |              | 1003   | Aa123456     |                |      |
| 5  | 1004   |           |          |              |              | 1004   | Aa123456     |                |      |
| 6  | 1005   |           |          |              |              | 1005   | Aa123456     |                |      |
| 7  | 1006   |           |          |              |              | 1006   | Aa123456     |                |      |
| 8  | 1007   |           |          |              |              | 1007   | Aa123456     |                |      |
| 9  | 1008   |           |          |              |              | 1008   | Aa123456     |                |      |
| 10 |        |           |          |              |              |        |              |                |      |

**FLYINGVOICE**  
Stand Alone Survivability

Firmware Version V0.1.3  
Current Time 2023-08-24 19:14:12  
Admin Mode [Logout] [Reboot]

Status Network **SAS** FXO Security Application Administration

SAS SAS User Register Status SAS User SAS Call Route SAS Exten Dialplan

**Register Manager** Help

Register Manager:

| No.                        | Display Name | User Name | Auth ID | Password | Bind MAC |
|----------------------------|--------------|-----------|---------|----------|----------|
| 1 <input type="checkbox"/> | Albert Yuan  | 1001      | 1001    | *****    |          |
| 2 <input type="checkbox"/> |              | 1002      | 1002    | *****    |          |
| 3 <input type="checkbox"/> |              | 1003      | 1003    | *****    |          |

## 2.2.2. Batch Automatic Creation of SAS Users

1. Login to the web interface of FTA5120Web, navigate to SAS -> SAS
2. Enable SAS, fill in the range of extension number, the default maximum range is 50
3. Click Save & Apply, you can check all the information of extension number in SAS -> SAS User (with this method, default password is "password+extension number" )
4. Open the management interface of Cloud PBX and add extension.(Keep the extension information consistent with the information in the SAS user)
5. Click "Save & Apply"

Basic Setting

SAS: Enable

SAS User: 1001 - 1050

PNP: Enable

Send Account: Enable

Reset SAS Users

## 2.2.3. Manually Add SAS User

1. Login to the Web interface of FTA5120Web, navigate to SAS -> SAS
2. Enable SAS
3. Navigate to SAS -> SAS User, Click "Edit", Fill in the Display Name, User Name, Auth ID, password (Keep the extension information consistent with the information in the PBX)
4. Click Apply.

5  5 5 5 .....

Delete Selected Add Edit Show Password

Add or Edit a User:

Display Name: 1001

User Name: 1001

Auth ID: 1001

Password: \*\*\*\*\*

Bind MAC:

Apply Cancel

Extension Config File Import and Export

Note: If you need to send an extension number to a specific phone, please fill in the MAC address of the IP phone in the "Bind MAC".

## 2.3. PNP Configuration Distributed

If you have not deployed IP phones, you need to add users as described in **section 2.1.** and then perform the following actions:

1. Login to the Web interface of FTA5120, navigate to the SAS -> SAS, enable SAS
2. Enable PNP and Send Account;
3. Fill in the cloud PBX domain name in the blank "Extern Proxy Addr";
4. After filling in the above settings, connect the FTA5120 and the phone to be

configured to the same subnet, the configuration will be automatically distributed to the phone.

5. Click "Save & Apply"

**Basic Setting**

|                       |   |                                   |                                       |
|-----------------------|---|-----------------------------------|---------------------------------------|
| SAS                   | <input type="text" value="Enable"/>             |                                   |                                       |
| SAS User              | <input type="text" value="1001"/> -             | <input type="text" value="1050"/> | <input type="radio"/> Reset SAS Users |
| PNP                   | <input type="text" value="Enable"/>             |                                   |                                       |
| Send Account          | <input type="text" value="Enable"/>             |                                   |                                       |
| Provision URL         | <input type="text"/>                            |                                   |                                       |
| Extern Proxy Addr     | <input type="text" value="flyingvoice.sgycm."/> | Extern Proxy Port                 | <input type="text" value="5060"/>     |
| Outbound Proxy        | <input type="text"/>                            | Outbound Port                     | <input type="text" value="5060"/>     |
| SAS Local UDP Port    | <input type="text" value="5070"/>               |                                   |                                       |
| Option Detect Timeout | <input type="text" value="4000ms"/>             |                                   |                                       |
| Option Detect Freq(s) | <input type="text" value="10"/>                 |                                   |                                       |
| Record Route          | <input type="text" value="On"/>                 |                                   |                                       |
| NAT IP                | <input type="text"/>                            |                                   |                                       |

If you have deployed IP Phone, please refer to the following steps to set up.

1. Login to the Web interface of FTA5120, navigate to SAS -> SAS, enable SAS ;
2. Enable PNP , disable Send Account;
3. Fill in the cloud PBX domain name in the blank "Extern Proxy Addr";
4. After filling in the above settings, connect the FTA5120 and the phone to be configured to the same subnet, the configuration will be automatically distributed to the phone.
5. Click "Save & Apply"

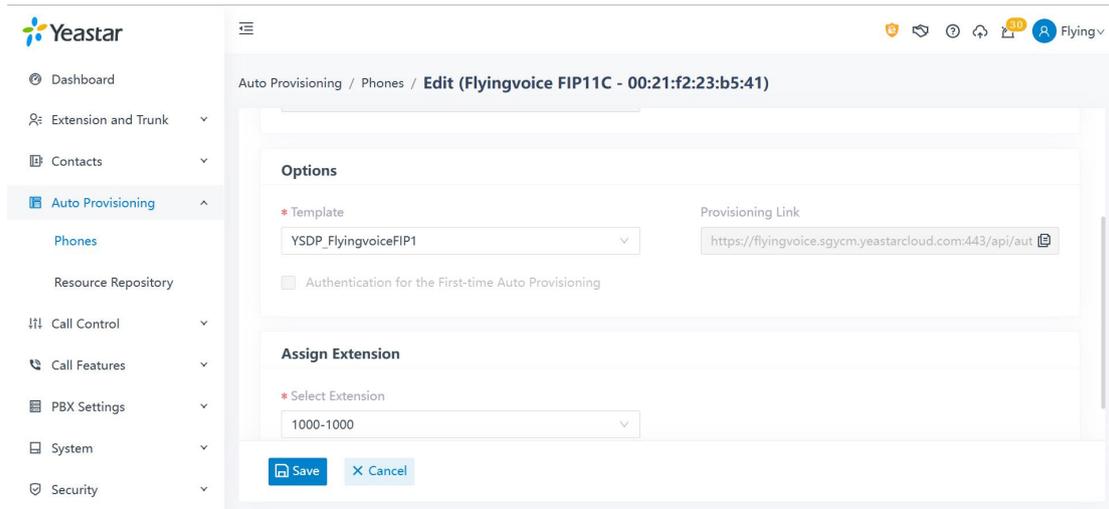
At this time, FTA5120 will act as a proxy server to forward the phone's registration and call request, and detect the online status of the cloud PBX, and when the PBX is not online, it will handle the phone's registration and call request.

## 2.4. Other Distribution Method

### 2.4.1. Provision URL

If the cloud PBX you are using supports Provision URL, you can follow the steps below to configure it. To ensure your experience, we recommend you to use Yeastar P Series IP PBX and Flyingvoice IP Phones.

On PBX: Configure Automatic Deployment, obtain Provision URL, take Yeastar P-Series PBX for example:



On FTA5210:

1. Login to the Web interface of FTA5120, navigate to SAS-SAS, enable SAS and PnP;
2. Fill in the Provision URL obtained from the PBX in (If it is empty, it will point to the SAS local Provision URL by default) ;
3. Please turn off "Send Account" after filling in the Provision URL, so as not to cause conflict;
4. Fill in the Cloud PBX domain name in the blank "Extern Proxy Addr";
5. Click Save & Apply

**SAS Setting**

**Basic Setting**

|                       |  |                       |                                   |
|-----------------------|--|-----------------------|-----------------------------------|
| SAS                   | Enable <input type="button" value="v"/>          |                       |                                   |
| SAS User              | 1001 - <input type="text" value="1050"/>         | <input type="radio"/> | Reset SAS Users                   |
| PNP                   | Enable <input type="button" value="v"/>          |                       |                                   |
| Send Account          | Disable <input type="button" value="v"/>         |                       |                                   |
| Provision URL         | <input type="text" value="https://flyingvoice"/> |                       |                                   |
| Extern Proxy Addr     | <input type="text" value="flyingvoice.sgycm."/>  | Extern Proxy Port     | <input type="text" value="5060"/> |
| Outbound Proxy        | <input type="text"/>                             | Outbound Port         | <input type="text" value="5060"/> |
| SAS Local UDP Port    | <input type="text" value="5070"/>                |                       |                                   |
| Option Detect Timeout | 4000ms <input type="button" value="v"/>          |                       |                                   |
| Option Detect Freq(s) | <input type="text" value="10"/>                  |                       |                                   |
| Record Route          | On <input type="button" value="v"/>              |                       |                                   |
| NAT IP                | <input type="text"/>                             |                       |                                   |

Note: Provision URL and external proxy address should remain the same server, please check whether the port is the same as the Provision port provided by the PBX.

#### 2.4.2. Manually Configuration

If your device does not support PNP and Provision URL auto configuration, please

refer to the following steps to set up:

1. Login to the web interface of FTA5120, navigate to SAS -> SAS, enable SAS;
2. Fill in the Cloud PBX domain name in the blank "Extern Proxy Addr";
3. Login to the web interface of the IP Phone to configure, navigate to VOIP -> Account, fill in "Display Name", "Phone Number", "Auth ID" and "Password";
4. Fill in the Proxy Server with cloud PBX domain name, fill in the Outbound Server with IP address of FTA5120;
5. Click "Save & Apply"

**Basic**

**Register Status**  
Register Status: Registered

**Basic Setup**  
Line Enable: Enable

**Subscriber Information**

|              |      |              |       |
|--------------|------|--------------|-------|
| Display Name | 5051 | Phone Number | 5051  |
| Account      | 5051 | Password     | ***** |

**Proxy and Registration**

|  |                    |                      |      |
|--|--------------------|----------------------|------|
| Proxy Server                                 | flyingvoice.sgycm. | Proxy Port           | 5060 |
| Outbound Server                              | 192.168.50.165     | Outbound Port        | 5060 |
| Backup Outbound Server                       |                    | Backup Outbound Port | 5060 |
| Allow DHCP Option 120 to Override SIP Server | Disable            | Transport            | UDP  |

**Audio Configuration**

**Help**

**Basic:**  
Set the basic parameters provided for by your VoIP Service Provider: Phone Number and Account Details.

**Audio Configuration:**  
Select the relevant audio Codecs to match your VoIP Service Provider's settings.

**Supplementary Service Subscription:**  
*Call Waiting* - This call feature informs the user if there is one more call is coming on his number

**Proxy Port:**  
Different proxy port numbers need to be configured on each FXS setting when the device is used as an intercom - i.e. without the presence of a SIP server.

## 2.5. Check SAS Status

After the configuration is distributed successfully or the users are added successfully, you can see all the added extension numbers in SAS -> SAS Users.

In SAS -> SAS User Registration Status, you can view the status of all the currently registered extensions.

After successful registration on IP Phone, the IP address of the phone will be displayed in the corresponding extension column, and "Idle" will be displayed in the registration status, and "Unavailable" will be displayed if the registration fails or no phone is registered.

| 注册用户 | 设备IP          | 设备MAC | 注册状态        |
|------|---------------|-------|-------------|
| 1001 | 192.168.80.34 |       | Idle        |
| 1002 |               |       | Unavailable |
| 1003 |               |       | Unavailable |
| 1004 |               |       | Unavailable |
| 1005 |               |       | Unavailable |
| 1006 |               |       | Unavailable |
| 1007 |               |       | Unavailable |
| 1008 |               |       | Unavailable |
| 1009 | 192.168.51.29 |       | Idle        |
| 1010 |               |       | Unavailable |

## 2.6. FXO Port Related Settings

FTA5120 provides two FXO ports, after connecting to telephone port, you can utilize SIP Trunk to relay to the cloud PBX, adding PSTN calling functions to the cloud PBX. At the same time, it can also be used to make outbound calls directly through the PSTN in case of emergency.

### 2.6.1. SIP Trunk Registration

1. Navigate to FXO->SIP Trunk, select SIP1
2. Enable registration, fill in the Clod PBX domain name in the blank"Proxy Server";
3. Fill in "Display Name", "Phone Number", "Auth ID" and "Password" according to the extension information in Cloud PBX;
4. If you need to connect two PSTN lines and need to use them at the same time, you need to register another SIP trunk account, the operation is the same as above.

Firmware Version V0.1.3  
Current Time 2023-08-24 19:39:56  
Admin Mode [Logout] [Reboot]

Status Network SAS **FXO** Security Application Administration

SIP Trunk SIP Setting FXO Call Route Dial Plan(SIP->FXO) Change Number(FXO->SIP) Call Log

SIP Trunk SIP 1 Replicating Set Between Accounts

**Basic**

**Basic Setup**

Register Enable

**Proxy and Registration**

Proxy Server flyingvoice.sgycm. Proxy Port 5060

Outbound Server Outbound Port

**Subscriber Information**

Display Name 6702 Phone Number 6702

Account Aa1234567890 Password .....

### 2.6.2. Call Route Setting for FXO Port

1. Navigate to FXO -> Call Route;

2. Select an empty route, click edit;
3. Fill in the route name to identify the route for management;
4. Select origin and destination, fill in "Dial Prefix", "Strip", and "priority" (Inbound routing don't need to configure dialing prefixes and front-end stripping) ;
5. Click "Apply", and add next route, click "Save & Apply" after adding the four routes in the following figure ;
6. Reboot to apply settings.

**Accessible IP Directly Dial List**

Accessible IP Directly Dial Setting

| 编号 | IP地址 | 编号 | IP地址 |
|----|------|----|------|
|    |      |    |      |

删除已选择项 添加

**基本配置**

基础设置

| 编号 | 路由标签      | 源端         | 目的端        | 拨号前缀 | 前端剥离 | 优先级 | 来电号码修改 |
|----|-----------|------------|------------|------|------|-----|--------|
| 1  | PSTN-SIP1 | FX01       | sip_trunk1 |      |      | 0   |        |
| 2  | PSTN-SIP2 | FX02       | sip_trunk2 |      |      | 0   |        |
| 3  | SIP1-PSTN | sip_trunk1 | FX01       | 8    | 1    | 0   |        |
| 4  | SIP2-PSTN | sip_trunk2 | FX02       | 9    | 1    | 0   |        |
| 5  |           |            |            |      |      |     |        |
| 6  |           |            |            |      |      |     |        |

Note: The four routes in the figure are for reference only, please set the routes according to the actual need.

1. Press 8 + external number, you can dial an PSTN number through FX01, and the session will be carried out through SIP Trunk to PBX;
2. Press 9 + external number, you can dial an PSTN number through FX02, and the session will be carried out through SIP Trunk to PBX;

## 2.7. SAS Settings

### 2.7.1 Calls through PSTN

FTA5120 provides two FXO port, you can make a phone call through PSTN by connecting FTA5120 to PSTN or convey an emergency call through PSTN when network fails.

1. Navigate to SAS -> SAS Call Route
2. Select an empty route item, click "edit";
3. Fill in the route name to identify the route for management;
4. Select sas\_exten in "Origin", select FXO\_1 in origin (please connect FXO 1 to the telephone port before setting );
5. Fill in the 8 for "Dial Prefix", 1 for "Strip"and 0 for "Priority";
6. Click "Save & Apply" .

|                                      |  |
|--------------------------------------|--|
| <input type="button" value="Edit"/>  | <input type="button" value="Delete"/>  |
| Name                                 | <input type="text" value="S-&gt;O1"/>  |
| Origin                               | <input type="text" value="sas_exten"/> |
| Destination                          | <input type="text" value="FXO1"/>      |
| Dial Prefix                          | <input type="text" value="8"/>         |
| Strip                                | <input type="text" value="1"/>         |
| Priority                             | <input type="text" value="0"/>         |
| Changed Number                       | <input type="text"/>                   |
| <input type="button" value="Apply"/> | <input type="button" value="Cancel"/>  |

At this time there will be a new SAS call routing, you can dial 8 + external number to call the phone on PSTN:

If you need to use two FXO ports, you need to add another route item:

|                                      |  |
|--------------------------------------|--|
| <input type="button" value="Edit"/>  | <input type="button" value="Delete"/>  |
| Name                                 | <input type="text" value="S-&gt;O2"/>  |
| Origin                               | <input type="text" value="sas_exten"/> |
| Destination                          | <input type="text" value="FXO2"/>      |
| Dial Prefix                          | <input type="text" value="9"/>         |
| Strip                                | <input type="text" value="1"/>         |
| Priority                             | <input type="text" value="0"/>         |
| Changed Number                       | <input type="text"/>                   |
| <input type="button" value="Apply"/> | <input type="button" value="Cancel"/>  |

**XO Incoming Call**

At this time you can dial 9 + external number to call the phone on PSTN:

## 2.7.2. Answer a Call from PSTN

1. Navigate to SAS -> SAS Call Route
2. Select an empty route item, click "edit";
3. Fill in the route name to identify the route for management;
4. Select FXO1 in "Origin", you can select IVR, Reception, Ringing Group(Ring\_Grp) in destination;
5. Please check the information below to fill in the blank;
6. Click "Save & Apply".

|                  |  |
|------------------|--|
| Name             | <input type="text" value="FXO1-&gt;Ring_Grp"/> |
| Origin           | <input type="text" value="FXO1"/> ▾            |
| Destination      | <input type="text" value="Ring_Grp"/> ▾        |
| Dial Prefix      | <input type="text"/>                           |
| Strip            | <input type="text"/>                           |
| Priority         | <input type="text" value="0"/> ▾               |
| Extension Number | <input type="text" value="1001,1002,1003"/>    |
| Dial Time        | <input type="text" value="10"/>                |

**Reception** -> All calls from FXO will be forwarded to this extension.

Example: Fill in the extension number 1001 in the "extension number" configuration blank, when receiving an incoming call from FXO port, the 1001 will ring.

**Ringing Group** -> When receiving an incoming call from FXO port, the extensions in the group will ring in sequence. (use " , " to divide numbers, e.g. 1001,1002,1003) .

Example: Fill "1001,1002,1003" in the "extension number" configuration blank, when receiving an incoming call from FXO port, 1001 will ring first, 1002 and 1003 will ring in sequence after the end of ringing of 1001.

**IVR** -> When receiving an incoming call from FXO port, a voice prompt will be play to help dialing.

**Dial Time:** Duration time of FXO port ringing, only available when Reception or Ringing group is enable.

Note: When Reception is enable, Dial Time is the duration time of single extension.

## 2.8. Emergency calls via external trunk

For the two locations where only cloud PBX is deployed, if there is a network fail or the cloud PBX is malfunctioning, the communication between the two locations will be blocked. Deploying FTA5120+Cloud PBX in both locations ensures that the communication capability can still be maintained in case of server failure, network fail, or other emergencies, minimizing business interruption and loss, and thus safeguarding the normal operation of the enterprise.

1. Deployment of dual-site equipment in accordance with **sections 2.2 to 2.4** of this manual ;
2. Login to the Web interface of FTA5120, navigate to SAS-> Call Route ;
3. Select IVR in FXO Incoming Call -> FXO Call Rules ;
4. Click Save & Apply.

After the configuration is completed, suppose the extension number of place A is 1001-1050, and the PSTN number assigned to FXO1(A) is 1234567; the extension number of place B is 1051-1100, and the PSTN number assigned to FXO1(B) is 7654321. When the cloud PBX is offline, extension 1001 of place A wants to call extension 1051 of place B. At this time, extension 1001 dials 8+7654321, and dials 1051 after hearing the IVR prompt to get through extension 1051, and at this time, the two extensions will talk through the PSTN network.