

SIP Hotspot

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Contents

1. INTRODUCTION.....	3
1.1. OVERVIEW.....	3
1.2. APPLICABLE MODEL.....	3
1.3. INSTANCE.....	3
2. OPERATION GUIDE.....	4
2.1. SIP HOTSPOT CONFIGURATION.....	4
2.1.1. Registration number.....	4
2.1.2 No registration number.....	4
2.1.3 Take the X7A phone as a hotspot as an example to set up the SIP hotspot.....	6
2.2. X210I HOTSPOT SERVER SETTINGS.....	9
2.2.1. Server settings.....	9
2.2.2. Hotspot extension management.....	10
2.2.3. Extension Upgrade.....	12
2.2.4. Hotspot client settings.....	12
3. CALL OPERATION.....	16

1. Introduction

1.

1.1. Overview

SIP hotspot is a simple and practical function. It is simple to configure, can realize the function of group ringing, and can expand the number of SIP accounts.

Set one phone A as a SIP hotspot, and other phones (B, C) as SIP hotspot clients. When someone calls phone A, phones A, B, and C will all ring, and any one of them will answer, and the other phones will stop ringing and cannot answer at the same time. When phone B or C makes a call, they are all dialled out with the SIP number registered by phone A.

X210i can be used as a small PBX, with other Fanvil products (i10)) to realize the management of extension equipment, including restarting, upgrading and other operations.

1.2. Applicable model

All phone models of Fanvil can support (this article takes X7A as an example)

1.3. Instance

For example, in a home, the bedroom, the living room, and the bathroom are all equipped with a telephone. Then you need to set up a different account for each phone, and with the SIP hotspot function, you only need to register one account to represent all the phones in the home, which is convenient for management, to achieve the effect of expanding the number of SIP accounts. When the SIP hotspot function is not used, if there is an incoming call and the phone number in the living room is dialled, only the phone in the living room will ring, and the phone in the bedroom and bathroom will not ring; when the SIP hotspot function is used, the phone in the bedroom, living room, and bathroom will ring. All phones will ring, and one of the phones will answer, and the other phones will stop ringing to achieve the effect of group ringing.

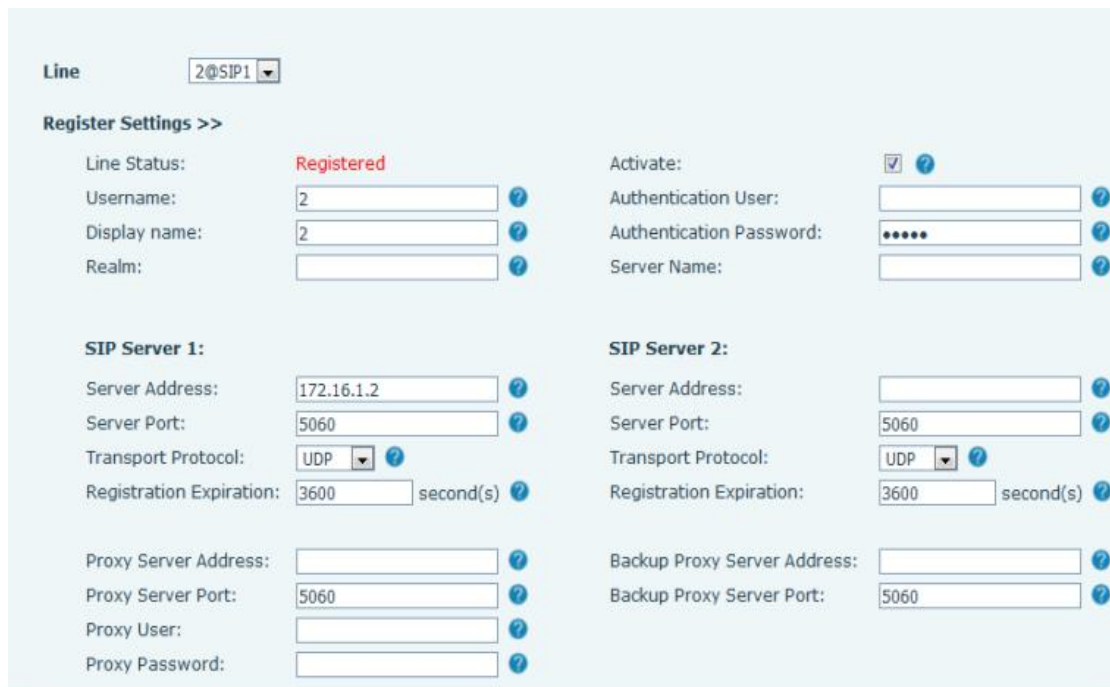


2. Operation Guide

2.1. SIP hotspot configuration

2.1.1. Registration number

The hotspot server supports registration numbers and issues extension numbers



The screenshot shows the 'Line' configuration page for '2@SIP1'. The 'Register Settings >>' section is active. The 'Line Status' is 'Registered'. The 'Username' is '2', 'Display name' is '2', and 'Realm' is empty. The 'Activate' checkbox is checked. The 'Authentication User' is empty, 'Authentication Password' is masked with dots, and 'Server Name' is empty. Below this, there are two columns for 'SIP Server 1' and 'SIP Server 2'. For SIP Server 1, the 'Server Address' is '172.16.1.2', 'Server Port' is '5060', 'Transport Protocol' is 'UDP', and 'Registration Expiration' is '3600 second(s)'. For SIP Server 2, all fields are empty except for 'Server Port' which is '5060' and 'Registration Expiration' which is '3600 second(s)'. At the bottom, there are fields for 'Proxy Server Address', 'Proxy Server Port' (5060), 'Proxy User', and 'Proxy Password', as well as 'Backup Proxy Server Address' and 'Backup Proxy Server Port' (5060).

2.1.2 No registration number

(The phone can be used as a hotspot server except for X1, X2, X2C, X3S, X4 phones are not supported, other phones can be supported, such as X5U, X3SG, H5W, X7A, etc.)

The hotspot server supports the extension number without registering the number.

When the account is not registered, the number and server are required.

Line 2@SIP1

Register Settings >>

Line Status: **Inactive**

Username: ?

Display name: ?

Realm: ?

Activate: ☐ ?

Authentication User: ?

Authentication Password: ?

Server Name: ?

SIP Server 1:

Server Address: ?

Server Port: ?

Transport Protocol: UDP ?

Registration Expiration: second(s) ?

Proxy Server Address: ?

Proxy Server Port: ?

Proxy User: ?

Proxy Password: ?

SIP Server 2:

Server Address: ?

Server Port: ?

Transport Protocol: UDP ?

Registration Expiration: second(s) ?

Backup Proxy Server Address: ?

Backup Proxy Server Port: ?

Note: When the server dials an extension, it needs to enable the configuration "Call without registration"

The location of the configuration item is as follow:

Line 2@SIP1

Register Settings >>

Basic Settings >>

Enable Auto Answering: ☐ ?

Call Forward Unconditional: ☐ ?

Call Forward on Busy: ☐ ?

Call Forward on No Answer: ☐ ?

Call Forward Delay for No Answer: (0~120)second(s) ?

Conference Type: Local ?

Subscribe For Voice Message: ☐ ?

Voice Message Subscribe Period: (60~999999)second(s) ?

Hotline Delay: (0~9)second(s) ?

Dial Without Registered: ☒ ?

DTMF Type: AUTO ?

Request With Port: ☒ ?

Use STUN: ☐ ?

Auto Answering Delay: (0~120)second(s) ?

Call Forward Number for Unconditional: ?

Call Forward Number for Busy: ?

Call Forward Number for No Answer: ?

Transfer Timeout: second(s) ?

Server Conference Number: ?

Voice Message Number: ?

Enable Hotline: ☐ ?

Hotline Number: ?

Enable Missed Call Log: ☒ ?

DTMF SIP INFO Mode: Send 10/11 ?

Enable DND: ☐ ?

Use VPN: ☒ ?

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Addr: 10/F Block A, Dualshine Global Science Innovation Center, Honglang North 2nd Road, Bao'an District, Shenzhen, China
Tel: +86-755-2640-2199 Email: sales@fanvil.com support@fanvil.com Official Web: www.fanvil.com



2.1.3 Take the X7A phone as a hotspot as an example to set up the SIP hotspot

① Enable hotspot: Set the "Enable hotspot" option in the SIP hotspot configuration item to enabled.

② Mode: Select "hotspot", indicating that the phone exists as a SIP hotspot.

③ Monitoring type: You can select broadcast or multicast as the monitoring type. If you want to limit the broadcast packets in the network, you can choose multicast. The monitoring types of the server and the client must be the same. For example, when the client's phone is selected as multicast, the phone as the SIP hotspot server must also be configured as multicast.

④ Monitoring address: When the monitoring type is multicast, the multicast communication address used by the client and server. If you use broadcast, you don't need to configure this address, the system will use the broadcast address of the phone's wan port IP for communication by default.

⑤ Local port: fill in the custom hotspot communication port. The server and client ports need to be consistent.

⑥ Name: Fill in the name of the SIP hotspot.

⑦ Outside line ringing mode: ALL: Both the extension and the host ring; Extension: Only the extension rings; Host: Only the host rings.

⑧ Line setting: Set whether to associate and enable the SIP hotspot function on the corresponding SIP line.



System

Network

Line

Phone settings

Phonebook

Call logs

Function Key

Application

SIP

SIP Hotspot

Dial Plan

Action Plan

Basic Settings

RTCP-XR

No Registration

SIP Hotspot Settings

Enable Hotspot: Enabled

Mode: Client

Monitor Type: Multicast

Monitor Address: 224.0.2.0

Local Port: 16360

Name: SIP Hotspot

Line Settings

Line 1: Enabled

Line 2: Enabled

Line 3: Enabled

Line 4: Enabled

Line 5: Enabled

Line Settings

Line 1: Enabled

Line 2: Enabled

Line 3: Enabled

Line 4: Enabled

Line 5: Enabled

Line 6: Enabled

Line 7: Enabled

Line 8: Enabled

Line 9: Enabled

Line 10: Enabled

Line 11: Enabled

Line 12: Enabled

Line 13: Enabled

Line 14: Enabled

Line 15: Enabled

Line 16: Enabled

Line 17: Enabled

Line 18: Enabled

When a SIP hotspot client is connected, the access device list will display the device

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currently connected to the SIP hotspot and the corresponding alias (extension number).

Device Table			
IP	MAC	Alias	Line
192.168.6.100	0c:38:3e:12:da:5d	1	0

Note: For details of X210i as a hotspot server, please refer to 2.2 X210i Hotspot Server Settings



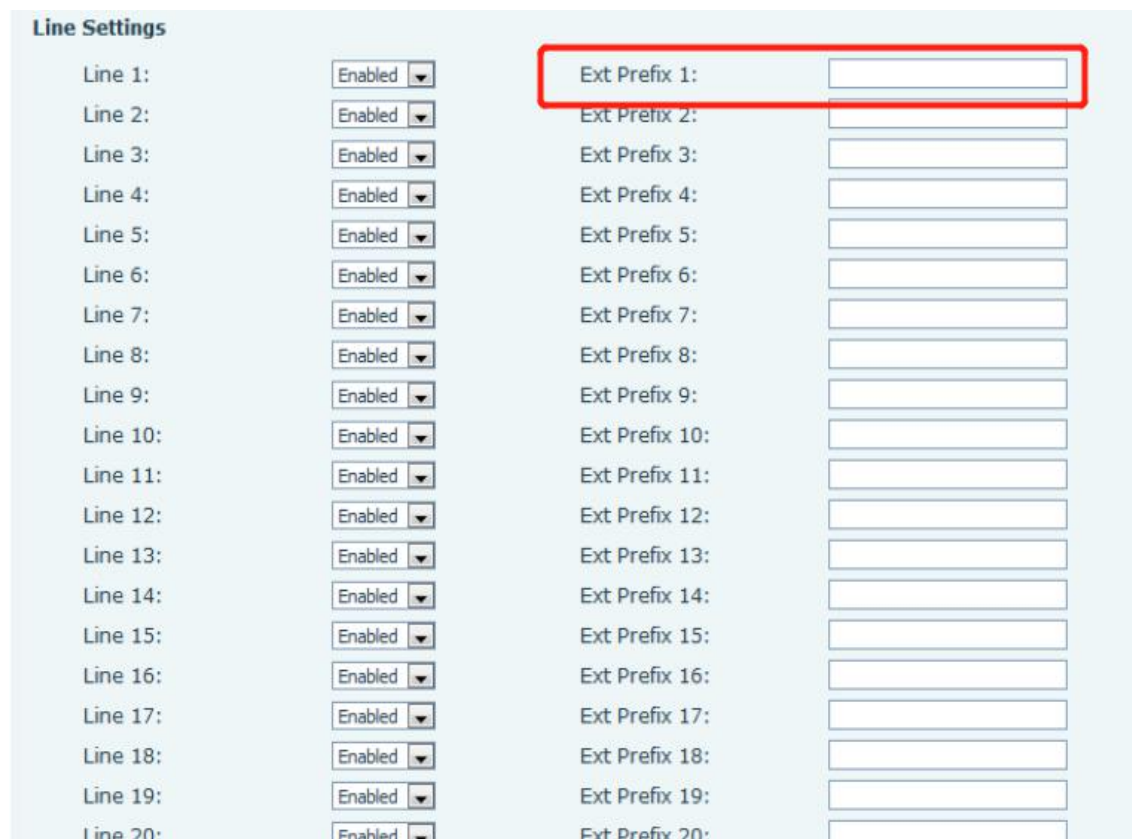
2.2. X210i hotspot server settings

2.2.1. Server settings

When X210i is used as a hotspot server, in addition to the above server settings, you can also set the extension prefix. The extension prefix is the prefix used when the extension account is issued.

Extension prefix:

- Each line can enable/disable the use of extension prefix
- After setting the extension prefix, the extension number is the prefix + the assigned extension number. For example, the prefix is 8, the assigned extension number is 001, and the actual extension number is 8001



Line	Enabled	Ext Prefix
Line 1:	Enabled	Ext Prefix 1:
Line 2:	Enabled	Ext Prefix 2:
Line 3:	Enabled	Ext Prefix 3:
Line 4:	Enabled	Ext Prefix 4:
Line 5:	Enabled	Ext Prefix 5:
Line 6:	Enabled	Ext Prefix 6:
Line 7:	Enabled	Ext Prefix 7:
Line 8:	Enabled	Ext Prefix 8:
Line 9:	Enabled	Ext Prefix 9:
Line 10:	Enabled	Ext Prefix 10:
Line 11:	Enabled	Ext Prefix 11:
Line 12:	Enabled	Ext Prefix 12:
Line 13:	Enabled	Ext Prefix 13:
Line 14:	Enabled	Ext Prefix 14:
Line 15:	Enabled	Ext Prefix 15:
Line 16:	Enabled	Ext Prefix 16:
Line 17:	Enabled	Ext Prefix 17:
Line 18:	Enabled	Ext Prefix 18:
Line 19:	Enabled	Ext Prefix 19:
Line 20:	Enabled	Ext Prefix 20:

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2.2.2. Hotspot extension management

Note: When X210i is used as a hotspot server, you need to manually move the unmanaged extension information to the managed extension information

The hotspot extension management interface can perform management operations on the extension device. After adding it to the managed device, you can restart and upgrade the device; after the device is added to the group, dial the group number and the devices in the group will ring.

Enable management mode: 0 non-management mode, which allows any device to access and use; 1 management mode, which allows only configured devices to access and use

Unmanaged extension information:

UnManaged Extension Information							
☐	Index	Mac	Model	SoftVersion	Ip	Ext	Status
☐	1	00:a8:59:01:02:09	X7	1.12.3	172.16.12.118	1	OnLine

The hotspot server will issue an account to the device with the hotspot client enabled, and it will be displayed in the unmanaged extension column.

- Mac: Mac address of the connected device
- Model: connected device model information
- Software version: the software version number of the connected device
- IP: The IP address of the connected device
- Ext: the extension number assigned by the connected device
- Status: The connected device is currently online or offline
- Registration number: display host registration number information
- Delete: You can delete the device
- Move to managed: After moving the device to manage, you can manage the device



Managed extension information:

You can add devices that are not in the managed extension list to the managed extension list. After adding, you can restart the device,

Managed Extension Information										
☐ Index Extension Name Mac Model SoftVersion Ip Ext Group Status Registration Number Edit										
☐	1		00:a8:59:01:02:09	X7	1.12.3	172.16.12.118	1		Online	2;
Add Delete ReProvision Reboot Add to Group Move To UnManaged										
Edit										

Upgrade, add to the group and other operations.

- Extension name: the name of the management device
- Mac: Mac address of the management device
- Model: the model name of the management device
- Software version: the software version number of the management device
- IP: IP address of the management device
- Ext: the extension number assigned by the management device
- Group: Manage the group that the device joins
- Status: whether the management device is currently online or offline
- Registration number: display host registration number information
- Edit: edit the name, Mac address, extension number and group of the management device
- New: You can manually add management devices, including name, Mac address (required), extension number, group information
- Delete: delete the management device
- Upgrade: upgrade management equipment
- Restart: Restart the management device
- Add to the group: add the device to a group
- Move to unmanaged: the device cannot be managed after moving

Hotspot group information:

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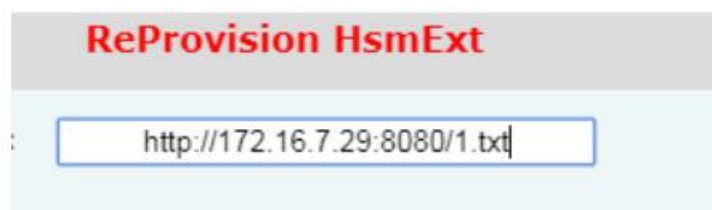
Hotspot grouping, after adding the group successfully, dial the group number, the numbers added to the group will ring

- Name: the name of the group
- Number: group number, dial this number, all numbers in the group ring
- Edit: edit the grouping information
- New: add a new group
- Delete: delete a group

2.2.3. Extension Upgrade

To upgrade the management device, you need to enter the URL of the upgrade server and click OK to go to the server to download the version to upgrade.

The upgrade server URL is shown in the figure below:



2.2.4. Hotspot client settings

Taking the X7a phone as an example as a SIP hotspot client, there is no need to set up a SIP account. After the phone is enabled, it will be automatically obtained and configured automatically. Just change the mode to "Client", and the other option setting methods are consistent with the hotspot.



SIP SIP Hotspot Dial Plan Register Settings

System
Network
 Line
Phone settings
 Phonebook
 Call logs
 Function Key
 Security
 Device Log

Hotspot Table

IP	Server name	Online Status	Connection Status	Alias	Line	
172.16.5.218	SIP Hotspot	OnLine	Connected	3	0	Disconnect

SIP Hotspot Settings

Enable Hotspot: Enabled ▾
 Mode: Client ▾
 Monitor Type: Multicast ▾
 Monitor Address:
 Local Port:
 Name:

Line Settings

Line 1: Enabled ▾
 Line 2: Disabled ▾
 Line 3: Disabled ▾
 Line 4: Disabled ▾
 Line 5: Disabled ▾
 Line 6: Disabled ▾

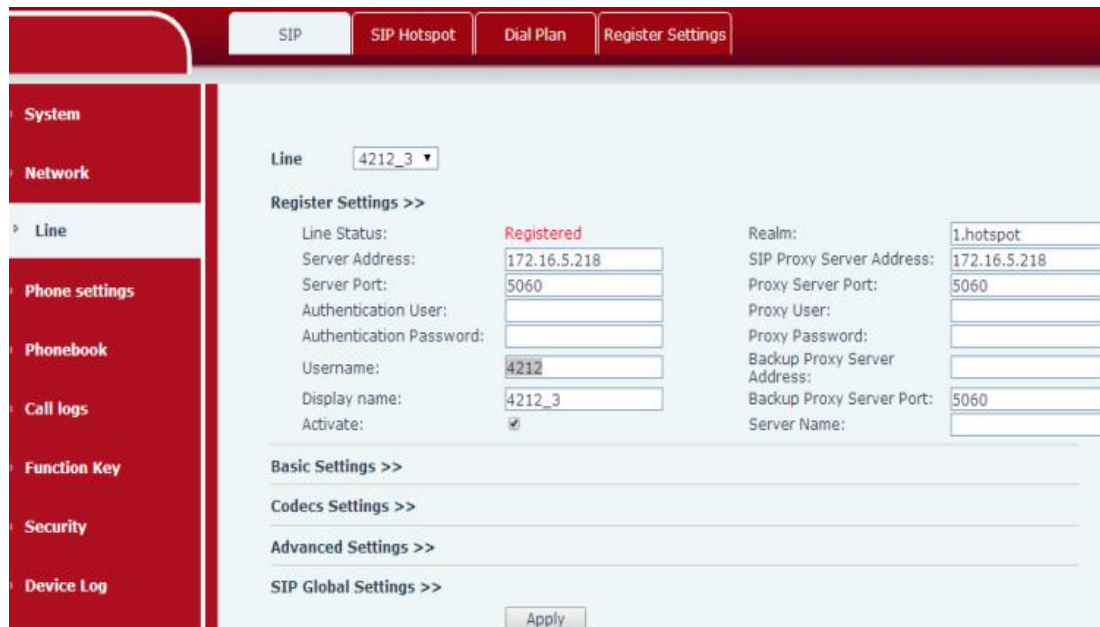
[Apply](#)

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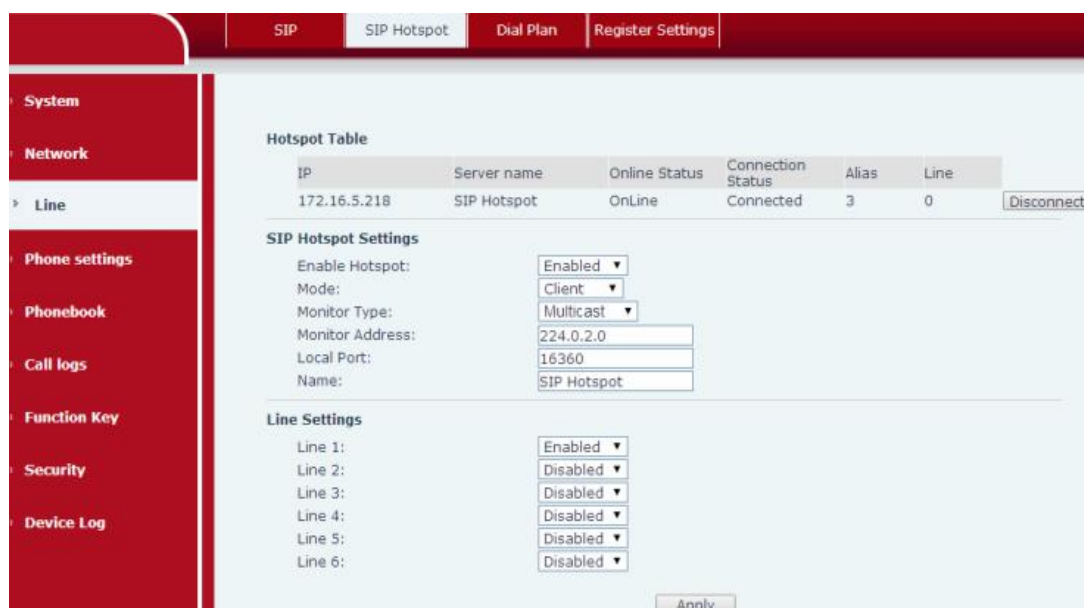
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The server address is the SIP hotspot address, and the display name is automatically distinguished, as shown in the figure below:



The hotspot list is displayed as the hotspots connected to the phone. The IP address shows that the hotspot IP is 172.18.7.10. If you want to call the phone as a SIP hotspot, you only need to call 0. This machine can choose whether to connect to a hotspot phone. If not, click the disconnect button on the right side of the hotspot list. As shown below:



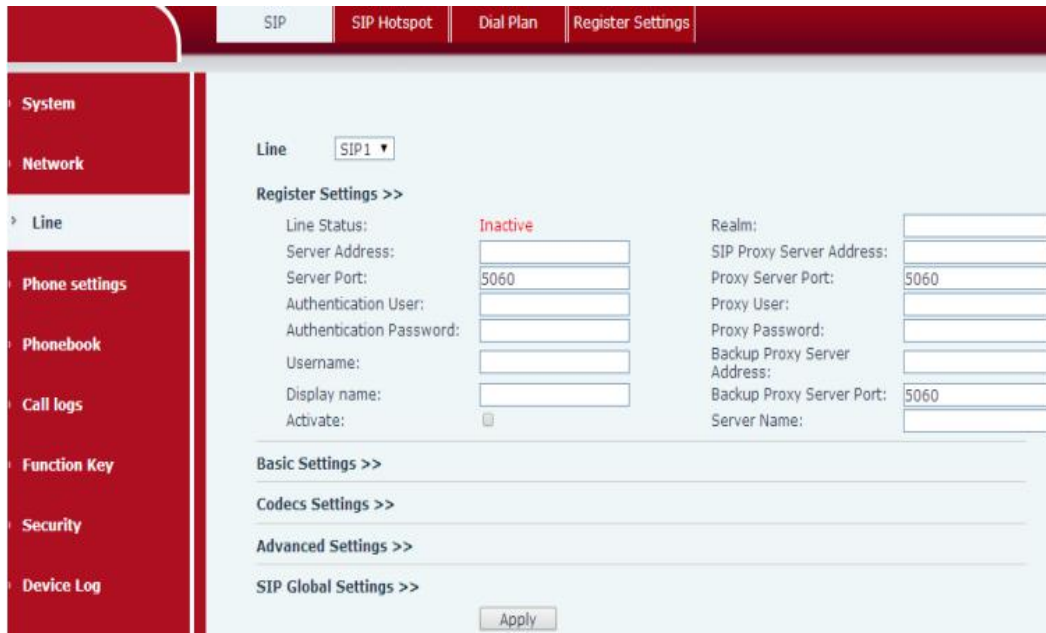
When the hotspot option in the SIP hotspot settings is changed to "Disabled" after use, the line registration information of the SIP hotspot client connected to the hotspot will be cleared, and the line registration information will not be cleared when the phone as a SIP hotspot is disabled.



The screenshot displays the Fanvil web interface with the 'SIP Hotspot' tab selected. The left sidebar contains navigation links: System, Network, Line (selected), Phone settings, Phonebook, Call logs, Function Key, Security, and Device Log. The main content area shows 'No Registration' and 'SIP Hotspot Settings'. The 'Enable Hotspot' dropdown is highlighted with a red box and set to 'Disabled'. Other settings include Mode: Client, Monitor Type: Multicast, Monitor Address: 224.0.2.0, Local Port: 16360, and Name: SIP Hotspot. Below this, 'Line Settings' show Line 1: Enabled and Lines 2-6: Disabled. An 'Apply' button is at the bottom right.



After deactivation, the SIP hotspot client line registration information will be cleared. As shown below:



The screenshot shows the Fanvil web interface for configuring SIP Hotspot settings. The top navigation bar includes tabs for SIP, SIP Hotspot, Dial Plan, and Register Settings. The left sidebar contains a menu with options: System, Network, Line, Phone settings, Phonebook, Call logs, Function Key, Security, and Device Log. The main content area is titled 'Line' and shows settings for 'SIP1'. The 'Line Status' is 'Inactive'. The 'Register Settings' section includes fields for Server Address, Server Port (5060), Authentication User, Authentication Password, Username, Display name, and Activate (checkbox). The 'Basic Settings' section includes fields for Realm, SIP Proxy Server Address, Proxy Server Port (5060), Proxy User, Proxy Password, Backup Proxy Server Address, Backup Proxy Server Port (5060), and Server Name. Below these are sections for 'Codecs Settings', 'Advanced Settings', and 'SIP Global Settings'. An 'Apply' button is located at the bottom right of the settings area.

Notice:

If multiple SIP hotspots are enabled in the network at the same time, you need to separate the hotspot phone monitoring address segment, and the monitoring address of the SIP hotspot client phone must be the same as the hotspot monitoring address you want to connect to.

Both hotspots and hotspot clients can dial external line numbers to call external lines. The hotspot supports intra-group transfer operations, and the hotspot client only supports basic calls.

3. Call operation

1. Set the extension prefix to call between extensions:

Use extension numbers to dial each other between extensions, such as host number 8000, extension number: 8001-8050

The host dials the extension, 8000 calls 8001

The extension dials the host, 8001 calls 8000

Call each other between extensions, 8001 calls 8002

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2. Call between extensions without setting the extension prefix:

the host dials the extension, 0 calls 1

3. Outside call host/extension:

The external number directly calls the host number. Both the extension and the host will ring. The extension and the host can choose to answer. When one party answers, the others hang up and return to standby.

4. Master/extension call outside line:

When the master/extension calls an outside line, the number of the outside line needs to be called.

