# Cisco Broadworks Auto-provisioning Configuration Guide(By RPS Mode)

# Catalogue

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# Ⅰ  Introduction

## 1.Cisco Broadworks Introduction

Cisco BroadWorks, as the world's leading cloud business communication platform, not only provides excellent security and reliability, but also guarantees up to 99.999% availability and full redundancy. It has full Cisco Broadworks capabilities and supports more than 26 million enterprise users worldwide, ranging from small and micro businesses to multinational corporations. Based on its open architecture, all series of Fision phones support the automatic deployment service of Cisco Broadworks as SIP server, which eliminates the tedious manual deployment process for users and brings more convenience to users.

## 2.Description Of Solution

This solution is designed to help you quickly deploy a large number of IP phones across the network on Cisco Broadworks in RPS mode, and initialize the device configuration to save you a lot of time.

## 3.Explain

Some configurations described in this article need to be pre-configured by the administrator. Please contact FLYINGVOICE support for assistance.

# Ⅱ  Configuration Flow
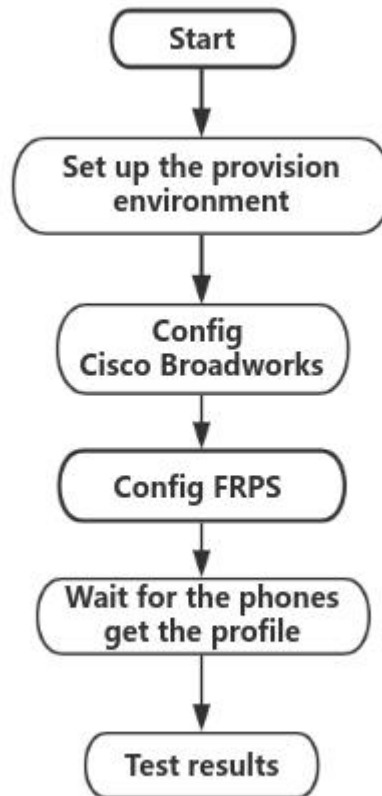


# Ⅱ  Configuration Operation

## 1.Set up the provision environment

## 1.1 Required platforms and products

FLYINGVOICE FRPS Device Management System、Cisco Broadworks(Ready to use)、Many FLYINGVOICE IP Phones
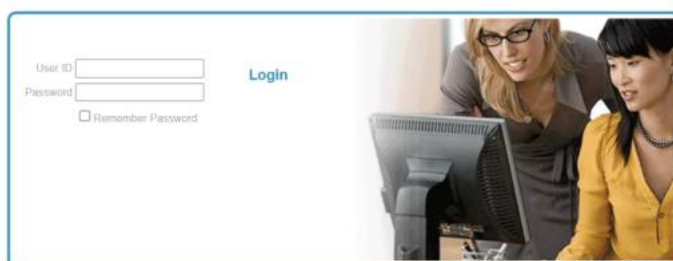
## 1.2 Premise

     1.2.1    The phones must be in factory Settings. If your phones have been configured, restore them to factory Settings.

     1.2.2    The phones and Cisco Broadworks must be connected to the network.

## 2.Config Cisco Broadworks

## 2.1 Login the Cisco Broadworks management web

Contact the network administrator to obtain Cisco Broadworks login web interface, user ID and password information, login Cisco Broadworks web page management page.



## 2.2 Add Identity/Device Profiles

Steps：Resources--》 Identity/Device Profiles--》 Fill in infomations--》 OK.

## Attention:

You must register the device Profile under administrator rights, please contact the administrator to operate here.

Enterprise > Flying_voice_group1                                    Welcome   [Logout]

**Options:**
① Profile
▶ **Resources**
Services
Acct/Auth Codes
Call Center
Calling Plan
Communication Barring
Meet-Me Conferencing
Utilities

## Resources

**Configuration**

**Call Recording Platform**
Select a recording platform for your group.

**Group Paging Targets Capacity**
Display the maximum number of target users each paging group may have.

**Identity/Device Endpoints**
Display the identity/device endpoints assigned in the group.

② **Identity/Device Profiles**
Add, modify, or remove group level identity/device profiles in the group.

**Domains**
Display the list of domains assigned to your group.

**Network Classes of Service**
Display the list of Network Classes of Service assigned to your group.

**Numbers**
Display the list of phone numbers assigned to your group and assign those numbers to departments.

**Office Zones**
Display the list of Office Zones assigned to your group.

**Route Point External Systems**
Display the list of route point external systems assigned to your group.

**Services**

**Assignment**

**Assign Domains**
Add or remove domains for your group.

**Assign Network Classes of Service**
Add or remove Network Classes of Service for your group.

**Assign Numbers**
Add or remove phone numbers for your group.

**Assign Route Point External Systems**
Add or remove route point external systems.

**Assign Group Services**
Assign or unassign group services for your group.

**Assign Xsi Policy Profile**
Add or remove Xsi policy profile for your group.

**New User Services Template**
Add or remove user services and service packs for the user template, which is applied when a new user is created.

**Existing User Services**
Assign or unassign user services and service packs for all users in your group.

**IMRNs**
Add or remove IMRNs for your group.

---

## Identity/Device Profile Add
Add a new group identity/device profile.

③ [OK]   [Cancel]

① Group: Flying_voice>%Flying_voice_group1
* Identity/Device Profile Name: P21W
Identity/Device Profile Type: Flyingvoice_FIP11C
Protocol: SIP 2.0
Host Name/IP Address: 001F24384A1    Port: 5060
Transport: UDP

MAC Address:
Serial Number:
Description:
Outbound Proxy Server:
STUN Server:
Physical Location:

**Authentication**
② ○ Use Identity/Device Profile Type Credentials
● Use Custom Credentials
* Device Access User Name: test
* Device Access Password: ••••••••••
* Re-type Device Access Password: ••••••••••

[OK]   [Cancel]

---

The parameters are described in the following table:

| Parameters | Description |
|---|---|
| MAC AddressIdentity/Device Profile Name | Fill in a custom name for the Profile. |
| Identity/Device Profile Type | Select the Profile type that has been entered. (Please contact the technical staff for input) |
| Device Type URL | Provision URL, this is important information, need to fill in the FRPS system configuration, please make a record. |
| Protocol | The protocol used by Profile is only the standard SIP 2.0 protocol. |
| Host Name/IP Address | Fill in the IP address of the phone to be deployed. |

| Transport | Select the transmission protocol, the default UDP. |
|---|---|
| Port | Fill in the registration port used by the phone, the default 5060 for Feiyin phone. |
| MAC Address | Fill in the MAC address of the phone. |

| Use Custom Credentials | Device Access User Name | The Profile authentication user name, this is important information, need to fill in the FRPS system configuration, please make a record. |
|---|---|---|
| | Device Access Password | The Profile authentication user password, this is important information, need to fill in the FRPS system configuration, please make a record. |
| | Re-type Device Access Password | Reenter Profile's authenticated user password to confirm. |

After filling in the parameters, click OK, go back to the upper interface and click Search to see the added Profile.

## Identity/Device Profiles

Add or modify group level identity/device profiles. Displays all the identity/device profiles defined at group level.

| OK | Add | Cancel |
|---|---|---|

Enter search criteria below

| Identity/Device Profile Name ▾ | Starts With ▾ | | + | ① Search |

| Identity/Device Profile Name ▲ | Identity/Device Profile Type | Available Ports | Host Name/IP Address | MAC Address | Status | Version | Edit |
|---|---|---|---|---|---|---|---|
| <my-user>-DUT1 | Generic SIP Phone | Unlimited | | | Online | FLYINGVOIC... | Edit |
| <my-user>-DUT2 | Generic SIP Phone | Unlimited | | | Online | Flyingvoic... | Edit |
| <my-user>-DUT3 | Generic SIP Phone | Unlimited | | | Online | Flyingvoic... | Edit |
| 7960 | Cisco 7960 | 6 | | | Online | | Edit |
| DUT | Flyingvoice_FIP11C | Unlimited | 192.168.10.37 | 0021F2472CC1 | Online | FLYINGVOIC... | Edit |
| fip10 | Flyingvoice IPPhone FIP10 | Unlimited | | 0021F2000030 | Online | | Edit |
| FIP 15G | Flyingvoice_FIP11C | Unlimited | 192.168.11.46 | 0021F226D23D | Online | FLYINGVOIC... | Edit |
| Flying_voice_generic | Generic SIP Phone | Unlimited | | 0021F2472CC2 | Online | Flyingvoic... | Edit |
| gust | Flyingvoice_FIP11C | Unlimited | | | Online | | Edit |
| ② host | Flyingvoice_FIP11C | Unlimited | | | Online | FLYINGVOIC... | Edit |
| P20 | Flyingvoice_FIP11C | Unlimited | | 0021F244041D | Online | Yealink SI... | Edit |
| P21W | Flyingvoice_FIP11C | Unlimited | 192.168.11.21 | 0021F24384A1 | Online | FLYINGVOIC... | Edit |
| snom320 | SNOM 320 | 12 | | | Online | | Edit |
| t43u | Yealink-T43U | 16 | | 001565511893 | Online | | Edit |
| test1 | Flyingvoice P23G | Unlimited | 192.168.11.123 | 0021F2472CE1 | Online | Flyingvoic... | Edit |
| yeal | Flyingvoice_FIP11C | Unlimited | | 0021F23FC0E1 | Online | | Edit |

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| OK | Add | Cancel |
|---|---|---|

## 2.3 Bind the address (extension) for the Profile

Enter the user interface of the corresponding extension number. (One extension number corresponds to one user)
Steps:Profile(administrator) --》 Users--》 Select target--》 Address--》 Input parameters--》 OK.

🌐 www.flyingvoice.com   ✉ sales@flyingvoice.com   📞 +86 755-2609 9365

Enterprise > Flying_voice_group1                                                     Welcome    [Logout]

**Options:** ①
▶ **Profile**
  Resources
  Services
  Acct/Auth Codes
  Call Center
  Calling Plan
  Communication Barring
  Meet-Me Conferencing
  Utilities

## Profile

**Basic** ②

**Users**
Add, modify, or remove users.

**Profile**
View or modify your group profile information.

**Administrators**
Add, modify, or remove group administrators and department administrators.

**Announcement Repository**
Manage the announcements for a group

**Departments**
Add, modify, or remove departments in your group.

**Schedules**
Add, modify, or remove schedules.

**Advanced**

**Activation Code Device Onboarding Policies**
Configure group level Activation Code Device Onboarding Policies.

**Call Processing Policies**
Configure group-level Call Processing Policies

**Communication Barring Authorization Codes**
Configure group-level Communication Barring authorization codes.

**Dial Plan Policy**
Configure group-level Dial Plan Policy

**Group Web Policies**
Configure group-level web policies.

**Virtual On-Net Enterprise Extensions**
Create and manage Virtual On-Net Users.

**Dialable Caller ID**
Automatically prepend digits to the incoming caller ID of public calls so the caller ID is presented in dialable format.

**STIR-SHAKEN**
Configure STIR-SHAKEN signing, tagging, and verification.

---

Enterprise > Flying_voice_group1                                                     Welcome    [Logout]

**Options:**
▶ Profile
  Resources
  Services
  Acct/Auth Codes
  Call Center
  Calling Plan
  Communication Barring
  Meet-Me Conferencing
  Utilities

## Users

Add a new user or manage existing users in your department or group.

[ OK ]   [ Add ]   [ Cancel ]

Enter search criteria below

[ User ID ▾ ]   [ Starts With ▾ ]   [_____]   [ + ]   ③ [ Search ]

| User ID ▲ | Last Name | First Name | Phone Number | Extension | Department | In Trunk Group | Edit |
|---|---|---|---|---|---|---|---|
| 9725983500@iop1as.tekvizion.com | 9725983500 | 9725983500 | +1-9725983500 | 3500 | | | Edit |
| 9725983501@iop1as.tekvizion.com | Saint-Saëns | François | +1-9725983501 | 3501 | | | Edit |
| 9725983502@iop1as.tekvizion.com | User3 | Flying_voice | +1-9725983502 | 3502 | | | Edit |
| 9725983503@iop1as.tekvizion.com | User4 | Flying_voice | +1-9725983503 | 3503 | | | Edit |
| 9725983504@iop1as.tekvizion.com | User5 | Flying_voice | +1-9725983504 | 3504 | | | Edit |
| 9725983505@iop1as.tekvizion.com | User6 | Flying_voice | +1-9725983505 | 3505 | | | Edit |
| 9725983506@iop1as.tekvizion.com | User7 | Flying_voice | +1-9725983506 | 3506 | | | Edit |
| 9725983507@iop1as.tekvizion.com | User8 | Flying_voice | +1-9725983507 | 3507 | | | Edit |
| 9725983508@iop1as.tekvizion.com | Guðmundsdóttir | Saint-Saëns | +1-9725983508 | 3508 | | | Edit |
| 9725983509@iop1as.tekvizion.com | Namath | Joe | +1-9725983509 | 3509 | | | Edit |
| ④ 9725983514@iop1as.tekvizion.com | 3540 | test | +1-9725983514 | 3514 | | | Edit |

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[ OK ]   [ Add ]   [ Cancel ]

---

**Options:**
▶ Profile
  Outgoing Calls
  Call Control
  Calling Plans
  Messaging
  Communication Barring
  Utilities

## Profile

**Basic**

**Profile**
Display and configure profile information such as your name, department and address.

**Addresses** ⑤
Addresses allows you to view and maintain your phone numbers and other identities that are used to make and receive calls.

**Announcement Repository**
Manage the announcements for a user

**Passwords**
Set web access and portal passwords.

**Schedules**
Add, modify, or remove schedules.

**Advanced**

**Assign Services**
Assign or unassign services and service packs.

**Assign Xsi Policy Profile**
Assign a Xsi policy profile for a user.

**Call Application Policies**
Select Call Control Applications enabled for a user.

**Call Policies**
Configure user Call Policies

**Call Processing Policies**
Configure user-level Call Processing Policies

**Communication Barring Authorization Codes**
Configure Communication Barring Authorization codes for a user.

**Device Policies**
Configure user Device Policies.

The parameters are described in the following table:

| Parameters | Description |
|---|---|
| Identity/Device Profile Name | Select the device Profile you added in the previous step. |
| Line/Port | Fill in the extension number. |

# Ⅲ  Configure the FRPS System

## 1. Devices init SN/MAC

Considering the safety of the device, it is necessary to make the device init SN/MAC on the FRPS Device Management System . You can contact FLYINGVOICE support in advance to apply for account or apply for equipment registration.

First login the FRPS Device Management System.

Then make the Devices init SN/MAC.

Stps: Devices init SN/MAC --》 import.

Download the template.

Fill in the device type, SN, MAC and other parameters in the downloaded format template file and save the file.

Import the format template file that has been filled in, the page will jump to the prompt after the import is successful.

Steps: Select import file --》 import
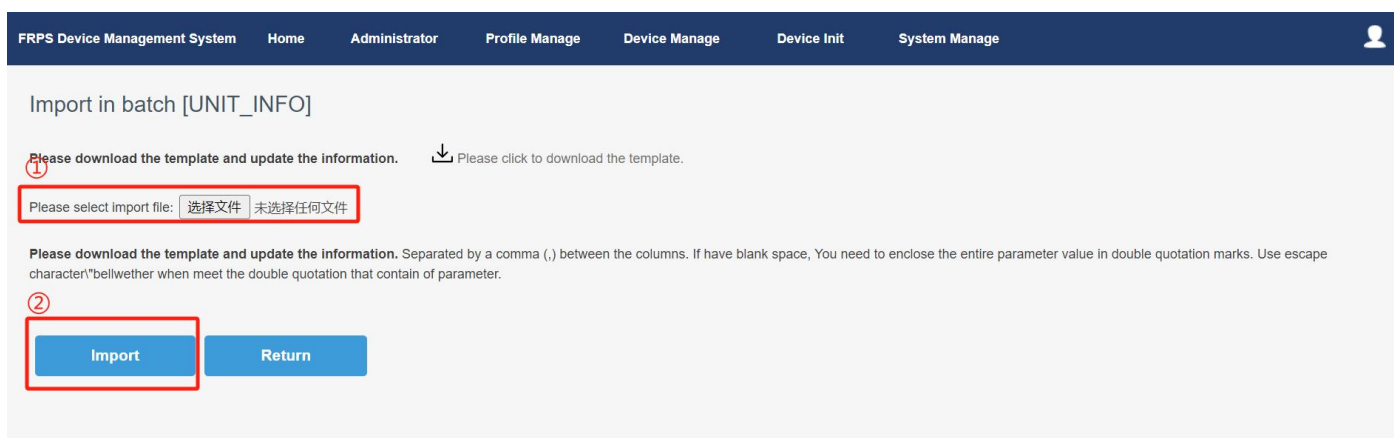


## 2.Add Profile of Cisco Broadworks

Step：Profile Manage --》 Add
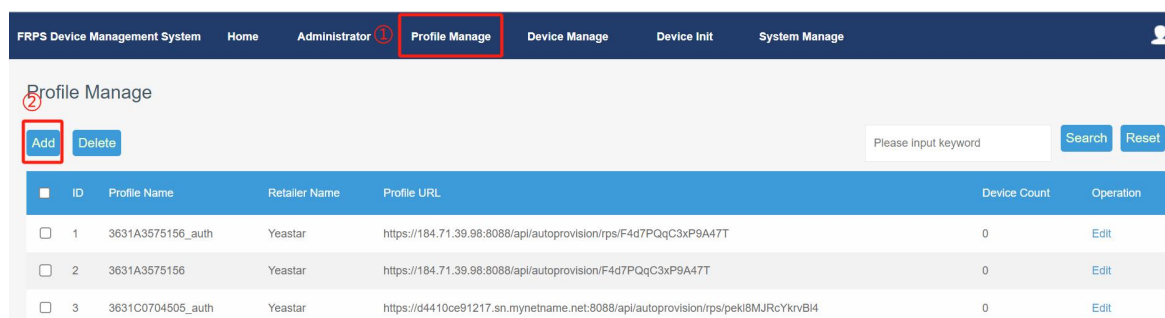


Fill in the required parameters in the figure. The username and password should refer to the Cisco Broadworks parameter setting. See the *Appendix* for details

Step：Fill in parameters --》 Confirm.

**① Select the retailer name and profile name**

**Retailer Name**

Vertin li ▾

**Profile Name** Required

Boradworks test

**Profile URL** Required

http://iop1xsp.tekvizion.com:80/dms/Flyingvoice_FIP11C/

**Username**

test

**Password**

Lyq20001111I

**②Pls see details in appdix**

**Certificate file**

Upload

③

Confirm          Return

## 3.Device manage

You can choose batch import or single device registration, here use a single device registration for demonstration, if in doubt, you can contact Feyingtimes technical support for help.

Step:Device Manage --》 Register --》 Input parameters --》 Confirm.

FRPS Device Management System   Home   Administrator   Profile Manage ①  **Device Manage**   Device Init   System Manage   👤

Device Register

②
Register   Unregister   Import   Export   Transfer to          Customer: Select customer   Unit Type: Select type   Profile Name: Profile Nam   SN: Input SN   MAC: Input MAC   Search   Reset

| ☐ | Retailer Name | Unit Type | SN | MAC | Profile Name | Updated Time | Redirect Status | Redirected Time | Operation |
|---|---|---|---|---|---|---|---|---|---|
| ☐ | Vertin li | FIP15G | FLY11420800032 | 00:21:F2:26:D2:3D | Boradworks FIP15G | 2023-12-29 14:48:03 | Redirected | 2023-12-29 14:54:35 | Edit |
| ☐ | Vertin li | P21W | FLY15023100342 | 00:21:F2:43:84:A1 | Boradworks test | 2023-12-29 11:25:50 | Redirected | 2023-12-29 11:31:54 | Edit |
| ☐ | support | P23GW | FLY13023100361 | 00:21:F2:43:85:39 | Broadsoft P23GW | 2023-12-27 16:37:02 | Redirected | 2023-12-28 11:11:27 | Edit |
| ☐ | support | P11 | FLY14422B00059 | 00:21:F2:41:D4:E9 | Broadsoft P11 | 2023-12-27 16:36:34 | Redirected | 2023-12-27 16:38:38 | Edit |
| ☐ | RDN | FIP12WP | FLY65218001387 | 00:21:F2:32:7D:45 | ACS SERVER | 2023-12-16 07:36:38 | Redirected | 2023-12-16 07:41:28 | Edit |
| ☐ | support | FWR7101A | FLY62226000859 | 00:21:F2:3C:E8:01 | metaswitch test | 2023-12-13 16:35:18 | Redirected | 2023-12-13 16:37:09 | Edit |
| ☐ | support | FWR7101A | FLY62226000858 | 00:21:F2:3C:E7:03 | metaswitch test | 2023-12-13 16:34:52 | Redirected | 2023-12-19 15:19:43 | Edit |
| ☐ | HK-PCCW | FWR7101A | FLY000000 | 00:21:F2:00:00:00 | Metaswitch | 2023-12-12 17:25:14 | Not redirected |  | Edit |
| ☐ | Yeastar | P11 | FLY14422B00522 | 00:21:F2:41:D8:86 | flyingvoice | 2023-12-12 09:47:12 | Redirected | 2023-12-29 14:23:21 | Edit |

FRPS Device Management System    Home    Administrator    Profile Manage    Device Manage    Device Init    System Manage

## Device Register

**Unit Type** Required

[ P21W ▾ ]

**SN** Required

[ FLY15023100342 ]

**MAC** Required

[ 00:21:F2:43:84:A1 ]

**Profile Name**

[ Boradworks test ▾ ]

①

②  [ Confirm ]    [ Return ]

## 4.Auto-provisioning on IP Phones

Wait for the phones to restart and take effect the configurations.

# Ⅳ  Test result verification

## 1.How to determine the status of auto-provisioning?

After the phone is successfully provisioned, you can check whether the phone is successfully provisioned on the FRPS system, check whether the account key turns green on the phone, or check the registration status on the phone Web page to check whether the phone is successfully provisioned.

Checking route:Device Manage --》 Redirect Status

## 2.Dial test

Extension 3540 dial 3507 to test. (Corresponding to 9725983514 and 9725983507)

# Ⅴ  Appdix

## How can I find the Provision URL, username and password of FRPS?

You can find this information on **Cisco Broadworks.**

## Query method:

Re-enter **Resources**--  》 **Identity/Device Profiles** --》 Enter the Profile you have created--》 Find the infomations.(Device Type URL corresponding Provision URL,Device Access User Name corresponding username,Device Access User Password corresponding password.)

## Tips:

The Device Access User Password is invisible by default on Cisco Broadworks. If you forget the password, you can reset it here.

Enterprise > Flying_voice_group1

Welcome 　[Logout]

**Options:**
- Profile
- ▶ **Resources**
- Services
- Acct/Auth Codes
- Call Center
- Calling Plan
- Communication Barring
- Meet-Me Conferencing
- Utilities

## Identity/Device Profile Modify

Modify or delete an existing group identity/device profile.

[ OK ]　[ Apply ]　[ Delete ]　[ Cancel ]

| Profile | Users | Files | Custom Tags | Tag Set | Available Custom Tags | Native Tags With Logic |

Identity/Device Profile Name: P21W
Identity/Device Profile Type: Flyingvoice_FIP11C
Device Type URL: http://iop1xsp.tekvizion.com:80/dms/Flyingvoice_FIP11C/
Protocol: SIP 2.0 ▾
Host Name/IP Address: 192.168.11.21　　　　Port: 5060
Transport: UDP ▾
MAC Address: 0021F24384A1
Serial Number: 
Description: 
Outbound Proxy Server: 
STUN Server: 
Physical Location: 
Lines/Ports: Unlimited
Assigned Lines/Ports: 1
Unassigned Lines/Ports: Unlimited
Version: FLYINGVOICE P21W SV0.8.18.7(202311061522) 202311061522

**Authentication**
○ Use Identity/Device Profile Type Credentials
◉ Use Custom Credentials
　* Device Access User Name: test
　* Device Access Password: 
　* Re-type Device Access Password: 

[ OK ]　[ Apply ]　[ Delete ]　[ Cancel ]