

IP PBX

User guide

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1. Product Overview

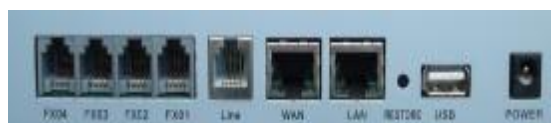
Thanks for your choice of our IPPTEC series enterprise mixed communication system which is mainly desired to satisfy the middle and small sized enterprise's communication needs. The IPPTEC is not only possesses the traditional function of the PBX, it provided with the incoming method via IP, outgoing method via VOIP and powerful call processing ability, economize the communication fees between the branches, lower the long-distance communication fees of the enterprise by VOIP service, but also can mix the internet/information system and the enterprise communication system together that bring much convenience and value for the company.

IP PBX product is very easy to configure, so one can configure it according to the manual and needn't the help of the professional. Once you prepare to configure it, please read the guide carefully to ensure you make the best use of it.

IP PBX Main Function:

- ◆ Blind transfer/Attend transfer
- ◆ Extension replace the switchboard
- ◆ Call queue
- ◆ DMZ network support
- ◆ Group function
- ◆ Presence status display
- ◆ NAT detecting and pass through
- ◆ Find me
- ◆ Call restriction
- ◆ IVR function setting
- ◆ Mobile phone binding
- ◆ Billing function
- ◆ Instant message
- ◆ DHCP
- ◆ Call switch within a team
- ◆ Voice conference room
- ◆ Personal voice prompt
- ◆ Voice message
- ◆ WEB manage
- ◆ Dynamic domain name
- ◆ VPN

2. Installation and logon



2.1 Installation Environment

2.1.1 Environment Required

- ◆ Level the IPPBX in the airiness condition
- ◆ Please do not put it in the place where is too dirty or too moist.

2.1.2 Recommended usage environment

- ◆ Temperature 0– 40
- ◆ Humidity: 10% - 90% RH

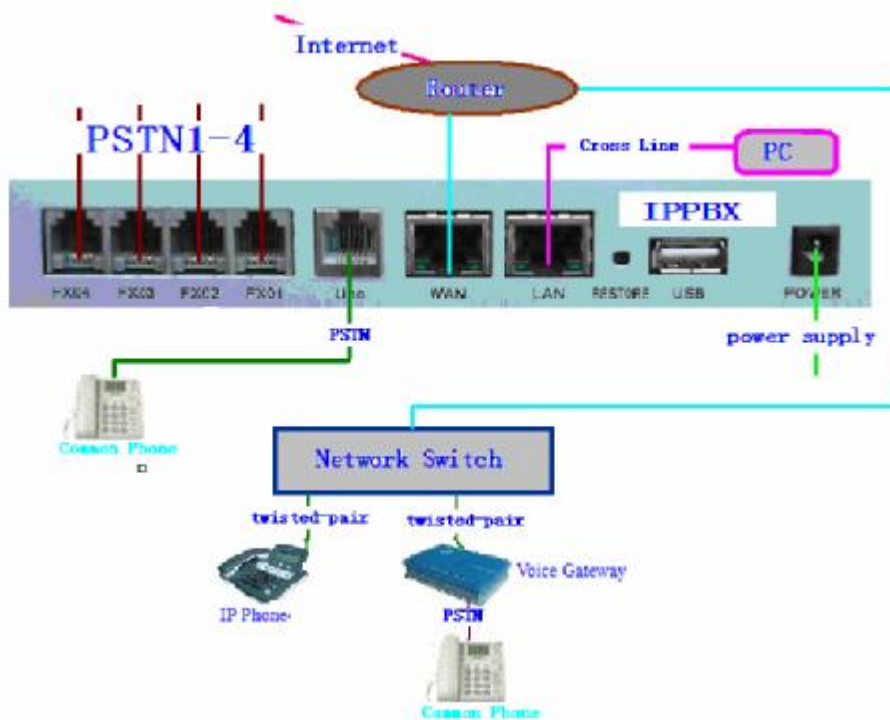
2.1.3 System capacity

- ◆ 4 FXO port
- ◆ Maximum 50 extension user
- ◆ Two 10/100Base-T interface

2.1.4 Protocol interface

- ◆ Signaling protocol: SIP
- ◆ Audio codec: G729a,GSM、 Speex、 G711a、 G711u
- ◆ Video codec: H.263, H.264[Pass Through]

2.2 Application connecting sketch map



Network connecting sketch map

- ◆ Connet WAN port to access Internet with Router
- ◆ Use a cross line to connect LAN port with PC. You can visit IP PBX via PC.
- ◆ FXO1-4 is to connect PSTN line, can make communication between PSTN and SIP network.
- ◆ Line port defaults as a FXO1 lifeline port to connect common phone, which ensure all FXO1 port incoming call won't be missed, especially when it has power failure or malfunction.
- ◆ LAN user can register via private network, can user outside LAN environment need to register via WAN port.

2.3 Netwrok Connection

Catering for different company's application and network environment, our IP PBX offers 3 ways to access to Internet: DHCP, PPPoE (ADSL) and static IP. You may select a mode suitable for your network environment.

2.3.1 Static IP:

The screenshot shows a 'WAN Setting' form with the following fields and values:

WAN Link Types	Static IP
MAC Address	4E:72:56:79:7C:A8
IP Address	192.168.1.2
Subnet Mask	255.255.255.0
Gateway	192.168.1.100 (Optional)
First DNS Server	202.96.134.133 (Optional)
Second DNS Server	202.96.128.166 (Optional)

A 'Submit' button is located at the bottom right of the form.

- ◆ In public network: it suits under the condition when has sole public network.
- ◆ In LAN condition: firstly please visit IP PBX WEB page and select “Static IP” mode and configure correlative parameters.

Note: WAN port IP and LAN port IP shouldn't be in the same net segment.

2.3.2 DHCP:

The screenshot shows a 'WAN Setting' form with the following fields and values:

WAN Link Types	Dynamic IP
MAC Address	4E:72:56:79:7C:A8
<input checked="" type="checkbox"/> Config DNS Servers	
First DNS Server	202.96.134.133 (Optional)
Second DNS Server	202.96.128.166 (Optional)

A 'Submit' button is located at the bottom right of the form.

In this network condition, IP PBX system can get an IP from DHCP server randomly. Not any manual configuration is needed since all this will be finished by DHCP server. We have DHCP client end integrated in our IP PBX.

Note: DHCP mode isn't recommended. Or trouble may arise when end user need to change registering server address caused by revised IP.

2.3.3 PPPoE:

WAN Setting	
WAN Link Types	PPPoE
Internet Account	roman8372323
Internet Password	*****
<input type="checkbox"/>	Config DNS Servers
First DNS Server	202.96.134.133 (Optional)
Second DNS Server	202.96.128.166 (Optional)
Submit	

Via PPPoE and ADSL Modem, we can realize personal validation to visit high-speeded broad band. So that every user can establish virtual dialing to link to fast access Internet. IP PBX support this access way since many small-medium size enterprise are now using ADSL.

2.4 Longon

Firstly, Use a cross line to connect LAN port with PC. LAN port address of IP PBX default as 192.168.2.1. So you need to configure PC IP address like 192.168.2.* , which means PC IP and LAN port IP of IP PBX should be in the same network segment. Then use IE browser to open website <http://192.168.2.1> to enter IP PBX WEB page to make configuration.

User name: admin; Password: 123456

3. Extension Management

3.1 Add user

According to number planning, administrator can establish a serial extension users and enter up correlative users' account information and configure function like group, call authority.

Guide: Two ways to add: Add User and Add Users.

Add User: Users ->Add User, as picture shows below, firstly confirm user information such as User ID, Password, User's Group, Authority, and email Address etc. Some information can be updated later.

Add Users: Users ->Add Users, as the picture shows below, add a group users means adding a sequential number for users. And all these users have the same user group number and call authority.

User ID: It means extension number which should be arabic numerals. Option marked (*) is obligatory.

Real Name: real name of user, optional.

Department: Extension's subordinate department, optional.

User Group: Extension's subordinate group number, obligatory.

User Name/Password: User name and password while register, obligatory.

Authority: Authority assigned to extension, optional.

Email Address: User's email address, can save voice mail, optional.

Start User-ID/End User-ID: Rank from first extension to last one. Numbers between them will be established, optional.

Random Password: A random password will be established for the same group users.

3.2 Delete user

While extension user is deleted, their correlative information will be eliminated from IP PBX. And deleted user number can be re-assigned to a new user.

Guide: Two ways to delete: Delete User and Delete Users.

Note: Deleted information cannot be restored.

Select Users ->Delete User, as the picture shows below,




































Delete User: Input the user extension number and click “Submit”, successful operation will appear “Delete Succ!”.

Delete Users: Input a number rank such as (611~620) between first and last extension. Then all information concerning these users will be deleted completely.

3.3 Extension User Registration

When IP PBX webpage is open, like user “628”, password “won”, devices like IP phone and gateway can be registered an extension via IP PBX IP address and registration port. User may select different registration method according to different network environment. Public network user can register via public network address and LAN user can register via IP PBX private IP.

20	620		123456	0	0	Normal	  
21	621		123456	0	0	Normal	  
22	622		123456	0	0	Normal	  
23	623		123456	0	0	Normal	  
24	624		123456	0	0	Normal	  
25	625		123456	0	0	Normal	  
26	626		123456	0	0	Normal	  
27	627		123456	0	0	Normal	  
28	628	won	won	0	0	Normal	  
29	629		123456	0	0	Normal	  
30	630		123456	0	0	Normal	  

(1) Public network registration

Via public network, user can be registered to IP PBX after successfully fill in server’s public network IP address(or domain name), registration port, user name, password and phone number etc. Finally please select “Enable Register”.

SIP[Registered] Configuration

Register Server Addr	frank1983.3322.org	Proxy Server Addr	
Register Server Port	6058	Proxy Server Port	
Register Username	628	Proxy Username	
Register Password	●●●	Proxy Password	
Domain Realm		Local SIP Port	5062
Phone Number	628	Register Expire Time	60 seconds
Detect Interval Time	60 seconds	User Agent	VOIP PHONE PH802
Encrypt Key		Server Type	common
DTMF Mode	DTMF_RFC2833	RFC Protocol Edition	RFC3261
<input type="checkbox"/> Signal Encode		<input type="checkbox"/> Rtp Encode	
<input checked="" type="checkbox"/> Enable Register			

(2) Private network registration

Via private network, user can be registered to IP PBX after successfully fill in server’s private network IP address(or domain name), registration port, user name, password and phone number etc. Finally please select “Enable Register”.

SIP[Registered] Configuration

Register Server Addr	192.168.1.2	Proxy Server Addr	
Register Server Port	6058	Proxy Server Port	
Register Username	628	Proxy Username	
Register Password	●●●	Proxy Password	
Domain Realm		Local SIP Port	5062
Phone Number	628	Register Expire Time	60 seconds
Detect Interval Time	60 seconds	User Agent	VOIP PHONE PH802
Encrypt Key		Server Type	common
DTMF Mode	DTMF_RFC2833	RFC Protocol Edition	RFC3261
<input type="checkbox"/> Signal Encode		<input type="checkbox"/> Rtp Encode	
<input checked="" type="checkbox"/> Enable Register			

(3) Our IP PBX support presence status display function. If your IP phone also support this function, you can activate this function on IP PBX webpage. Hence, you can judge if extension you dialed is online or not.

3.4 User Self-help Management

For each extension user, you can check on IP PBX WEB page to check call record and configure correlative function.

How to log in: Input IP address of IP PBX in IE browser’s address bar, like <http://192.168.1.2>. Then input username(extension number) and password to log in.

IPTEC IP-PBX	
Username:	<input type="text" value="2001"/>
Password:	<input type="password" value="*****"/>
<input type="button" value="Login"/>	

Picture below is self-help management page:

On this webpage, extension user can manage user information, function setting and CDR etc. User Information includes: Real Name, Department, Password, voice mail and Email Address etc.

Function Setting includes: Call Forward, Find Me, Binding, Voice-mail etc.

CDR is used to check user's call record.

Download is mainly concerned with correlative software download.

4. Incoming and Outgoing Call Configure

IP PBX offers two ways: incoming call via FXO (PSTN) and incoming call via VoIP. IP PBX is directly connected with PSTN line while via FXO, and is connected with IP PBX by VoIP platform while via VOIP.

4.1 Incoming call via FXO (PSTN)

FXO port is used to connect traditional telephone network interface, which enable interconnection between PBX and IP PBX. When FXO port is connected with PSTN, this PSTN straight line number is IP PBX's PSTN access number. When user dial this PSTN number, it can be interconnected with IP PBX's SIP network.

Guide: Incoming Call->Calls From FXO

Calls from FXO	
FXO 1(FXO1)Redirect to	AA
FXO 2(FXO2)Redirect to	AA
FXO 3(FXO3)Redirect to	start
FXO 4(FXO4)Redirect to	start
<input type="button" value="Update"/>	

You can select to redirect the call to numbers from switchboard, queue, voice conferencing room or any extension. Or you may input a new number or select one from the drop list.

4.2 Incoming call via VoIP

Our IP PBX supports SIPTrunk way to make incoming call: Get IP PBX registered to the third party SIP system, and accept calls from this SIP system as a client end; Our IP PBX can be registered to several SIP system to accept calls as several SIP client ends. IP PBX can have various DID number assigned by different ITSP. Note that the third party's VoIP system should be configured as IP PBX's trust host.

Guide: Incoming Call->Calls From VoIP

Registry Address: obtained from SIP Virtual operating system(ITSP)

User Name: provided by SIP Virtual operating system(ITSP)

Password: Password corresponding to user name

Redirect to: The redirected number from ITSP platform

Features: encrypt SIP signaling or not.

Memo: General record of this rule for your knowledge.

4.3 Outgoing Call Configure

Two ways to make outgoing calls for the registered extension users: PSTN way through FXO port; SIP system through internet. Let us briefly introduce these two configuring methods:

- ◆ As picture shows below, when IP PBX’ extension user dial numbers begin with 0, system will auto-delete a strip bits 1 to make outgoing via FXO port.

NO.	Authority	FXO Group NO.	Prefix	Strip Bits	Append Prefix	Operation
1	>= 0	Group1	0	1		

- ◆ As the picture shows below, when IP PBX’ extension user dial numbers begin with 9, system will auto-delete the dial prefix 9 to make outgoing call and select SIP system via internet.

NO.	Authority	IP Address	UserName	Password	User Prefix	User Strip Bit	Dial Prefix	Dial Strip Bit	Append Prefix	Features	Operation
1	>= 0	ipptec.com:5060	90500001	195028		0	9	1		Standard	

Several important parameters while configuring outgoing call dial rules:

Group NO.: It is fixed to a certain FXO group. Be sure it matches with FXO group while configuring FXO outgoing call dial rules.

Dial Prefix: Prefix need configured to enable system to judge outgoing call via FXO or VOIP.

Dial Strip Bit: It means strip bits from dialing number. If via VoIP, please well configure the dial rules.

5. Default Factory Setting

Serious fault happens to IP-PBX or its IP address is forgotten, you can use hardware button and restore it to factory setting. As the picture shows below,



5.1 Operating Method

Keep pressing restore button until all lights flashes three times. Then release the button and system will restart after 3 flashes.

Note:

- (1) Users' data won't be reserved.
- (2) It will be restored to factory-setup system edition and IP address.

5.2 Default Network Parameter

NIC	IP Address	Mask
WAN IP	192.168.1.3	255.255.255.0
LAN IP	192.168.2.1	255.255.255.0

Note: Neither WAN nor LAN port supports auto-reversal function. So use a cross line while connecting to PC directly.

5.3 Default System Parameter

Username: admin

Password: 123456

Http port: 80(You need revise it after defaulty)

SIP signaling service port: 5060

Default account: 10 users (2001-2010), password is 123456

6. FAQ

6.1 Under Calls from VoIP condition, but other SIP system user cannot call IP PBX user, why?

In this condition, this SIP system should be configured as a trust host to ensure our IP PBX can be registered to the third SIP system regularly. Only when it is successfully registered, can this SIP system user call the IP PBX system user.

6.2 Outgoing Call via VOIP function is configured, many users fail to call out from this rule, why?

There is one option to limite user's authority on this configure webpage. Only when user's authority is

bigger or equal to the configured authority, can user make outgoing calls through this rule.

6.3 In “Outgoing Call via VOIP” rules, I changed the prefix 9 to 0, but the new prefix doesn’t work. Why?

Before changing the prefix, it is suggested that you check if the prefix is available or not. In this condition, 0 must have been occupied.

6.4 How to realize the interconnection with the third party’s SIP system?

Two SIP system can be configured as trust host with each other, and add a dialing rule in Outgoing call via VoIP configuring page.

If you meet other problem while configuring, please visit corresponding product FAQ page on www.5111soft.com. Or you may contact our tech engineer by email or telephone.