

Internet Telephony PBX System

IPX-600

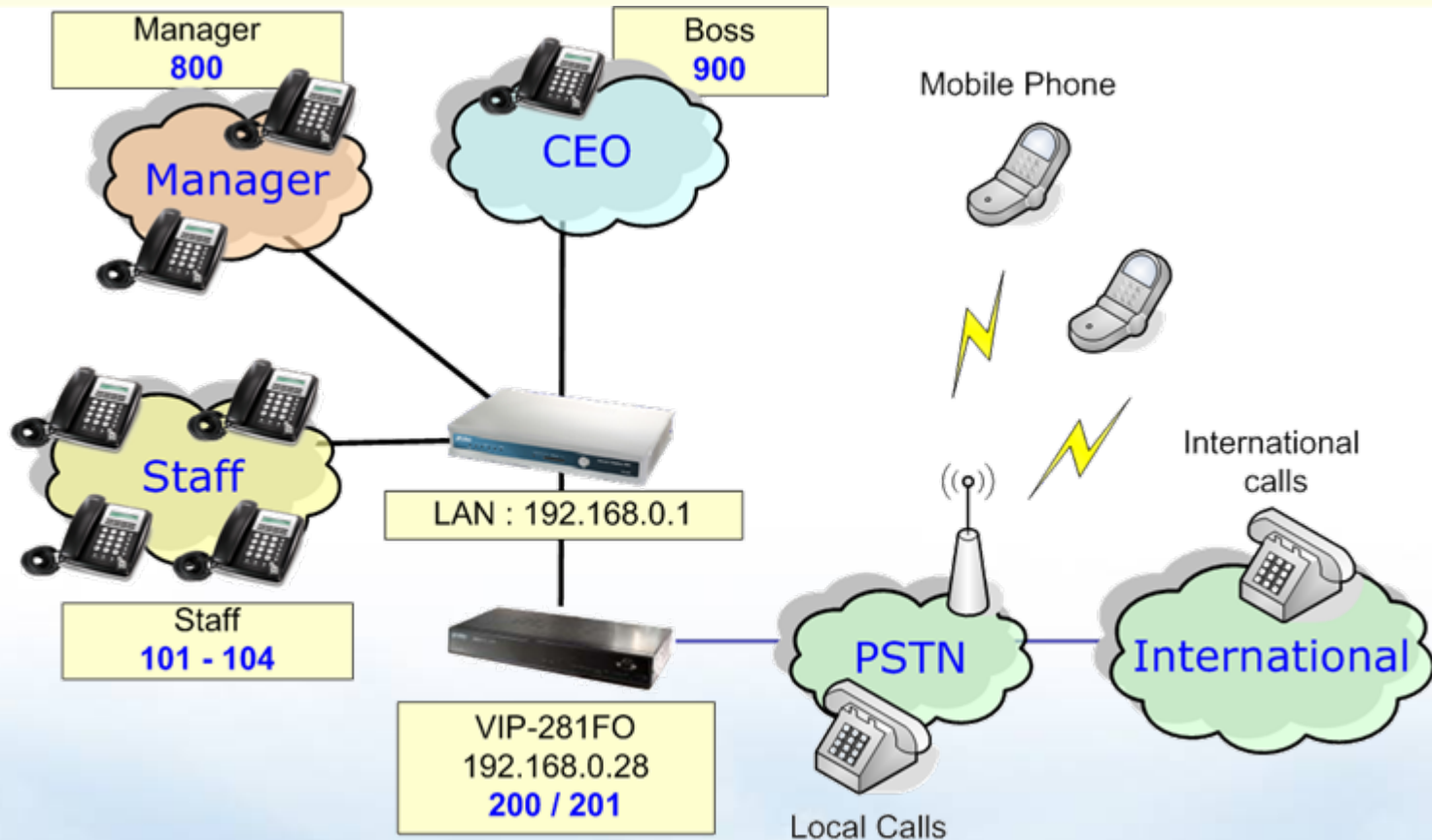
IP PBX with Gateway Restricted PSTN Calls Configuration



Scenarios explain: SIP Proxy Mode

We're using the IPX-600 and VIP-281FO to perform the restricted at the different grades users to limit their of PSTN outgoing calls.

Please refer to the following descriptions and insert proper parameters configurations into the each device for establish the voice communications.



Status

Network Setup

DHCP Server

IP PBX

NAT Advanced

Log

Management

1

Click the [**Network Setup**] to set up the WAN and LAN interface for the IP PBX, If the IP PBXs not under the NAT, disable the STUN server.

LAN	
Domain	
IP Address	192 . 168 . 0 . 1
Subnet Mask	255 . 255 . 255 . 0
WAN	
Wan Connection Type	Static IP
IP Address	122 . 255 . 105 . 25
Subnet Mask	255 . 255 . 255 . 224
Default Gateway	122 . 255 . 105 . 1
DNS1 IP Address	61 . 31 . 233 . 1
DNS2 IP Address	211 . 78 . 215 . 200

2

Setup the WAN and LAN interface of **IPX-600** follow the information of IP that provides by ISP

IP PBX

- System
- Proxy Server
- Gateway
- Call Route
- Block List
- Users Mgmt.
- Call Status
- Hunt Group
- Call/Pickup Group
- CDR
- Auto Attendant
- Upload Voice File

3

Select the [IP PBX->Users Mgmt.] of IP PBX and click Add User button or Batch Add button to create user account.










User Attributes	Values
First Number	<input type="text" value="100"/>
Number of Users	<input type="text" value="5"/> users 4
Password	<input type="text" value="100"/> <input checked="" type="checkbox"/> Auto-increase
Call Group	<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/> 6 <input type="checkbox"/> 7 <input type="checkbox"/> 8 <input type="checkbox"/> 9 <input type="checkbox"/> 10 <input type="checkbox"/> 15 <input type="checkbox"/> 16 <input type="checkbox"/> 17 <input type="checkbox"/> 18 <input type="checkbox"/> 19 <input type="checkbox"/> 20
Pickup Group	<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/> 6 <input type="checkbox"/> 7 <input type="checkbox"/> 8 <input type="checkbox"/> 9 <input type="checkbox"/> 10 <input type="checkbox"/> 15 <input type="checkbox"/> 16 <input type="checkbox"/> 17 <input type="checkbox"/> 18 <input type="checkbox"/> 19 <input type="checkbox"/> 20
Re...	Default ▾
...rd Immediate	<input checked="" type="radio"/> Disable <input type="radio"/> Internal <input type="text" value="10"/> ▾ <input type="radio"/> External <input type="text"/>
...rward on Busy	<input checked="" type="radio"/> Disable <input type="radio"/> Internal <input type="text" value="10"/> ▾ <input type="radio"/> External <input type="text"/>
...ll Forward on No Answer	<input checked="" type="radio"/> Disable <input type="radio"/> Internal <input type="text" value="10"/> ▾ <input type="radio"/> External <input type="text"/>
MAC Address	<input type="text" value="00"/> : <input type="text" value="00"/> : <input type="text" value="00"/> : <input type="text" value="00"/> : <input type="text" value="00"/> : <input type="text" value="00"/>
APS	NO ▾
T.38 Fax Relay	NO ▾
Do Not Disturb	<input checked="" type="checkbox"/> Forward to VM
VM to E-mail	Disable ▾ E-mail <input type="text"/> <input type="checkbox"/> Delete VM after Send Attachment via E-mail
Goto VM after Ringing	<input type="text" value="30"/> seconds (10~60)

First Number: 100
 Number of users : 5
 Password: 100
 Check Auto-increase
 GoTo VM after Ringing: 30
 (As you requirement to create users counts.)

User Management

DHCP Only for IP Phones:

Total: 9 Users, Registered: 0 Users.

Index	<input type="checkbox"/>	Call Status	Disp. Name	Number	Call Group	Pickup Group	Hunt Group	Route Group	Call Type	IP:Port	APS	VMWI (new/old)	Action
001	<input type="checkbox"/>		100	100	1	1	-	Staff	-	-	N	0/0	Edit
002	<input type="checkbox"/>		101	101	1	1	-	Staff	-	-	N	0/0	Edit
003	<input type="checkbox"/>		102	102	1	1	-	Staff	-	-	N	0/0	Edit
004	<input type="checkbox"/>		103	103	1	1	-	Staff	-	-	N	0/0	Edit
005	<input type="checkbox"/>		104	104	1	1	-	Staff	-	-	N	0/0	Edit
006	<input type="checkbox"/>		200	200		5	-	Gateway	-	-	N	0/0	Edit
007	<input type="checkbox"/>		201	201			-	Gateway	-	-	N	0/0	Edit
008	<input type="checkbox"/>		800	800	8	1,8	-	Manager	-	-	N	0/0	Edit
009	<input type="checkbox"/>		900	900	9	1,8,9	-	Boss	-	-	N	0/0	Edit

1

Click the [Apply] button to reload the IP PBX User Management configuration.

IP PBX

- System
- Proxy Server
- Gateway**
- Call Route
- Block List
- Users Mgmt.
- Call Status
- Route Group
- Hunt Group

6

Select the [IP PBX->Gateway] of IP PBX and click **Add** button to add gateway for the IP PBX.

Edit Gateway	
Entry Attributes	Values
Name	PSTN
Gateway IP	192.168.0.28
Gateway Port	5060 (1~65535)
Number of Analog Ports	2
Gateway Location	LAN

Apply **Cancel**

7

Please fill in that gateway information

Name : **PSTN**

Gateway IP : **192.168.0.28**

Gateway port : **5060**

Number of Analog Ports : **2**

Gateway Location : **LAN**

After confirming the modification you've does, please click on the [**Apply**] button to add the gateway.

Gateway					
<input type="checkbox"/>	Name	IP:Port	Number of Analog Ports	Gateway Location	Action
<input type="checkbox"/>	PSTN	192.168.0.28:5060	2	LAN	<input type="button" value="Edit"/>

8

After confirming the modification you've does, please click on the [[Apply](#)] button again to make the gateway effective.

NOTE :

Please repeat the same previous step to create for above indicate gateway list.

IP PBX

- System
- Proxy Server
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- Call Route**
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- Call Status
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- Upload Voice File

8

Select [IP PBX->Call Route] of IP PBX to and click **Add** button to add Call Route for the IP PBX.

Create a Call Route :**PSTN_0922**
 Pattern : **80922.** (The '.' is represent the unlimited length of wildcards.)
 Primary / Backup Route via: **PSTN**
 Drop Digits: **1**
 Prefix: **2**
 (The first few digit of the dialer number will be removed and to exchange for prefix number after going out the device when the dialed number matches pattern.)

Edit Call Route (Dial Plan)	
Route Attributes	Values
Name	PSTN_0922
Pattern	80922.
Primary Route via	<input type="radio"/> Proxy Server <input checked="" type="radio"/> Gateway PSTN
Backup Route via	<input type="radio"/> Proxy Server <input checked="" type="radio"/> Gateway PSTN
Drop Digits	1
Prefix	2

Apply **Cancel**

After confirming the modification you've does, please click on the **[Apply]** button to add the call route

Call Route (Dial Plan)						
	Name	Pattern	Primary Route via	Drop Digits	Prefix	Action
	Default	.		0		Edit
<input type="checkbox"/>	PSTN_LOCAL	8.	11 PSTN	1	1	Edit
<input type="checkbox"/>	PSTN_0204	80204.	PSTN	1	3	Edit
<input type="checkbox"/>	PSTN_0922	80922.	PSTN	1	2	Edit

[Delete](#) [Add](#) [Apply](#)

After confirming the modification you've does, please click on the [[Apply](#)] button again to make the gateway effective.

NOTE :

Please repeat the same previous step to create for above indicate call route list.

IP PBX

- System
- Proxy Server
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- Call Route
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- Call Status
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- Hunt Group
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12

Select the [IP PBX->Route Group] of IP PBX to create a route rule which connect with gateway.

Add Route Group	
Group Attributes	Action
Name	Boss
Allowed Call Route	Activated Call Route
<div style="border: 1px solid gray; height: 40px; width: 100%;"></div>	<div style="border: 1px solid gray; padding: 5px;"> Default PSTN_LOCAL PSTN_0204 PSTN_0922 </div>
Route Members	<div style="text-align: center;"> <<< 13 >>> </div>
Allowed Number/Pattern	Activated Block List
sex	<div style="border: 1px solid gray; height: 40px; width: 100%;"></div>
Block Members	<div style="text-align: center;"> <<< >>> </div>
<input type="button" value="Apply"/> <input type="button" value="Cancel"/>	

Because the group is for Boss to uses, so without any restrictedly, please to get the whole call route rule move to **Activated call Route** field, and click on the [Apply] button return to Route Group list.

Add Route Group			
Group Attributes		Action	
Name	<input type="text" value="Manager"/>		
Route Members	Allowed Call Route		Activated Call Route
	<input type="text" value="PSTN_0204"/>	14 <input type="button" value="<<<"/> <input type="button" value=">>>"/>	<input type="text" value="Default PSTN_LOCAL PSTN_0922"/>
Block Members	Allowed Number/Pattern		Activated Block List
	<input type="text" value="sex"/>	<input type="button" value="<<<"/> <input type="button" value=">>>"/>	<input type="text"/>

As above indicate to get the parts of call route rule move to **Activated call Route** field, and click on the [**Apply**] button return to Route Group list.

The manager group is allow dialer able to dialed cell phone number and internal calls but can't dialed international phone number.

Add Route Group			
Group Attributes		Action	
Name	<input type="text" value="Staff"/>		
Route Members	Allowed Call Route		Activated Call Route
	<input type="text" value="PSTN_0204"/> <input type="text" value="PSTN_0922"/>	<div style="font-size: 2em; color: blue;">15</div> <input type="button" value="<<<"/> <input type="button" value=">>>"/>	<input type="text" value="Default"/> <input type="text" value="PSTN_LOCAL"/>
Block Members	Allowed Number/Pattern		Activated Block List
	<input type="text" value="sex"/>	<input type="button" value="<<<"/> <input type="button" value=">>>"/>	<input type="text"/>

As above indicate to get the parts of call route rule move to **Activated call Route** field, and click on the [Apply] button return to Route Group list.

The staff group only make a call to local phone and internal calls.

Route Group		
<input type="checkbox"/>	Group Name	Action
<input type="checkbox"/>	Default	<input type="button" value="Edit"/>
<input type="checkbox"/>	Boss	<input type="button" value="Edit"/>
<input type="checkbox"/>	Staff	<input type="button" value="Edit"/>
<input type="checkbox"/>	Manager	<input type="button" value="Edit"/>

16

Please click [**Apply**] again for activate the configuration and write into the flash memory.

Network Setup
WAN Setting
LAN Setting
Virtual Server
Network Filter
Dynamic DNS/DNS
Network Management

17

Select the [Advance Setup->WAN Setting] of Gateway to settings the WAN interface IP address

WAN Port Type Configuration:

WAN Type Setting	Static IP <input type="button" value="Select"/>
IP Address	<input type="text" value="192.168.0.28"/>
Subnet Mask	<input type="text" value="255.255.255.0"/>
Default Router	<input type="text" value="192.168.0.1"/>

18

WAN Type Setting :
Static IP
IP Address :
192.168.0.28
Subnet Mask :
255.255.255.0
Default Router :
192.168.0.1

19

Click the [Apply] button to complete the WAN Port Configuration

VoIP Setup
VoIP Basic
Dialing Plan
Advance Setting
Hot Line Setting
Port Status

20

Select the [Advance Setup->VoIP Basic] of Gateway to settings the FXO port SIP account

Registration Account Settings :
Number : 200 / 201

Check the Reg item

Account : 200 / 201
Password : 200 / 201

Check Hunting Member item for port 1 and Port 2

VoIP Basic Configuration

VoIP Protocol Setting

Port Number / Password Setting(MAX 20 digit) :

No.	Number	Reg	Account	Password	Register Status	Reason
1	200	<input checked="" type="checkbox"/>	200	...		
2	201	<input checked="" type="checkbox"/>	201	...		

Use Public Account (PORT 1) Enable Disable

SIP Hunting Table :

No.	Hunting Member
1	<input checked="" type="checkbox"/> Port 1 <input checked="" type="checkbox"/> Port 2
2	<input checked="" type="checkbox"/> Port 1 <input checked="" type="checkbox"/> Port 2

21

SIP Proxy Setting :

Domain/Realm	192.168.0.1
SIP Proxy Server	192.168.0.1/5060
Register Interval (seconds)	100
SIP Authentication	<input checked="" type="radio"/> Enable <input type="radio"/> Disable
Outbound Proxy Server	0.0.0.0/0

use **Net2Phone** Service

NAT Pass Setting:

NAT Pass Method	<input type="radio"/> STUN <input checked="" type="radio"/> Symmetric RTP
STUN Server IP Address	64.69.76.21
STUN Server port	3478

Local Setting:

Local SIP Port	5060
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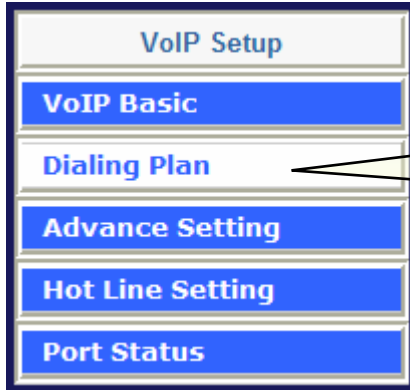
Apply

SIP Proxy Settings :
Domain/Realm :
192.168.0.1
SIP Proxy Server :
192.168.0.1/5060
SIP Authentication :
Enable

Click the [**Apply**] button to complete the VoIP Basic Configuration

22

23



24

Select the [Advance Setup->Dialing Plan] of Gateway to added the dialing plan number.

Incoming Dial Plan :
 Incoming no : 1
 Length of Number : 1 ~ 9
 Delete Length : 1
 Prefix no : Null
 Destination telephone Port : 1,2

 And click on the **ADD** button to loaded into the list.

Incoming Dial Plan: (maximun 50 entries, maximun length of prefix digits is 16 digit, maximun length of number is 20 digit):

Item	Incoming no.	Length of Number	Delete Length	Prefix no.	Destination telephone port	Operation
1	1	1 ~ 9	1	None	1,2	
2	2	1 ~ 11	1	None	1	
3	3	1 ~ 13	1	None	2	
	25	~				ADD

DELETE Inbound Dial Plan From To

NOTE :
 Please repeat the same previous step to create for above indicate dial plan list. these incoming no. 1, 2 and 3 the main of discriminate for local, mobile, international calls, for example, the local call as 8 + 22199518 equals 9 digit.

VoIP Setup
VoIP Basic
Dialing Plan
Advance Setting
Hot Line Setting
Port Status

26

Select the [Advance Setup->Hot Line Setting] of Gateway to settings the hotline number.

HotLine number settings
Port 1 number : **9997**
Port 2 number : **9997**
Auto dialed 9997 for incoming calls.

Hot Line Number Setting (Hotline Setting)

Hotline Delay	<input checked="" type="radio"/> Disable <input type="radio"/> Enable
Hotline Delay Time(Max. 20 sec)	<input type="text" value="3"/> sec
Port 1 number	<input type="text" value="9997"/>
Port 2 number	<input type="text" value="9997"/>

Apply

27

28

Main Menu	Reboot	Save Configuration	Logout
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Click the [Save Configuration] button to save parameter and then click the [Reboot] button to restart after save configuration.

29

Click the [Apply] button to complete the Hot Line Configuration

Usage :

A. Making a local calls.

Pick up the handset and input number **822199518** when listen to dial-tone.

B. Making a phone call to mobile phone.

Pick up the handset and input number **80922123456** when listen to dial-tone.

C. Making a international calls.

Pick up the handset and input number **8020410011554** when listen to dial-tone.

Restricted rule :

	Local	Mobile	International
Boss (900)	✓	✓	✓
Manager (800)	✓	✓	
Staff (100 – 104)	✓		

NOTE:

The mentioned parameters and network settings in this sample be carefully modified to meet the real-world applications.

ACTIVATING IP POWER

