

Internet Telephony PBX System

IPX-600



This installation guide introduces several practical configuration examples of IP PBX deployment.

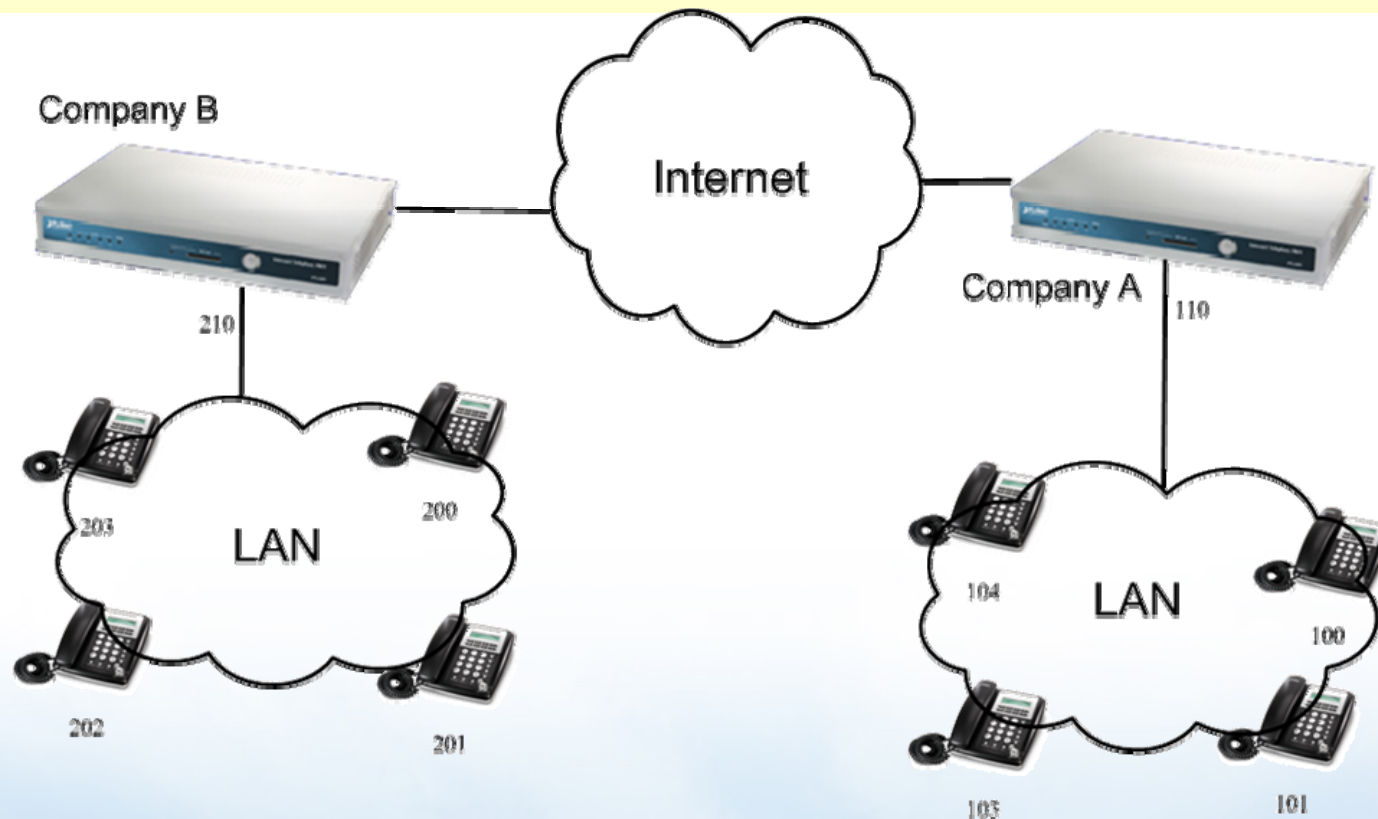
The configuration of IP PBX is very flexible and trunks are scalable enough to support various network architectures.

Users could refer to these examples and build a larger network involving multiple sites and advanced services.



Case 1: Two-Site Configuration

Company B is the business partner of company A, These two companies decided to create a private SIP trunk to connect to each other.



Case 1: Two-Site Configuration

- This case describes the typical settings of a two-site configuration. Accordingly, User A dials 200 ~ 203 to company B and User B dials 100 ~ 103 to reach company A.
- Via modify an route pattern with number of stripped digits equal 3, accordingly user A dialing 210**200** (The ext. **200** is in IP PBX B) will be stripped to be 200 when it actually got dialed out.
- In both of the companies, all extensions can dial 210 or 110 to enter the auto attendant of the other IP PBX.

- Status
- Network Setup**
- DHCP Server
- IP PBX
- NAT Advanced
- Log
- Management

1

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

WAN	
Wan Connection Type	Static IP
IP Address	210 .66 .155 .71
Subnet Mask	255 .255 .255 .0
Default Gateway	210 .66 .155 .94
DNS1 IP Address	168 .95 .1 .1
DNS2 IP Address	168 .95 .192 .1

IPPBX A

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Setup the WAN interface of **IP PBX A** follow the information of IP that provides by ISP

Setup the WAN interface of **IP PBX B** follow the information of IP that provides by ISP

WAN	
Wan Connection Type	Static IP
IP Address	210 .66 .155 .72
Subnet Mask	255 .255 .255 .0
Default Gateway	210 .66 .155 .94
DNS1 IP Address	168 .95 .1 .1
DNS2 IP Address	168 .95 .192 .1

IPPBX B

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IP PBX **IPPBX A**

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

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Select the [IP PBX->Users Mgmt.] of IP PBX A to create proxy server account for the IP PBX A.

Display Name: **210** (this number is for IP PBX B to dial to auto attendant)
 Number: **210**
 Password: **210**
 GoTo VM after Ringing: **30**






Add User	
User Attributes	User Attributes
Display Name	210 <small>Enter user's first name and last name</small>
Number	210
Password	123
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
Call Forward Immediate	<input checked="" type="radio"/> Disable <input type="radio"/> Internal 100 <input type="radio"/> External
Call Forward on Busy	<input checked="" type="radio"/> Disable <input type="radio"/> Internal 100 <input type="radio"/> External
Call Forward on No Answer	<input checked="" type="radio"/> Disable <input type="radio"/> Internal 100 <input type="radio"/> External
MAC Address	00 : 00 : 00 : 00 : 00 : 00
APS	NO
Do Not Disturb	<input checked="" type="checkbox"/> Forward to VM
VM to E-mail	Disable E-mail <input type="checkbox"/> Delete VM after Send Attachment via E-mail
Goto VM after Ringing	30 seconds (10~60)

IPPBX A

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User Management

DHCP Only for IP Phones: Total: 5 Users, Registered: 0 Users.

Index	<input type="checkbox"/>	Call Status	Disp. Name	Number	Password	Call Group	Pickup Group	Hunt Group	Call Type	IP:Port	APS	VMWI (new/old)	Action
001	<input type="checkbox"/>		100	100	100	1	1	-	-	-	N	0/0	Edit
002	<input type="checkbox"/>		101	101	101	1	1	-	-	-	N	0/0	Edit
003	<input type="checkbox"/>		102	102	102	1	1	-	-	-	N	0/0	Edit
004	<input type="checkbox"/>		103	103	103	1	1	-	-	-	N	0/0	Edit
005	<input type="checkbox"/>		210	210	123			-	-	-	N	0/0	Edit

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IPPBX A

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

- IP PBX**
- System
 - Proxy Server 7**
 - Gateway
 - Call Route
 - Block List
 - Users Mgmt.
 - Call Status
 - Hunt Group
 - Call/Pickup Group
 - CDR
 - Auto Attendant
 - Upload Voice File

Add a Proxy Server registration to registered PBX_B
 Name: **PBX_B**
 Number: **110**
 Password: **123**
 Proxy IP: **210.66.155.72**
 Proxy Port: **5060**

Add Proxy Server	
Proxy Attributes	
Name	PBX_B
Number	110
Password	123
Authentication ID	
Proxy IP 8	210.66.155.72
Proxy Port	5060 (1~65535)
Outbound Proxy Enable	<input type="checkbox"/>
Outbound Proxy IP	IPPBX A
Outbound Proxy Port	(1~65535)
DID	IVR
Caller ID Delivery	User number

Select the [IP PBX->Proxy Server] of IP PBX A to create a SIP trunk which connect with IP PBX B.

Proxy Server										
Reg	Name	Number	Password	Auth. ID	Proxy IP	Proxy Port	Outbound Proxy	DID	Action	
<input type="checkbox"/>	PBX_B	110	123		210.66.155.72	5060	-	IVR	Edit	

9 IPPBX A

Delete Add Apply

Click the [Apply] button to reload the IP PBX Proxy Server configuration.

- IP PBX IPPBX A
- System
- Proxy Server
- Gateway
- Call Route **10**
- Block List
- Users Mgmt.
- Call Status
- Hunt Group
- Call/Pickup Group
- CDR
- Auto Attendant
- Upload Voice File

Select the [IP PBX->Call Route] of IP PBX A to create a SIP trunk which connect with IP PBX B.

Add Call Route (Dial Plan)	
Route Attributes	Values
Name	TO_PBX_B
Pattern	2xx
Route via	<input checked="" type="radio"/> Proxy Server PBX_B <input type="radio"/> Gateway
Drop Digits	0
Prefix	

Create a Call Route :**TO_PBX_B**
 Pattern : **2xx (or 210.)** (The 'x' is used to represent the wildcard one digit and '.' is represent the unlimited length of wildcards.)
 Drop Digits: **0 (or 3)** (The first few digit of the dialer number will be removed after going out the device when the dialed number matches pattern.)
 Route via: **PBX_B**
 This Route is for user to dial 200 ~ 203 (or 210200 ~ 210203) then the call be transferred to the ext no. that user dialed.

Call Route (Dial Plan)						
	Name	Pattern	Route via	Drop Digits	Prefix	Action
	default route	.	IPPBX A	0		<input type="button" value="Edit"/>
<input type="checkbox"/>	TO_PBX_B	2xx	PBX_B	0		<input type="button" value="Edit"/>

Click the [Apply] button to reload the IP PBX Call Route configuration.

- IP PBX
- System
- Proxy Server
- Gateway **13**
- Call Route
- Block List
- Users Mgmt.
- Call Status
- Hunt Group
- Call/Pickup Group
- CDR
- Auto Attendant
- Upload Voice File

Select the [IP PBX->Users Mgmt.] of IP PBX A to create proxy server account for the IP PBX A.

Add User	
User Attributes	User Attributes
Display Name	110 <input type="text"/> Enter user's first name and last name
Number	110 <input type="text"/> IPPBX B
Password	123 <input type="text"/>
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
Call Forward Immediate	<input checked="" type="radio"/> Disable <input type="radio"/> Internal <input type="text" value="200"/> <input type="radio"/> External <input type="text"/>
Call Forward on Busy	<input checked="" type="radio"/> Disable <input type="radio"/> Internal <input type="text" value="200"/> <input type="radio"/> External <input type="text"/>
Call Forward on No Answer	<input checked="" type="radio"/> Disable <input type="radio"/> Internal <input type="text" value="200"/> <input type="radio"/> External <input type="text"/>
MAC Address	00 : 00 : 00 : 00 : 00 : 00
APS	NO
Do Not Disturb	<input checked="" type="checkbox"/> Forward to VM
VM to E-mail	Disable <input type="text"/>
Goto VM after Ringing	<input type="text" value="30"/> seconds (10~60)






Add User Account
 Display Name: 110 (this number is for IP PBX A to dial to auto attendant)
 Number: 110
 Password: 110
 GoTo VM after Ringing: 30

Press Batch button add user accounts for IP phone
 First Number: **200**
 Number of Users: **4**
 Password: **200**
Check Auto-increase
Check Call Group 1 or other
Check Pickup Group 1 or other
 GoTo VM after Ringing: **30**

Batch Add	
User Attributes	Values
First Number	200
Number of Users	4 users
Password	200 <input checked="" type="checkbox"/> Auto-increase
Call Group	<input checked="" 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 <input checked="" 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
Call Forward Immediate	<input checked="" type="radio"/> Disable <input type="radio"/> Internal 110 <input type="radio"/> External
Call Forward on Busy	<input checked="" type="radio"/> Disable <input type="radio"/> Internal 110 <input type="radio"/> External
Call Forward on No Answer	<input checked="" type="radio"/> Disable <input type="radio"/> Internal 110 <input type="radio"/> External
MAC Address	00 : 00 : 00 : 00 : 00 : 00
APS	NO
Do Not Disturb	<input checked="" type="checkbox"/> Forward to VM
VM to E-mail	Disable E-mail <input type="checkbox"/> Delete VM after Send Attachment via E-mail
Goto VM after Ringing	30 seconds (10~60)

User Management

DHCP Only for IP Phones: Total: 5 Users, Registered: 0 Users.

Index	<input type="checkbox"/>	Call Status	Disp. Name	Number	Password	Call Group	Pickup Group	Hunt Group	Call Type	IP:Port	APS	VMWI (new/old)	Action
001	<input type="checkbox"/>		110	110	123			-	-	-	N	0/0	Edit
002	<input type="checkbox"/>		200	200	200	1	1	-	-	-	N	0/0	Edit
003	<input type="checkbox"/>		201	201	201	1	1	-	-	-	N	0/0	Edit
004	<input type="checkbox"/>		202	202	202	1	1	-	-	-	N	0/0	Edit
005	<input type="checkbox"/>		203	203	203	1	1	-	-	-	N	0/0	Edit

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Click the [Apply] button to reload the IP PBX new account configuration.

Case 1: Two-Site Configuration

ACTIVATING IP POWER

IP PBX IPPBX B

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

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Add a Proxy Server registration to registered PBX_A
 Name: **PBX_A**
 Number: **210**
 Password: **123**
 Proxy IP: **210.66.155.71**
 Proxy Port: **5060**

Select the [IP PBX->Proxy Server] of IP PBX B to create a SIP trunk which connect with IP PBX A.

Add Proxy Server	
Proxy Attributes	
Name	IPPBX B
Number	PBX_A
Password	210
Authentication ID	123
Proxy IP	210.66.155.71
Proxy Port	18 5060 (1~65535)
Outbound Proxy Enable	<input type="checkbox"/>
Outbound Proxy IP	
Outbound Proxy Port	(1~65535)
DID	IVR
Caller ID Delivery	User number

Proxy Server										
■	Reg	Name	Number	Password	Auth. ID	Proxy IP	Proxy Port	Outbound Proxy	DID	Action
<input type="checkbox"/>		PBX_A	210	123	19	210.66.155.71	5060	-	IVR	Edit

IPPBX B

Delete Add Apply

Click the [Apply] button to reload the IP PBX Proxy Server configuration.

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

IPPBX B

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Select the [IP PBX->Call Route] of IP PBX B to create a SIP trunk which connect with IP PBX A.

Add Call Route (Dial Plan)		Values
Route Attributes		
Name	IPPBX B	TO_PBX_A
Pattern		1xx
Route via	21	<input checked="" type="radio"/> Proxy Server PBX_A <input type="radio"/> Gateway
Drop Digits		0
Prefix		

Create a Call Route :**TO_PBX_A**
 Pattern : **1xx (or 110.)** (The 'x' is used to represent the wildcard one digit and '.' is represent the unlimited length of wildcards.)
 Drop Digits: **0 (or 3)** (The first few digit of the dialer number will be removed after going out the device when the dialed number matches pattern.)
 Route via: **PBX_B**
 This Route is for user to dial 100 ~ 103 (or 110100 ~ 110103) then the call be transferred to the ext no. that user dialed.

Call Route (Dial Plan)						
	Name	Pattern	Route via	Drop Digits	Prefix	Action
	default route	.	22 IPPBX B	0		<input type="button" value="Edit"/>
<input type="checkbox"/>	TO_PBX_A	1xx	PBX_A			

Click the [Apply] button to reload the IP PBX Call Route configuration.

ACTIVATING IP POWER

