

Internet Telephony PBX System

IPX-2000/1800 Series



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

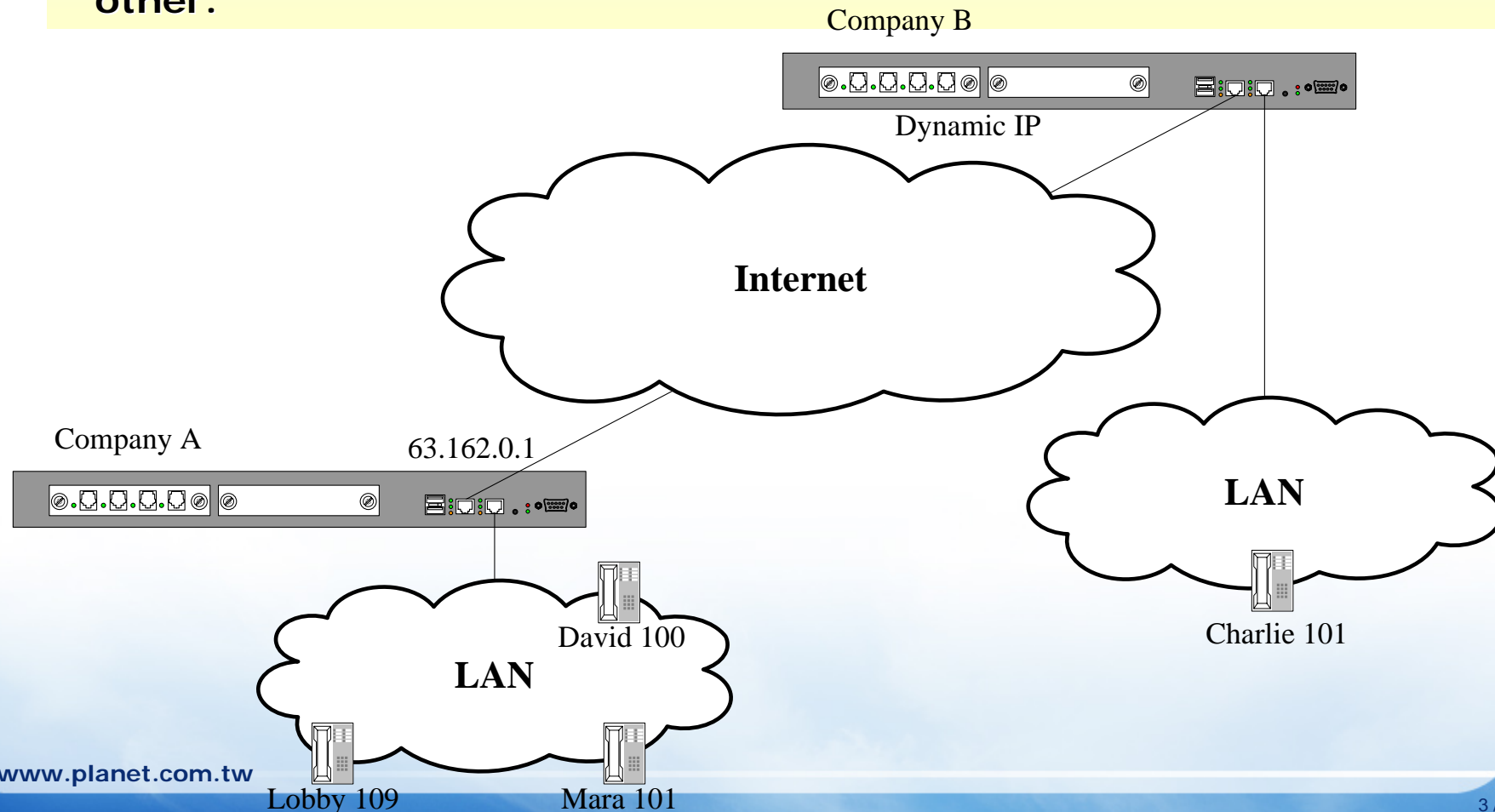
The configuration of IP PBX is very flexible and the expressiveness of usergroups, routegroups, and trunks are scalable enough to support various network architectures.

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



Case 2: Two-Site Configuration

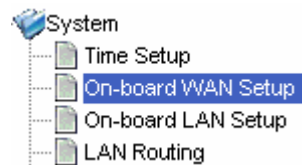
Company B is the business partner of company A, These two companies decided to create a private SIP trunk to connect to each other.



Case 2: Two-Site Configuration

- They decided the ID of the SIP trunk is 888 and the trunk password is "123456789". Accordingly, Mara dials 888*101 to reach Charlie in company B and Charlie dials 888*100 to reach David.
- In both of the companies, all extensions except the extension in lobby can dial 888 to enter the auto attendant of the other IP PBX.
- Company A has a static IP 63.162.0.1 as the WAN IP of the IP PBX, however company B doesn't have the static IP, it use ADSL modem to gain a dynamic IP from ISP to access the internet.

- 1 Keep the setting of case 1 for company A, and follow the steps of case 1 to create a user **Charlie**, usergroup **staff**, device **Charlie_101**, and extension **101** for Company B.



2 Click the [**System->On-board WAN 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.

On-board WAN SETUP

Type: **Static IP**

LAN Only

Interface MAC: 00:01:02:03:04:05

IP Address : 63.162.0.1

Netmask : 255.255.255.0

Gateway : 63.162.0.254

DNS 1 : 168.95.1.1

DNS 2 : 168.95.192.1

DNS 3 :

3 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

On-board WAN SETUP

Type: **PPPoE**

LAN Only

Interface MAC: 00:01:02:03:04:05

IP Address :

Netmask :

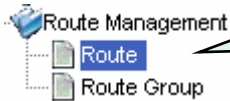
Gateway :

User Name : qwerly

Password :

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IPPBX A



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Select the [Route->Route] of IP PBX A to create the Routes for the IP PBX A.

Route ID	Description	Destination Number Pattern	Number of Stripped Digits	Prefix	
SIP_A_TO_B	SIP_A_TO_B	888*	4	IPPBX A	ADD

Create a Route ID :**SIP_A_TO_B_AA**
 Destination number pattern : **888**
 Number of stripped digits: **0**
 This Route is for user under IP PBX A to dial 888 then enter the AA of the IP PBX B.

Create a Route ID :**SIP_A_TO_B**
 Destination number pattern : **888***
 Number of stripped digits: **4**
 This Route is for user to dial 888*[ext. in IP PBX B] then the call be transferred to the ext no. that user dialed.

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Route ID	Description	Destination Number Pattern	Number of Stripped Digits	Prefix	
SIP_A_TO_B_AA	SIP_A_TO_B_AA	888	0	IPPBX A	ADD

IPPBX A



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Select the [Route->RouteGroup] of IP PBX A to add the previous Routes to a RouteGroup

ROUTE GROUP ADD

Group ID: RG_A_TO_B [SET]

Description: IPPBX A

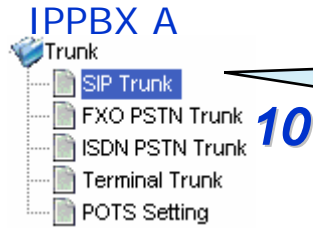
Associated Routes:

PSTN_12	
PSTN_3	
SIP_A_TO_B	[ADD]
SIP_A_TO_B_AA	[DEL]
SIP_ITSP_FWD	

[SIP_A_TO_B] [SIP_A_TO_B_AA]

[BACK] 9

Create a RouteGroup **RG_A_TO_B**, then add the Route **SIP_A_TO_B** and Route **SIP_A_TO_B_AA** to the RouteGroup.



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

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Since IP PBX A has a static IP, we set IP PBX A as the **dynamic peer** for IP PBX B to register IP PBX A.
 Trunk identifier: **888** (this number is for IP PBX B to dial to auto attendant)
Check Dynamic peer
 Auth. Name: **888**
 Auth. password: **123456789**
 Outbound routegroup: **RG_A_TO_B**
 Usergroup of privilege: **ext_all**

IPPBX A



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Select the [User->Usergroup] of IP PBX A to associate the SIP trunk 888 to corresponding usergroup

Group ID: CEO

Description: [] SET

Associated Trunks:

Group ID	Weight
288937	
888	
pstn1	
pstn2	

Reachable User Groups:

UG_DEF: CEO, Utility, Staff

Associated PBX Features:

mm, parkedcalls, vm

Member List:

User: jff
Callers_from_PSTN_Trunk:pstn2

IPPBX A

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Associate the SIP trunk 888 to the usergroup **CEO**

Group ID: Staff

Description: [] SET

Associated Trunks:

Group ID	Weight
288937	
888	
pstn1	
pstn2	

Reachable User Groups:

UG_DEF: CEO, Utility, Staff

Associated PBX Features:

mm, parkedcalls, vm

Member List:

User:Ziv

IPPBX A

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Associate the SIP trunk 888 to the usergroup **Staff**, and we don't want the phone in lobby can access this SIP trunk, so don't add this SIP trunk to Usergroup utility.

IPPBX A

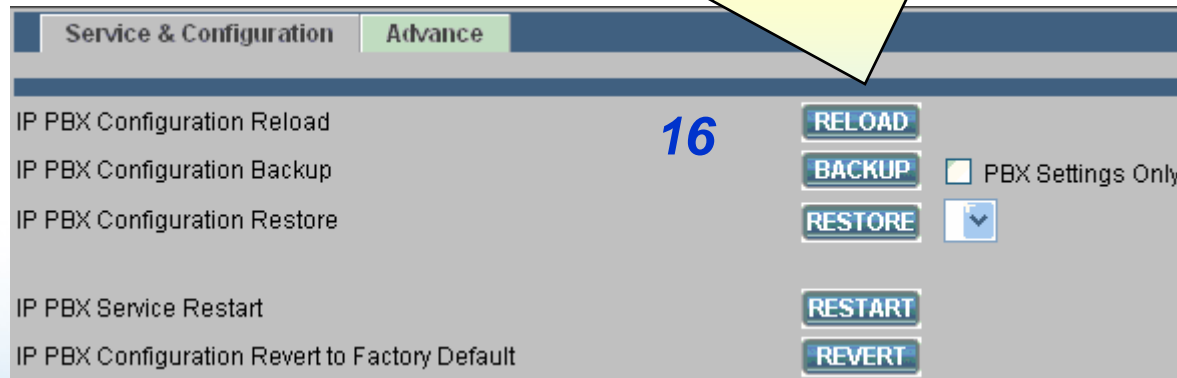


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Select the [**Service->IP PBX service**] of IP PBX A to reload the IP PBX configuration.

Click the [**Reload**] button to reload the IP PBX configuration. After completed the setting of IP PBX A then connect to IP PBX B to finish rest procedures.

IPPBX A



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IPPBX B



Select the [Route->Route] of IP PBX B to create routes of the IP PBX B

Route ID	Description	Destination Number Pattern	Number of Stripped Digits	Prefix	
SIP_B_TO_A	SIP_B_TO_A	888*	4	IPPBX B	ADD

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Create a Route ID :**SIP_B_TO_A**
 Destination number pattern : **888***
 Number of stripped digits: **4**
 This Route is for user to dial 888*[ext. in IP PBX A] then the call will be transferred to the ext no. that user dialed.

Create a Route ID :**SIP_B_TO_A_AA**
 Destination number pattern : **888**
 Number of stripped digits: **0**
 This Route is for user under IP PBX B to dial 888 then enter the AA of the IP PBX A.

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Route ID	Description	Destination Number Pattern	Number of Stripped Digits	Prefix	
SIP_B_TO_A_AA	SIP_B_TO_A_AA	888	0	IPPBX B	ADD



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Select the [Route->Routegroup] of IP PBX B to add the previous Routes to a Routegroup

Create a Routegroup **RG_B_TO_A**, then add the Route **SIP_B_TO_A** and Route **SIP_B_TO_A_AA** to the Routegroup.

ROUTE GROUP ADD

Group ID: RG_B_TO_A [SET]

Description: []

Associated Routes: SIP_B_TO_A, SIP_B_TO_A_AA [ADD] [DEL]

[BACK]

IPPBX B

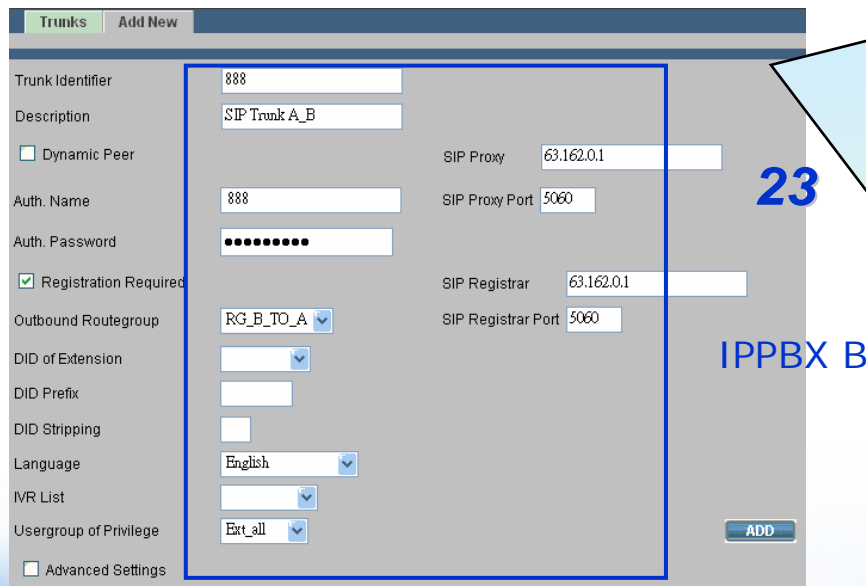
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IPPBX B

- Trunk
 - SIP Trunk**
 - FXO PSTN Trunk
 - ISDN PSTN Trunk
 - Terminal Trunk
 - POTS Setting

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



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IPPBX B

Trunk Identifier: 888
 Description: SIP Trunk A_B
 Dynamic Peer
 Auth. Name: 888
 Auth. Password:
 Registration Required
 Outbound Routegroup: RG_B_TO_A
 DID of Extension: [dropdown]
 DID Prefix: [input]
 DID Stripping: [input]
 Language: English
 IVR List: [dropdown]
 Usergroup of Privilege: Ext_all
 Advanced Settings
 ADD

Because IP PBX B doesn't have a static IP; it uses a dynamic IP to access the internet, we set SIP proxy/registrar IP/port of IP PBX A for IP PBX B to register to.

Trunk identifier: **888** (this number is for IP PBX B to dial to auto attendant)

Don't check Dynamic peer

SIP proxy IP: **63.162.0.1**

SIP proxy Port: **5060**

SIP registrar IP: **63.162.0.1**

SIP registrar port: **5060**

Auth. Name: **888**

Auth. password: **123456789**

Outbound routegroup: **RG_B_TO_A**

Usergroup of privilege: **ext_all**

IPPBX B



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Select the [User->Usergroup] of IP PBX B to associate the SIP trunk 888 to corresponding usergroup

Group ID: Staff

Description: [] SET 25

Associated Trunks: 888 Group ID Weight ADD 888,0,0 DEL

Reachable User Groups: UG_DEF CEO Utility Staff ADD DEL Staff IPPBX B

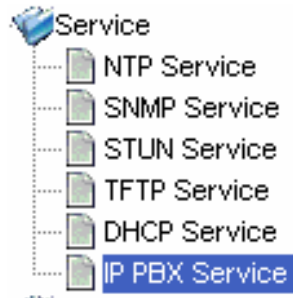
Associated PBX Features: mm parkedcalls Vm ADD mm parkedcalls Vm DEL

Member List: User:Ziv

BACK

Associate the SIP trunk 888 to the usergroup **Staff**

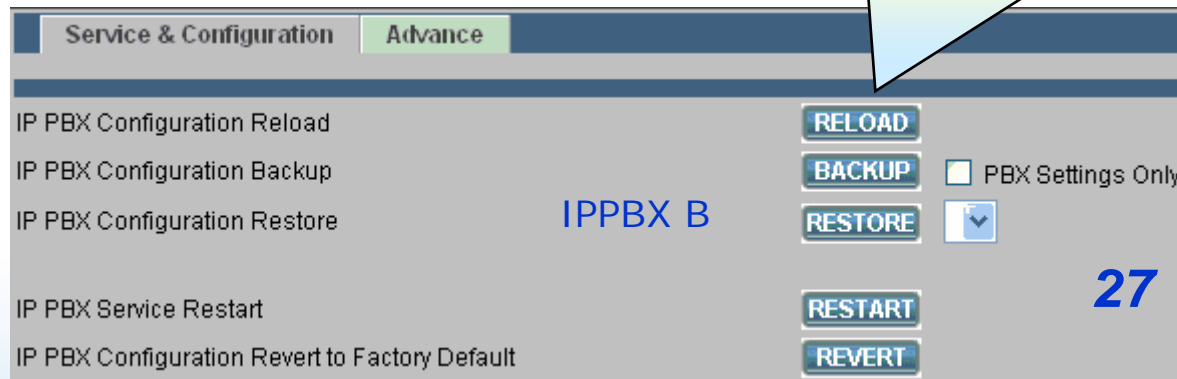
IPPBX B



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Select the [**Service->IP PBX service**] of IP PBX B to reload the IP PBX configuration.

Click the [**Reload**] button to reload the IP PBX configuration.



ACTIVATING IP POWER

