

# Intercommunication among three MyPBX (via VoIP Trunking)

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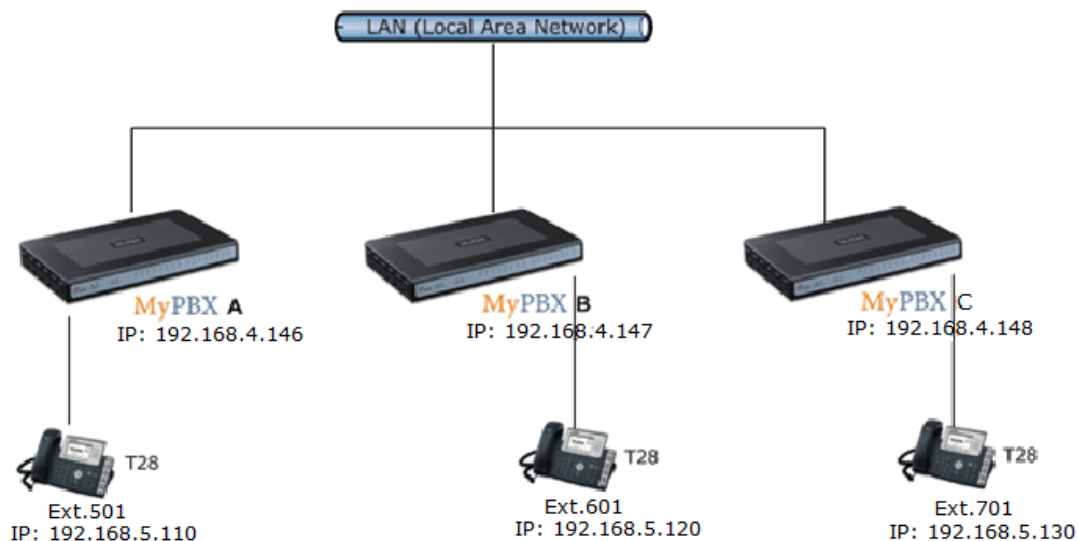
This application note explains how to link three MyPBX in different location. With this function, we can link branches together with MyPBX. Same method can be used when connect more MyPBX in different branches.

## 1. Connect three MyPBX in same network

The common environment for three MyPBX in different location is: three MyPBX are all behind router and using the private IP.

The simplest case to link three MyPBX together is in the same network. We start from this and then try to expand to different networks. We take MyPBX Standard as an example here, and the method is same for other MyPBX products. Below is the structure of how to link three MyPBX in the same LAN:

### Flowchart:



### Application:

The method of connecting three MyPBX in the same LAN is:

1. Point the MyPBX A to MyPBX B and MyPBX C via VOIP (SIP/IAX2) Trunking, so the extensions in MyPBX A can make calls to the extensions in MyPBX B and MyPBX C via this 'Special' trunk.
2. Use the reverse method in MyPBX B and MyPBX C to point to other two MyPBX.

In above structure:

- 1) The three MyPBX link each other via VOIP (SIP/IAX2) Trunking.

- 2) All the extensions under MyPBX A are in the format 5xx.
- 3) All the extensions under MyPBX B are in the format 6xx.
- 4) All the extensions under MyPBX C are in the format 7xx.
- 5) Extensions under MyPBX A can make calls to extensions under MyPBX B use format 6xx and make calls to extensions under MyPBX C using format 7xx.
- 6) Extensions under MyPBX B can make calls to extensions under MyPBX A use format 5xx and make calls to extensions under MyPBX C using format 7xx.
- 7) Extensions under MyPBX C can make calls to extensions under MyPBX A use format 5xx and make calls to extensions under MyPBX B using format 6xx.
- 8) Yealink-T28 A registers to MyPBX A as an extension 501.
- 9) Yealink-T28 B registers to MyPBX B as an extension 601.
- 10) Yealink-T28 C registers to MyPBX C as an extension 701.

**Configure:**

**Step 1:** Set up two SIP Trunkings in **MyPBX A**, then connect them to MyPBX B and MyPBX C respectively.

Trunks-> Service Provider -> Add Service Provider

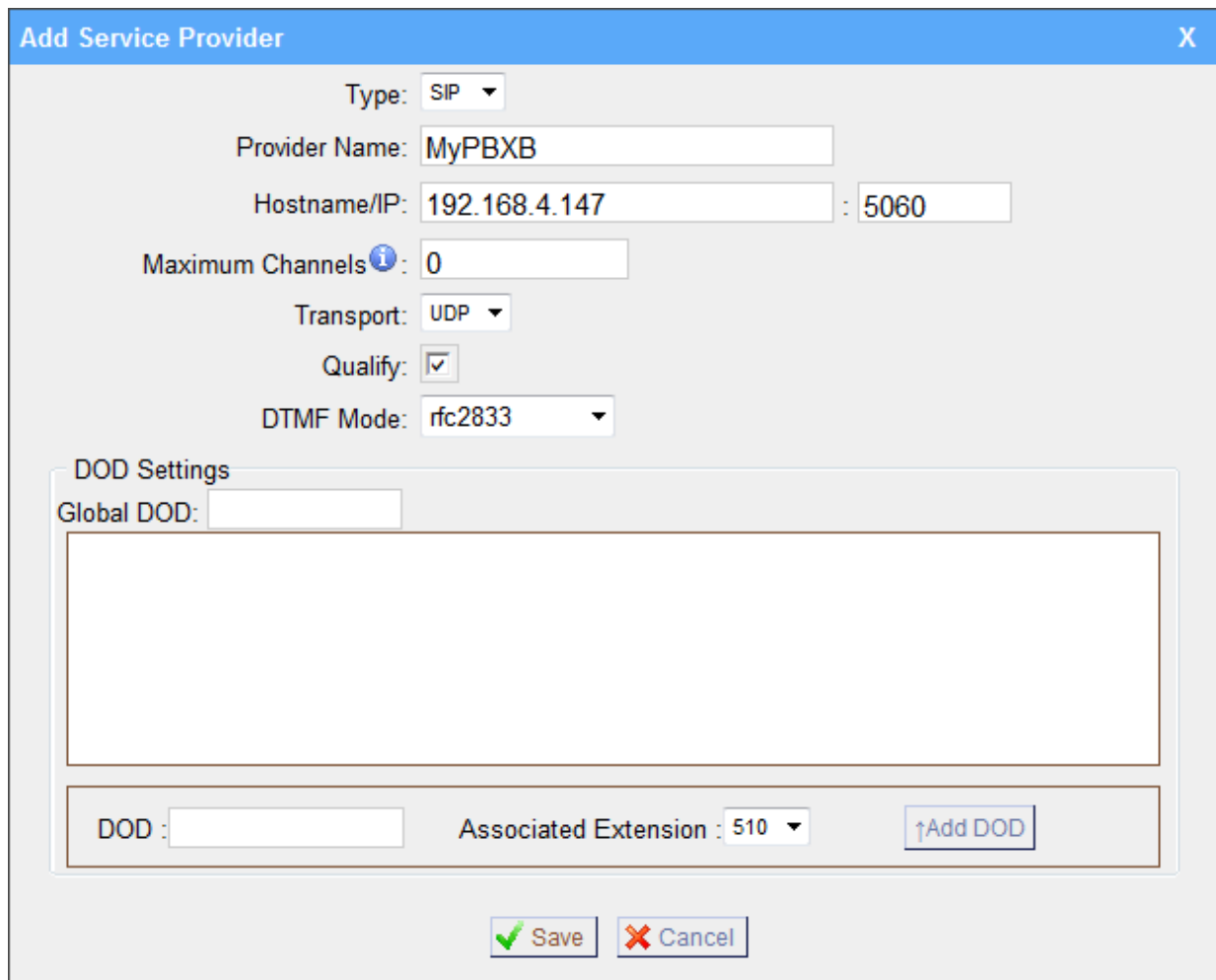


Figure 1-1

Add Service Provider
X

Type: SIP

Provider Name: MyPBXC

Hostname/IP: 192.168.4.148 : 5060

Maximum Channels (i): 0

Transport: UDP

Qualify:

DTMF Mode: rfc2833

DOD Settings

Global DOD:

DOD : 
Associated Extension : 510
↑Add DOD

✔ Save
✘ Cancel

Figure 1-2

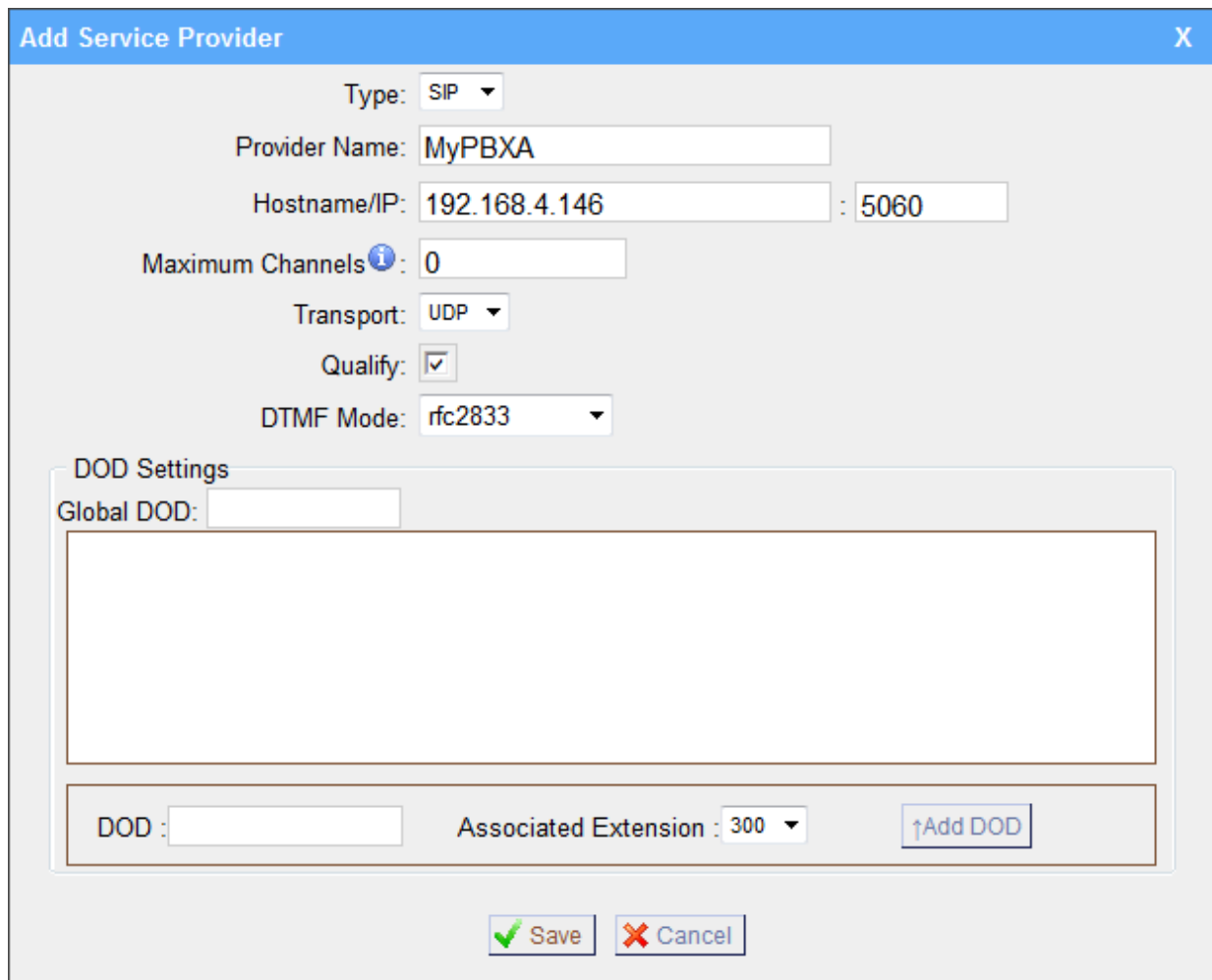
Make sure the trunks status is ok on Line status page.  
MyPBX A trunk's status:

Trunks						
Status	Signal	Trunk Name	Type	User Name	Port/Hostname/IP	Reachability
OK (1 ms)		<u>MyPBXB</u>	SP-SIP		192.168.4.147	OK (1 ms)
OK (2 ms)		<u>MyPBXC</u>	SP-SIP		192.168.4.148	OK (2 ms)

Figure 1-3

**Step2:** Set up two SIP Trunkings in **MyPBX B**, then connect them to MyPBX A and MyPBX C respectively.

Trunks-> Service Provider -> Add Service Provider



**Add Service Provider** X

Type: SIP

Provider Name: MyPBXA

Hostname/IP: 192.168.4.146 : 5060

Maximum Channels ⓘ: 0

Transport: UDP

Qualify:

DTMF Mode: rfc2833

**DOD Settings**

Global DOD:

DOD	Associated Extension	
<input type="text"/>	300	<input type="button" value="Add DOD"/>

Figure 1-4

Add Service Provider
X

Type: SIP ▾

Provider Name:

Hostname/IP:  :

Maximum Channels ⓘ :

Transport: UDP ▾

Qualify:

DTMF Mode: rfc2833 ▾

DOD Settings

Global DOD:

DOD : 
Associated Extension : 510 ▾
[↑Add DOD](#)

✔ Save
✘ Cancel

Figure 1-5

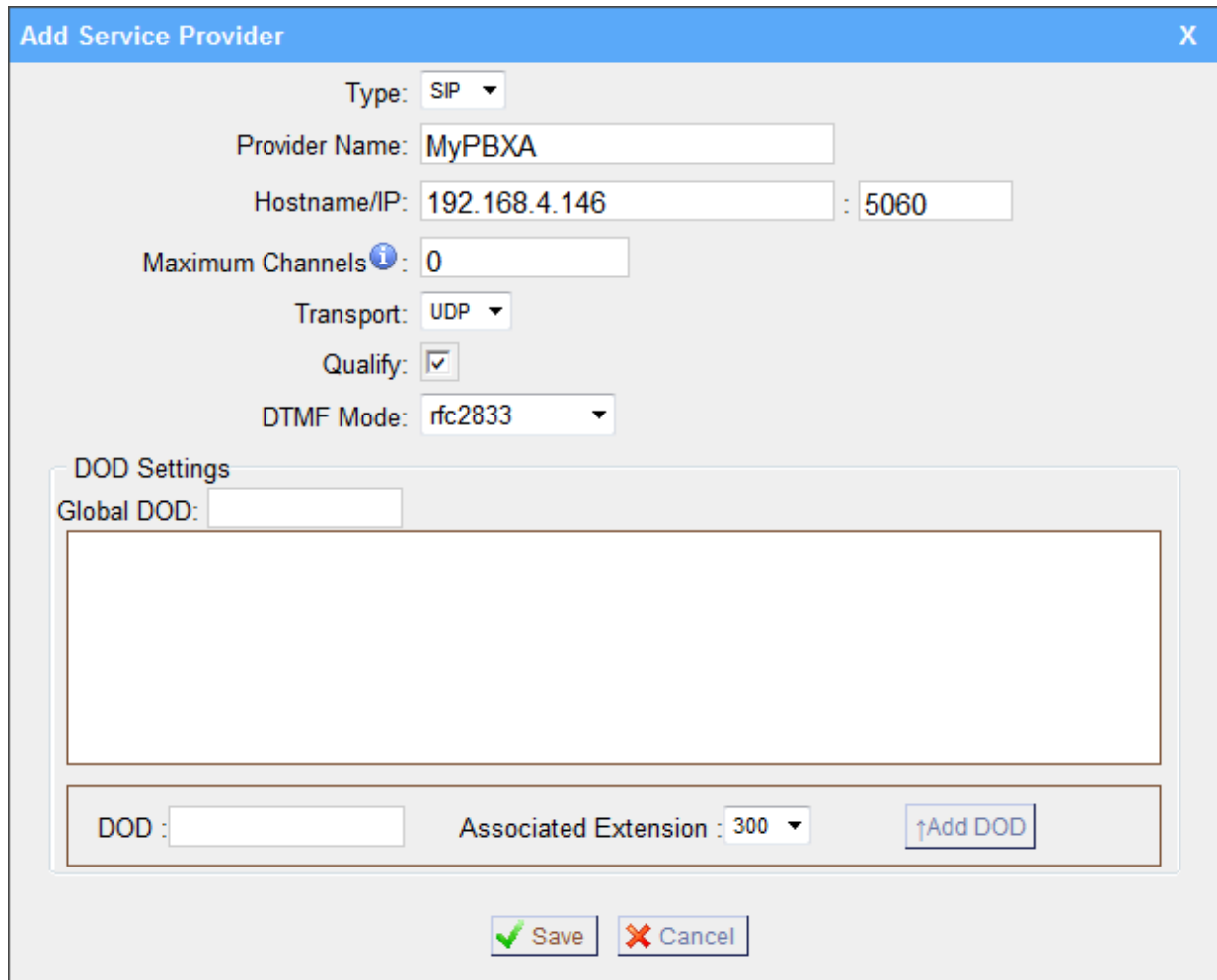
Make sure the trunk status is ok on Line status page.  
MyPBX B trunks' status:

Trunks						
Status	Signal	Trunk Name	Type	User Name	Port/Hostname/IP	Reachability
OK (2 ms)		<a href="#">MyPBXA</a>	SP-SIP		192.168.4.146	OK (2 ms)
OK (5 ms)		<a href="#">MyPBXC</a>	SP-SIP		192.168.4.148	OK (5 ms)

Figure 1-6

**Step 3:** Set up two SIP Trunkings in **MyPBX C**, then connect them to MyPBX A and MyPBX B respectively.

Trunks-> Service Provider -> Add Service Provider



**Add Service Provider** X

Type: SIP

Provider Name: MyPBXA

Hostname/IP: 192.168.4.146 : 5060

Maximum Channels: 0

Transport: UDP

Qualify:

DTMF Mode: rfc2833

**DOD Settings**

Global DOD:

DOD:  Associated Extension: 300

Figure 1-7

Add Service Provider
X

Type: SIP ▼

Provider Name:

Hostname/IP:  :

Maximum Channels ⓘ :

Transport: UDP ▼

Qualify:

DTMF Mode: rfc2833 ▼

DOD Settings

Global DOD:

DOD : 
Associated Extension : 510 ▼
[↑Add DOD](#)

✔ Save
✘ Cancel

Figure 1-8

Make sure the trunk status is ok on Line status page.  
MyPBX C trunks' status:

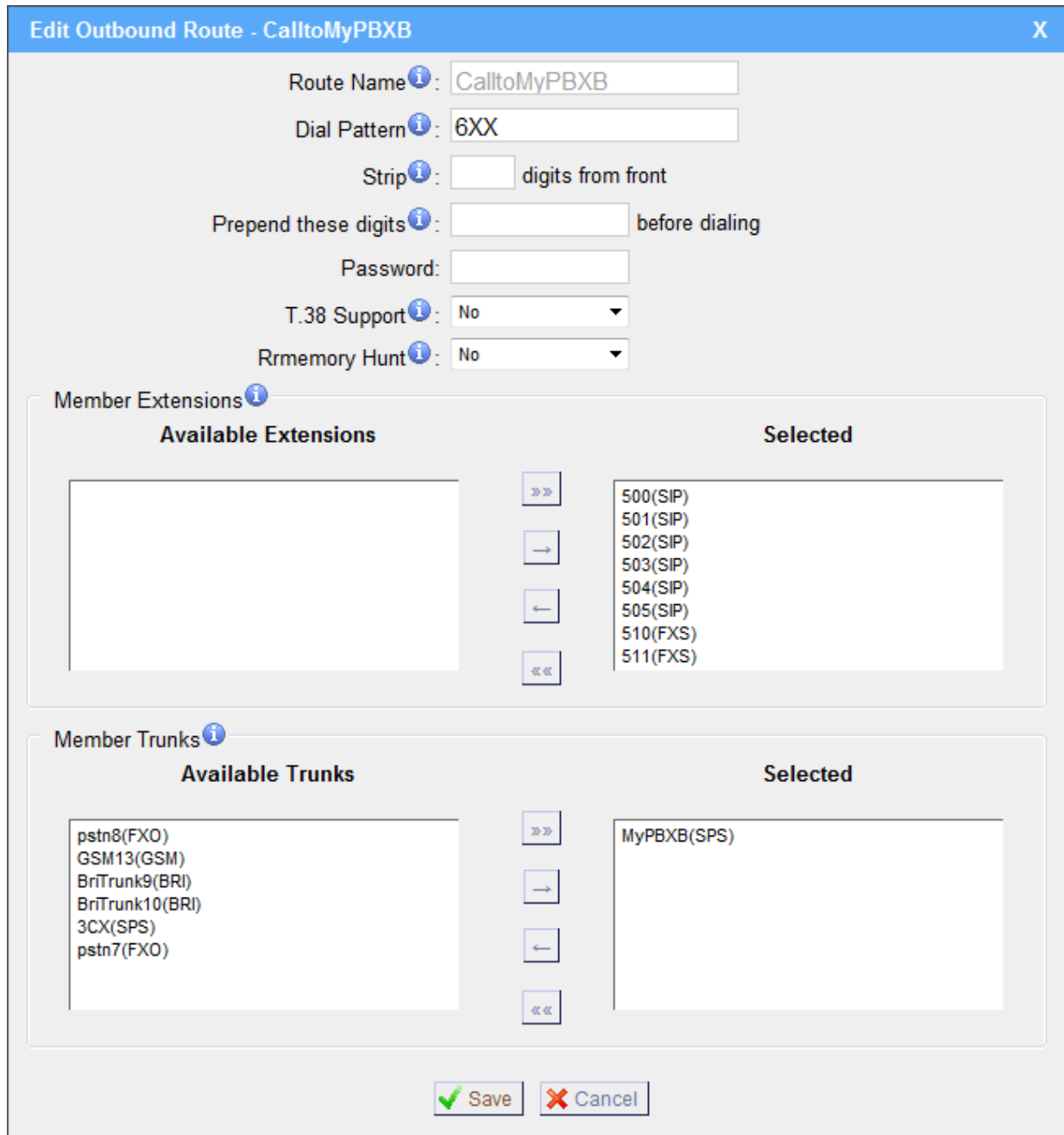
Trunks						
Status	Signal	Trunk Name	Type	User Name	Port/Hostname/IP	Reachability
OK (2 ms)		<u>MyPBXA</u>	SP-SIP		192.168.4.146	OK (2 ms)
OK (1 ms)		<u>MyPBXB</u>	SP-SIP		192.168.4.147	OK (1 ms)

Figure 1-9



**Step 4:** Set up two Outbound Routes in **MyPBX A**. All calls start with 6 and 3 digits will be sent to MyPBX B, and all calls start with 7 and 3 digits will be sent to MyPBX C. This is the way to route MyPBX A's call to MyPBX B and MyPBX C.

In the page: Outbound Routes -> Add Outbound Route.



**Edit Outbound Route - CalltoMyPBXB**

Route Name <sup>i</sup>:

Dial Pattern <sup>i</sup>:

Strip <sup>i</sup>:  digits from front

Prepend these digits <sup>i</sup>:  before dialing

Password:

T.38 Support <sup>i</sup>:

Rrmemory Hunt <sup>i</sup>:

**Member Extensions <sup>i</sup>**

Available Extensions		Selected
<input type="text"/>	<input type="button" value="»»"/> <input type="button" value="→"/> <input type="button" value="←"/> <input type="button" value="««"/>	500(SIP) 501(SIP) 502(SIP) 503(SIP) 504(SIP) 505(SIP) 510(FXS) 511(FXS)

**Member Trunks <sup>i</sup>**

Available Trunks		Selected
pstn8(FXO) GSM13(GSM) BrITrunk9(BRI) BrITrunk10(BRI) 3CX(SPS) pstn7(FXO)	<input type="button" value="»»"/> <input type="button" value="→"/> <input type="button" value="←"/> <input type="button" value="««"/>	MyPBXB(SPS)

Figure 1-8

### Add Outbound Route X

Route Name <sup>i</sup>:

Dial Pattern <sup>i</sup>:

Strip <sup>i</sup>:  digits from front

Prepend these digits <sup>i</sup>:  before dialing

Password:

T.38 Support <sup>i</sup>:

Rmemory Hunt <sup>i</sup>:

**Member Extensions <sup>i</sup>**

Available Extensions		Selected
<input type="text"/>	<input type="button" value="»»"/>	500(SIP) 501(SIP) 502(SIP) 503(SIP) 504(SIP) 510(FXS) 511(FXS)
	<input type="button" value="→"/>	
	<input type="button" value="←"/>	
	<input type="button" value="««"/>	

**Member Trunks <sup>i</sup>**

Available Trunks		Selected
pstn7(FXO) pstn8(FXO) GSM13(GSM) BrTrunk9(BRI) BrTrunk10(BRI) MyPBXB(SPS)	<input type="button" value="»»"/>	MyPBXC(SPS)
	<input type="button" value="→"/>	
	<input type="button" value="←"/>	
	<input type="button" value="««"/>	

Figure 1-9

Save and Apply the Changes.

**Step 5:** Setup two Outbound Routes in **MyPBX B**. All calls start with 5 and 3 digits will be sent to MyPBX A, and all calls start with 7 and 3 digits will be sent to MyPBX C. This is the way to route MyPBX B's call to MyPBX A and MyPBX C.

In the page: Outbound Routes -> Add Outbound Route.

Add Outbound Route
X

Route Name ⓘ:

Dial Pattern ⓘ:

Strip ⓘ:  digits from front

Prepend these digits ⓘ:  before dialing

Password:

T.38 Support ⓘ:

Rmemory Hunt ⓘ:

Member Extensions ⓘ

Available Extensions		Selected
	<input type="button" value="»»"/> <input type="button" value="→"/> <input type="button" value="←"/> <input type="button" value="««"/>	600(SIP) 601(SIP) 602(SIP) 603(SIP) 604(SIP)

Member Trunks ⓘ

Available Trunks		Selected
pstn1(FXO) pstn2(FXO) E1Trunk1(E1) MyPBXC(SPS)	<input type="button" value="»»"/> <input type="button" value="→"/> <input type="button" value="←"/> <input type="button" value="««"/>	MyPBXA(SPS)

Figure 1-10

### Add Outbound Route X

Route Name i:

Dial Pattern i:

Strip i:  digits from front

Prepend these digits i:  before dialing

Password:

T.38 Support i:

Rmemory Hunt i:

#### Member Extensions i

Available Extensions		Selected
<div style="border: 1px solid gray; height: 100px;"></div>	<input type="button" value="»»"/> <input type="button" value="→"/> <input type="button" value="←"/> <input type="button" value="««"/>	<div style="border: 1px solid gray; padding: 5px;">600(SIP) 601(SIP) 602(SIP) 603(SIP) 604(SIP)</div>

#### Member Trunks i

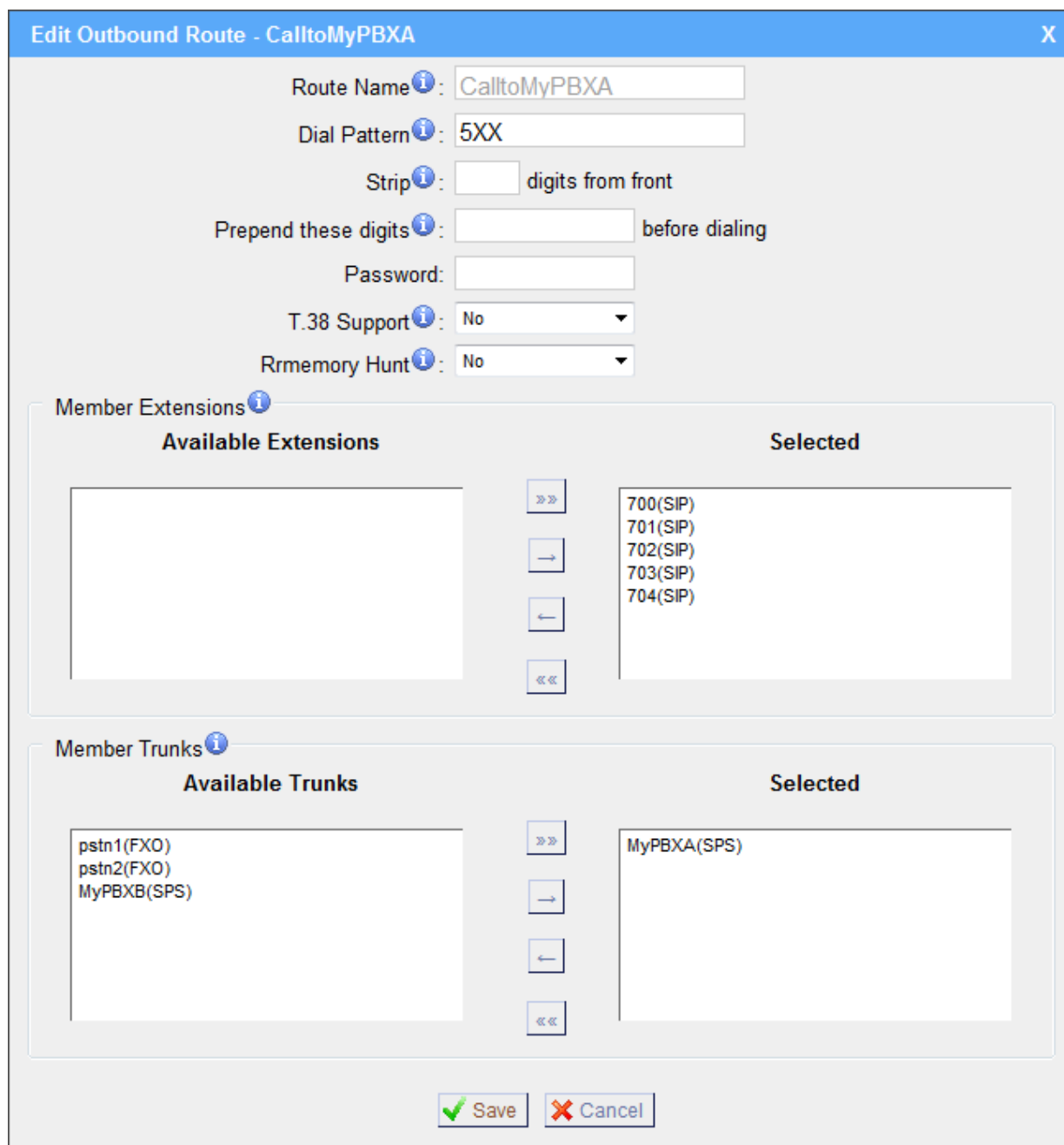
Available Trunks		Selected
<div style="border: 1px solid gray; padding: 5px;">pstn1(FXO) pstn2(FXO) E1Trunk1(E1) MyPBXA(SPS)</div>	<input type="button" value="»»"/> <input type="button" value="→"/> <input type="button" value="←"/> <input type="button" value="««"/>	<div style="border: 1px solid gray; padding: 5px;">MyPBXC(SPS)</div>

Figure 1-11

Save and Apply the Changes.

**Step 6:** Setup two Outbound Routes in **MyPBX C**. All calls start with 5 and 3 digits will be sent to MyPBX A, and all calls start with 6 and 3 digits will be sent to MyPBX B. This is the way to route MyPBX C's call to MyPBX A and MyPBX B.

In the page: Outbound Routes -> Add Outbound Route.



**Edit Outbound Route - CalltoMyPBXA**

Route Name: CalltoMyPBXA

Dial Pattern: 5XX

Strip: 0 digits from front

Prepend these digits: before dialing

Password:

T.38 Support: No

Rmemory Hunt: No

**Member Extensions**

Available Extensions	Selected
	700(SIP) 701(SIP) 702(SIP) 703(SIP) 704(SIP)

**Member Trunks**

Available Trunks	Selected
pstn1(FXO) pstn2(FXO) MyPBXB(SPS)	MyPBXA(SPS)

Save Cancel

Figure 1-12

### Edit Outbound Route - CalltoMyPBXB

Route Name:

Dial Pattern:

Strip:  digits from front

Prepend these digits:  before dialing

Password:

T.38 Support:

Rmemory Hunt:

**Member Extensions**

Available Extensions		Selected
<input type="text"/>	<input type="button" value="»»"/> <input type="button" value="→"/> <input type="button" value="←"/> <input type="button" value="««"/>	700(SIP) 701(SIP) 702(SIP) 703(SIP) 704(SIP)

**Member Trunks**

Available Trunks		Selected
pstn1(FXO) pstn2(FXO) MyPBXA(SPS)	<input type="button" value="»»"/> <input type="button" value="→"/> <input type="button" value="←"/> <input type="button" value="««"/>	MyPBXB(SPS)

Figure 1-13

**Note:** For VoIP-Trunking mode connection, there's no need to create inbound routes for MyPBXs, the outbound routes for each MyPBX are enough.

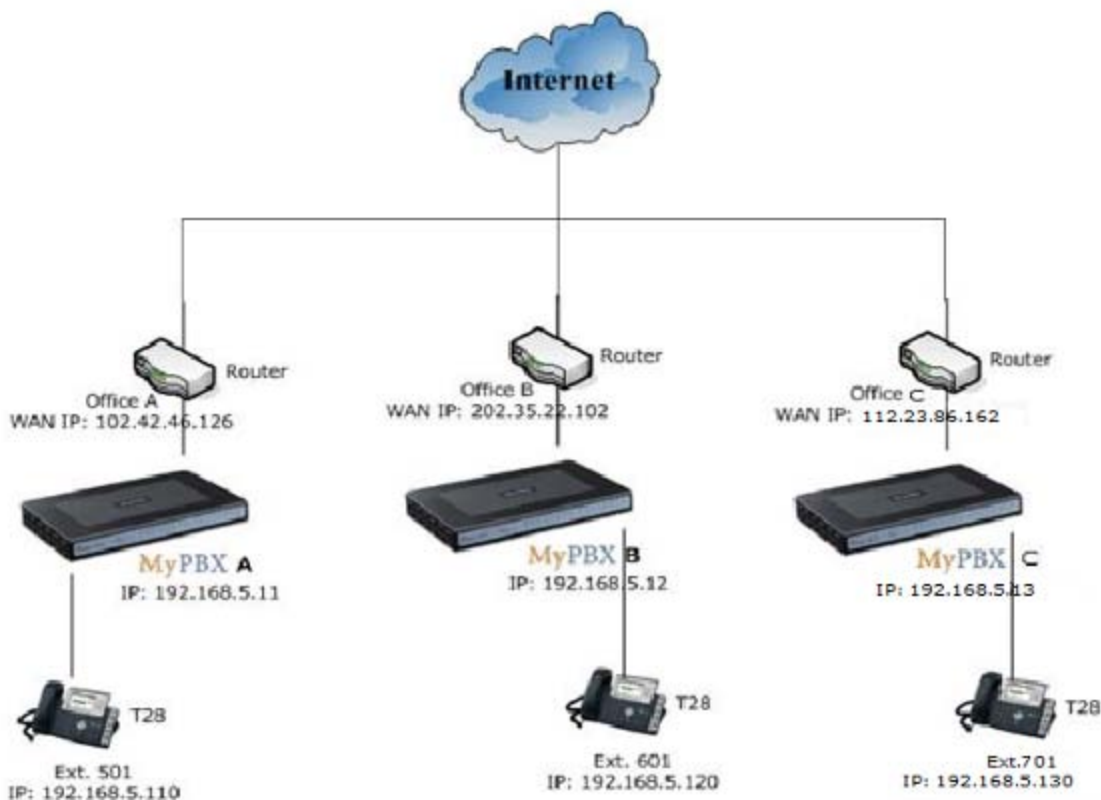
**Step 7:** Test calls.

- 1) Register an IP phone T28 to MyPBX A with extension 501.
- 2) Register an IP phone T28 to MyPBX B with extension 601.
- 3) Register an IP phone T28 to MyPBX C with extension 701.
- 4) Test calls from MyPBX A to MyPBX B and MyPBX C : Use 501 to dial 601, then you can see 601 is ringing and you can answer the calls; Use 501 to dial 701, then you can see 701 is ringing and you can answer the calls.
- 5) Test calls from MyPBX B to MyPBX A and MyPBX C : Use 601 to dial 501, then you can see 501 is ringing and you can answer the calls; Use 601 to dial 701, then you can see 701 is ringing and you can answer the calls.
- 6) Test calls from MyPBX C to MyPBX A and MyPBX B : Use 701 to dial 501, then you can see 501 is ringing and you can answer the calls; Use 701 to dial 601, then you can see 601 is ringing and you can answer the calls.

## 2. Connect three MyPBX in different locations

The other case to link three MyPBX together is in the different network. We also take MyPBX Standard as the example here, and the method is same for other MyPBX products. Below is the structure of how to link three MyPBX in the different LANs:

### Flowchart:



### Application:

**Note:** Since the MyPBX doesn't have the public IP, we need to do port forwarding in the router and make MyPBX is reachable to others.

The method of connecting three MyPBX in the different location is:

1. Point the MyPBX A to MyPBX B and MyPBX C via VOIP (SIP/IAX2) Trunking, so the extensions in MyPBX A can make calls to MyPBX B's extensions and MyPBX C's extensions via these two 'Special' trunks.
2. Use the reverse method in MyPBX B to register to MyPBX A and MyPBX C.
3. Use the reverse method in MyPBX C to register to MyPBX A and MyPBX B.

In the above structure:

- 1) The three MyPBX links each other via VOIP (SIP/IAX2) trunking.
- 2) All the extensions under MyPBX A are in the format 5xx.
- 3) All the extensions under MyPBX B are in the format 6xx.
- 4) All the extensions under MyPBX C are in the format 7xx.



- 5) Extensions under MyPBX A can make calls to extensions under MyPBX B using format 6xx and make calls to extensions under MyPBX C using format 7xx.
- 6) Extensions under MyPBX B can make calls to extensions under MyPBX A using format 5xx and make calls to extensions under MyPBX C using format 7xx.
- 7) Extensions under MyPBX C can make calls to extensions under MyPBX A using format 5xx and make calls to extensions under MyPBX B using format 6xx.
- 8) Yealink-T28 A registers to MyPBX A as an extension 501.
- 9) Yealink-T28 B registers to MyPBX B as an extension 601.
- 10) Yealink-T28 C registers to MyPBX C as an extension 701.

## 2.1 Connect three MyPBX via SIP Trunking

**Step 1** Set port forwarding in the router for MyPBX A.

Example: The router's public IP is '102.42.46.126'.

The MyPBX A is behind the router, to register to MyPBX A via the internet, you need to forward the SIP port in your router, so all the packets received on the router WAN port (102.42.46.126:5060) will be forwarded to the MyPBX A (192.168.5.11:5060). Below is the setting page in a Linksys router:

**Note1:** we must map UDP port 5060 and UDP port 10001-12000.

**Note2:** Your public address from network provider maybe a dynamic IP which will be changed periodically. To overcome the problem of dynamic IP, you may need to use the DDNS service, for more info please Google via internet.

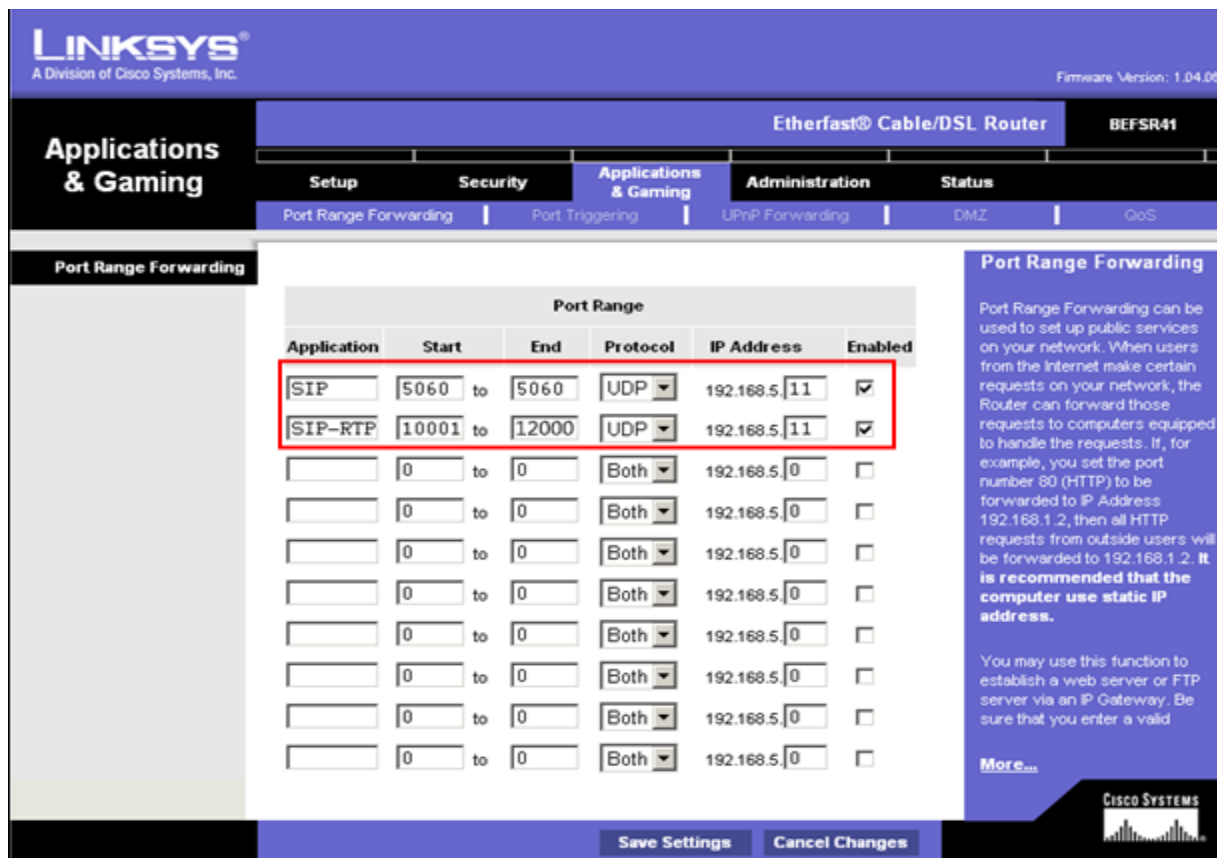


Figure 2-1

**Step 2:** Use the same method do port forwarding in router B for MyPBX B.

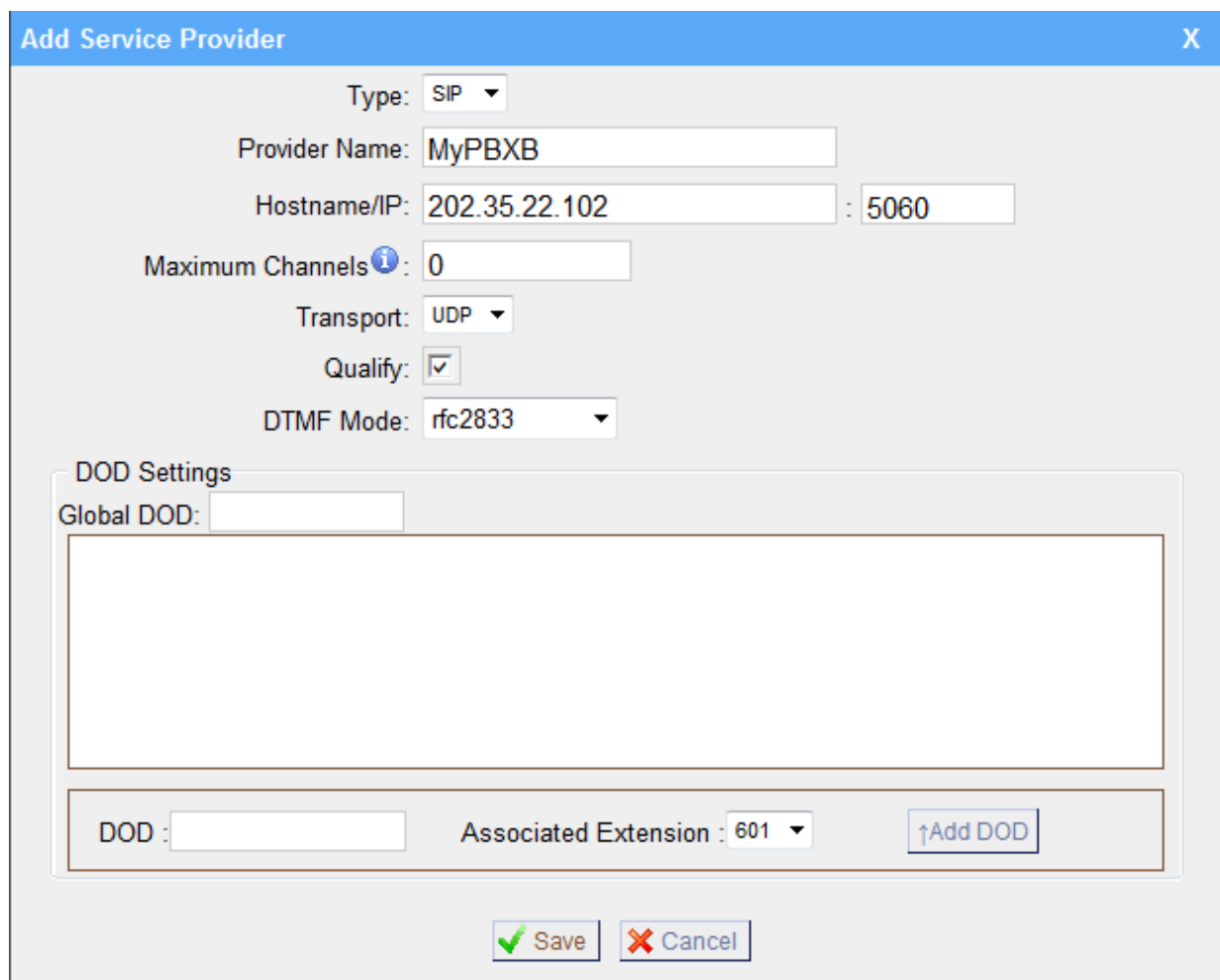
Example: The router's public IP is '202.35.22.102'.

**Step 3:** Use the same method do port forwarding in router C for MyPBX C.

Example: The router's public IP is '112.23.86.162'.

**Step 4:** Set up two SIP Trunkings in **MyPBX A**, then connect them to MyPBX B and MyPBX C respectively.

Trunks-> Service Provider -> New Service Provider



**Add Service Provider** X

Type: SIP

Provider Name: MyPBXB

Hostname/IP: 202.35.22.102 : 5060

Maximum Channels <sup>i</sup>: 0

Transport: UDP

Qualify:

DTMF Mode: rfc2833

DOD Settings

Global DOD:

DOD:  Associated Extension: 601

Figure 2-2

Add Service Provider
X

Type: SIP ▼

Provider Name:

Hostname/IP:  :

Maximum Channels ⓘ:

Transport: UDP ▼

Qualify:

DTMF Mode: rfc2833 ▼

DOD Settings

Global DOD:

DOD : 
Associated Extension : 510 ▼
[↑Add DOD](#)

✔ Save
✘ Cancel

Figure 2-3

Make sure the trunk status is ok on Line status page.

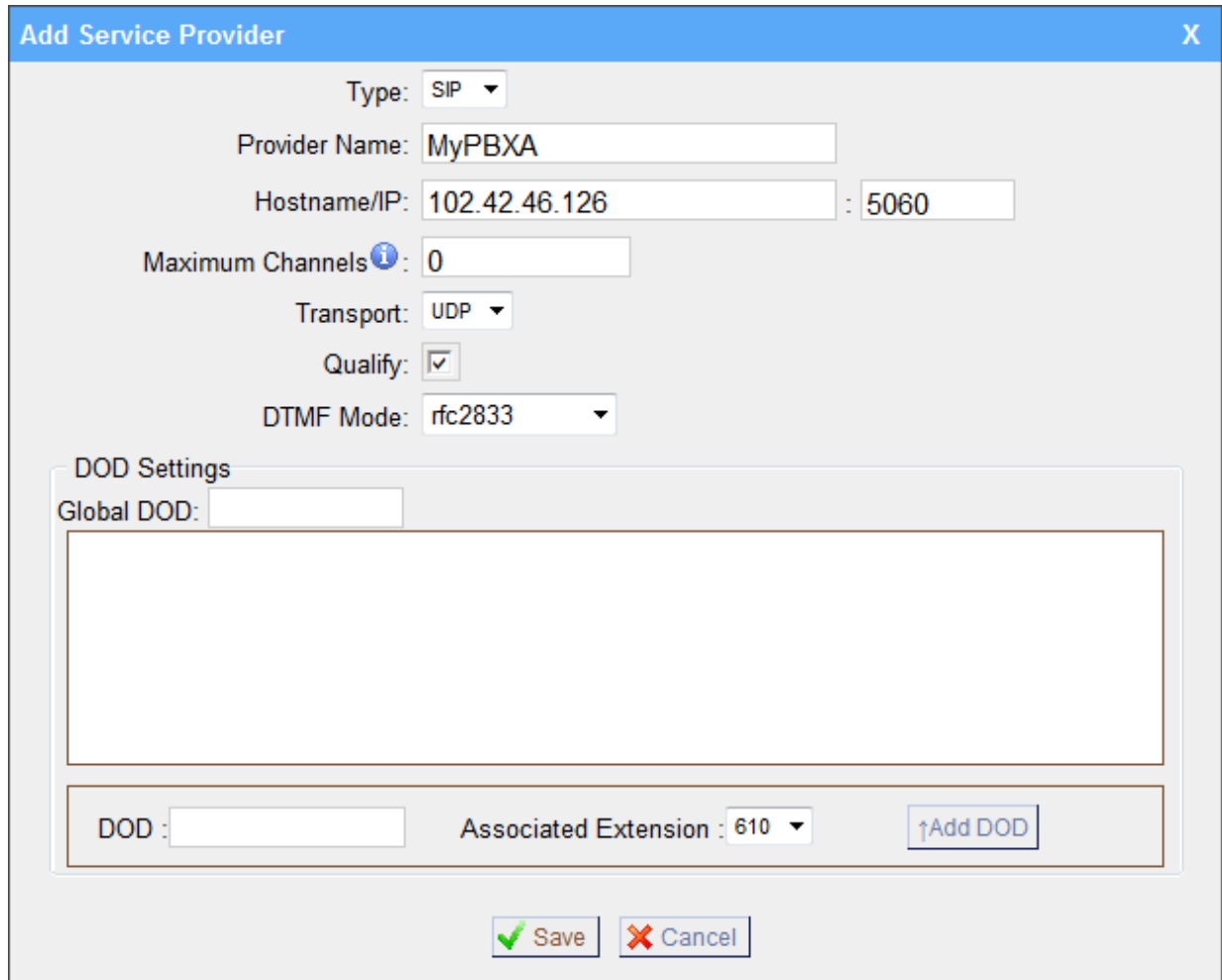
MyPBX A trunks' status:

Trunks						
Status	Signal	Trunk Name	Type	User Name	Port/Hostname/IP	Reachability
OK (1 ms)		<a href="#">MyPBXB</a>	SP-SIP		202.35.22.102	OK (1 ms)
OK (2 ms)		<a href="#">MyPBXC</a>	SP-SIP		112.23.86.162	OK (2 ms)

Figure 2-4

**Step 5:** Setup two SIP Trunkings in **MyPBX B**, then connect them to MyPBX A and MyPBX C respectively.

Trunks-> Service Provider -> Add Service Provider



**Add Service Provider** X

Type: SIP

Provider Name: MyPBXA

Hostname/IP: 102.42.46.126 : 5060

Maximum Channels: 0

Transport: UDP

Qualify:

DTMF Mode: rfc2833

**DOD Settings**

Global DOD:

DOD:  Associated Extension: 610

Figure 2-5

Add Service Provider
X

Type: SIP ▼

Provider Name:

Hostname/IP:  :

Maximum Channels ⓘ:

Transport: UDP ▼

Qualify:

DTMF Mode: rfc2833 ▼

DOD Settings

Global DOD:

DOD: 
Associated Extension: 510 ▼
[↑Add DOD](#)

Save
 Cancel

Figure 2-6

Make sure the trunk status is ok on Line status page.

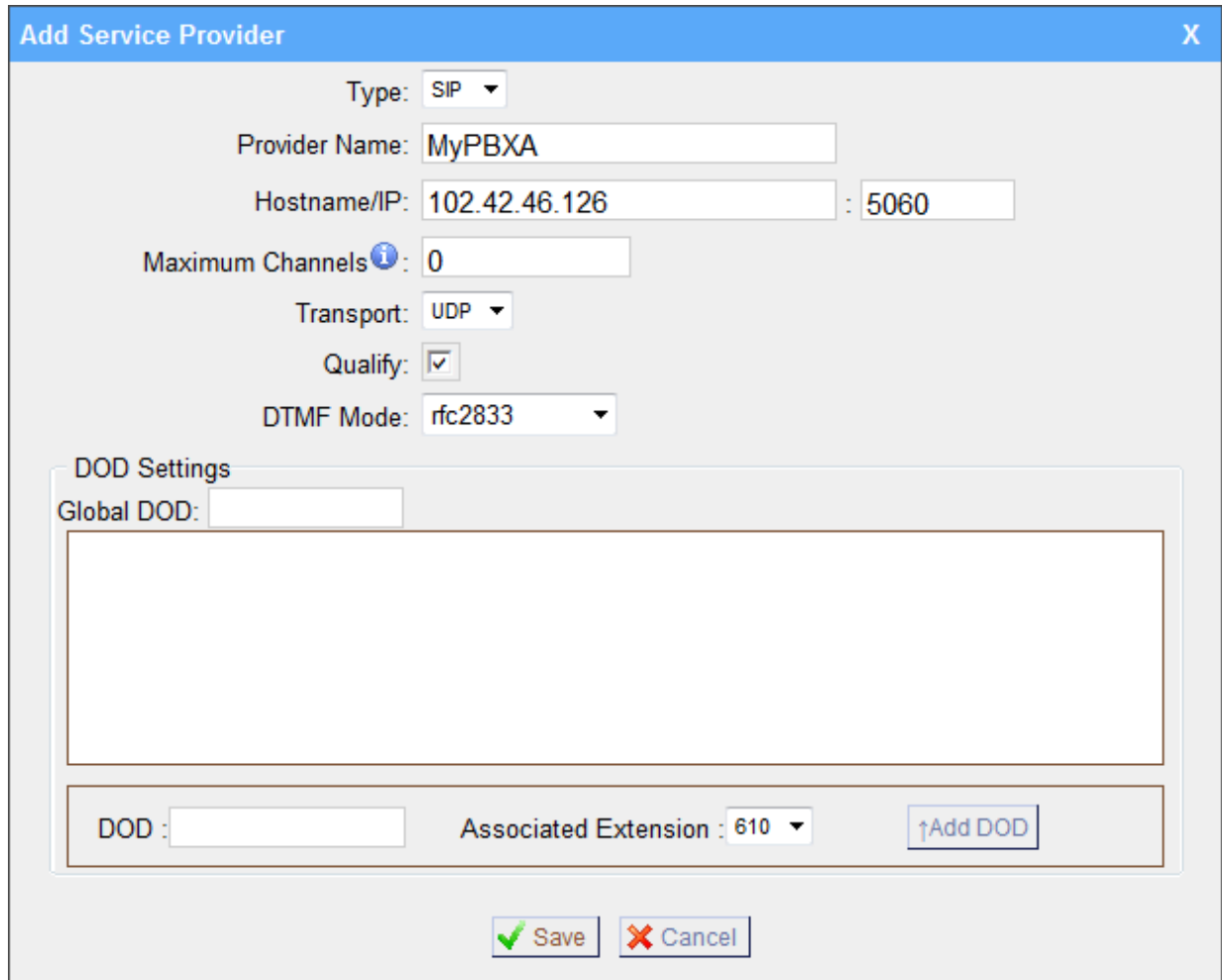
MyPBX B trunks' status:

Trunks						
Status	Signal	Trunk Name	Type	User Name	Port/Hostname/IP	Reachability
OK (2 ms)		<u>MyPBXA</u>	SP-SIP		102.42.46.126	OK (2 ms)
OK (5 ms)		<u>MyPBXC</u>	SP-SIP		112.23.86.162	OK (5 ms)

Figure 2-7

**Step 6:** Setup two SIP Trunkings in **MyPBX C**, then connect them to MyPBX A and MyPBX B respectively.

Trunks-> Service Provider -> Add Service Provider



**Add Service Provider** X

Type: SIP ▾

Provider Name: MyPBXA

Hostname/IP: 102.42.46.126 : 5060

Maximum Channels ⓘ: 0

Transport: UDP ▾

Qualify:

DTMF Mode: rfc2833 ▾

**DOD Settings**

Global DOD:

DOD:  Associated Extension: 610 ▾

Figure 2-8

Add Service Provider
X

Type: SIP

Provider Name:

Hostname/IP:  :

Maximum Channels i:

Transport: UDP

Qualify:

DTMF Mode: rfc2833

DOD Settings

Global DOD:

DOD : 
Associated Extension : 601
↑Add DOD

✔ Save ✘ Cancel

Figure 2-9

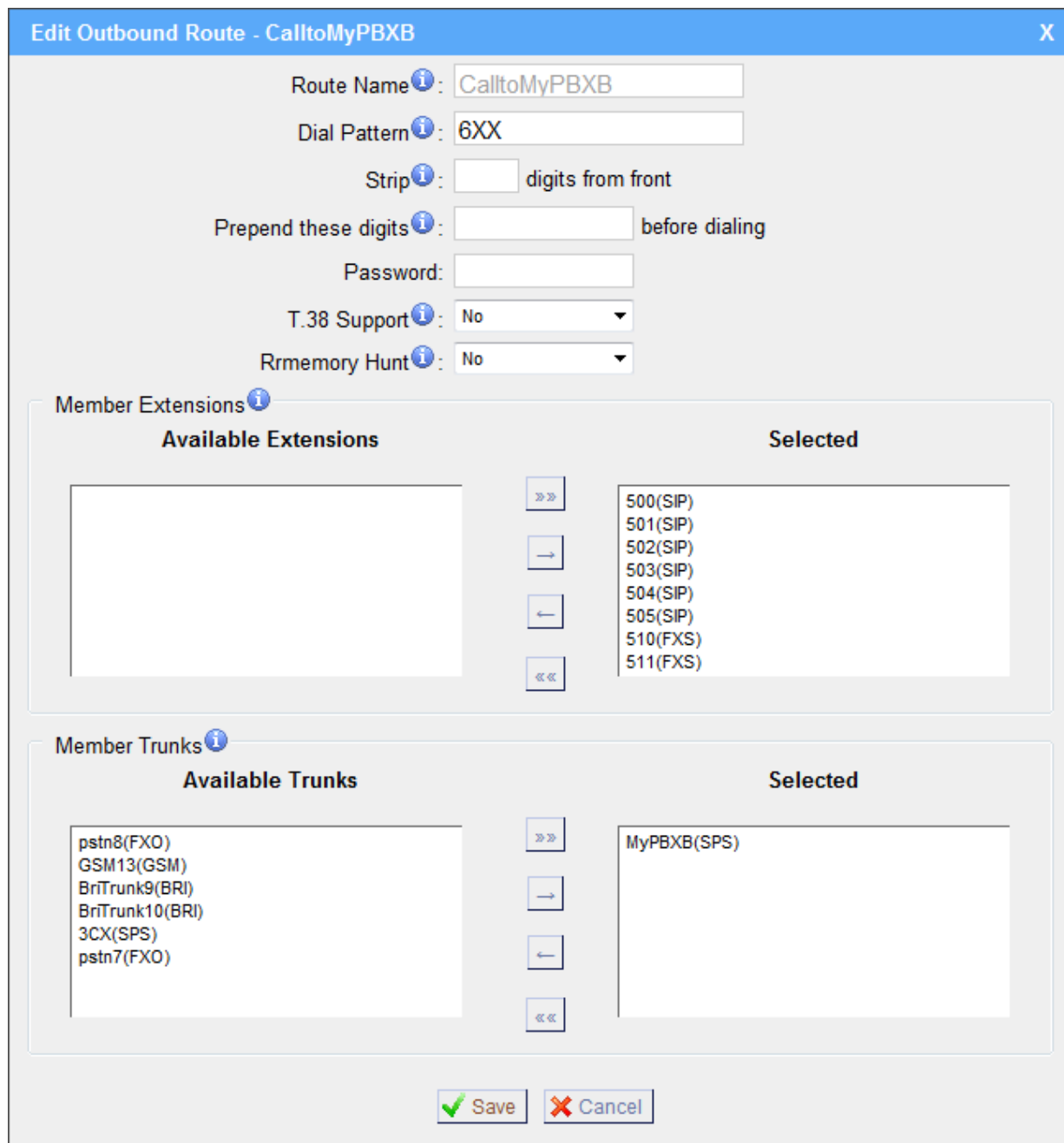
Make sure the trunk status is ok on Line status page.  
MyPBX C trunks' status:

Trunks						
Status	Signal	Trunk Name	Type	User Name	Port/Hostname/IP	Reachability
OK (2 ms)		<u>MyPBXA</u>	SP-SIP		102.42.46.126	OK (2 ms)
OK (1 ms)		<u>MyPBXB</u>	SP-SIP		202.35.22.102	OK (1 ms)

Figure 2-10

**Step 7:** Setup two Outbound Routes in **MyPBX A**. All calls start with 6 and 3 digits will be sent to MyPBX B, and all calls start with 7 and 3 digits will be sent to MyPBX C. This is the way to route MyPBX A's call to MyPBX B and MyPBX C.

In the page: Outbound Routes -> Add Outbound Route.



**Edit Outbound Route - CalltoMyPBXB**

Route Name: CalltoMyPBXB

Dial Pattern: 6XX

Strip: 0 digits from front

Prepend these digits: before dialing

Password:

T.38 Support: No

Rrmemory Hunt: No

**Member Extensions**

Available Extensions	Selected
	500(SIP) 501(SIP) 502(SIP) 503(SIP) 504(SIP) 505(SIP) 510(FXS) 511(FXS)

**Member Trunks**

Available Trunks	Selected
pstn8(FXO) GSM13(GSM) BriTrunk9(BRI) BriTrunk10(BRI) 3CX(SPS) pstn7(FXO)	MyPBXB(SPS)

Save Cancel

Figure 2-11



### Add Outbound Route X

Route Name <sup>i</sup>:

Dial Pattern <sup>i</sup>:

Strip <sup>i</sup>:  digits from front

Prepend these digits <sup>i</sup>:  before dialing

Password:

T.38 Support <sup>i</sup>:

Rmemory Hunt <sup>i</sup>:

**Member Extensions <sup>i</sup>**

Available Extensions		Selected
<input type="text"/>	<input type="button" value="»»"/> <input type="button" value="→"/> <input type="button" value="←"/> <input type="button" value="««"/>	500(SIP) 501(SIP) 502(SIP) 503(SIP) 504(SIP) 510(FXS) 511(FXS)

**Member Trunks <sup>i</sup>**

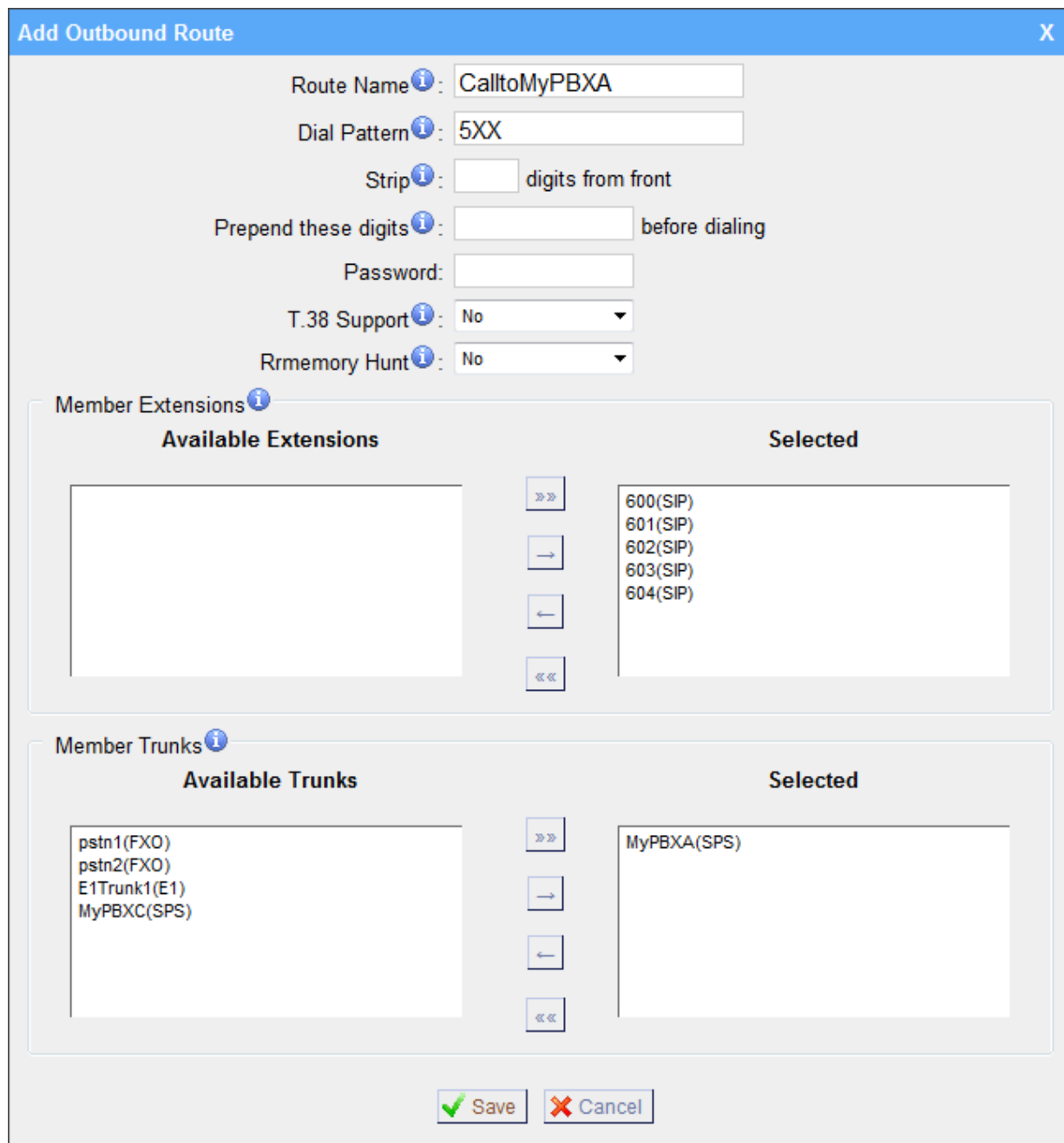
Available Trunks		Selected
pstn7(FXO) pstn8(FXO) GSM13(GSM) BrTrunk9(BRI) BrTrunk10(BRI) MyPBXB(SPS)	<input type="button" value="»»"/> <input type="button" value="→"/> <input type="button" value="←"/> <input type="button" value="««"/>	MyPBXC(SPS)

Figure 2-12

Save and Apply the Changes.

**Step 8:** Set up two Outbound Routes in **MyPBX B**. All calls start with 5 and 3 digits will be sent to MyPBX A, and all calls start with 7 and 3 digits will be sent to MyPBX C. This is the way to route MyPBX B's call to MyPBX A and MyPBX C.

In the page: Outbound Routes -> Add Outbound Route.



**Add Outbound Route** [X]

Route Name ⓘ:

Dial Pattern ⓘ:

Strip ⓘ:  digits from front

Prepend these digits ⓘ:  before dialing

Password:

T.38 Support ⓘ:

Rrmemory Hunt ⓘ:

**Member Extensions** ⓘ

Available Extensions	Selected
<input type="text"/>	600(SIP) 601(SIP) 602(SIP) 603(SIP) 604(SIP)

**Member Trunks** ⓘ

Available Trunks	Selected
pstn1(FXO) pstn2(FXO) E1Trunk1(E1) MyPBXC(SPS)	MyPBXA(SPS)

Figure 2-13

### Add Outbound Route X

Route Name i:

Dial Pattern i:

Strip i:  digits from front

Prepend these digits i:  before dialing

Password:

T.38 Support i:

Rmemory Hunt i:

**Member Extensions i**

Available Extensions		Selected
<div style="border: 1px solid gray; height: 100px;"></div>	<input type="button" value="»»"/> <input type="button" value="→"/> <input type="button" value="←"/> <input type="button" value="««"/>	<div style="border: 1px solid gray; padding: 5px;">600(SIP) 601(SIP) 602(SIP) 603(SIP) 604(SIP)</div>

**Member Trunks i**

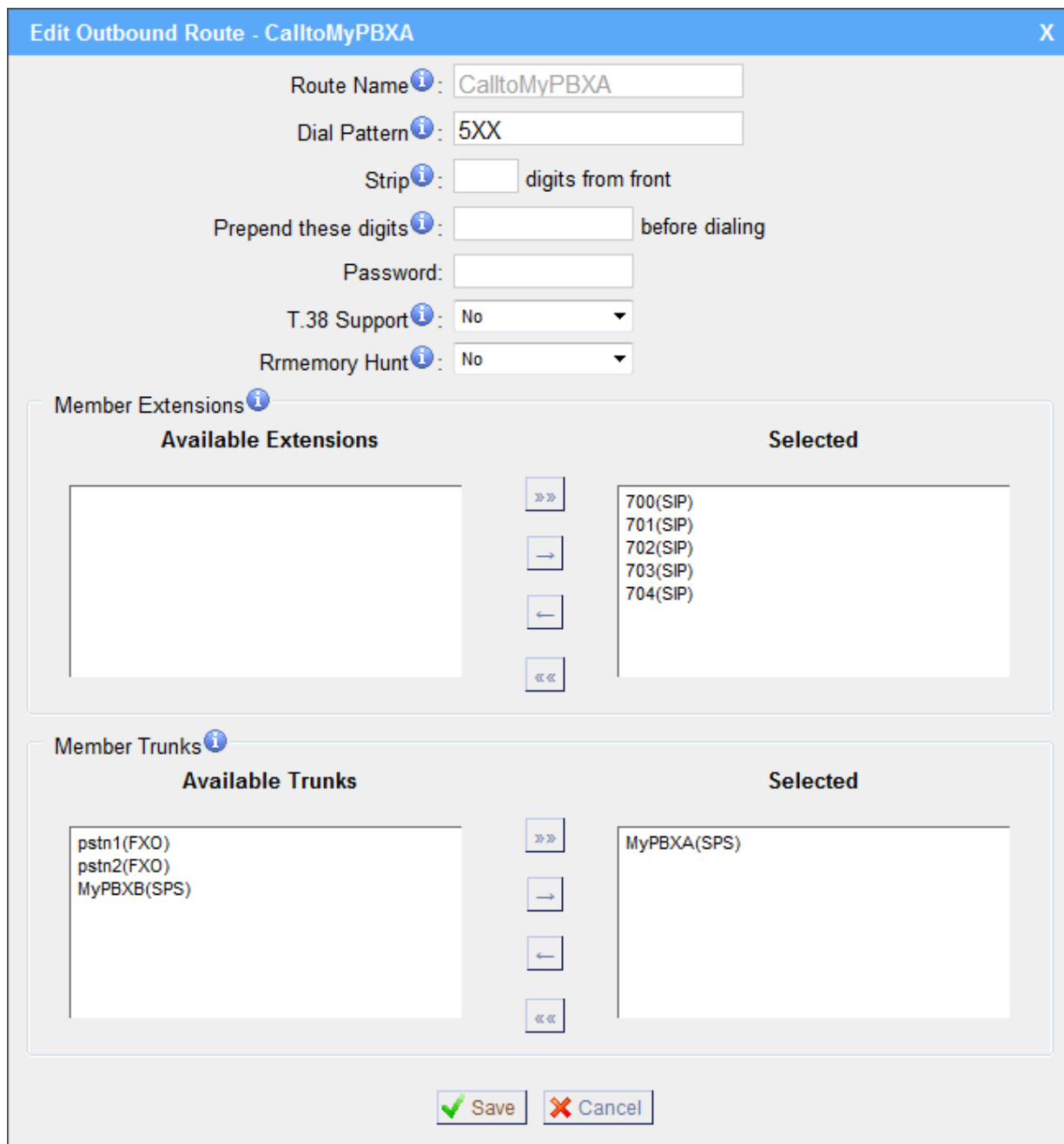
Available Trunks		Selected
<div style="border: 1px solid gray; padding: 5px;">pstn1(FXO) pstn2(FXO) E1Trunk1(E1) MyPBXA(SPS)</div>	<input type="button" value="»»"/> <input type="button" value="→"/> <input type="button" value="←"/> <input type="button" value="««"/>	<div style="border: 1px solid gray; padding: 5px;">MyPBXC(SPS)</div>

Figure 2-14

Save and Apply the Changes.

**Step 9:** Set up two Outbound Routes in **MyPBX C**. All calls start with 5 and 3 digits will be sent to MyPBX A, and all calls start with 6 and 3 digits will be sent to MyPBX B. This is the way to route MyPBX C's call to MyPBX A and MyPBX B.

In the page: Outbound Routes -> Add Outbound Route.



**Edit Outbound Route - CalltoMyPBXA**

Route Name: CalltoMyPBXA

Dial Pattern: 5XX

Strip: 0 digits from front

Prepend these digits: before dialing

Password:

T.38 Support: No

Rmemory Hunt: No

**Member Extensions**

Available Extensions	Selected
	700(SIP) 701(SIP) 702(SIP) 703(SIP) 704(SIP)

**Member Trunks**

Available Trunks	Selected
pstn1(FXO) pstn2(FXO) MyPBXB(SPS)	MyPBXA(SPS)

Save Cancel

Figure 2-15

### Edit Outbound Route - CalltoMyPBXB

Route Name:

Dial Pattern:

Strip:  digits from front

Prepend these digits:  before dialing

Password:

T.38 Support:

Rmemory Hunt:

**Member Extensions**

Available Extensions		Selected
<input type="text"/>	<input type="button" value="»»"/> <input type="button" value="→"/> <input type="button" value="←"/> <input type="button" value="««"/>	700(SIP) 701(SIP) 702(SIP) 703(SIP) 704(SIP)

**Member Trunks**

Available Trunks		Selected
pstn1(FXO) pstn2(FXO) MyPBXA(SPS)	<input type="button" value="»»"/> <input type="button" value="→"/> <input type="button" value="←"/> <input type="button" value="««"/>	MyPBXB(SPS)

Figure 2-16

Save and Apply the Changes.

**Note:** For VoIP-Trunking mode connection, there's no need to create inbound routes for MyPBXs, the outbound routes for each MyPBX are enough.

**Step 10:** Test call.

- 1) Register an IP phone T28 to MyPBX A with extension 501.
- 2) Register an IP phone T28 to MyPBX B with extension 601.
- 3) Register an IP phone T28 to MyPBX C with extension 701.
- 4) Test calls from MyPBX A to MyPBX B and MyPBX C : Use 501 to dial 601, then you can see 601 is ringing and you can answer the calls; Use 501 to dial 701, then you can see 701 is ringing and you can answer the calls.
- 5) Test calls from MyPBX B to MyPBX A and MyPBX C : Use 601 to dial 501, then you can see 501 is ringing and you can answer the calls; Use 601 to dial 701, then you can see 701 is ringing and you can answer the calls.
- 6) Test calls from MyPBX C to MyPBX A and MyPBX B : Use 701 to dial 501, then you can see 501 is ringing and you can answer the calls; Use 701 to dial 601, then you can see 601 is ringing and you can answer the calls.

## 2.2 Connect three MyPBX via IAX Trunking

**Step 1** Set port forwarding in the router for MyPBX A.

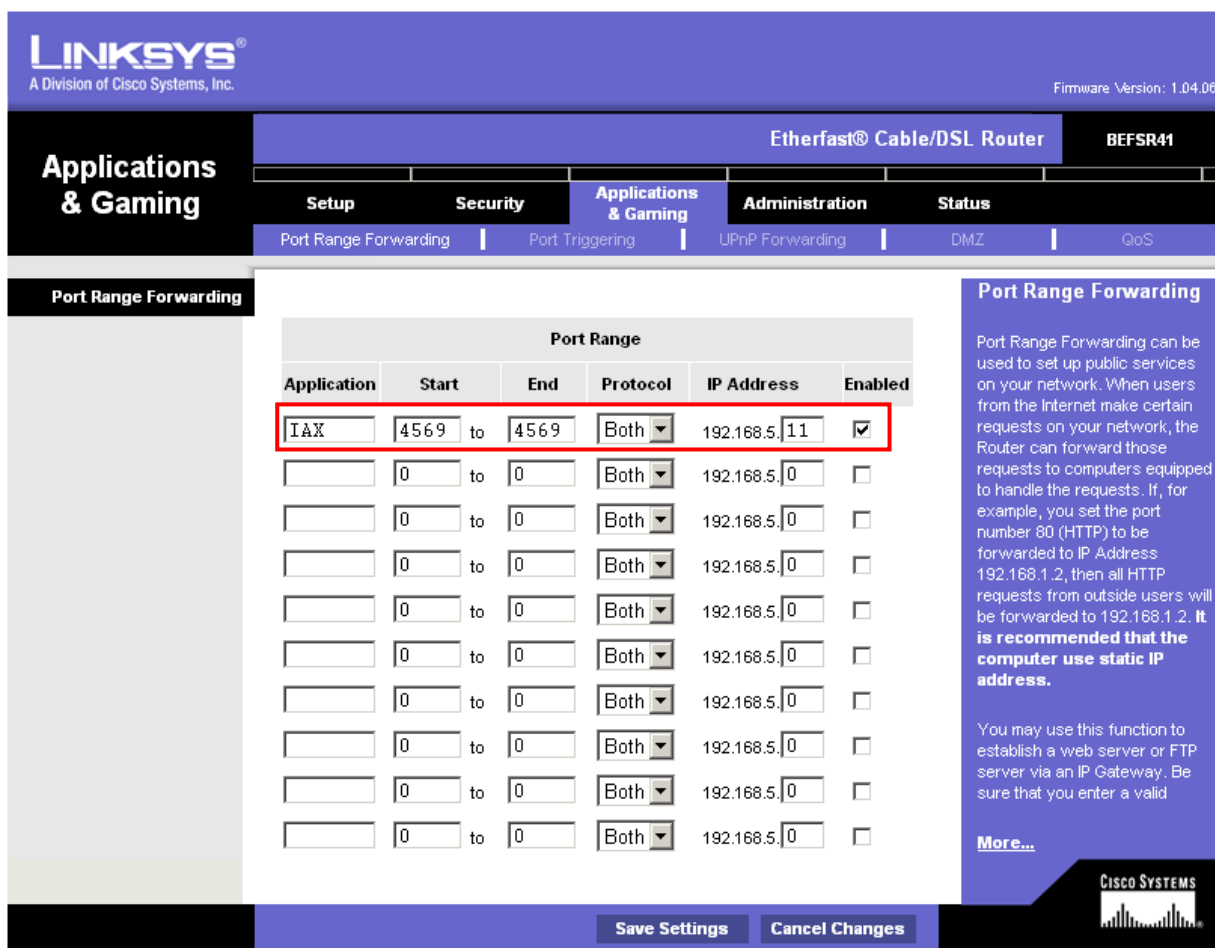
Example: The router's public IP is '102.42.46.126'.

The MyPBX A is behind the router, to register to MyPBX A via the internet, you need to forward the IAX port in your router, so all the packets received on the router WAN port (102.42.46.126:4569) will be forwarded to the MyPBX A (192.168.5.11:4569).

Below is the setting page in a Linksys router:

**Note1:** we must map UDP port 4569.

**Note2:** Your public address from network provider maybe a dynamic IP which will be changed periodically. To overcome the problem of dynamic IP, you may need to use the DDNS service, for more info please Google via internet.



The screenshot shows the Linksys web interface for an Etherfast Cable/DSL Router (BEFSR41). The 'Applications & Gaming' section is active, and the 'Port Range Forwarding' page is displayed. A table lists port forwarding rules, with the first rule highlighted in red:

Port Range					
Application	Start	End	Protocol	IP Address	Enabled
IAX	4569	4569	Both	192.168.5.11	<input checked="" type="checkbox"/>
	0	0	Both	192.168.5.0	<input type="checkbox"/>
	0	0	Both	192.168.5.0	<input type="checkbox"/>
	0	0	Both	192.168.5.0	<input type="checkbox"/>
	0	0	Both	192.168.5.0	<input type="checkbox"/>
	0	0	Both	192.168.5.0	<input type="checkbox"/>
	0	0	Both	192.168.5.0	<input type="checkbox"/>
	0	0	Both	192.168.5.0	<input type="checkbox"/>
	0	0	Both	192.168.5.0	<input type="checkbox"/>

Buttons at the bottom include 'Save Settings' and 'Cancel Changes'. A sidebar on the right provides additional information about Port Range Forwarding, including a recommendation to use a static IP address.

Figure 2-17

**Step 2:** Use the same method do port forwarding in router B for MyPBX B.

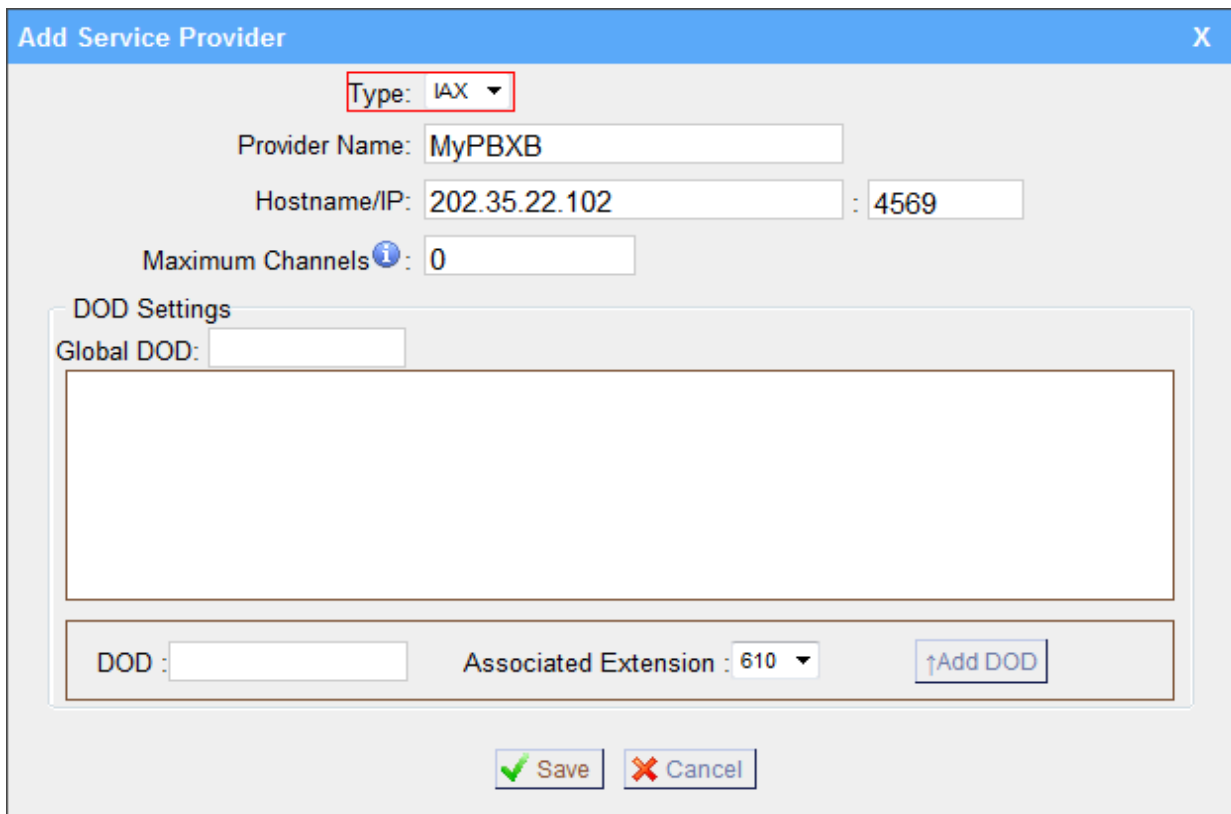
Example: The router's public IP is '202.35.22.102'.

**Step 3:** Use the same method do port forwarding in router C for MyPBX C.

Example: The router's public IP is '112.23.86.162'.

**Step 4:** Setup two IAX Trunkings in **MyPBX A**, connect to MyPBX B and MyPBX C respectively.

Trunks-> Service Provider -> Add Service Provider



**Add Service Provider** X

Type: IAX ▼

Provider Name: MyPBXB

Hostname/IP: 202.35.22.102 : 4569

Maximum Channels ⓘ : 0

DOD Settings

Global DOD:

DOD :  Associated Extension : 610 ▼

Figure 2-18



Add Service Provider
X

Type: IAX

Provider Name: MyPBXC

Hostname/IP: 112.23.86.162 : 4569

Maximum Channels i: 0

DOD Settings

Global DOD:

DOD : 
Associated Extension : 510
↑Add DOD

✔ Save
✘ Cancel

Figure 2-19

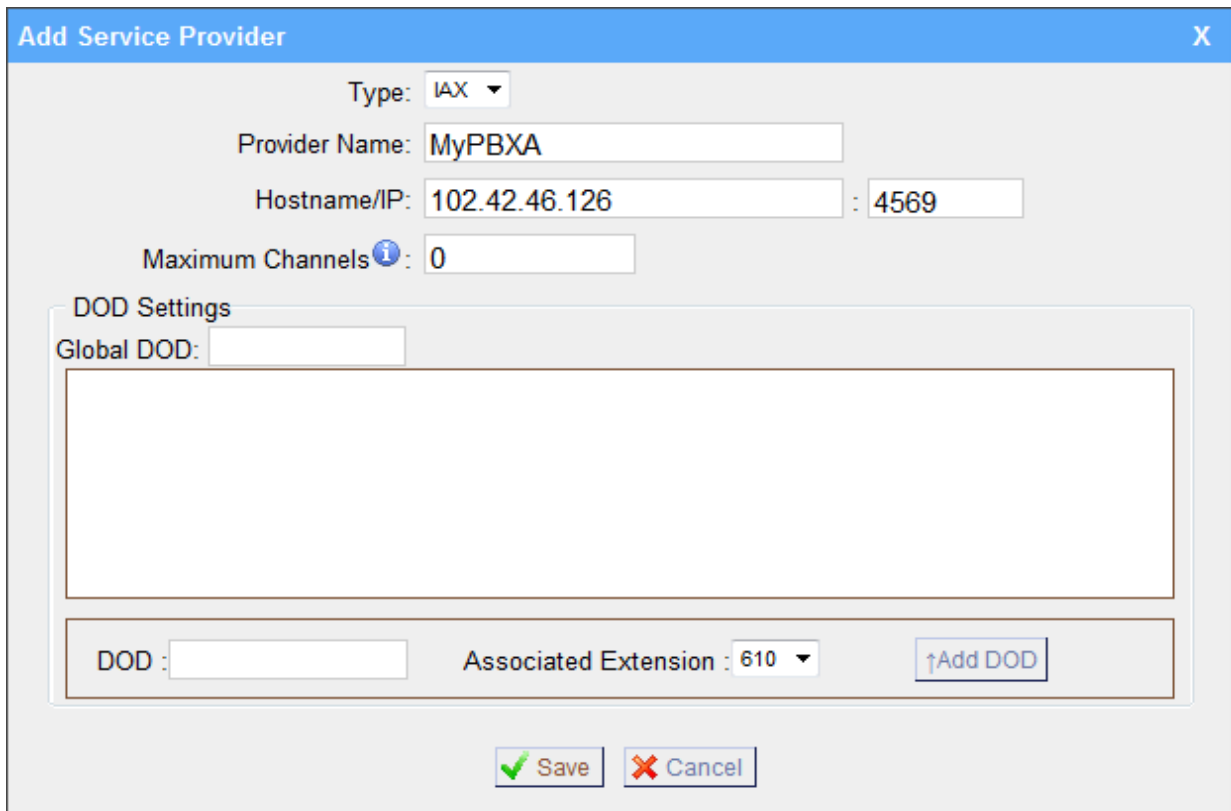
Make sure the trunk status is ok on Line status page.  
MyPBX A trunks' status:

Trunks						
Status	Signal	Trunk Name	Type	User Name	Port/Hostname/IP	Reachability
OK (1 ms)		<u>MyPBXB</u>	SP-IAX		202.35.22.102	OK (1 ms)
OK (2 ms)		<u>MyPBXC</u>	SP-IAX		112.23.86.162	OK (2 ms)

Figure 2-20

**Step 5:** Set up two IAX Trunkings in **MyPBX B**, then connect them to MyPBX A and MyPBX C respectively.

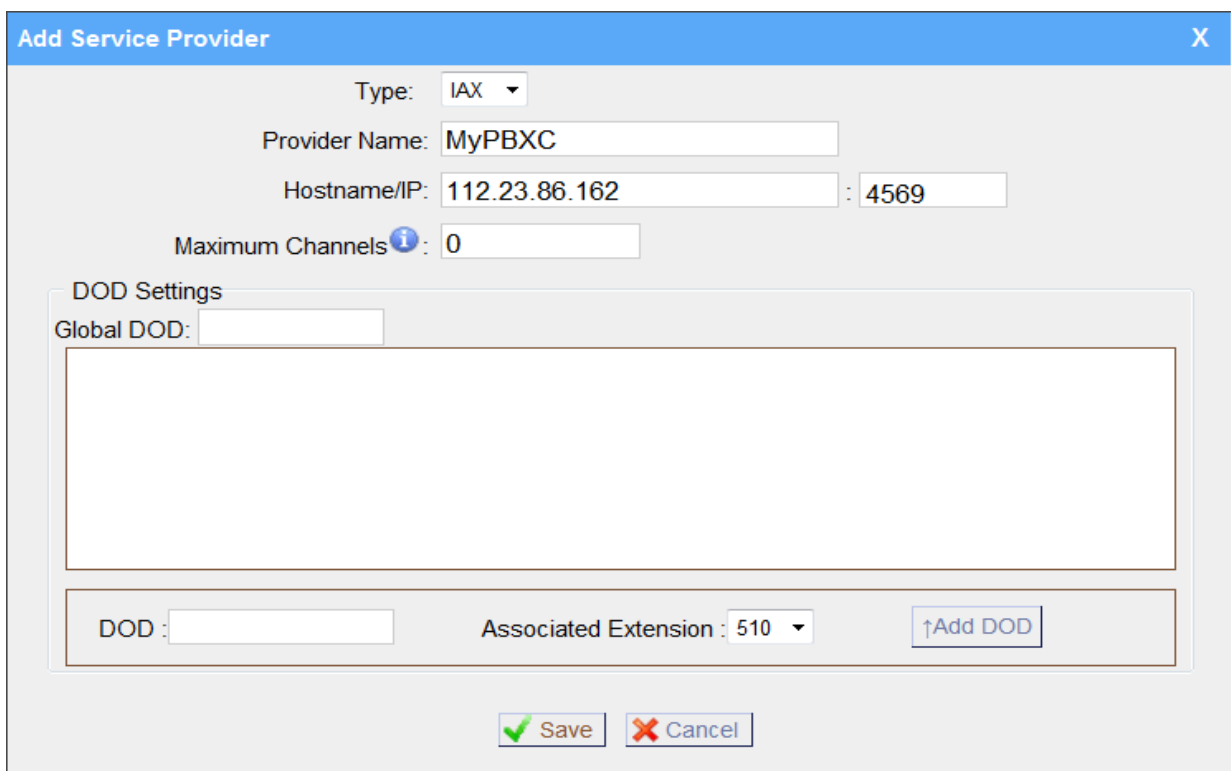
Trunks-> Service Provider -> New Service Provider



The screenshot shows the 'Add Service Provider' dialog box with the following configuration:

- Type: IAX
- Provider Name: MyPBXA
- Hostname/IP: 102.42.46.126 : 4569
- Maximum Channels: 0
- DOD Settings: Global DOD: (empty)
- DOD: (empty) Associated Extension: 610
- Buttons: Save, Cancel, Add DOD

Figure 2-21



The screenshot shows the 'Add Service Provider' dialog box with the following configuration:

- Type: IAX
- Provider Name: MyPBXC
- Hostname/IP: 112.23.86.162 : 4569
- Maximum Channels: 0
- DOD Settings: Global DOD: (empty)
- DOD: (empty) Associated Extension: 510
- Buttons: Save, Cancel, Add DOD

Figure 2-22

Make sure the trunk status is ok on Line status page.

MyPBX B trunks' status:

Trunks						
Status	Signal	Trunk Name	Type	User Name	Port/Hostname/IP	Reachability
OK (2 ms)		<u>MyPBXA</u>	SP-IAX		102.42.46.126	OK (2 ms)
OK (5 ms)		<u>MyPBXC</u>	SP-IAX		112.23.86.162	OK (5 ms)

Figure 2-23

**Step 6:** Set up two IAX Trunkings in **MyPBX C**, then connect them to MyPBX A and MyPBX B respectively.

Trunks-> Service Provider -> New Service Provider

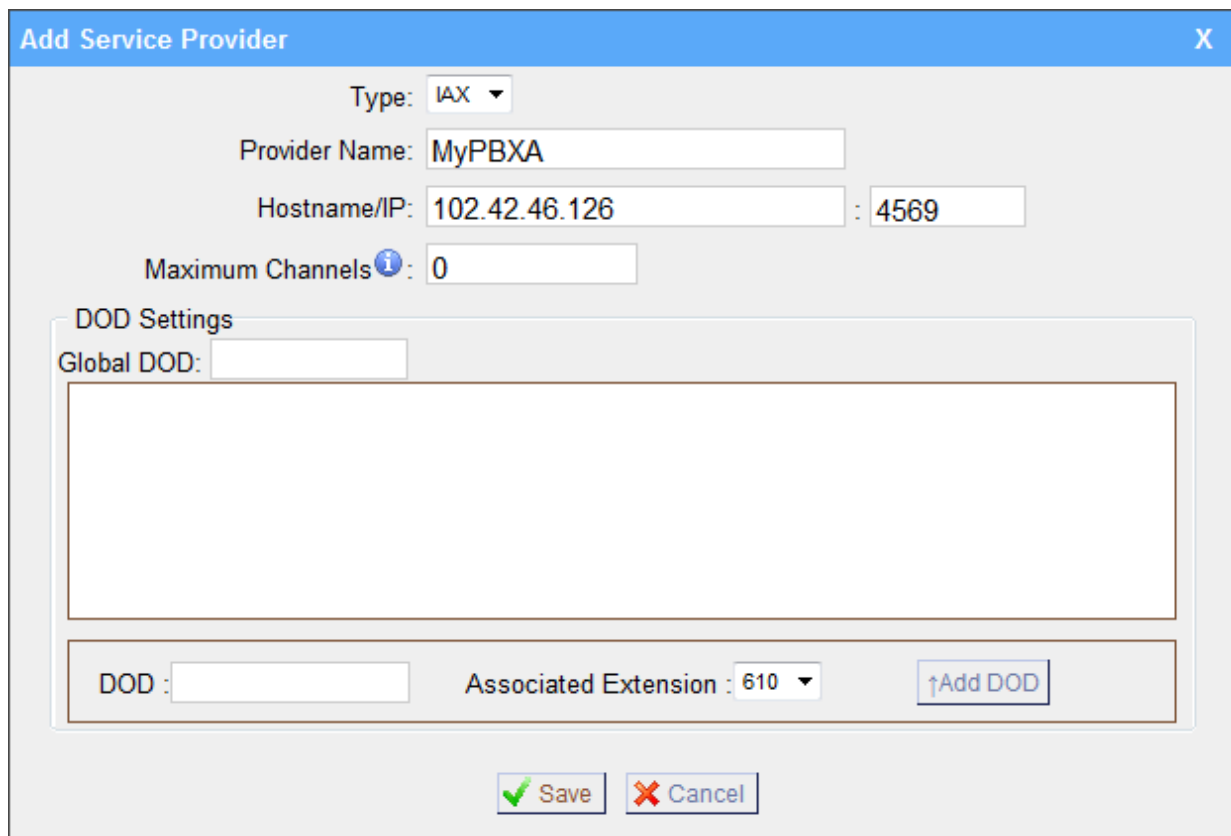


Figure 2-24

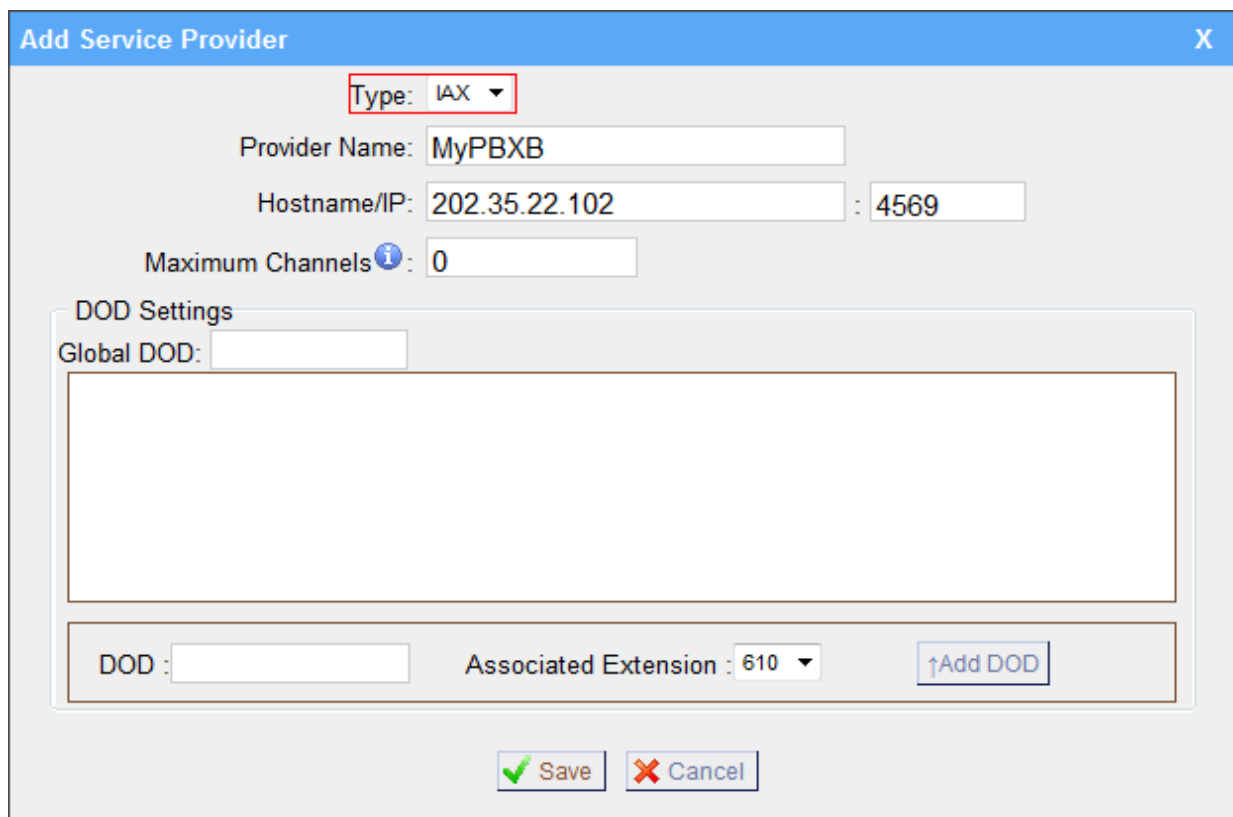


Figure 2-25

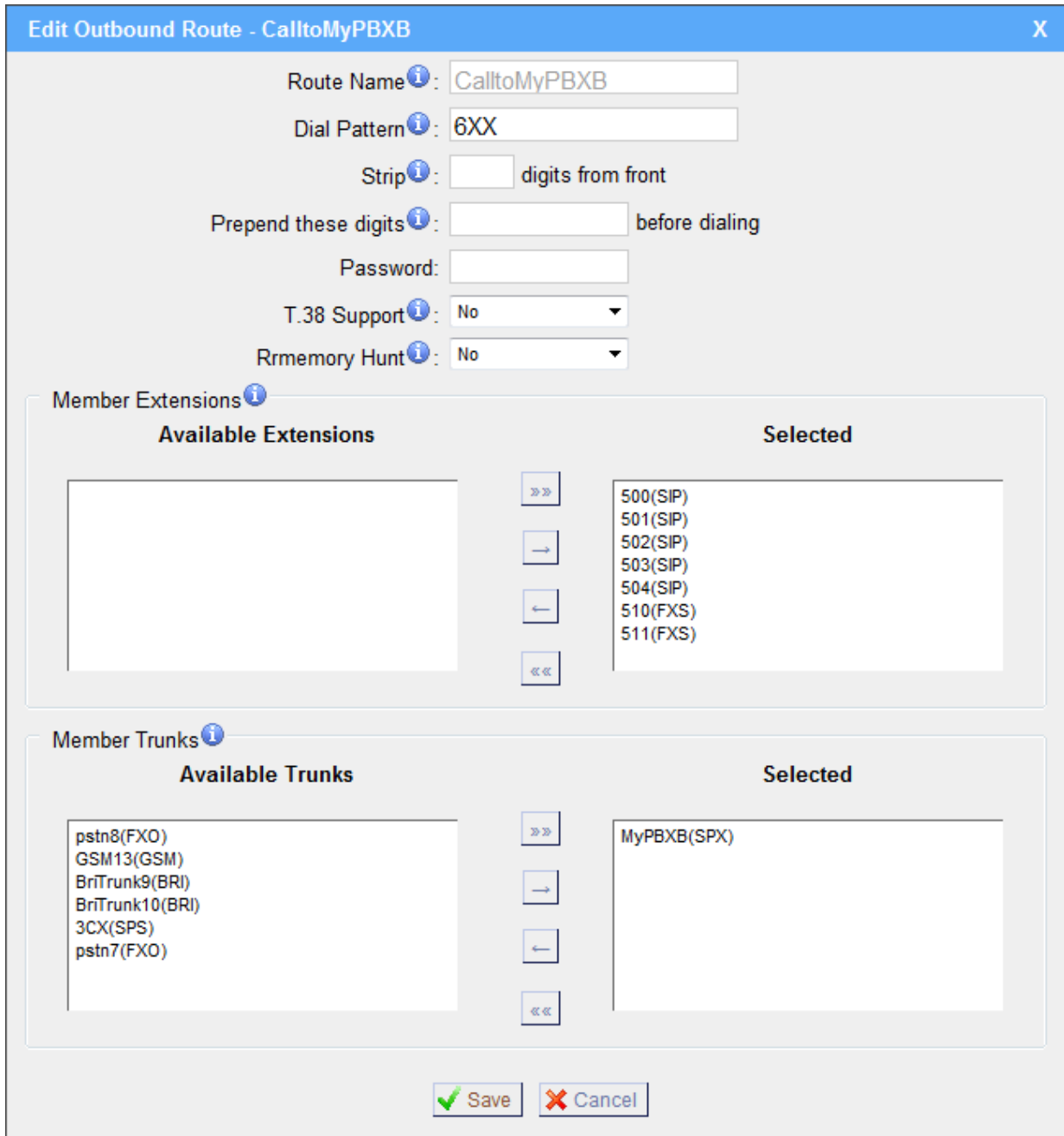
Make sure the trunk status is ok on Line status page.  
MyPBX C trunks' status:

Trunks						
Status	Signal	Trunk Name	Type	User Name	Port/Hostname/IP	Reachability
OK (2 ms)		<u>MyPBXA</u>	SP-IAX		102.42.46.126	OK (2 ms)
OK (1 ms)		<u>MyPBXB</u>	SP-IAX		202.35.22.102	OK (1 ms)

Figure 2-26

**Step 7:** Set up two Outbound Routes in **MyPBX A**. All calls start with 6 and 3 digits will be sent to MyPBX B, and all calls start with 7 and 3 digits will be sent to MyPBX C. This is the way to route MyPBX A's call to MyPBX B and MyPBX C.

In the page: Outbound Routes -> Add Outbound Route.



**Edit Outbound Route - CalltoMyPBXB**

Route Name: CalltoMyPBXB

Dial Pattern: 6XX

Strip: 0 digits from front

Prepend these digits: before dialing

Password:

T.38 Support: No

Rrmemory Hunt: No

**Member Extensions**

Available Extensions	Selected
	500(SIP) 501(SIP) 502(SIP) 503(SIP) 504(SIP) 510(FXS) 511(FXS)

**Member Trunks**

Available Trunks	Selected
pstn8(FXO) GSM13(GSM) BrTrunk9(BRI) BrTrunk10(BRI) 3CX(SPS) pstn7(FXO)	MyPBXB(SPX)

Save Cancel

Figure 2-27

### Add Outbound Route X

Route Name ?:

Dial Pattern ?:

Strip ?:  digits from front

Prepend these digits ?:  before dialing

Password:

T.38 Support ?:

Rmemory Hunt ?:

#### Member Extensions ?

Available Extensions		Selected
<input type="text"/>	<input type="button" value="»»"/> <input type="button" value="→"/> <input type="button" value="←"/> <input type="button" value="««"/>	500(SIP) 501(SIP) 502(SIP) 503(SIP) 504(SIP) 510(FXS) 511(FXS)

#### Member Trunks ?

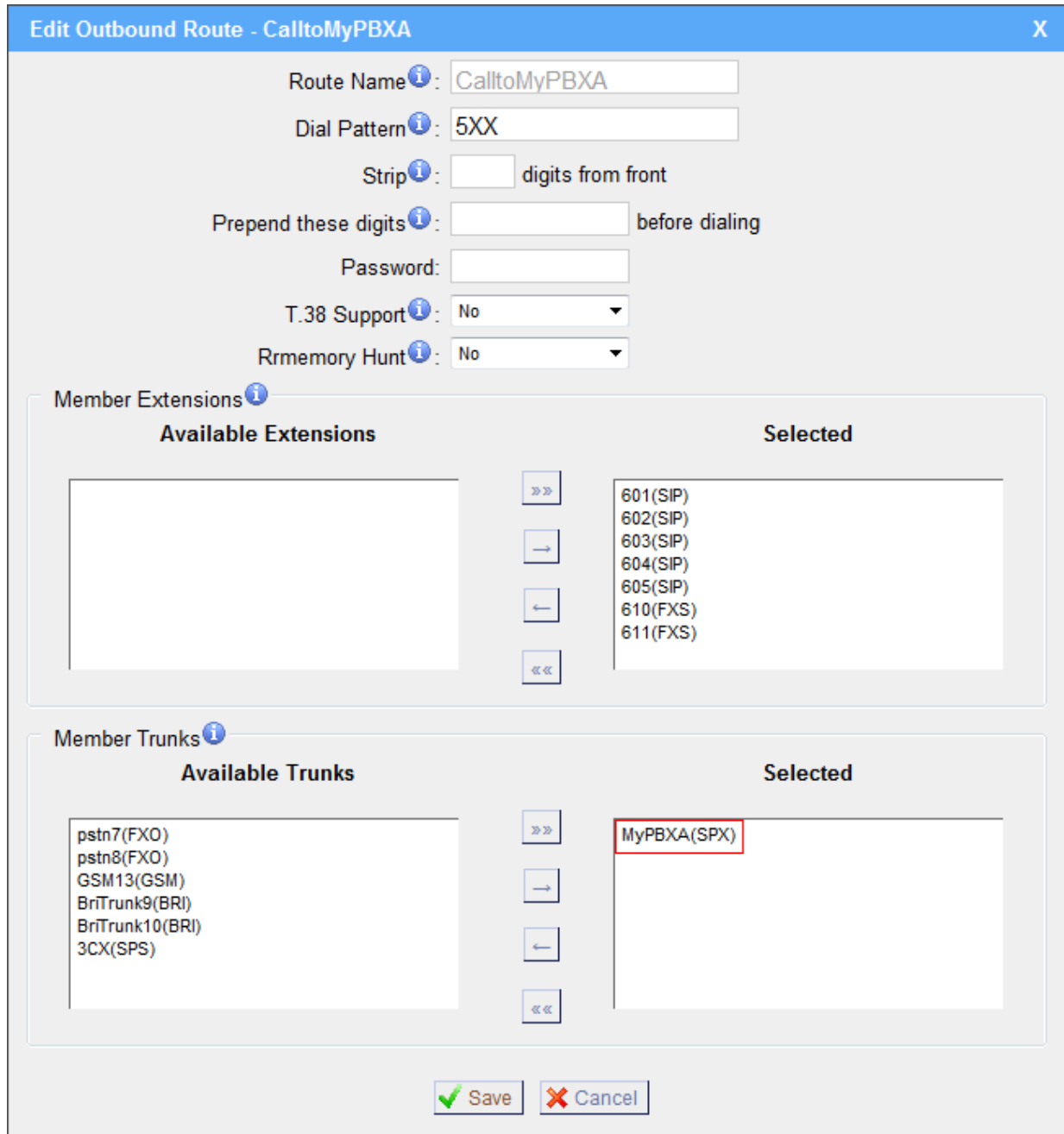
Available Trunks		Selected
pstn1(FXO) pstn2(FXO) MyPBXB(SPX)	<input type="button" value="»»"/> <input type="button" value="→"/> <input type="button" value="←"/> <input type="button" value="««"/>	MyPBXC(SPX)

Figure 2-28

Save and Apply the Changes.

**Step 8:** Set up two Outbound Routes in **MyPBX B**. All calls start with 5 and 3 digits will be sent to MyPBX A, and all calls start with 7 and 3 digits will be sent to MyPBX C. This is the way to route MyPBX B's call to MyPBX A and MyPBX C.

In the page: Outbound Routes -> Add Outbound Route.



**Edit Outbound Route - CalltoMyPBXA**

Route Name: CalltoMyPBXA

Dial Pattern: 5XX

Strip: 0 digits from front

Prepend these digits: before dialing

Password:

T.38 Support: No

Rrmemory Hunt: No

**Member Extensions**

Available Extensions	Selected
	601(SIP) 602(SIP) 603(SIP) 604(SIP) 605(SIP) 610(FXS) 611(FXS)

**Member Trunks**

Available Trunks	Selected
pstn7(FXO) pstn8(FXO) GSM13(GSM) BriTrunk9(BRI) BriTrunk10(BRI) 3CX(SPS)	MyPBXA(SPX)

Save Cancel

Figure 2-29

**Add Outbound Route** X

Route Name ?:

Dial Pattern ?:

Strip ?:  digits from front

Prepend these digits ?:  before dialing

Password:

T.38 Support ?:

Rmemory Hunt ?:

**Member Extensions** ?

Available Extensions		Selected
<div style="border: 1px solid gray; height: 100px;"></div>	>>> → ← <<<	<div style="border: 1px solid gray; padding: 5px;">600(SIP) 601(SIP) 602(SIP) 603(SIP) 604(SIP)</div>

**Member Trunks** ?

Available Trunks		Selected
<div style="border: 1px solid gray; padding: 5px;">pstn1(FXO) pstn2(FXO) MyPBXA(SPX)</div>	>>> → ← <<<	<div style="border: 1px solid gray; padding: 5px;">MyPBXC(SPX)</div>

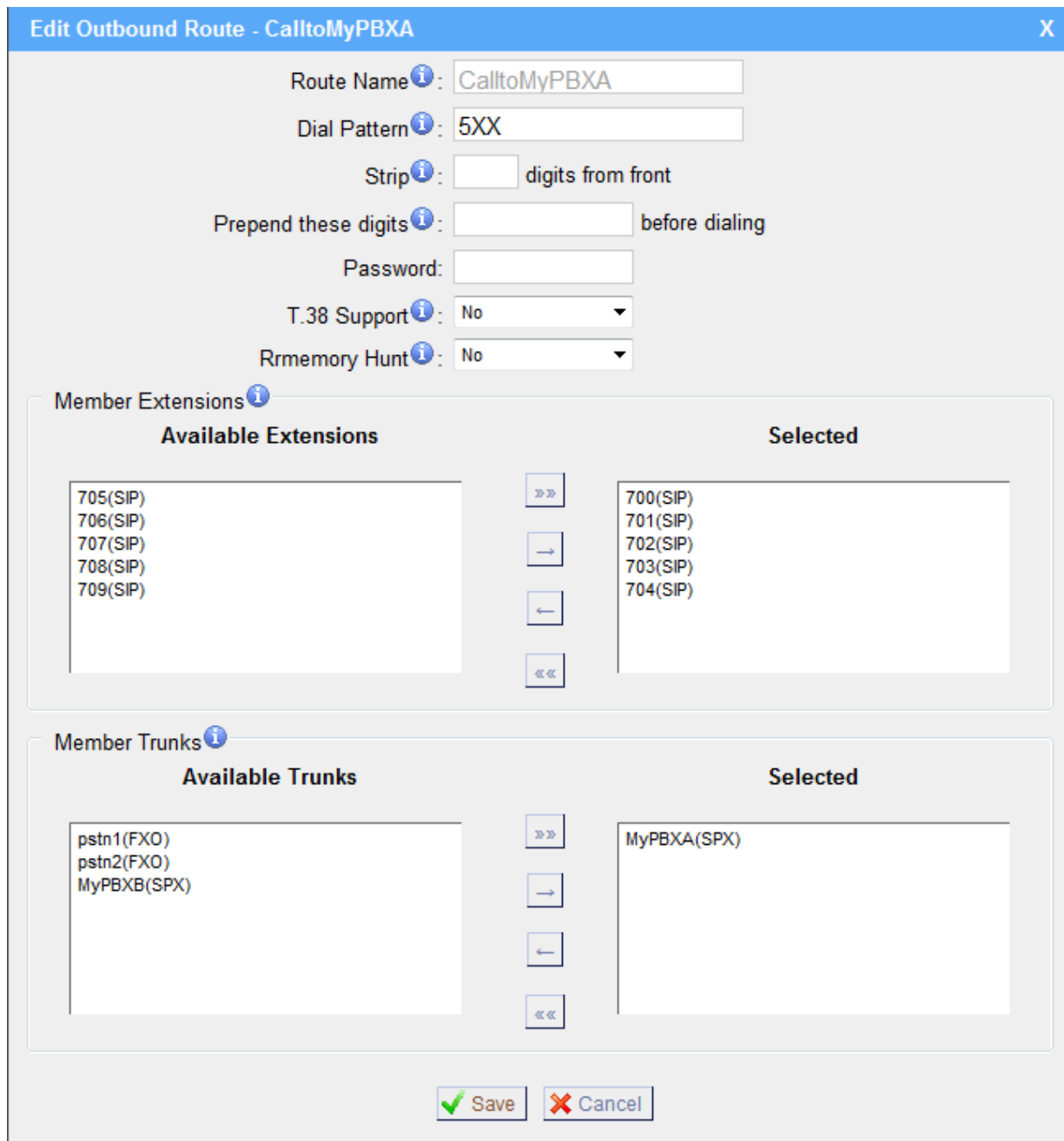
Figure 2-30

Save and Apply the Changes.



**Step 9:** Set up two Outbound Routes in **MyPBX C**. All calls start with 5 and 3 digits will be sent to MyPBX A, and all calls start with 6 and 3 digits will be sent to MyPBX B. This is the way to route MyPBX C's call to MyPBX A and MyPBX B.

In the page: Outbound Routes -> Add Outbound Route.



**Edit Outbound Route - CalltoMyPBXA**

Route Name: CalltoMyPBXA

Dial Pattern: 5XX

Strip: digits from front

Prepend these digits: before dialing

Password:

T.38 Support: No

Rrmemory Hunt: No

**Member Extensions**

Available Extensions	Selected
705(SIP) 706(SIP) 707(SIP) 708(SIP) 709(SIP)	700(SIP) 701(SIP) 702(SIP) 703(SIP) 704(SIP)

**Member Trunks**

Available Trunks	Selected
pstn1(FXO) pstn2(FXO) MyPBXB(SPX)	MyPBXA(SPX)

Save Cancel

Figure 2-31

### Edit Outbound Route - CalltoMyPBXB

Route Name:

Dial Pattern:

Strip:  digits from front

Prepend these digits:  before dialing

Password:

T.38 Support:

Rmemory Hunt:

**Member Extensions**

Available Extensions		Selected
705(SIP) 706(SIP) 707(SIP) 708(SIP) 709(SIP)	»» → ← ««	700(SIP) 701(SIP) 702(SIP) 703(SIP) 704(SIP)

**Member Trunks**

Available Trunks		Selected
pstn1(FXO) pstn2(FXO) MyPBXA(SPX)	»» → ← ««	MyPBXB(SPX)

Figure 2-32

Save and Apply the Changes.

**Note:** For IAX-Trunking mode connection, there's no need to create inbound routes for MyPBXs, the outbound routes for each MyPBX are enough.

**Step 10:** Test calls.

- 1) Register an IP phone T28 to MyPBX A with extension 501.
- 2) Register an IP phone T28 to MyPBX B with extension 601.
- 3) Register an IP phone T28 to MyPBX C with extension 701.
- 4) Test calls from MyPBX A to MyPBX B and MyPBX C : Use 501 to dial 601, then you can see 601 is ringing and you can answer the calls; Use 501 to dial 701, then you can see 701 is ringing and you can answer the calls.
- 5) Test calls from MyPBX B to MyPBX A and MyPBX C : Use 601 to dial 501, then you can see 501 is ringing and you can answer the calls; Use 601 to dial 701, then you can see 701 is ringing and you can answer the calls.
- 6) Test calls from MyPBX C to MyPBX A and MyPBX B : Use 701 to dial 501, then you can see 501 is ringing and you can answer the calls; Use 701 to dial 601, then you can see 601 is ringing and you can answer the calls.

<The End>