

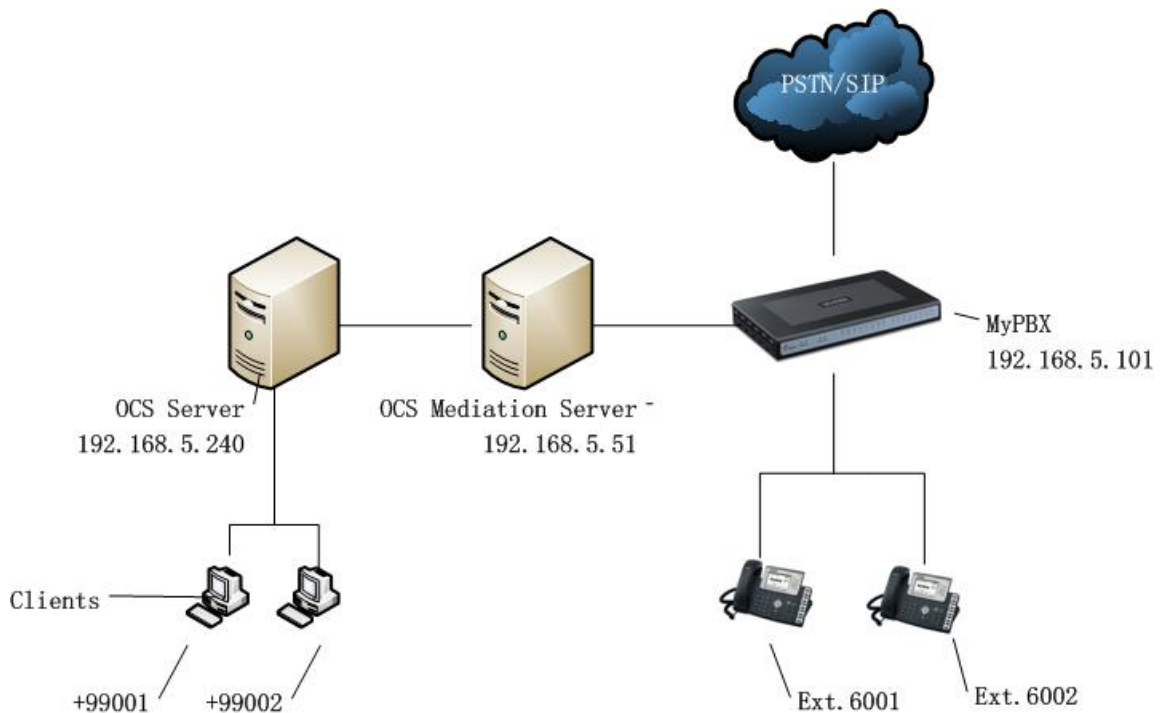
# The Integration of Lync Server/OCS 2007 and MyPBX

1. Introduction .....	2
2. The Configuration of OCS.....	3
2.1 The Configuration of OCS Global Properties and Voice Properties.....	3
2.2 The Configuration of OCS Front End Properties .....	11
2.3 The Configuration of OCS Mediation Server .....	13
2.4 The Configuration of OCS User.....	15
3. The Configuration of MyPBX .....	16
4. Test.....	20
4.1 OC Users Call MyPBX's Extensions and Use Outbound Routes .....	20
4.2 MyPBX Extensions Call OC User .....	20
4.3 Inbound Call to OC User.....	20

# 1. Introduction

This is the guide to the integration of Microsoft Office Communication Server and MyPBX. It will offer the connection between Office Communicator users (OC users) and MyPBX so that the users can have access to the extensions, inbound or outbound routes of MyPBX.

## Flowchart:



P 1-1

**OCS server: 192.168.5.240**

**OCS Mediation Server: 192.168.5.51**

**MyPBX: 192.168.5.101**

**MyPBX Extension numbers: "6001" to "6099"**

**Office Communicator user virtual number: "+99001" to "+99099"**

**After the configuration,**

1. The OC user can call the extension of MyPBX by dialing "6001" to "6099".
2. MyPBX's extension can call the OC user by dialing "99001" to "99009".
3. If the dial pattern of the outbound route of MyPBX is "9." and the OC user want to call PSTN number "5503309", the OC user should dial "95503309" to call out.
4. PSTN inbound calls can get into a DISA and then go to the OC users.

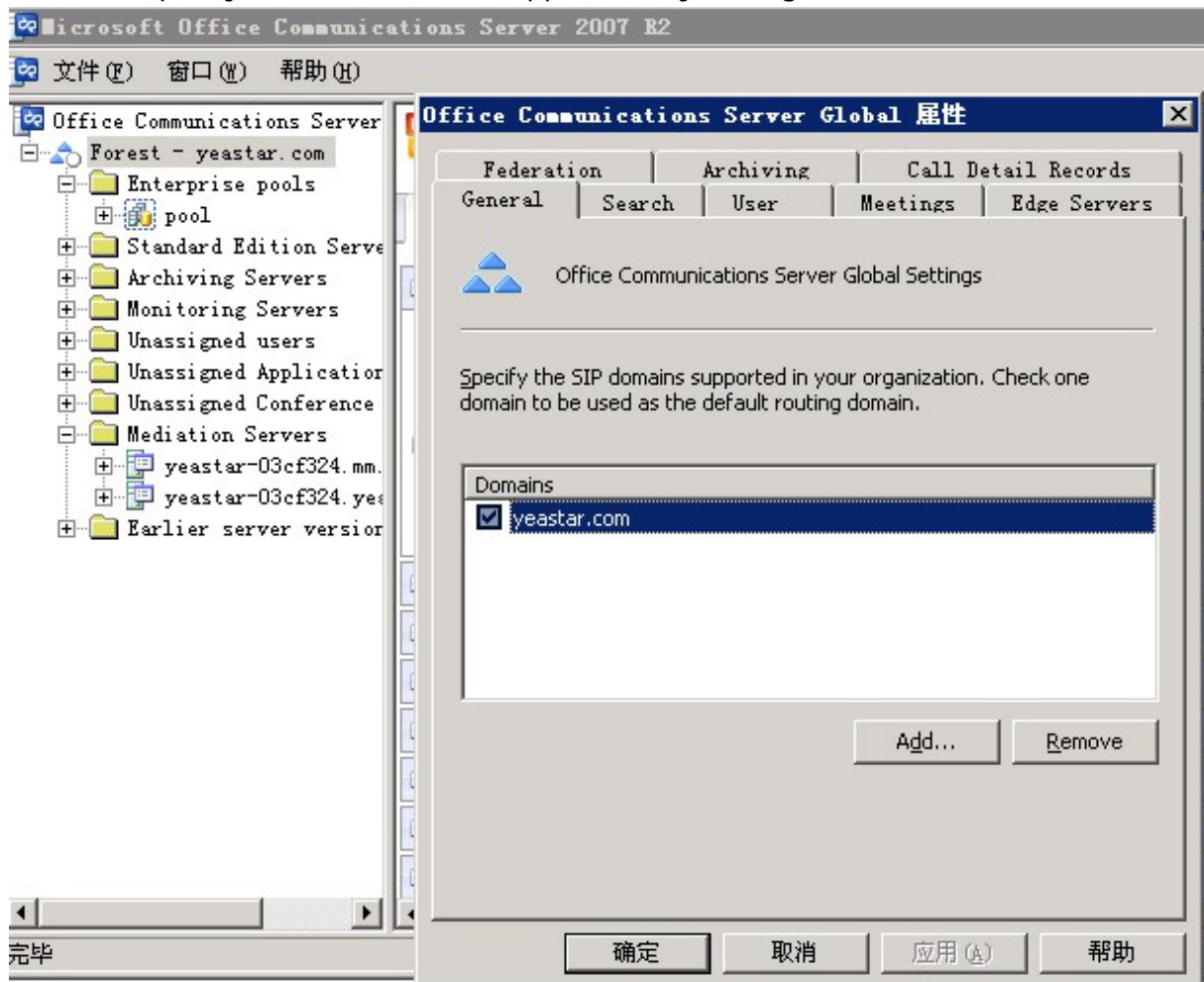
## 2. The Configuration of OCS

After the deployment of OCS server and OCS mediation server, follow the steps.

### 2.1 The Configuration of OCS Global Properties and Voice Properties

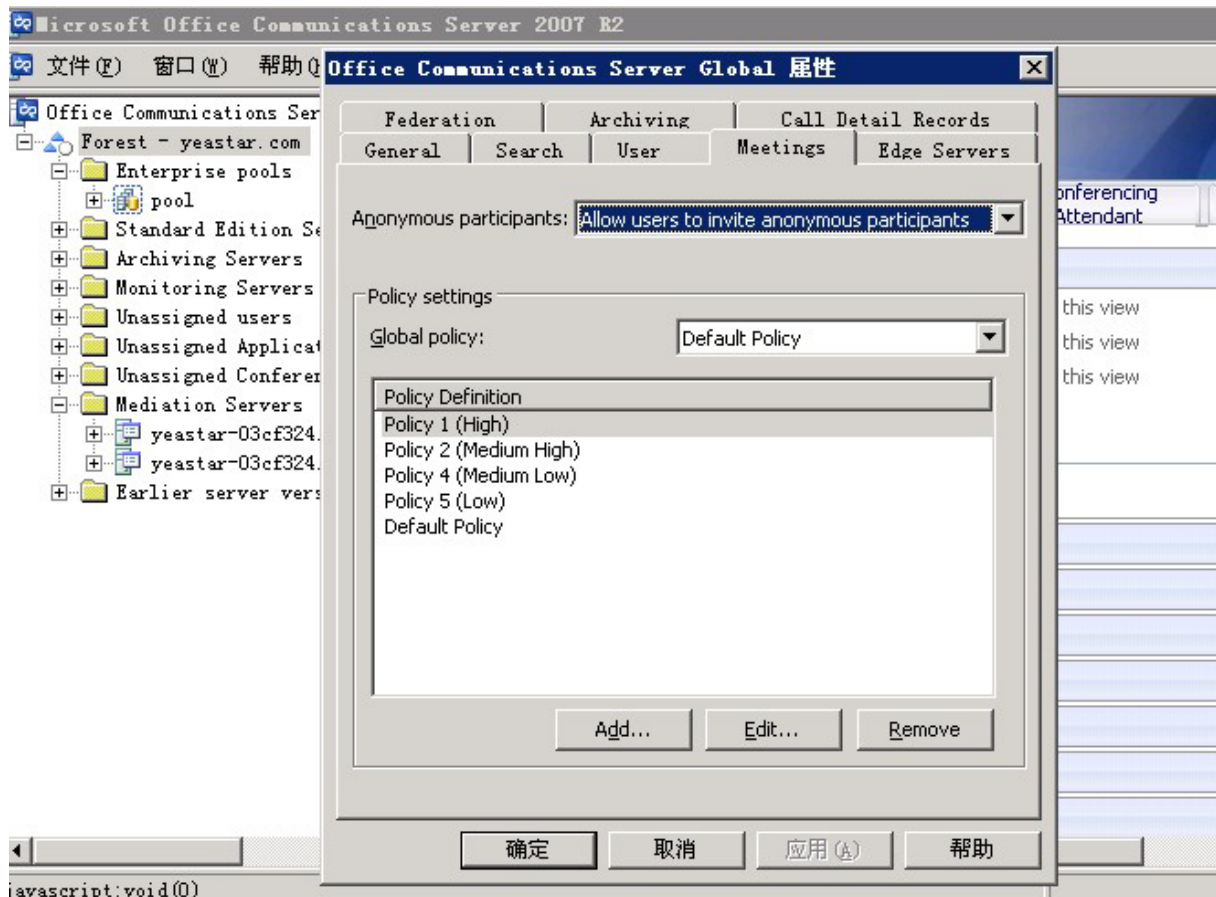
**Step 1:** Right click Forest – Properties – Global Properties

General- Specify the SIP Domains supported in your organization.



P 2-1-1

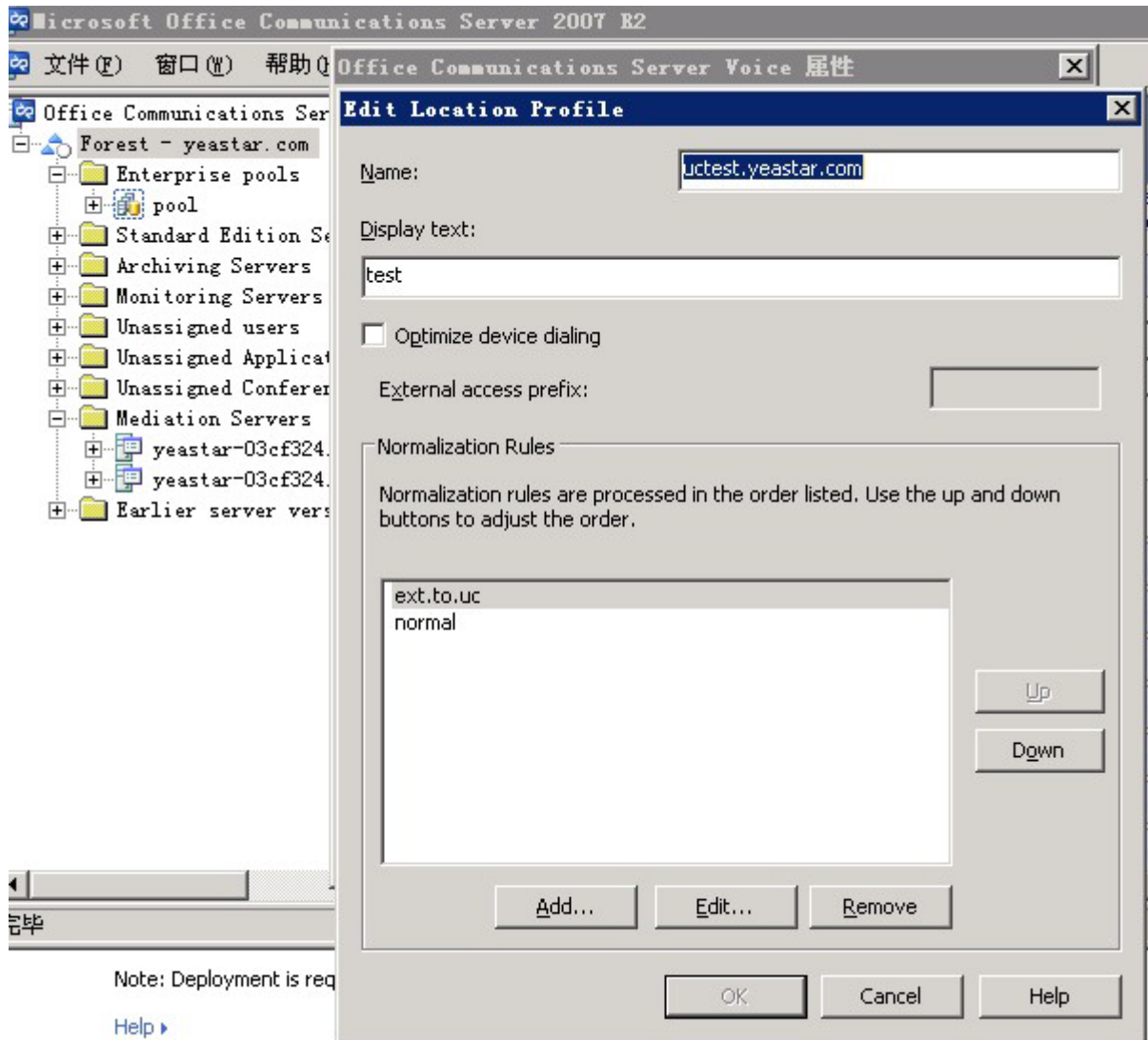
## Step 2: Meetings



P 2-1-2

**Step 3 Left click** Forest- Properties- Voice Properties

Location Profiles – Add.../Edit...



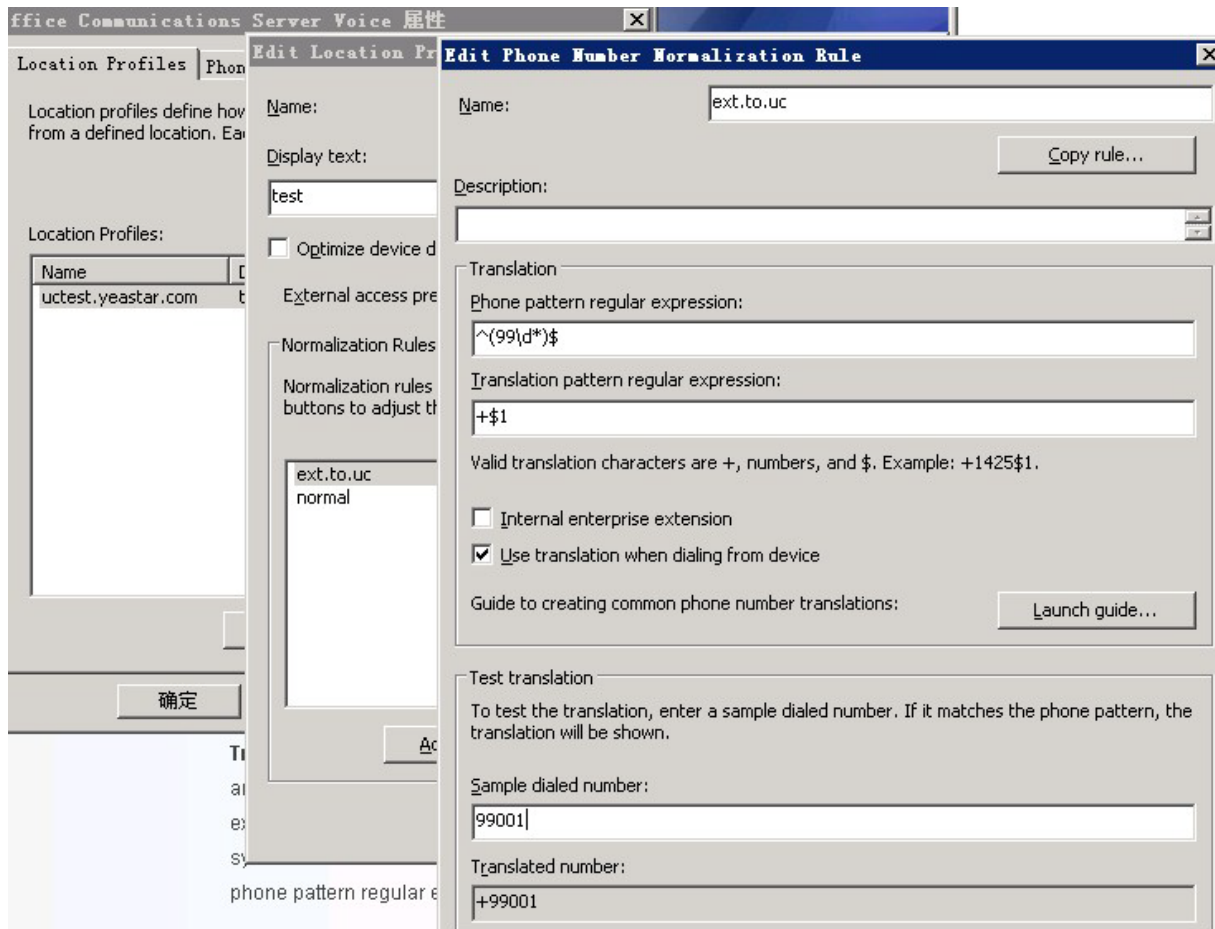
P 2-1-3

Edit Phone Number Normalization Rule

Detail on:

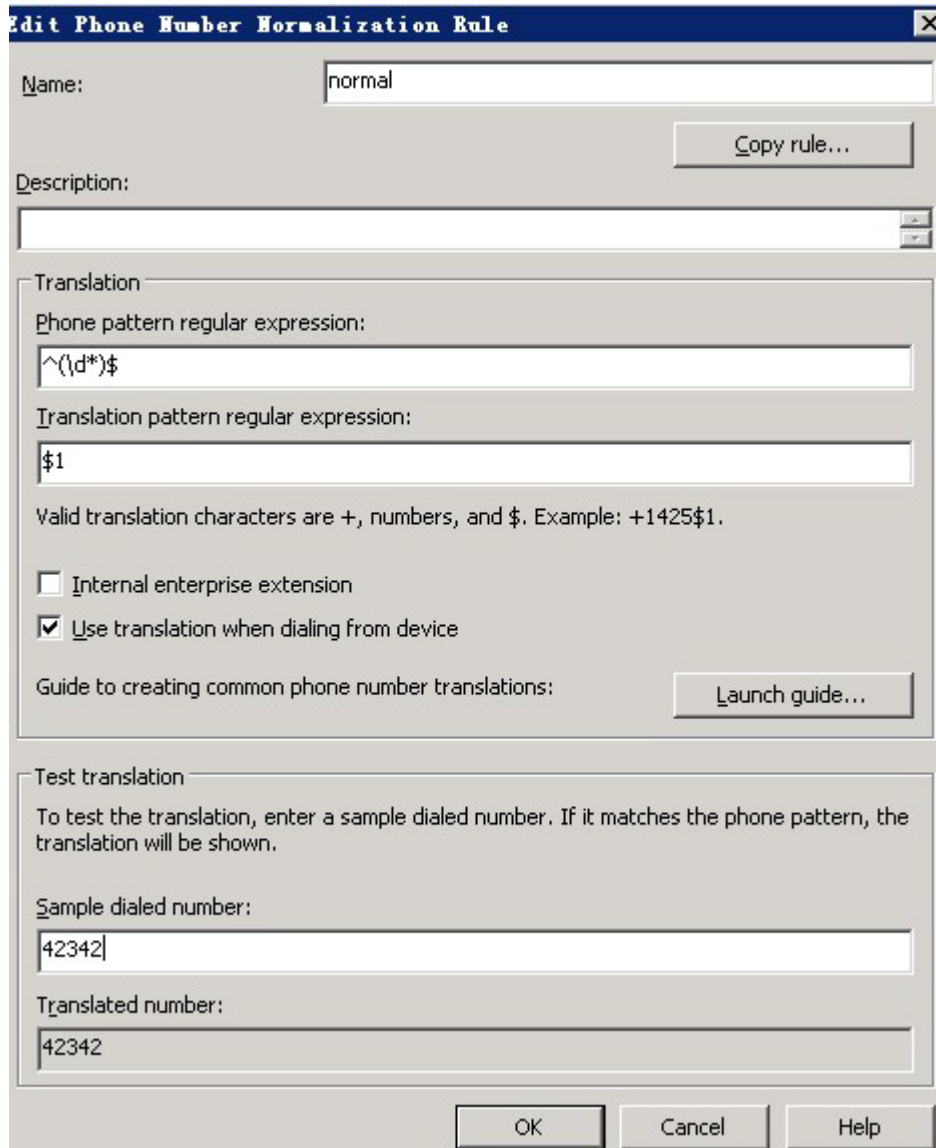
<http://office.microsoft.com/en-us/help/phone-number-normalization-rule-regular-expressions-HP010290159.aspx>

The setting below means when you dial a number starts with "99", the system will dial a number starts with "+99" (If you want to call the OC user's virtual number, "+" is necessary) .



P 2-1-4

The setting below means when dialing a normal number, it doesn't change the number itself.



**Edit Phone Number Normalization Rule**

Name:

Description:

Translation

Phone pattern regular expression:

Translation pattern regular expression:

Valid translation characters are +, numbers, and \$. Example: +1425\$1.

Internal enterprise extension

Use translation when dialing from device

Guide to creating common phone number translations:

Test translation

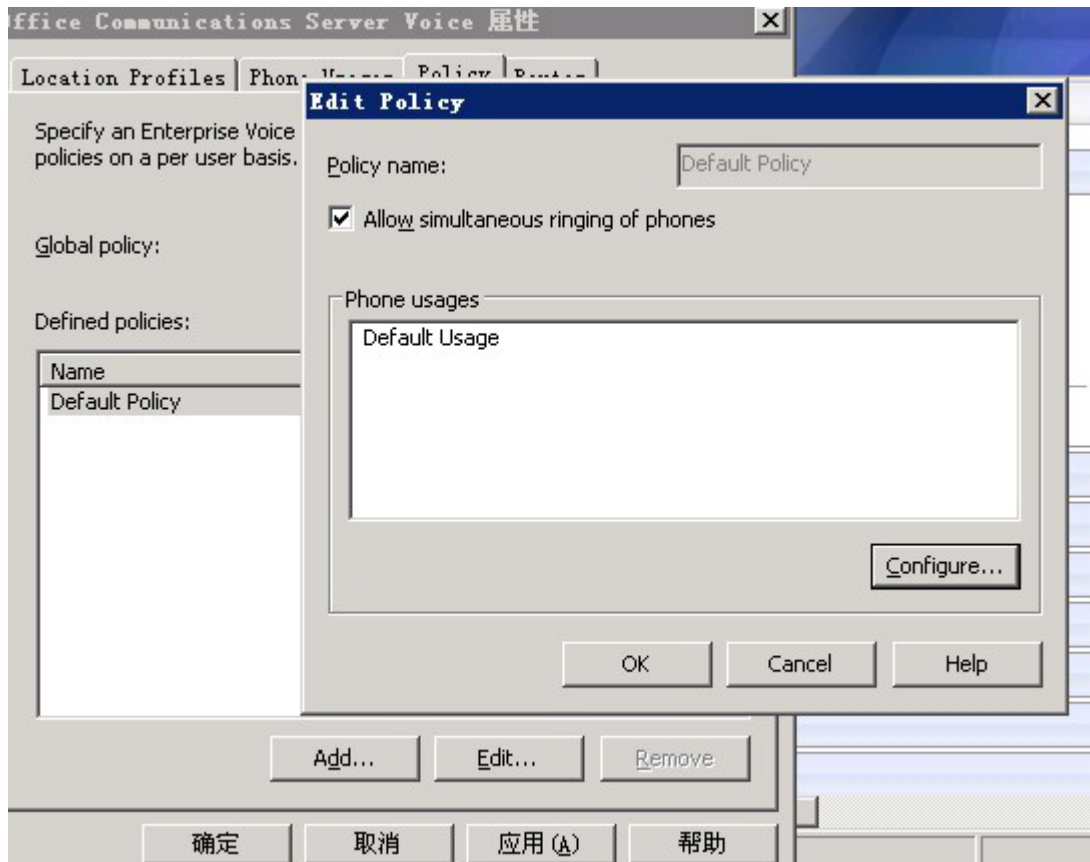
To test the translation, enter a sample dialed number. If it matches the phone pattern, the translation will be shown.

Sample dialed number:

Translated number:

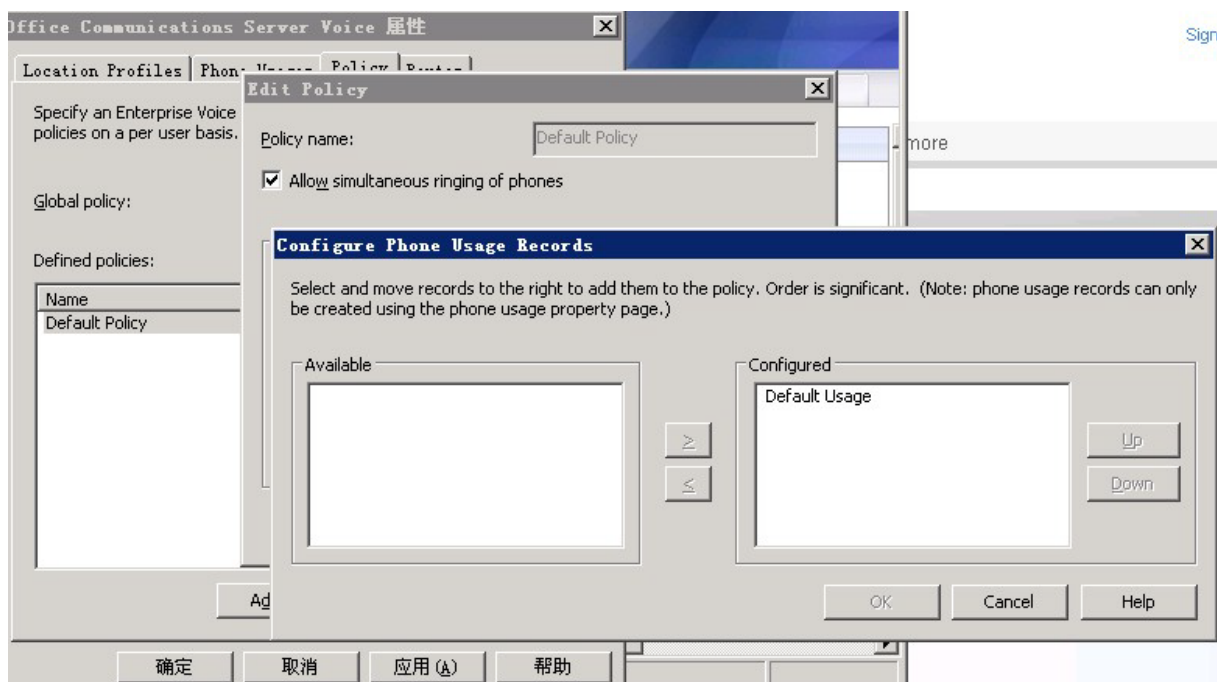
P 2-1-5

**Step 4: Policy – Edit - Configure**



P 2-1-6

**Configure**

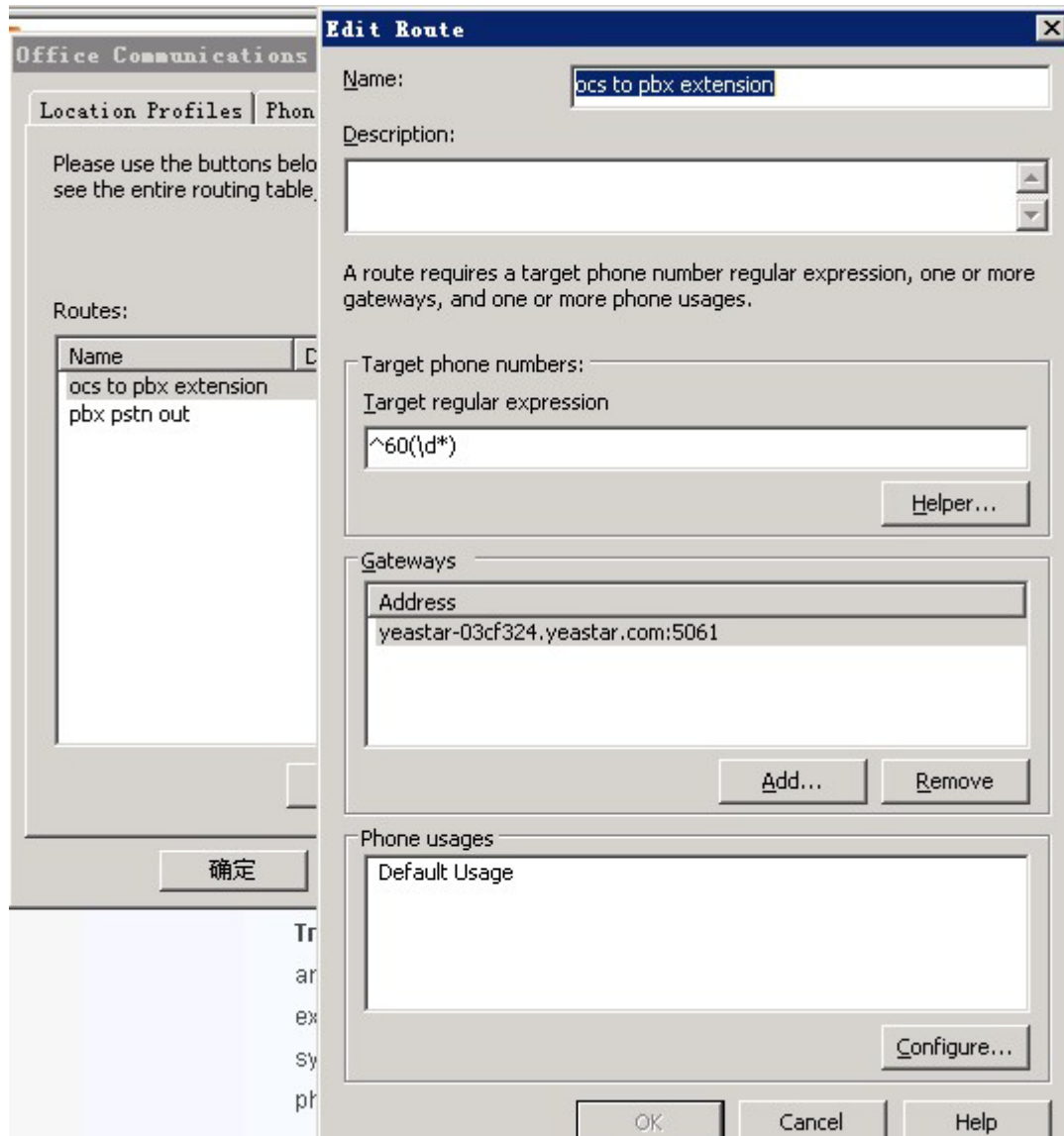


P 2-1-7



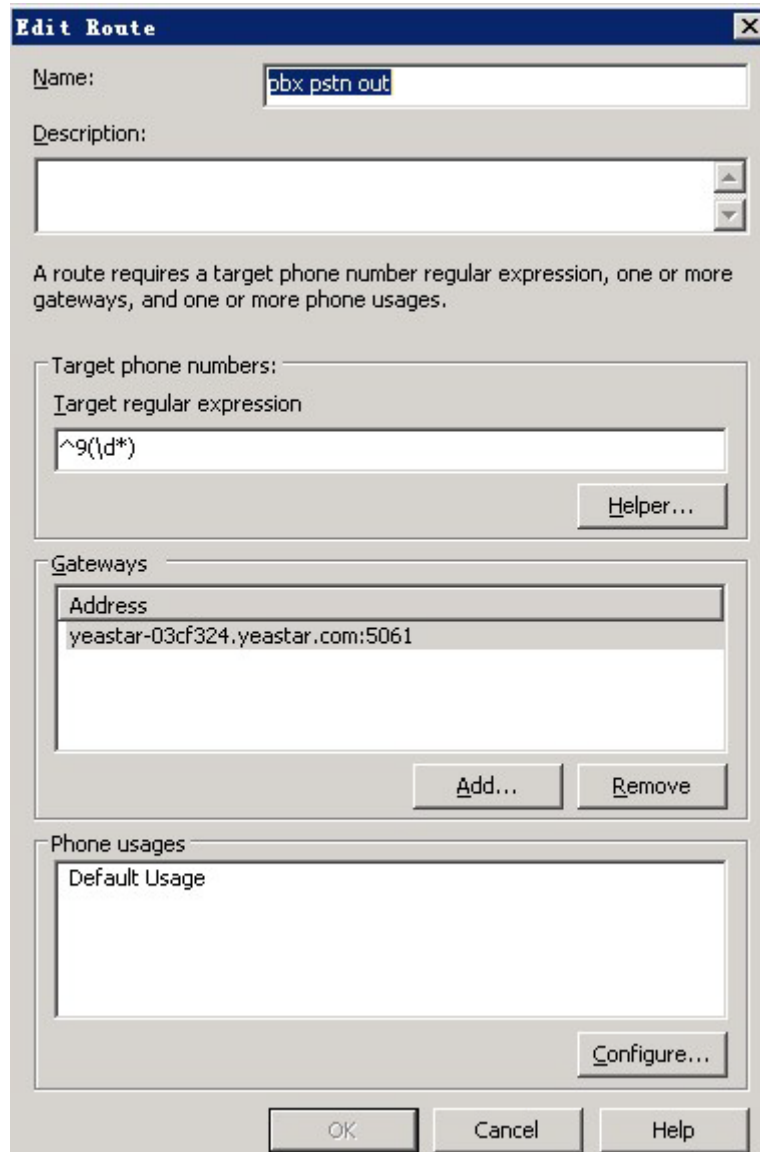
**Step 5: Routes- Add/Edit**

The calls will use this route according to the Target Regular Expression. In this case, if users want to connect to MyPBX (call the extensions or use the outbound routes), the calls will use the route. Choose the OCS Mediation Server as the Gateway. This setting means if the number starts with "60" (This setting is for you to call a MyPBX's extension. MyPBX's Extension numbers start with "60"), the call will use this route.



P 2-1-8

The setting below means when the number you dial start with "9" (This setting is for you to use the outbound route of MyPBX. The dial pattern of MyPBX's outbound route is "9."), the call will use this route.



**Edit Route**

Name:

Description:

A route requires a target phone number regular expression, one or more gateways, and one or more phone usages.

Target phone numbers:

Target regular expression:  [Helper...](#)

Gateways

Address
yeastar-03cf324.yeastar.com:5061

[Add...](#) [Remove](#)

Phone usages

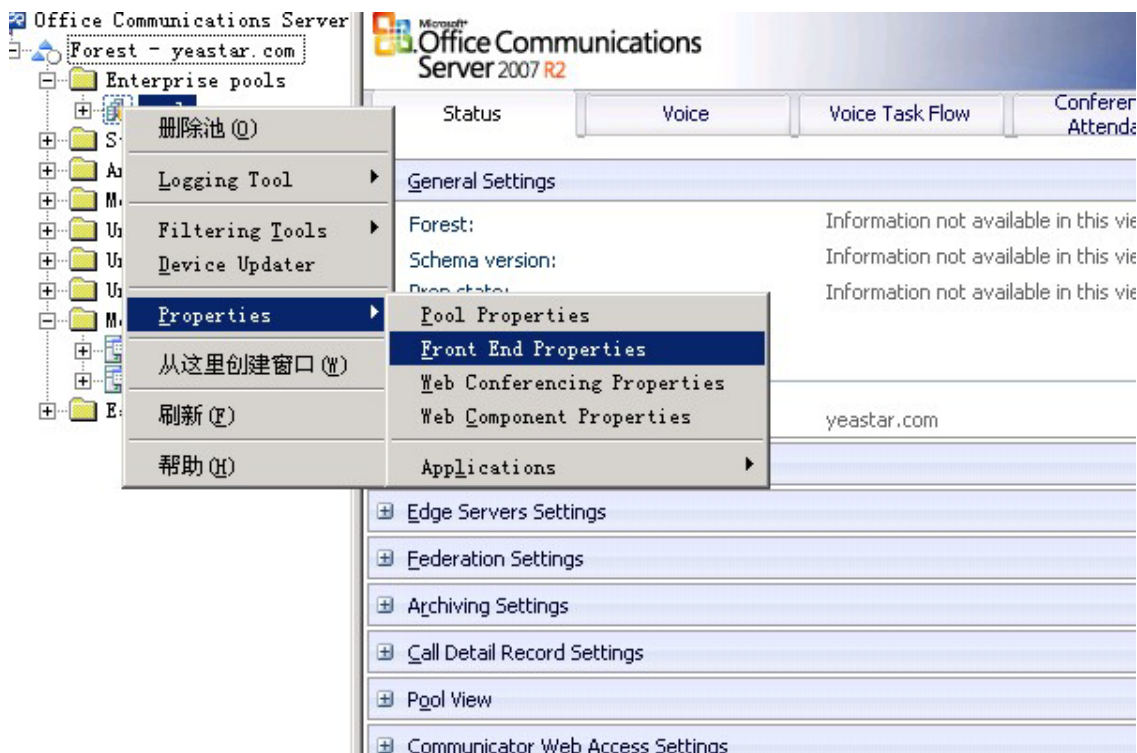
Default Usage

[Configure...](#)

[OK](#) [Cancel](#) [Help](#)

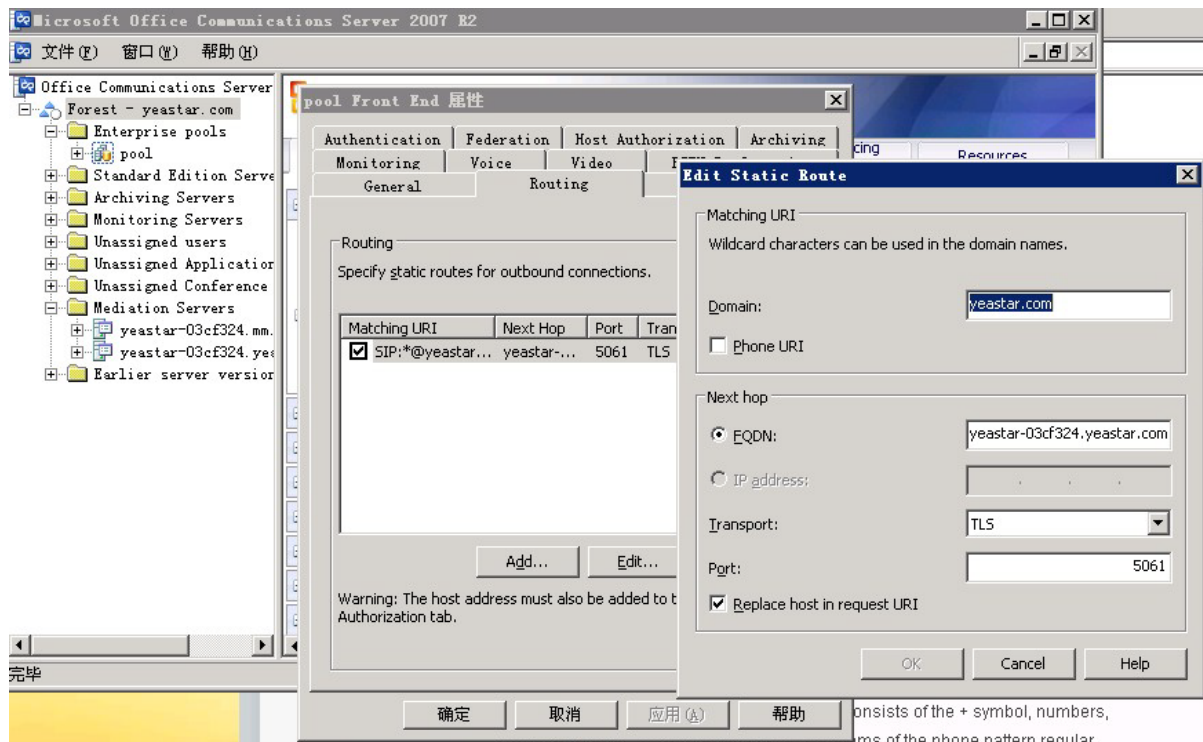
P 2-1-9

## 2.2 The Configuration of OCS Front End Properties

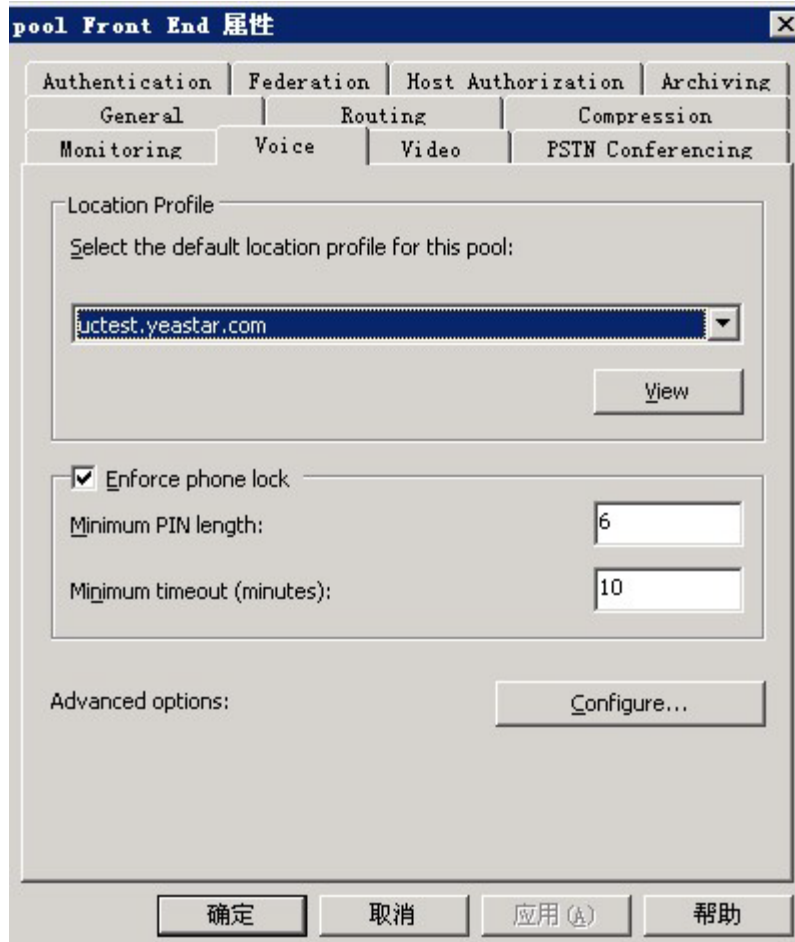


P 2-2-1

**Step 1:** Routing -Add/Add (Next Hop FQDN should be the OCS Mediation Server, this setting will connect the OCS server with OCS mediation server)



P 2-2-2

**Step 2: Voice**

**pool Front End 属性**

Authentication | Federation | Host Authorization | Archiving

General | Routing | Compression

Monitoring | **Voice** | Video | PSTN Conferencing

Location Profile  
Select the default location profile for this pool:

tctest.yeastar.com

View

Enforce phone lock

Minimum PIN length: 6

Minimum timeout (minutes): 10

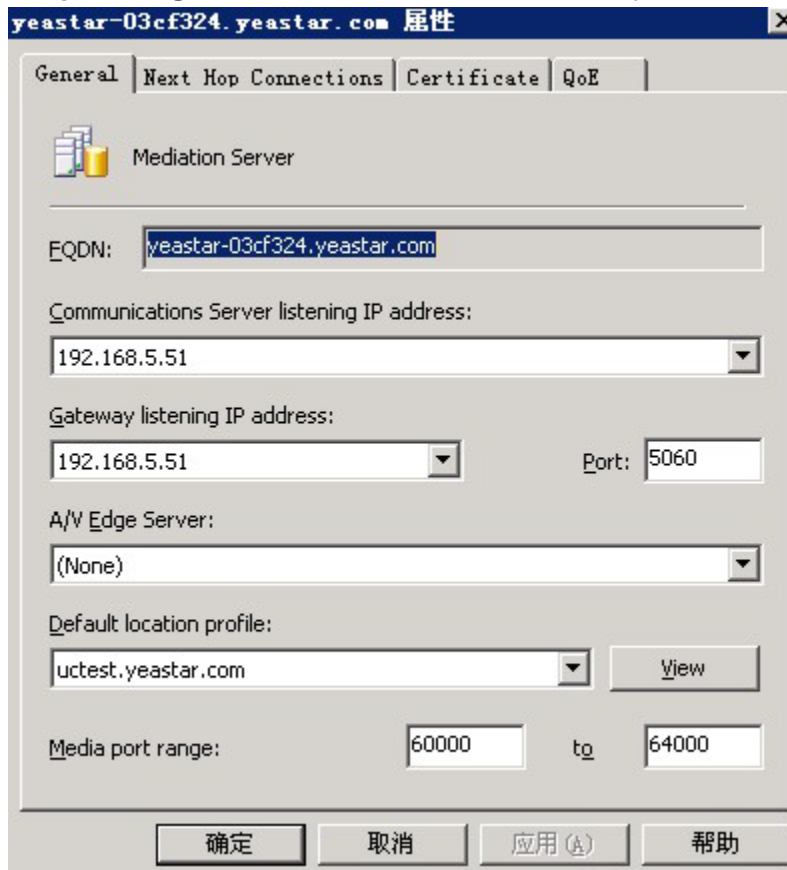
Advanced options: Configure...

确定 取消 应用 (A) 帮助

P 2-2-3

## 2.3 The Configuration of OCS Mediation Server

### Step 1: Right Click Mediation Server - Properties



yeastar-03cf324.yeastar.com 属性

General | Next Hop Connections | Certificate | QoS

Mediation Server

EQDN: yeastar-03cf324.yeastar.com

Communications Server listening IP address:  
192.168.5.51

Gateway listening IP address:  
192.168.5.51 Port: 5060

A/V Edge Server:  
(None)

Default location profile:  
uctest.yeastar.com view

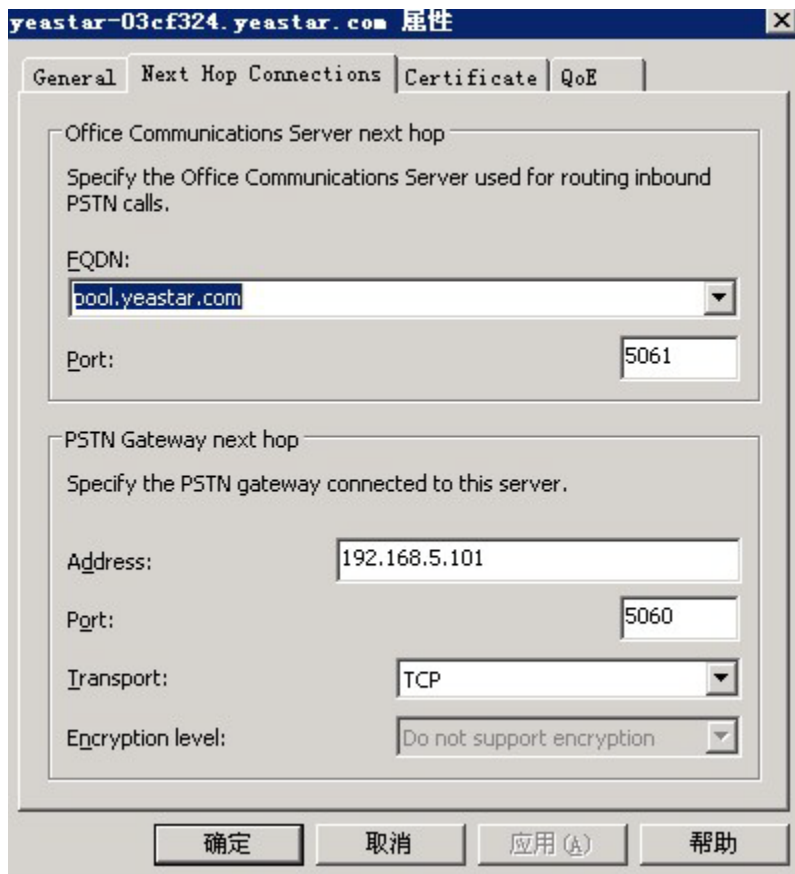
Media port range: 60000 to 64000

确定 取消 应用(A) 帮助

P 2-3-1

**Step2** : Next Hop Connections

Office Communications Server next hop will be the OCS server. PSTN Gateway next hop will be MyPBX (192.168.5.101). (This setting will create 2 connections. One is between OCS Mediation server and OCS server, the other is between OCS Mediation server and MyPBX)



yeastar-03cf324.yeastar.com 属性

General Next Hop Connections Certificate QoS

Office Communications Server next hop

Specify the Office Communications Server used for routing inbound PSTN calls.

EQDN:  
pool.yeastar.com

Port: 5061

PSTN Gateway next hop

Specify the PSTN gateway connected to this server.

Address: 192.168.5.101

Port: 5060

Transport: TCP

Encryption level: Do not support encryption

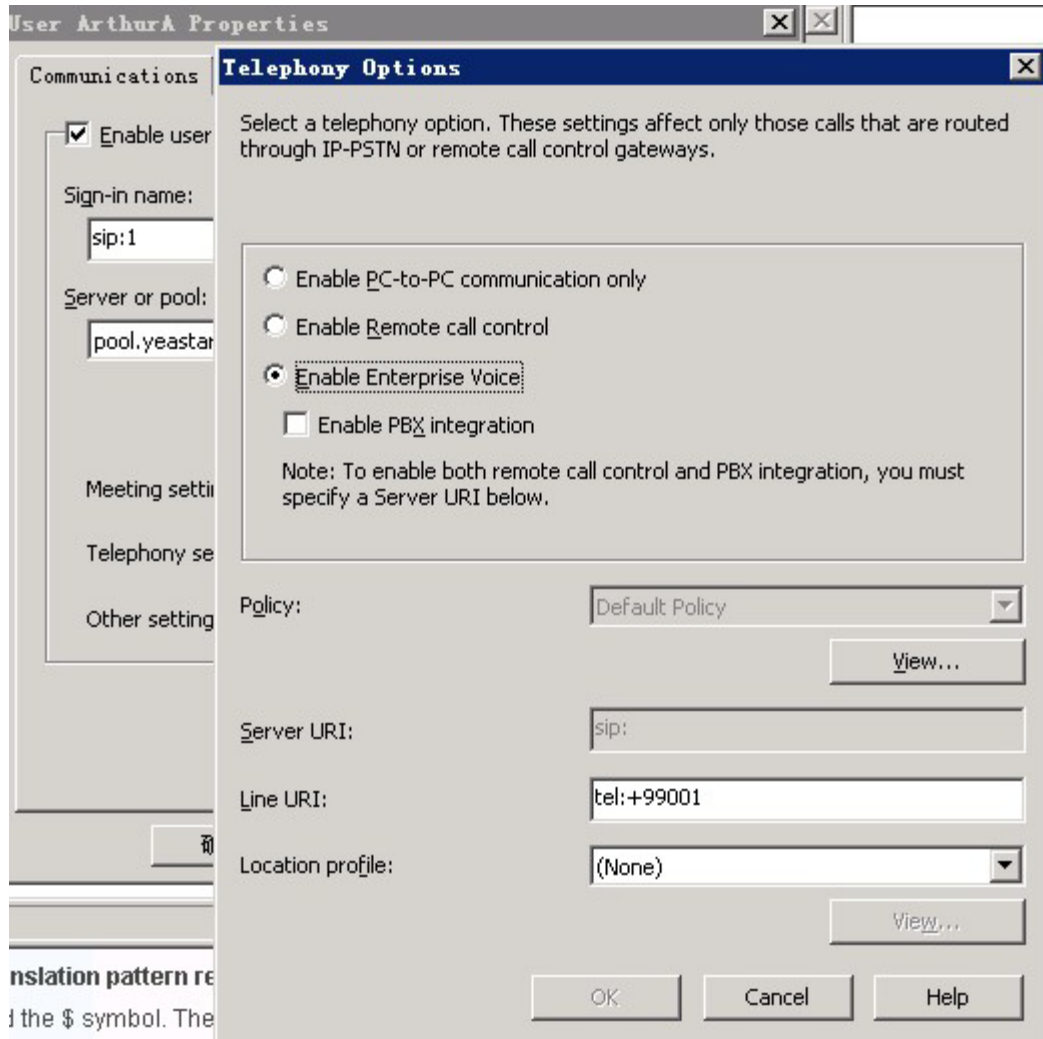
确定 取消 应用 (A) 帮助

P 2-3-2

## 2.4 The Configuration of OCS User

**Right click** one of the Users – Telephony Setting

“tel: +99001” means the virtual number of this OC user is “+99001”.



**User ArthurA Properties**

**Telephony Options**

Select a telephony option. These settings affect only those calls that are routed through IP-PSTN or remote call control gateways.

Enable user

Sign-in name:

Server or pool:

Meeting settings

Telephony settings

Other settings

Enable PC-to-PC communication only

Enable Remote call control

Enable Enterprise Voice

Enable PBX integration

Note: To enable both remote call control and PBX integration, you must specify a Server URI below.

Policy:

Server URI:

Line URI:

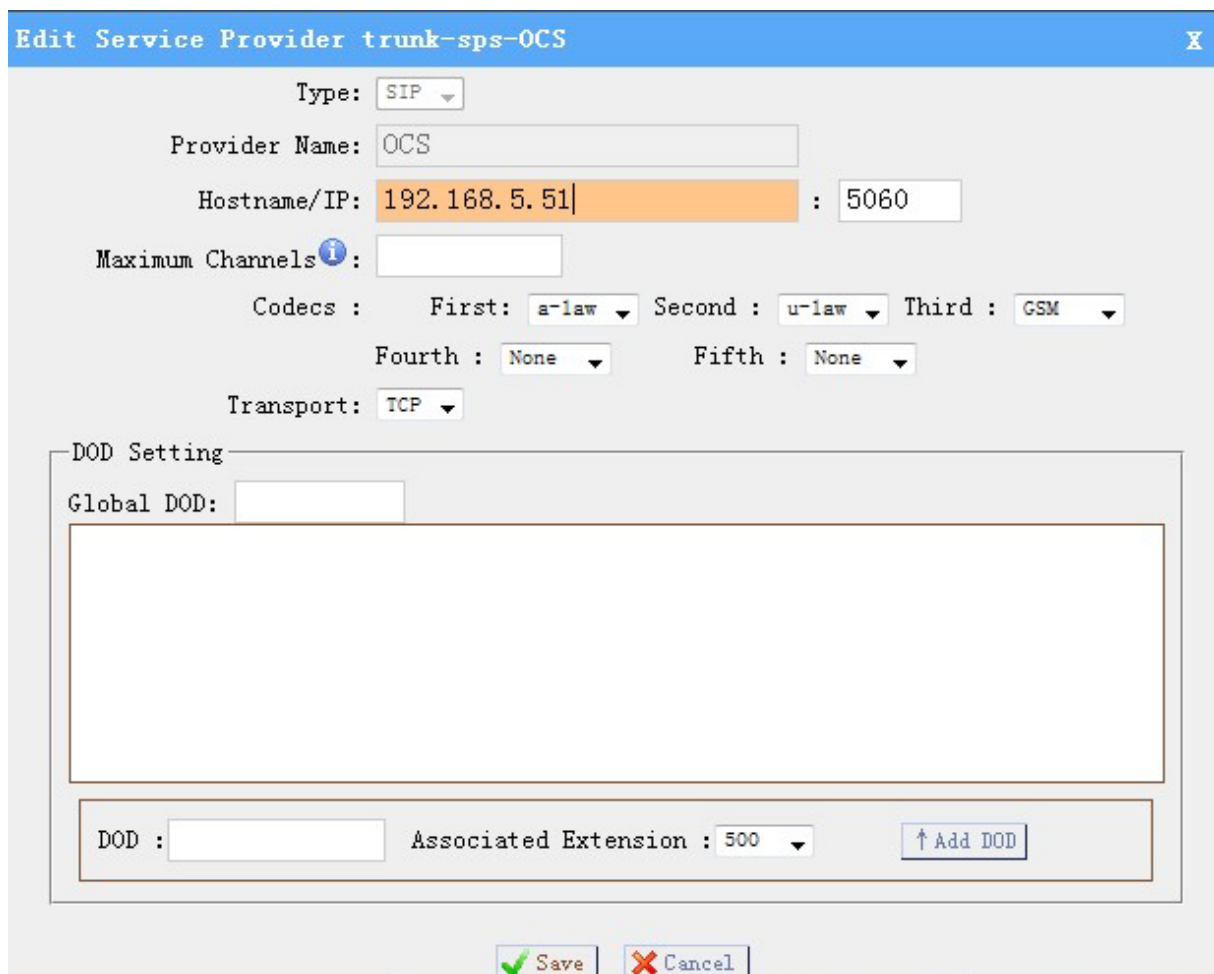
Location profile:

P 2-3-3

### 3. The Configuration of MyPBX

#### Step 1: Create the Connection between OCS and MyPBX

Basic – Trunk - New Service Provider



**Edit Service Provider trunk-sps-OCS**

Type:

Provider Name:

Hostname/IP:  :

Maximum Channels <sup>i</sup>:

Codecs : First:  Second :  Third :

Fourth :  Fifth :

Transport:

DOD Setting

Global DOD:

DOD	Associated Extension
<input type="text"/>	<input type="text" value="500"/>

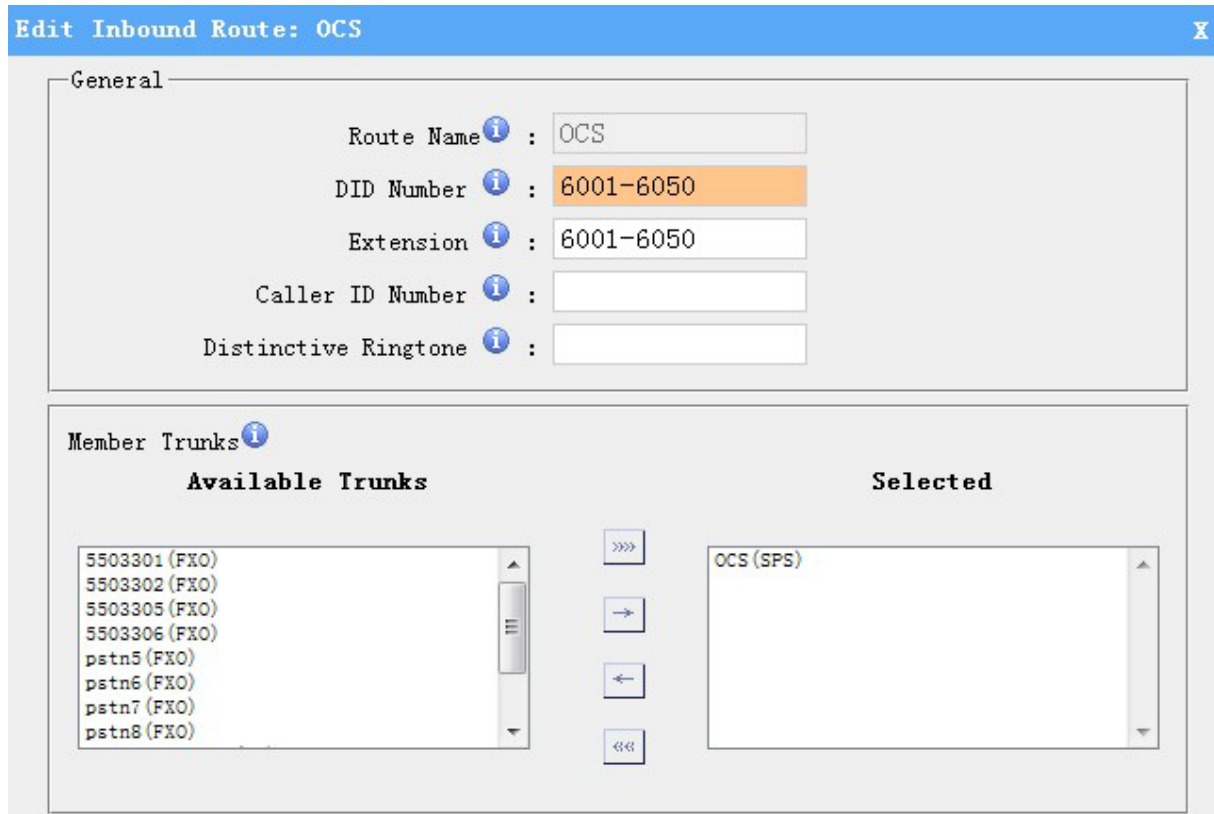
P 3-1



## Step 2: Configure OC Users to Call MyPBX's Extensions

Inbound Route- New Inbound Route

This setting means when UC users dial 6001 to 6050, they will call the MyPBX's Extensions 6001 to 6050.



**Edit Inbound Route: OCS**

**General**

Route Name *i* : OCS

DID Number *i* : 6001-6050

Extension *i* : 6001-6050

Caller ID Number *i* :

Distinctive Ringtone *i* :

**Member Trunks *i***

Available Trunks		Selected
5503301 (FXO)	>>>	OCS (SPS)
5503302 (FXO)	→	
5503305 (FXO)	←	
5503306 (FXO)	<<<	
pstn5 (FXO)		
pstn6 (FXO)		
pstn7 (FXO)		
pstn8 (FXO)		

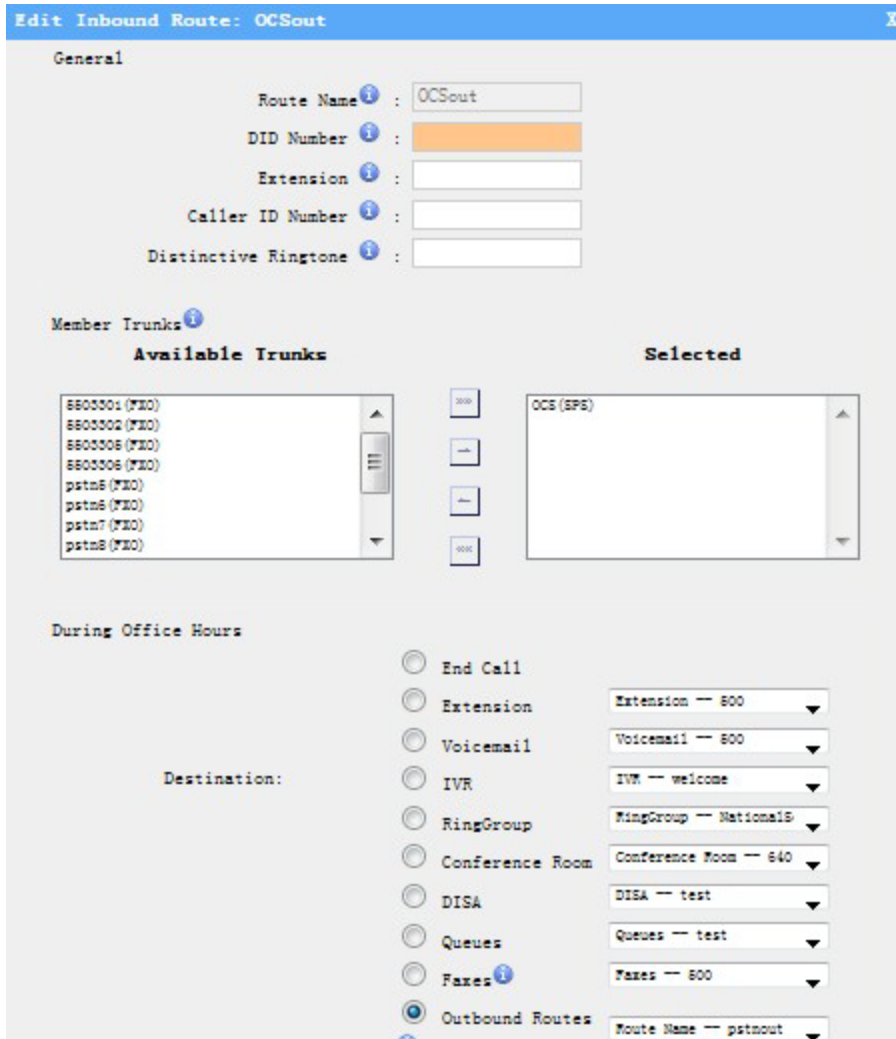
P 3-2

Detail test in [chapter 4.1](#).

### Step 3: Configure OC Users to Use the Outbound of MyPBX

Inbound Route - New Inbound Route

This setting means the calls from OCS will go directly to the outbound route. You can have a try on other settings such as IVR or DISA.



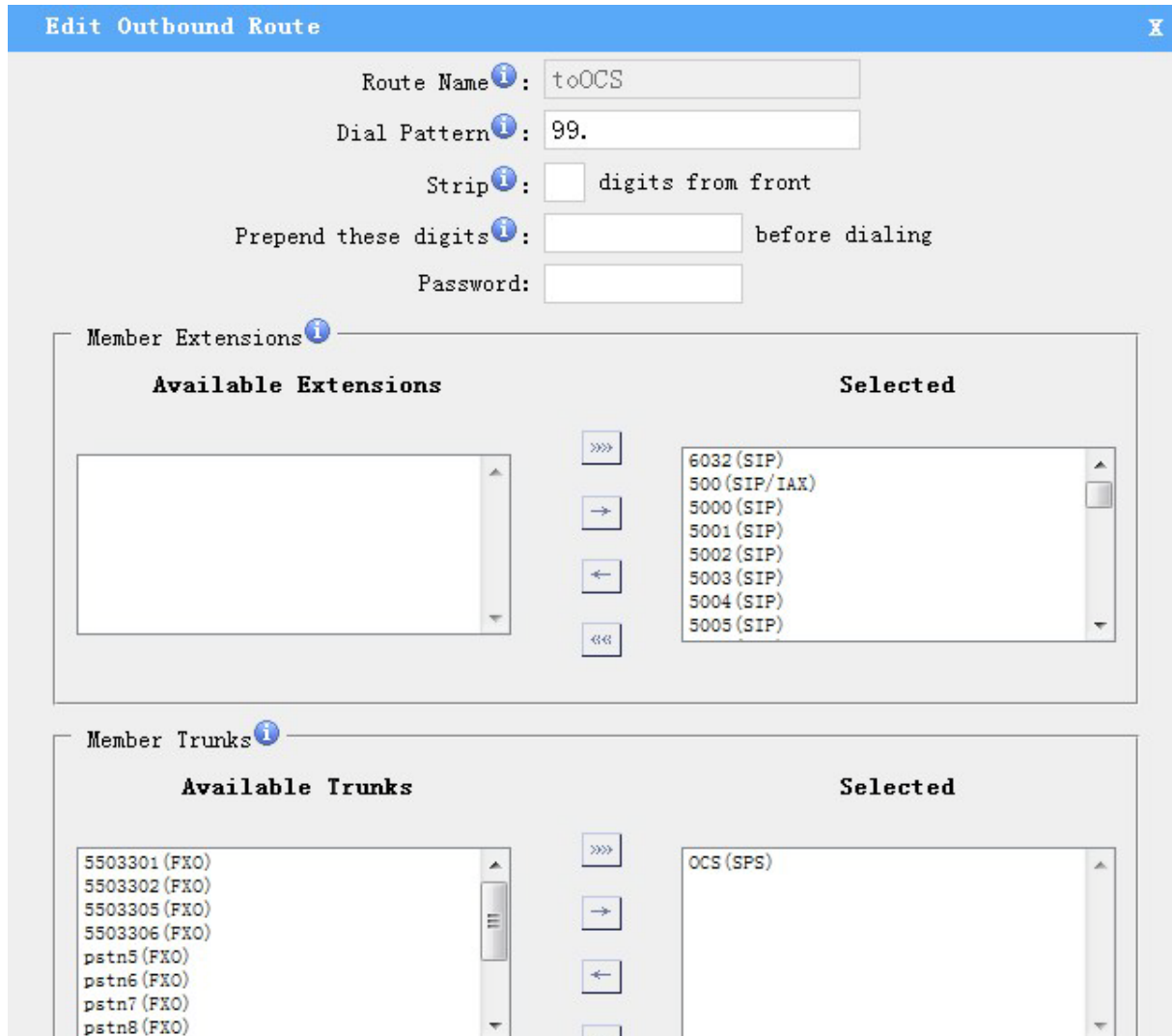
P 3-3

Detail test in [chapter 4.1](#).

## Step 4: Configure MyPBX's Extensions to Call OC User

Outbound Route - New Outbound Route

This Setting means when the extensions dial the number starts with "99", this call will go to the OCS Server.



**Edit Outbound Route**

Route Name *i*: toOCS

Dial Pattern *i*: 99.

Strip *i*:  digits from front

Prepend these digits *i*:  before dialing

Password:

**Member Extensions *i***

Available Extensions	Selected
	6032 (SIP) 500 (SIP/IAX) 5000 (SIP) 5001 (SIP) 5002 (SIP) 5003 (SIP) 5004 (SIP) 5005 (SIP)

**Member Trunks *i***

Available Trunks	Selected
5503301 (FXO) 5503302 (FXO) 5503305 (FXO) 5503306 (FXO) pstn5 (FXO) pstn6 (FXO) pstn7 (FXO) pstn8 (FXO)	OCS (SPS)

P 3-4

Detail test in [chapter 4.2](#).

## 4. Test

### 4.1 OC Users Call MyPBX's Extensions and Use Outbound Routes

In this case, OC user dials 6001 to call ext.6001 of MyPBX.

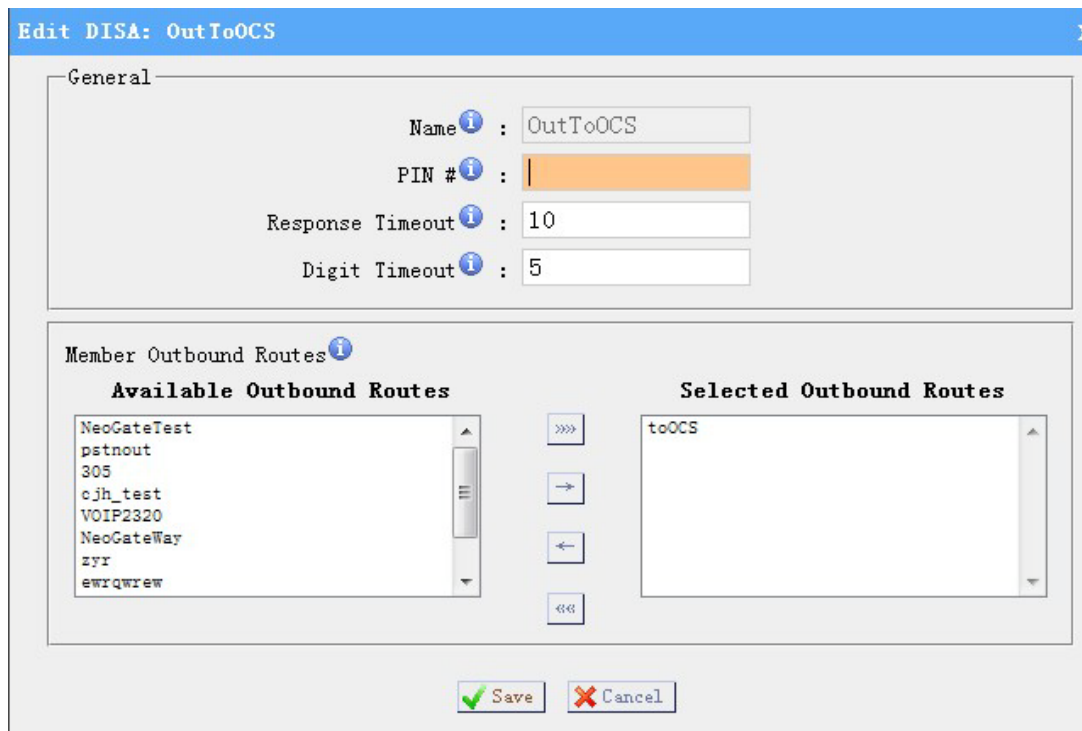
To use the outbound routes of MyPBX, the OC user should follow the setting of MyPBX. If the dial pattern of the outbound route is "9", the OC user should dial "9" before the number. E.g. 89xxxxxx (xxxxxx is the number the OC user wants to call).

### 4.2 MyPBX Extensions Call OC User

In this case, all the virtual numbers of OC users start with "99". MyPBX's extensions dial a number starts with "99" will connect to OCS. If you dial "99001", you will call the OC user whose virtual number is "+99001".

### 4.3 Inbound Call to OC User

Create a DISA, Inbound calls will go to the DISA and then the caller can dial the virtual number of OC user directly.



P 5-1

[End]