

Integration of Lync2010 and MyPBX

Version: 1.0

Yeostar Technology Co., Ltd.

CONTENTS:

1. Introduction.....	3
2. Create topology to MyPBX and publish it	3
3. Enable lync account	8
4. Voice routing in lync.....	13
5. Configurations in MyPBX.....	19
5.1 Configurations for calling between extensions	19
5.2 dialing out from Lync via the pstn trunk of MyPBX	21
5.3 dial into Lync server from outside	23

1. Introduction

Brief introduction of the Lync server installed, and the target achieved in this manual.

Brief Introduction:

This is a standard version of Lync installed in windows 2008 R2 enterprise (64bit). It requires two computers to install, one for DC and the other one for Lync. Because only TCP/TLS is supported by Lync, which doesn't match the general trunks we get like pstn/sip(udp)/BRI/GSM or others, a translator like MyPBX is needed.

Basic Information:

IP of DC: 192.168.5.221

IP of Lync: 192.168.5.222

IP of MyPBX: 192.168.5.101

FQDN: lync.server.com(Front end server, SQL and mediation pool are installed here)

Account: harryhua, extension: 128888,UPN: harryhua@server.com

extension range in MyPBX: 500-510

default TCP port: 5060 (MyPBX), 5068(Lync)

Target:

1. Making internal calls between MyPBX and Lync server by dialing extension number directly without '+ '.
2. Making outbound calls from Lync via the pstn trunk of MyPBX directly
3. Making inbound calls from PSTN trunk and then dial the number of Lync extension number after the second dial tone

2. Create topology to MyPBX and publish it

Open the topology you have got from the builder. If you haven't got one, please create and publish it successfully before adding a new gateway.

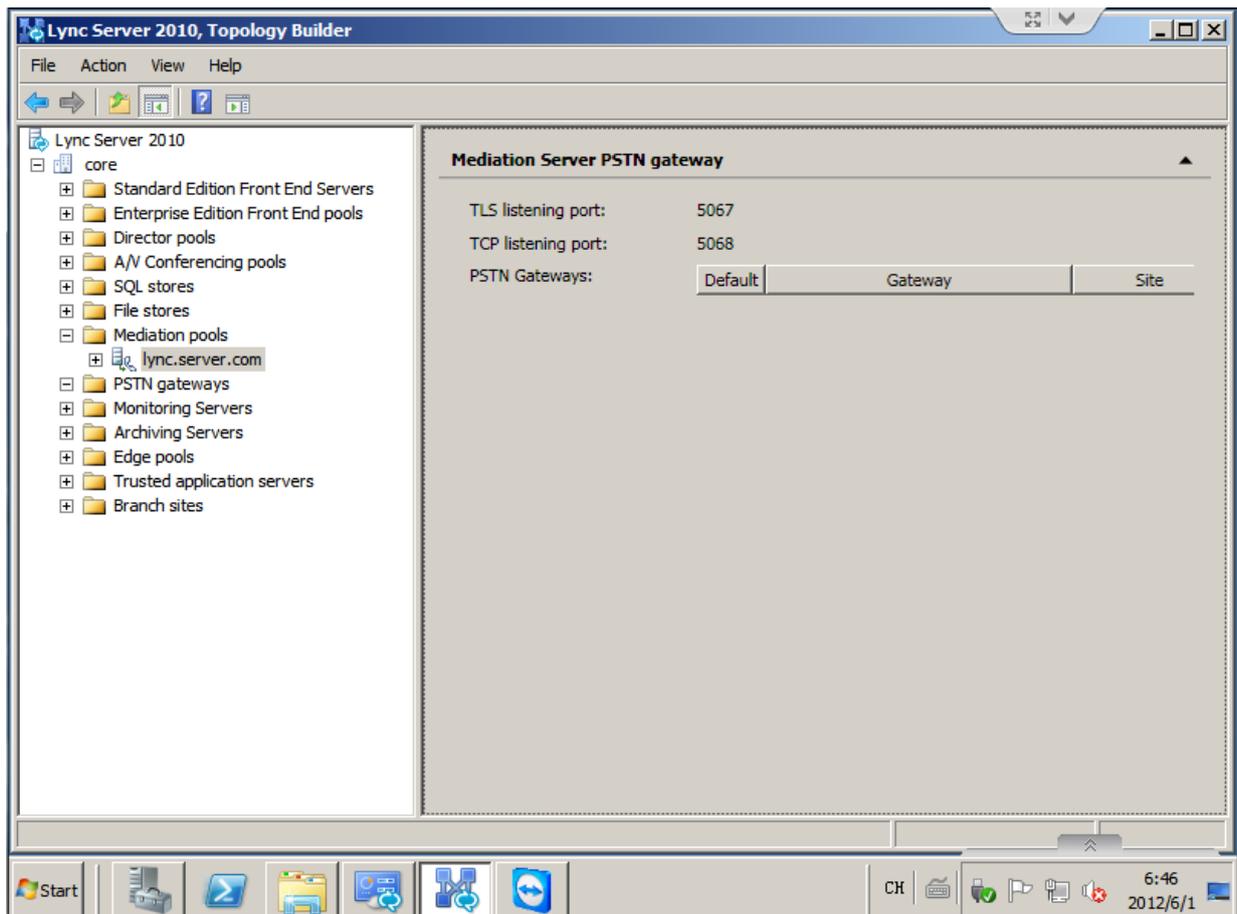


Figure 2.1

Right click ' lync.server.com' and choose edit.

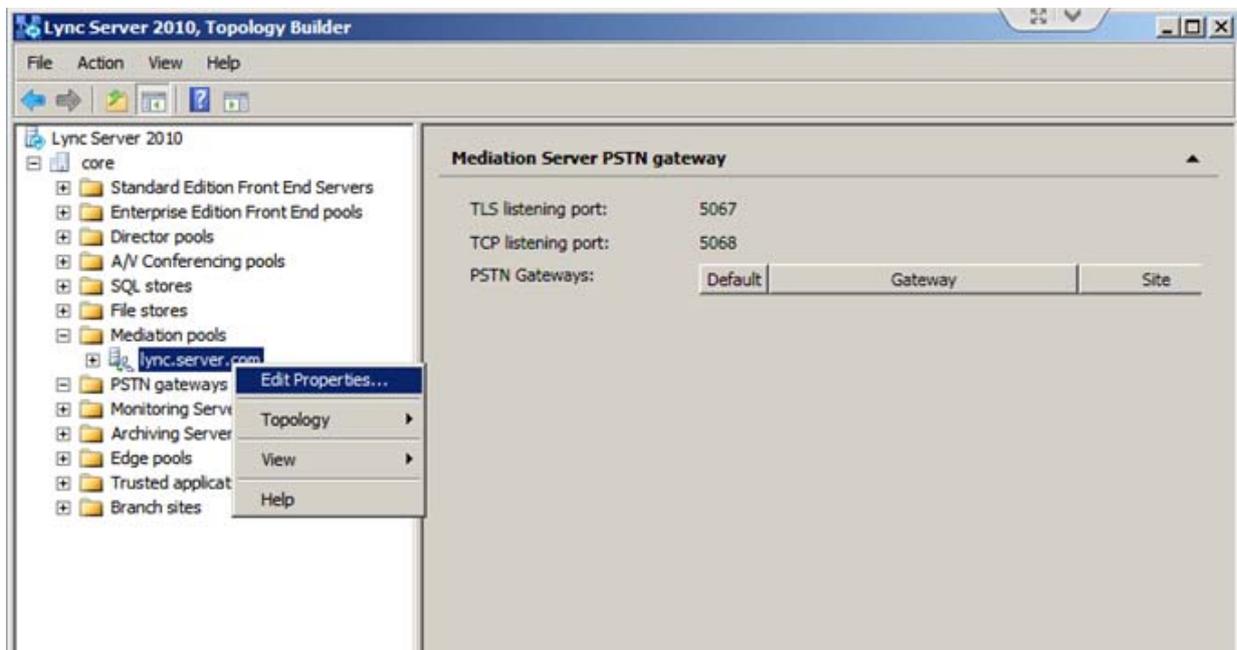


Figure 2.2

Click 'new' to add a pstn gateway to MyPBX

Note: make sure TCP is enabled in MyPBX in 'sip settings' page, which is disabled by default

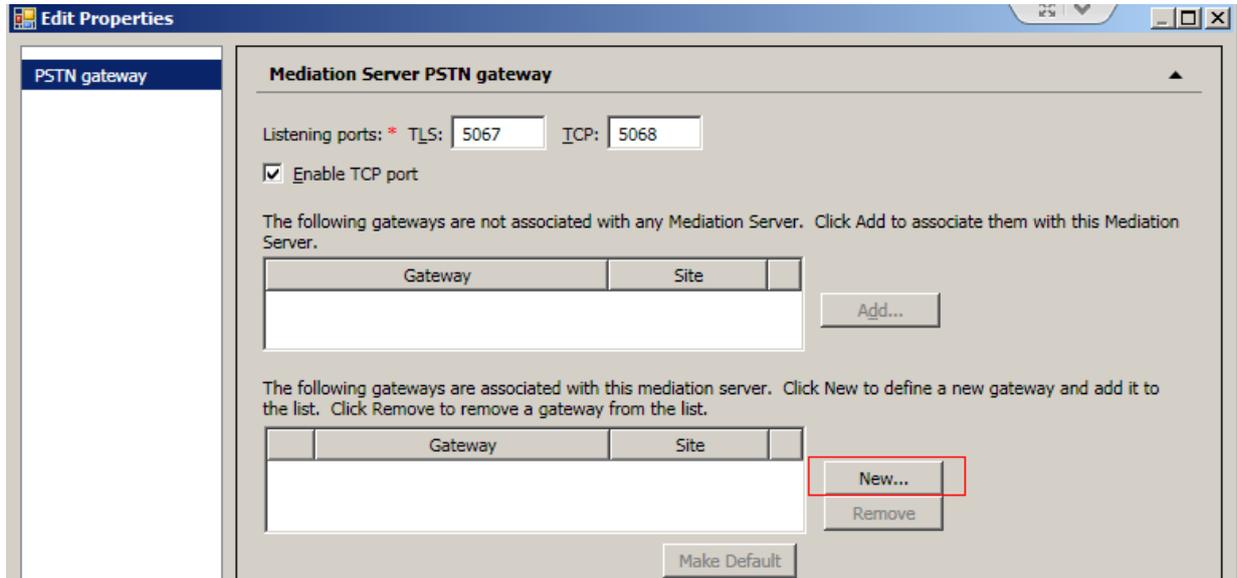


Figure 2.3

Input the IP of MyPBX(192.168.5.101 in this example), port(5060), click TCP as protocol, then click 'ok'

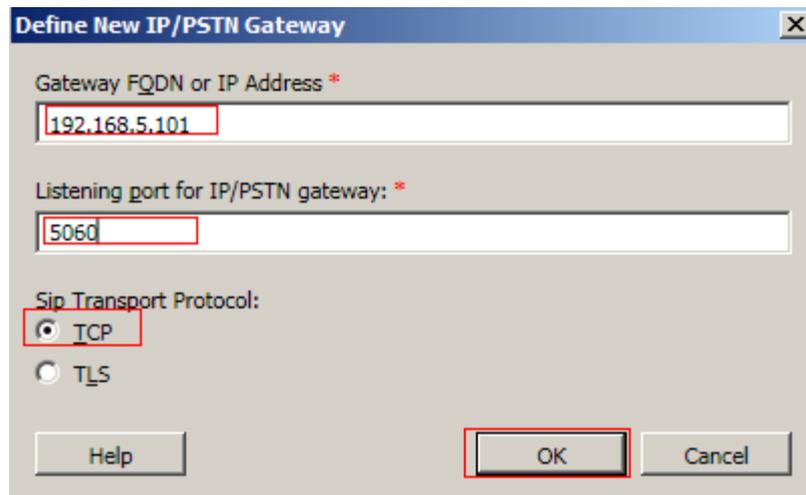


Figure 2.4

Click 'ok' again to save it.

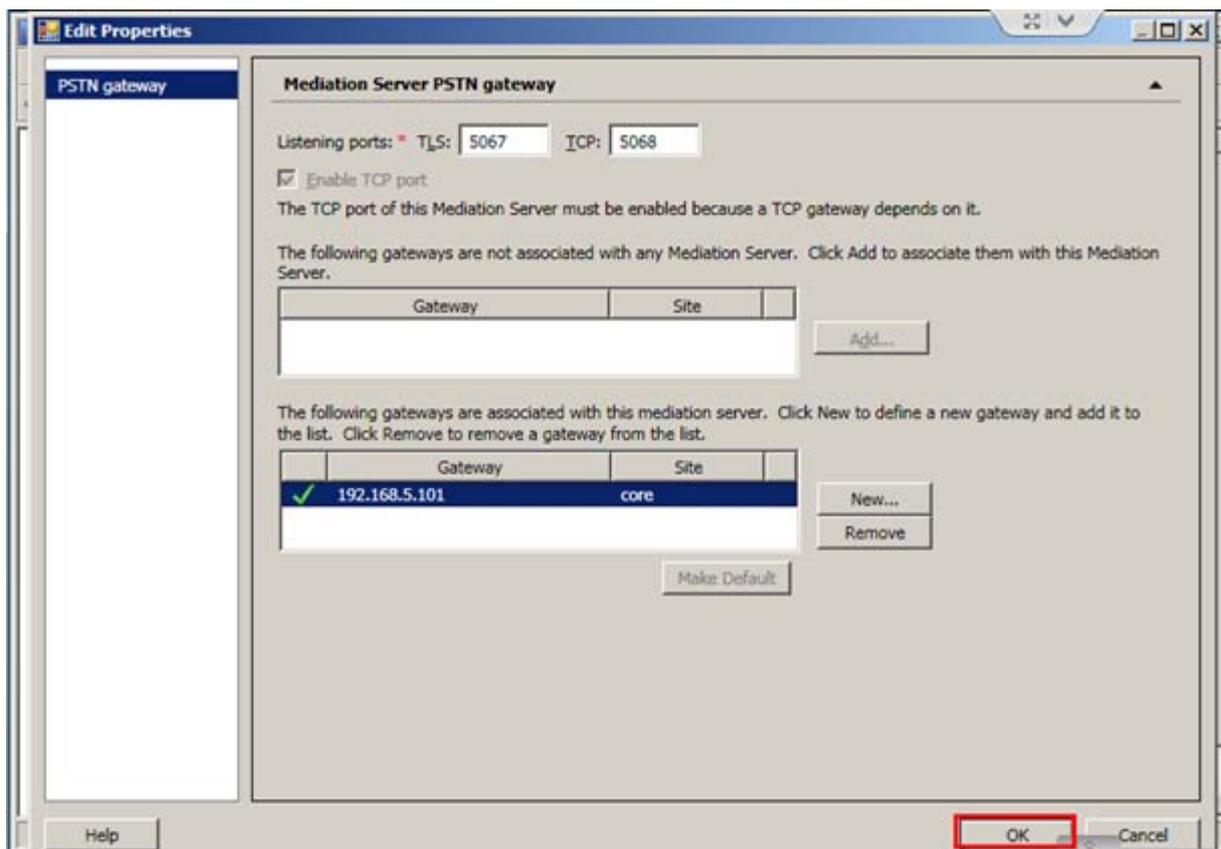


Figure 2.5

Then you can see a new gateway, right click and publish it. Click 'finish' for ending

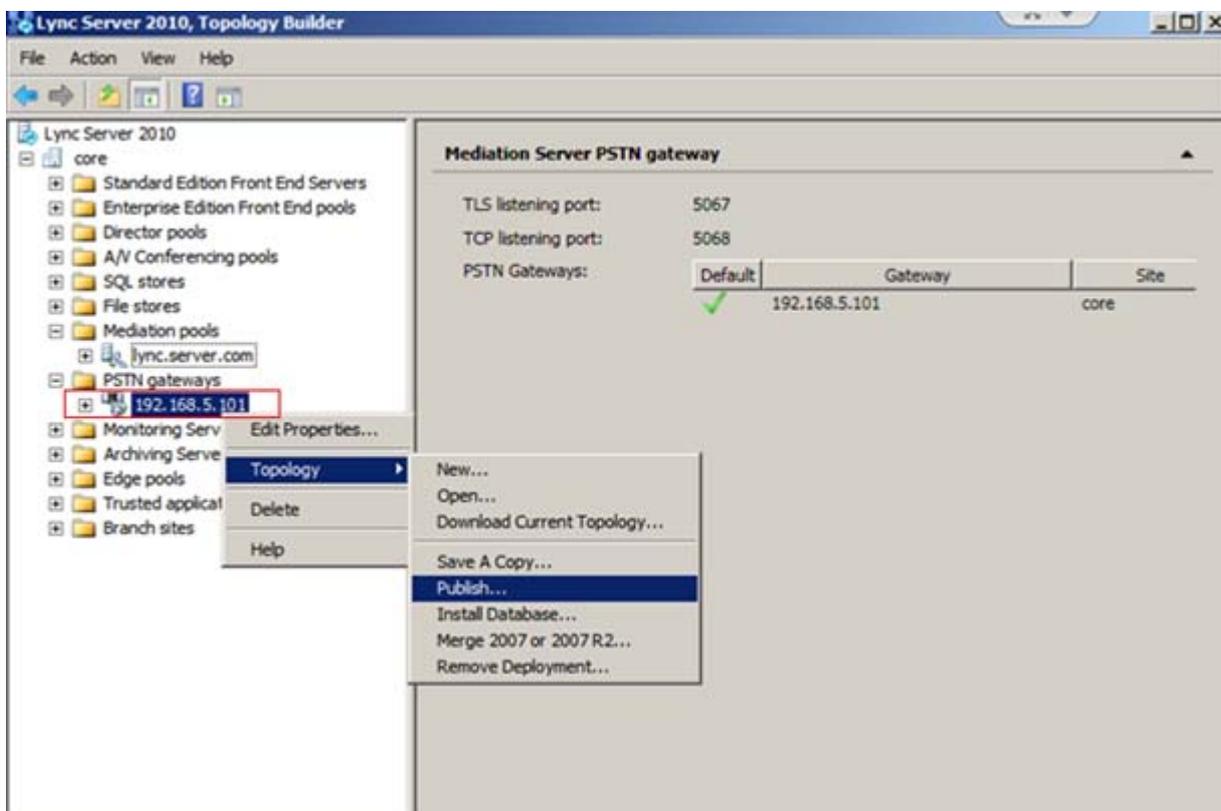


Figure 2.6

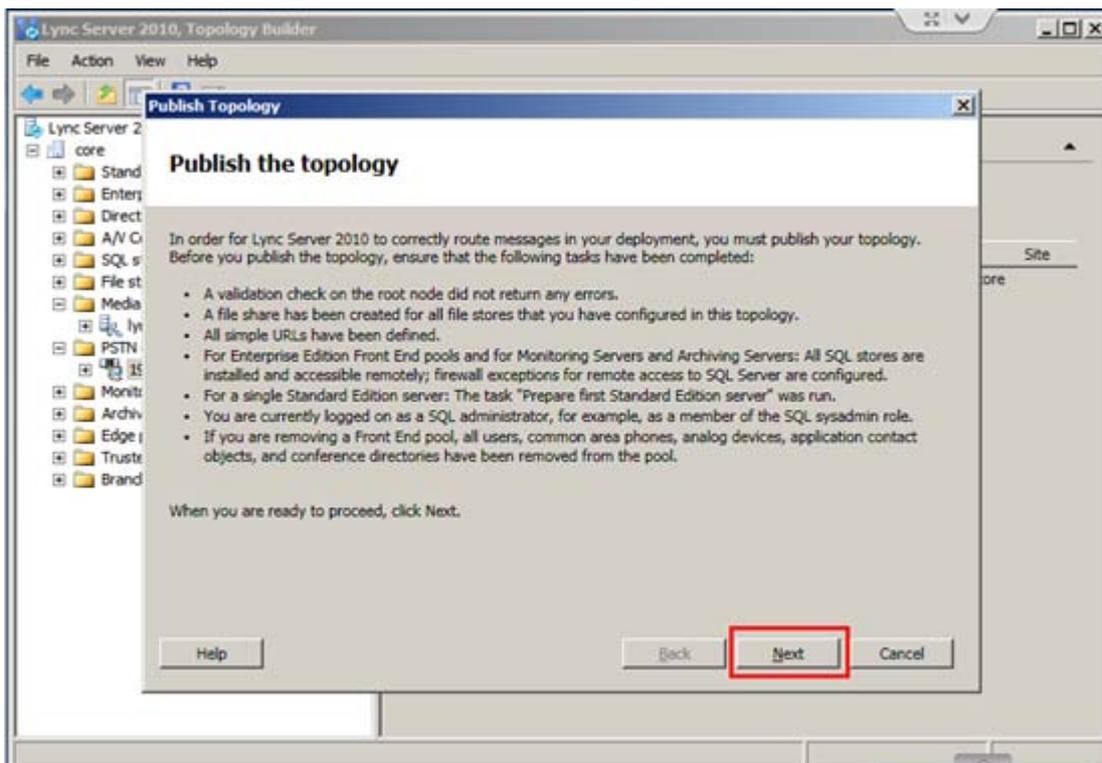


Figure 2.7

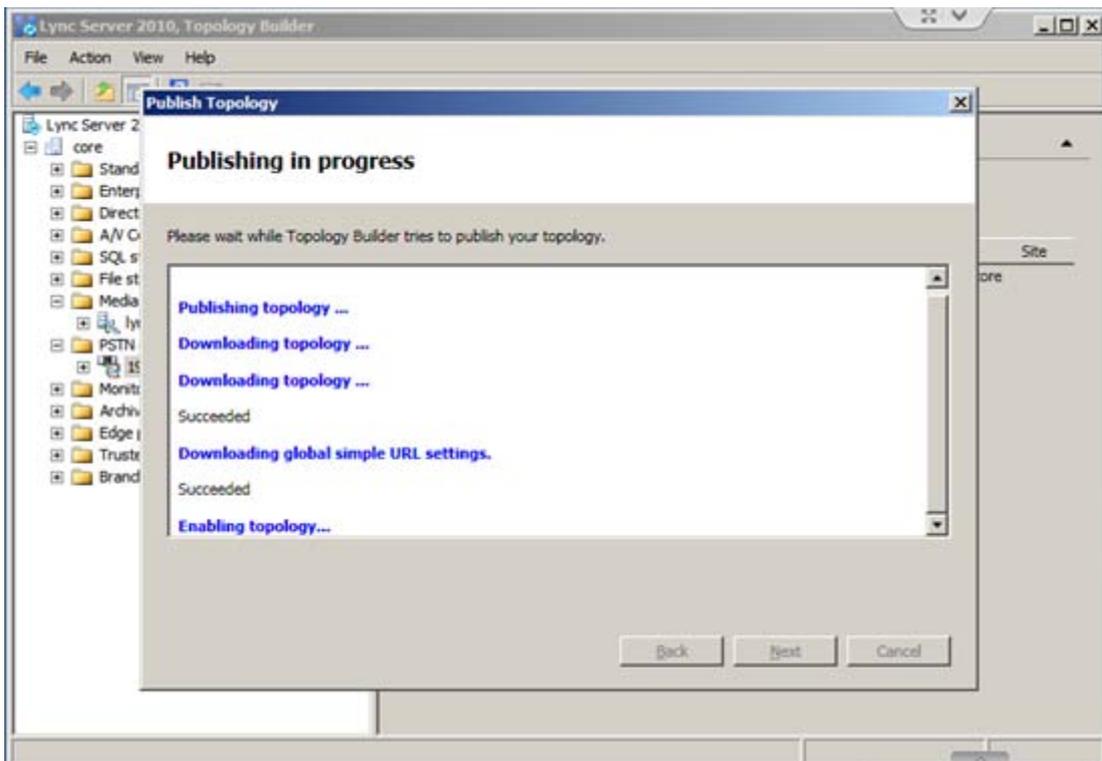


Figure 2.8

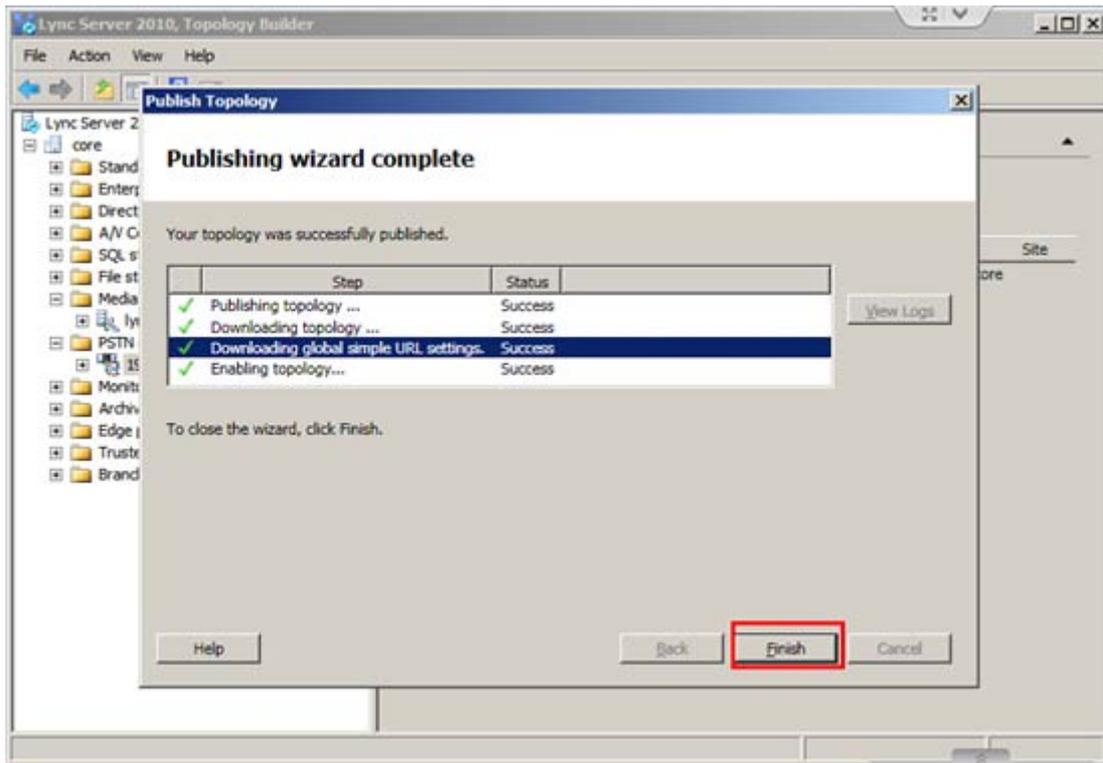


Figure 2.9

3. Enable lync account

Note: please create your account in DC first before adding it into Lync server

Enable lync account in 'lync server 2010 control panel'

Open 'lync server control panel' and log in

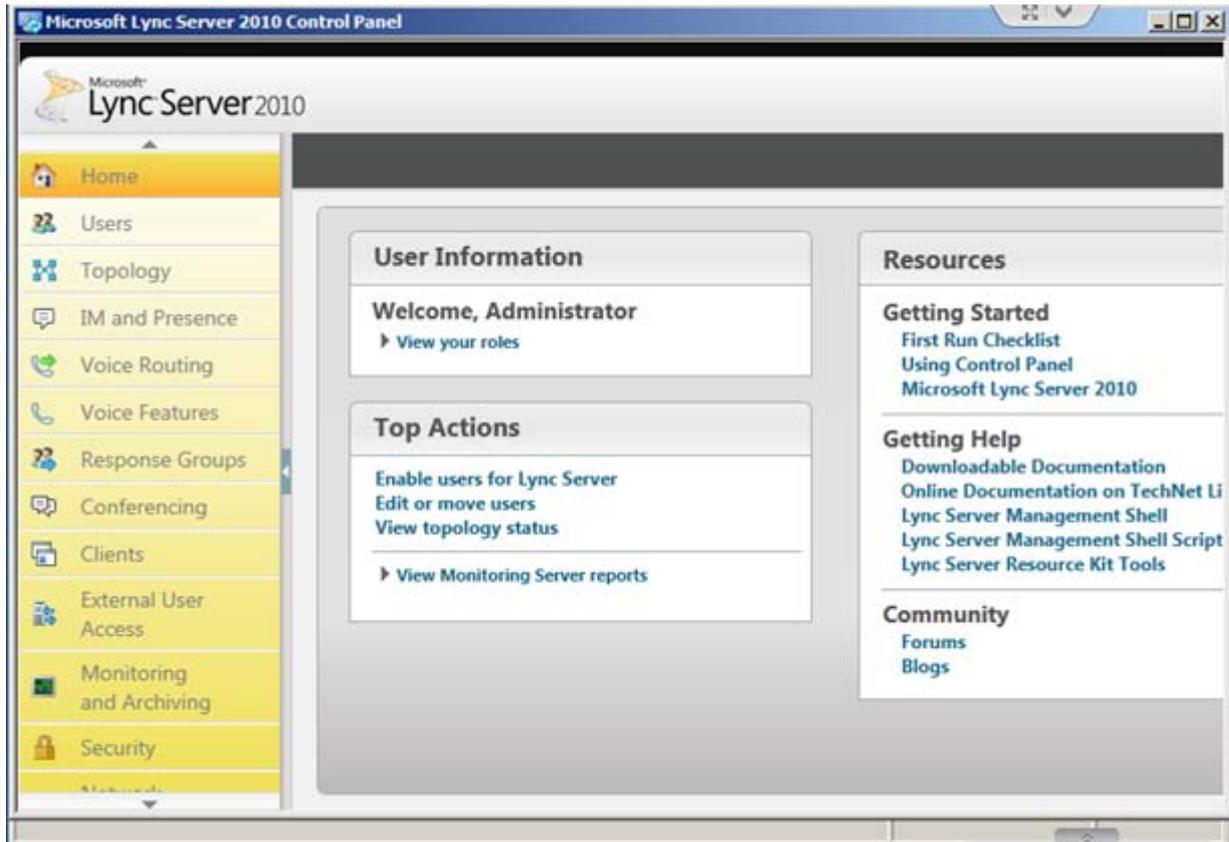


Figure 3.1

Click 'users' to enable the account and spare a number to him, in my example,
User: harryhua
The number is: +128888
Click 'enable users' to start:

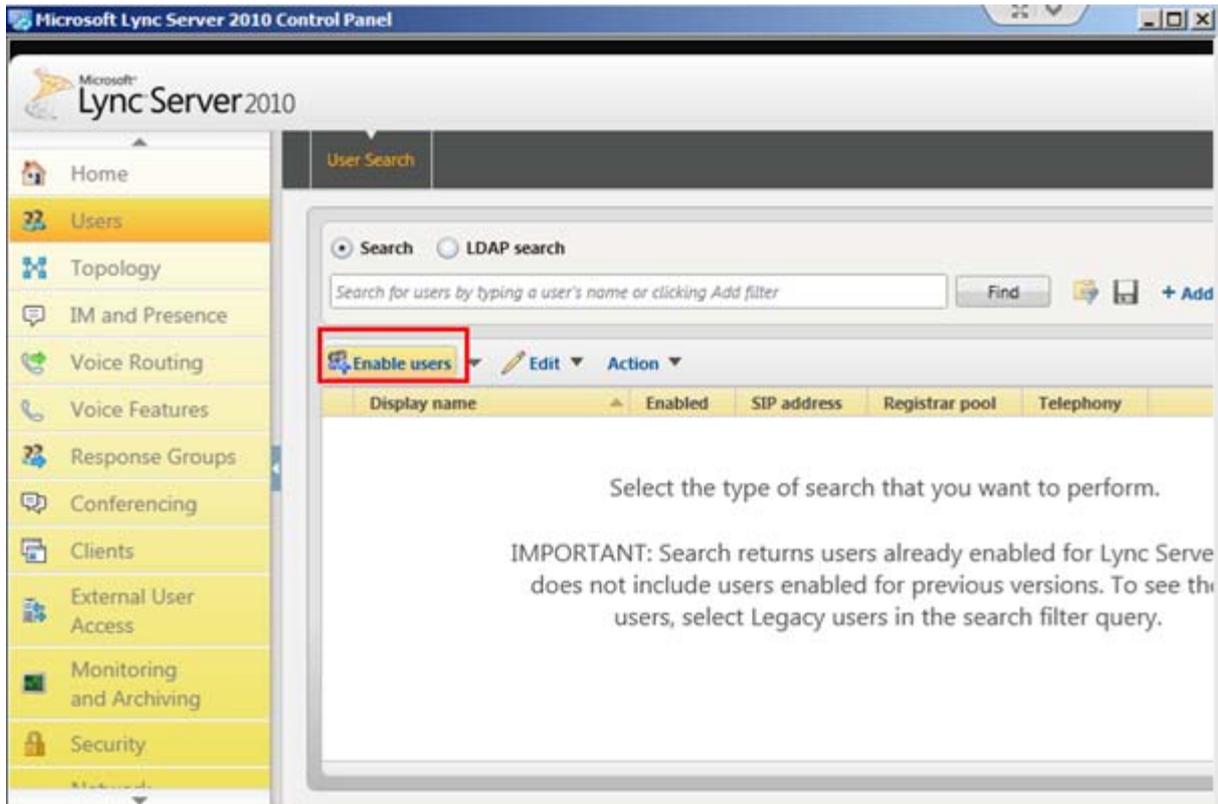


Figure 3.2

Click 'add'

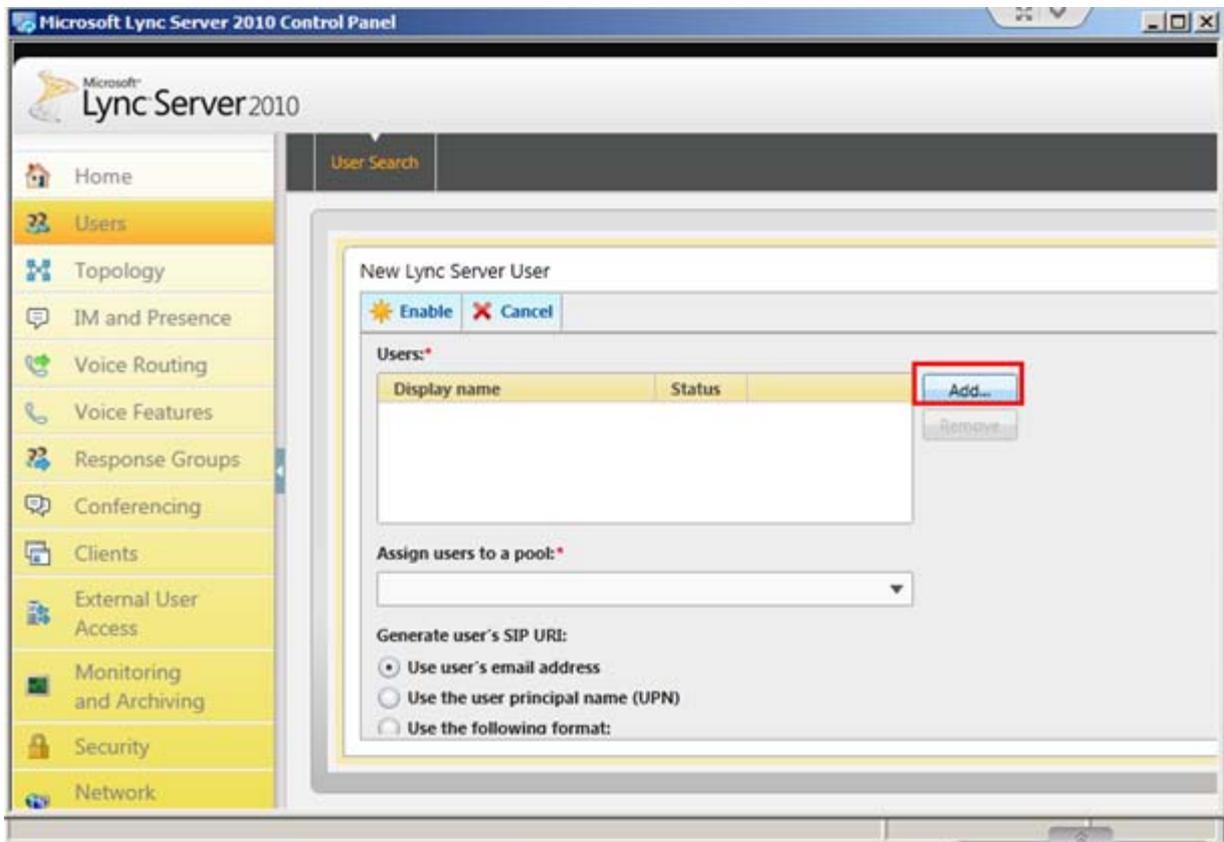


Figure 3.3

Input name 'harryhua', and click 'find'. Then choose it before clicking 'ok'

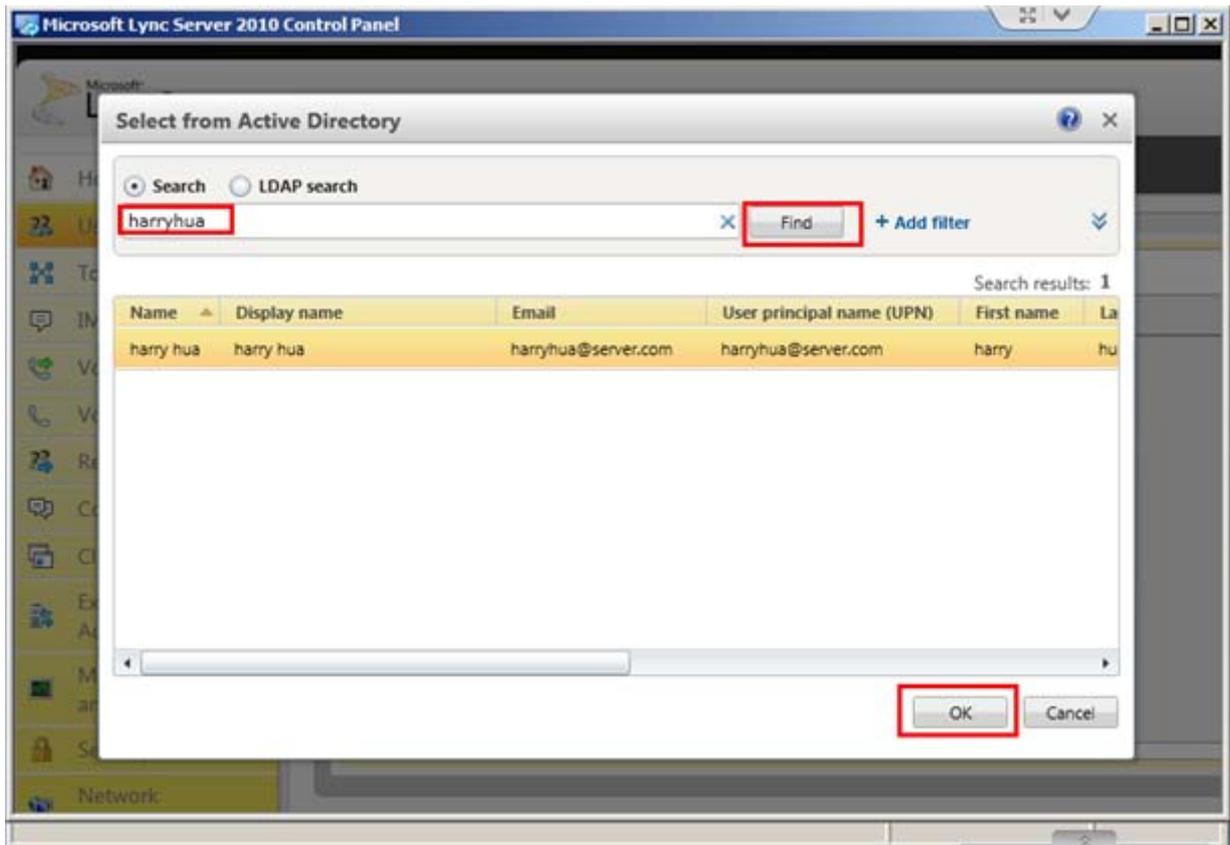


Figure 3.4

Assign user to pool: lync.server.com

For user' SIP URL to log in at client software, we recommend using UPN

Telephony: enterprise voice

Line URL: TEL: +128888

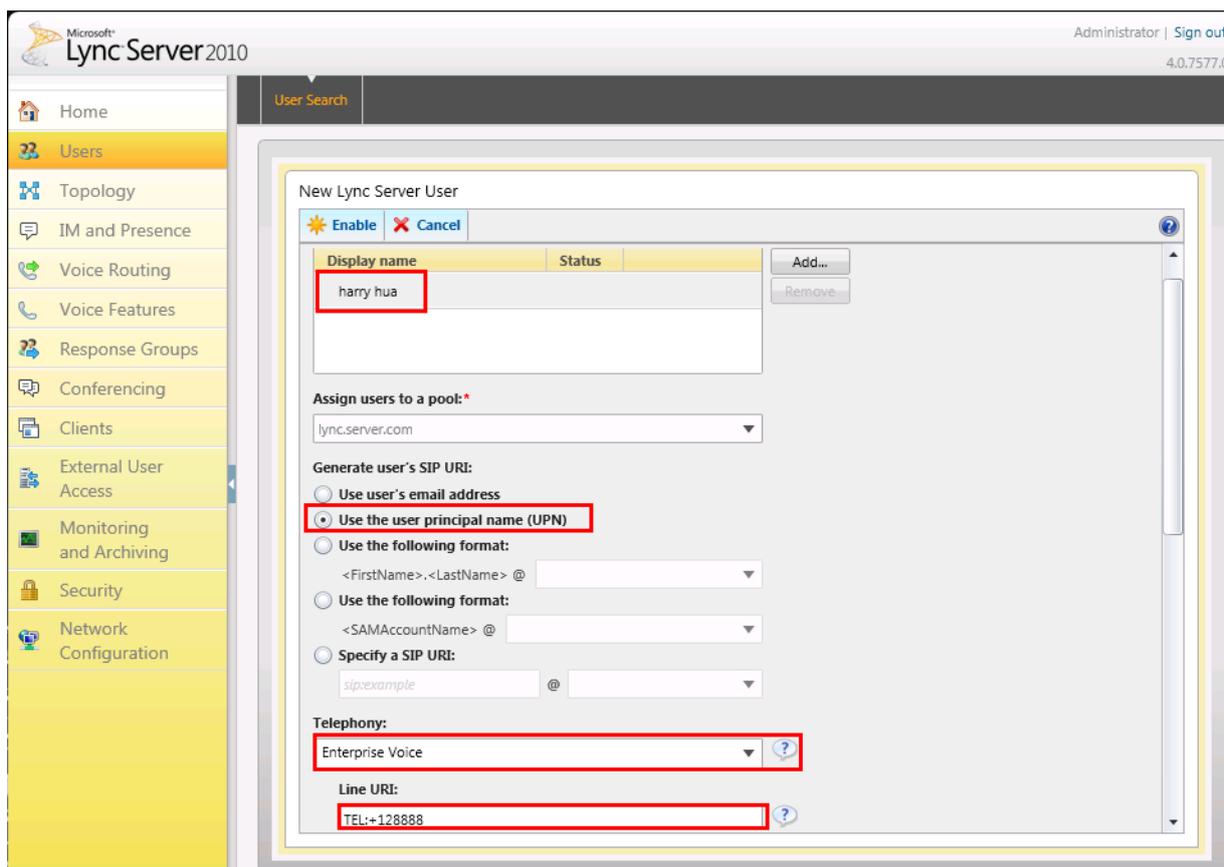


Figure 3.5

Click 'enable ' to save it.

Log in the client software with the new account: harryhua@server.com to test if it is successfully added as a lync server user.

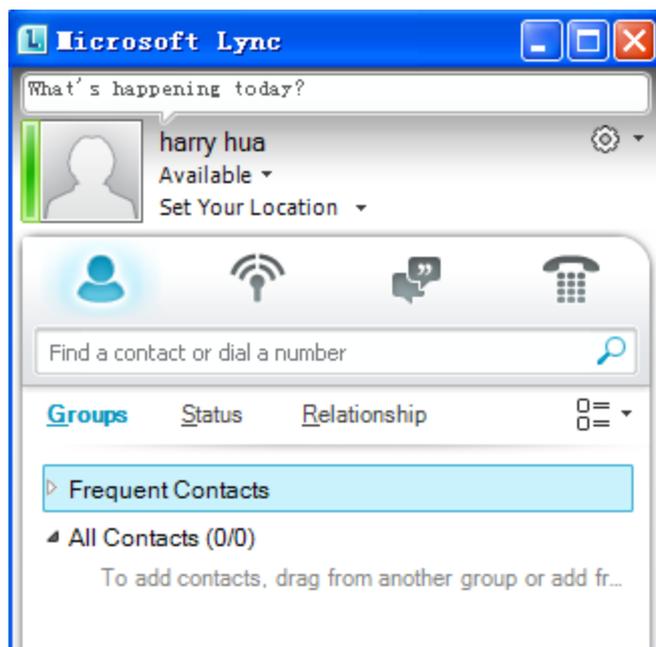


Figure 3.6

4. Voice routing in lync

Note: the extension number of Lync server starts with '+'.
Edit the 'Global' dial plan

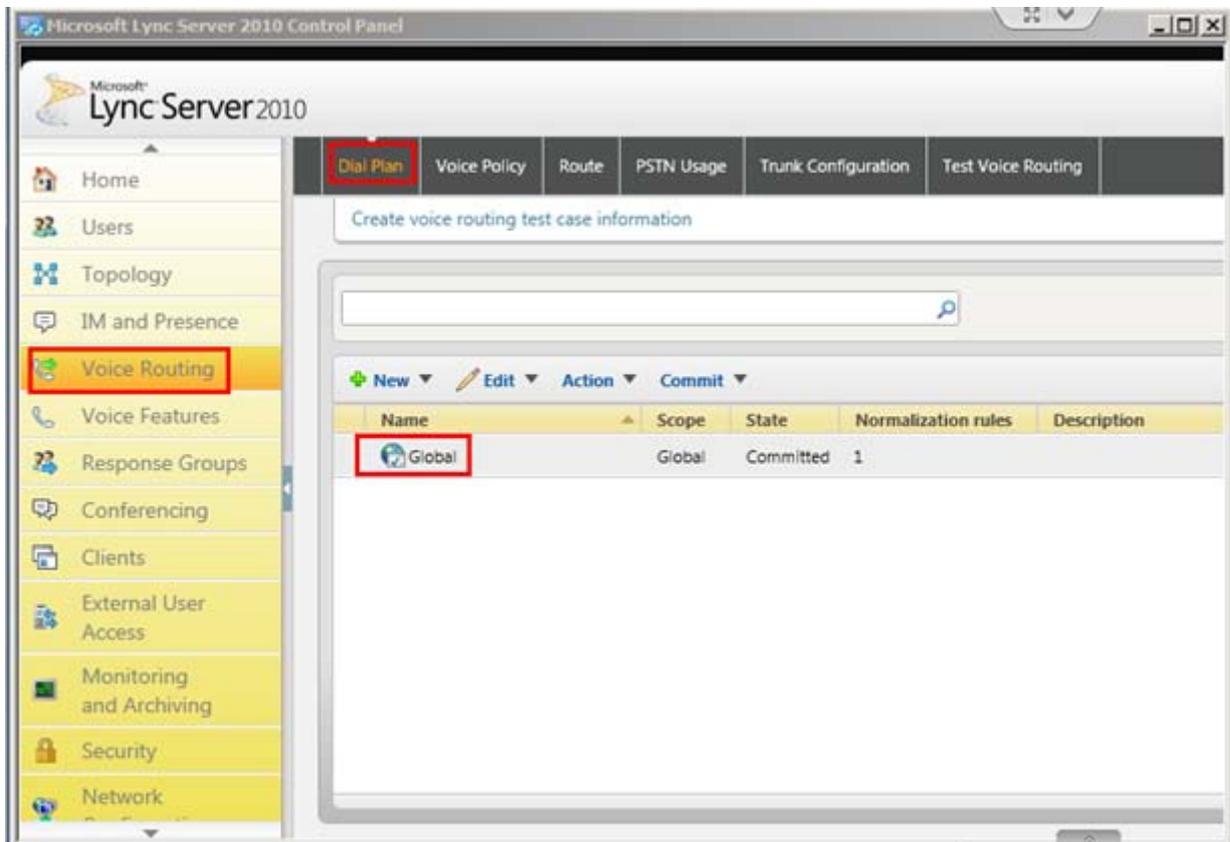


Figure 4.1

Edit the rule of 'Prefix All'; we need add a '+' as the prefix

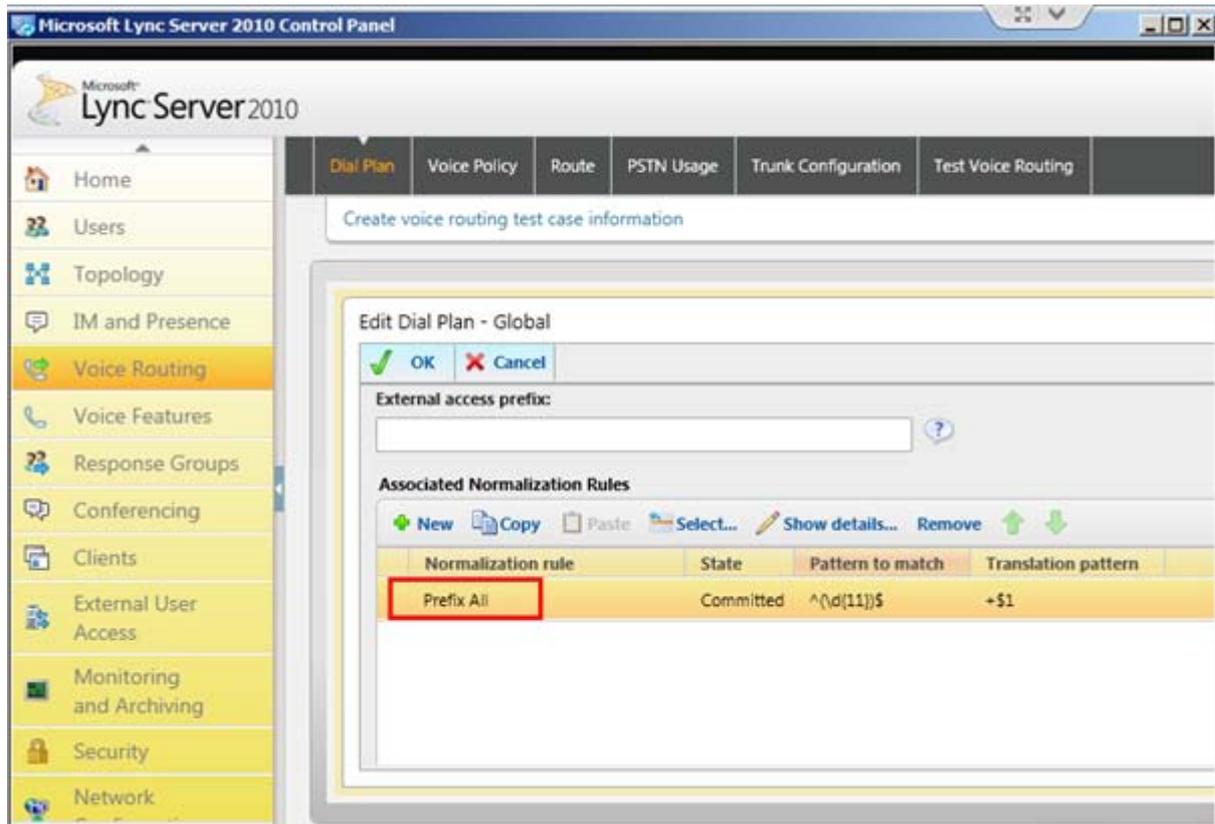


Figure 4.2

Modify the length to 'any' and click 'ok ' to save it

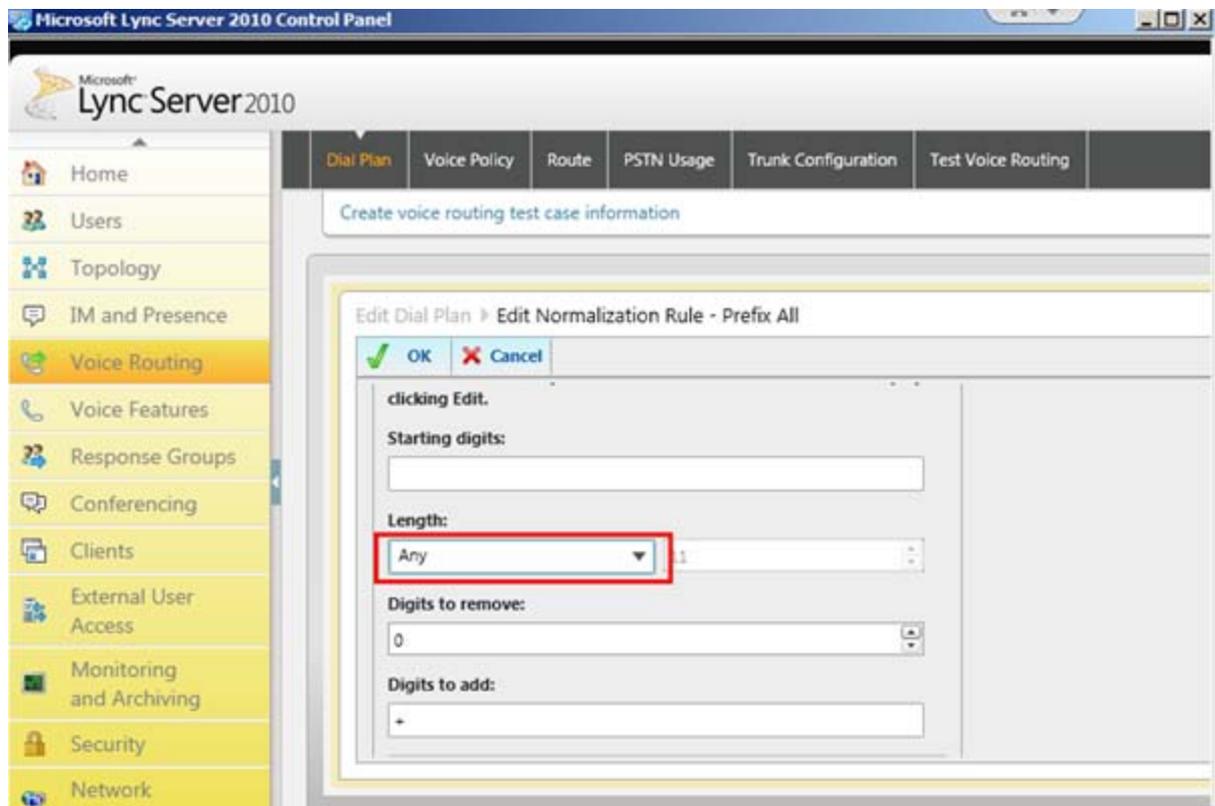


Figure 4.3

Edit the 'route' page

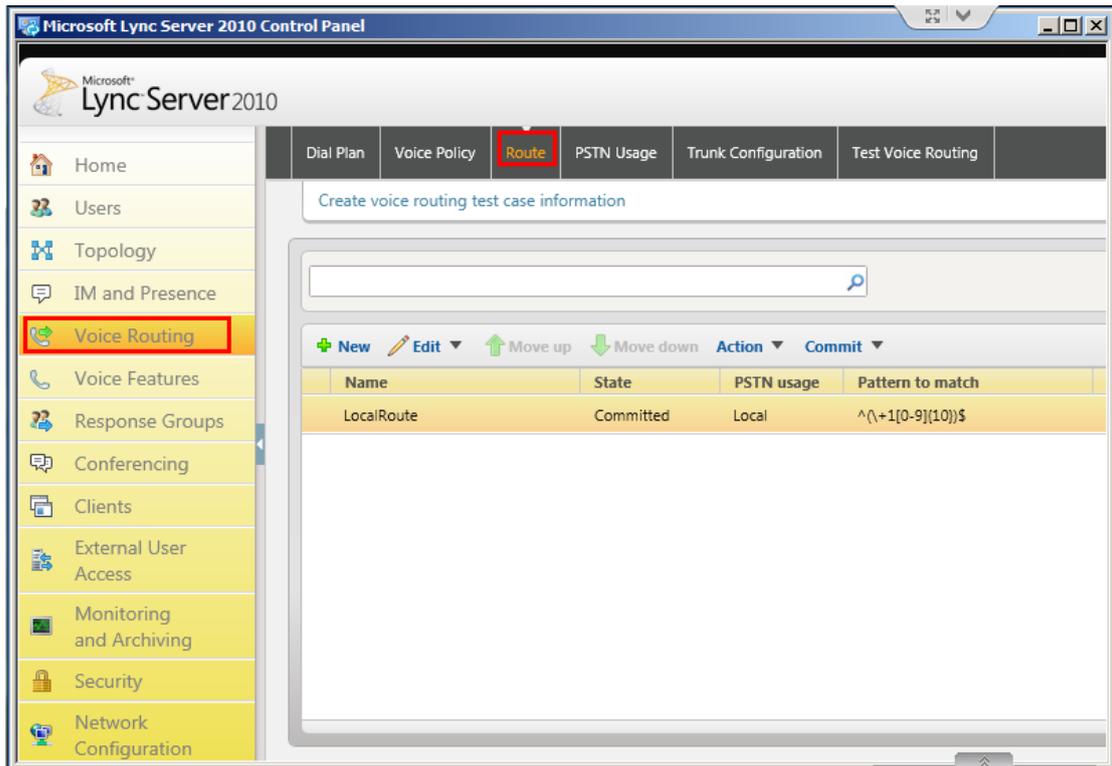


Figure 4.4

Click 'LocalRoute' to start edit

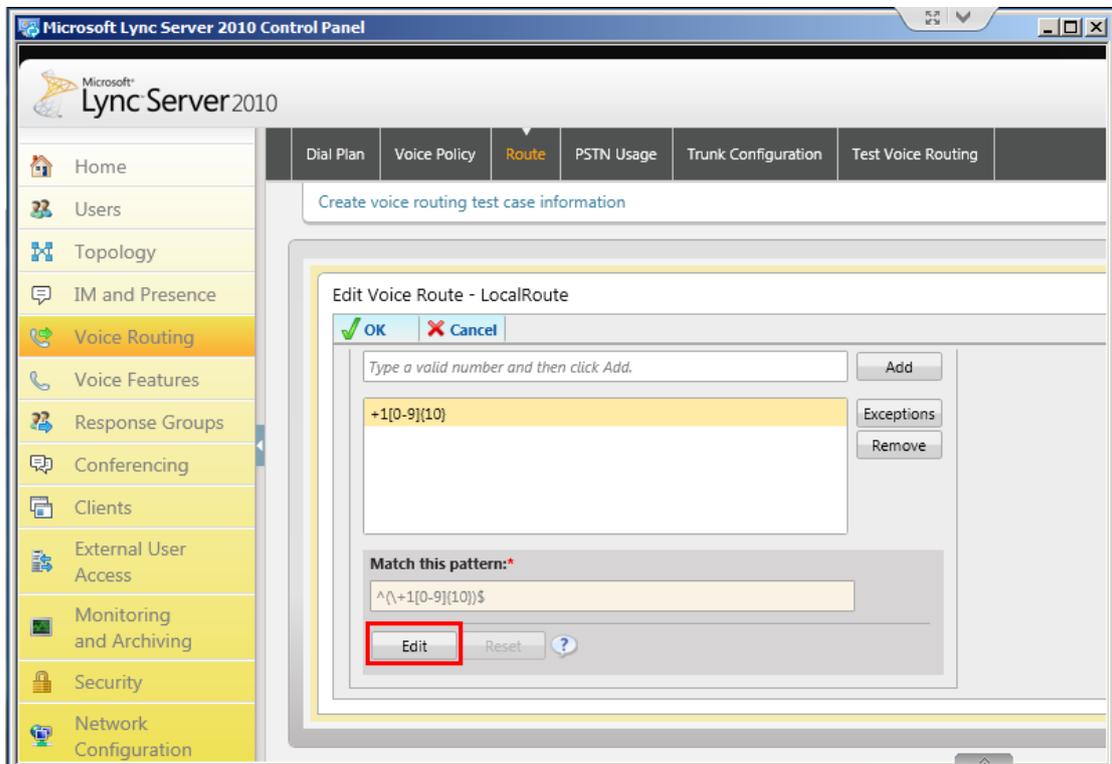


Figure 4.5

Modify the default pattern to `^(\\+\\d*)$`

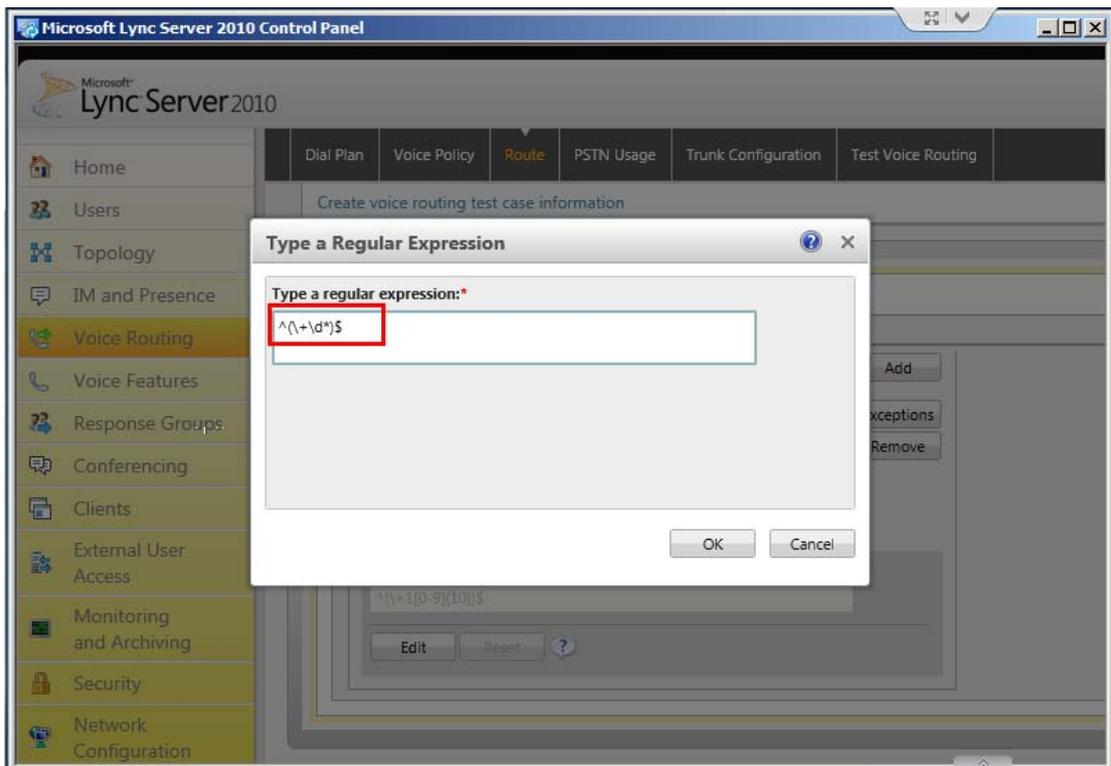


Figure 4.6

Click 'ok' to save it, and you will see the modified pattern as below:

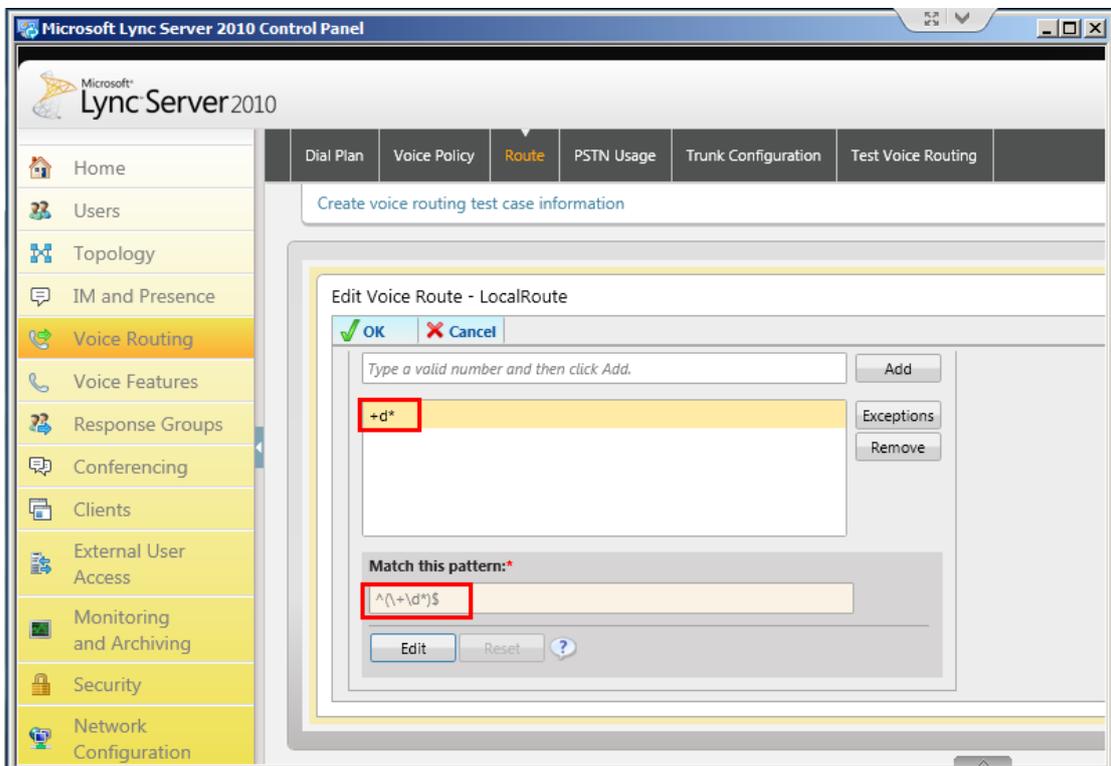


Figure 4.7

Add the associated gateway:

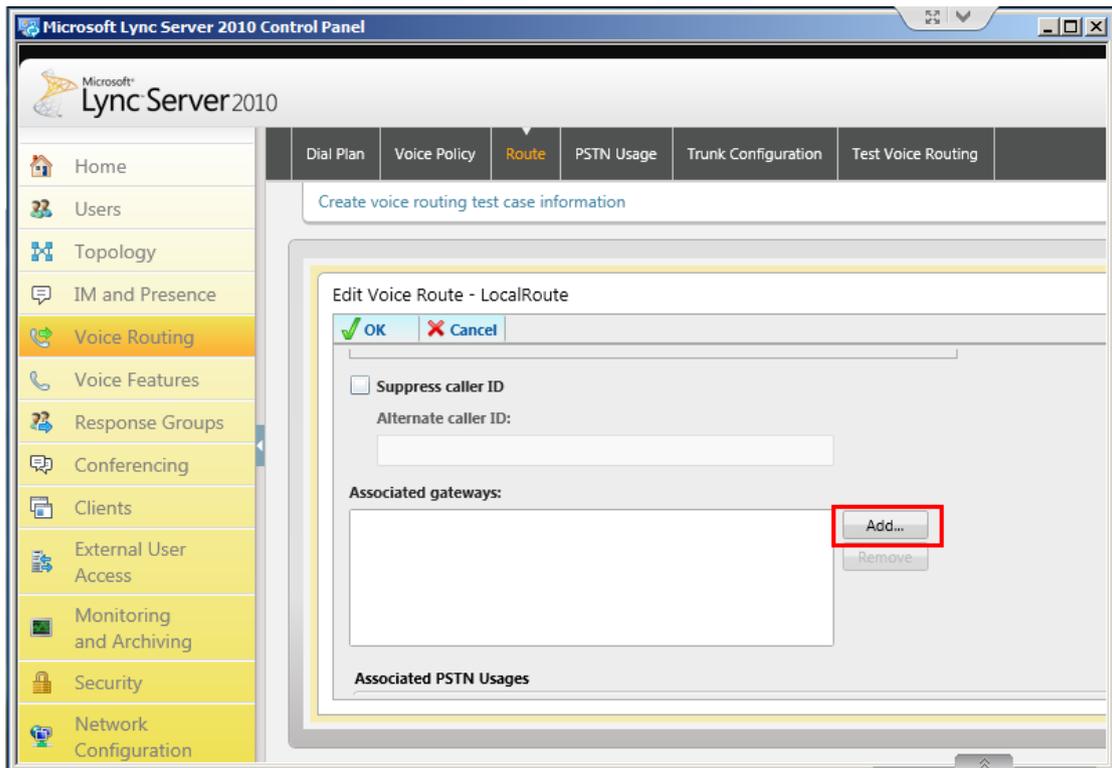


Figure 4.8

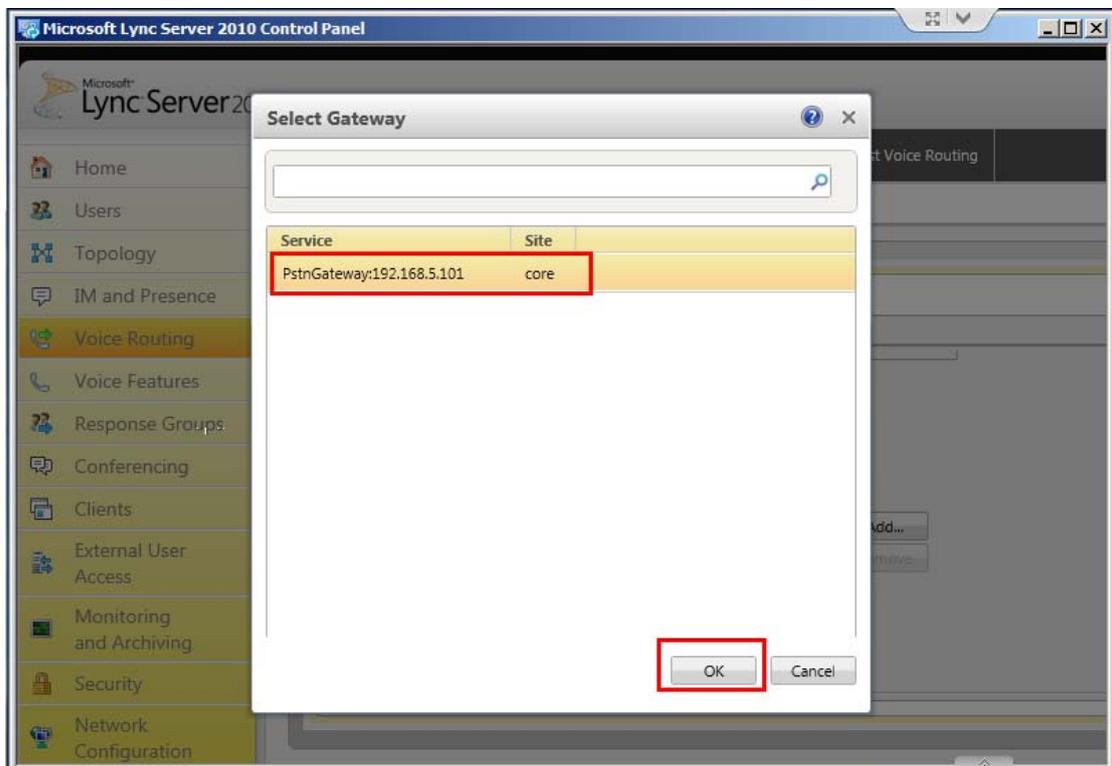


Figure 4.9

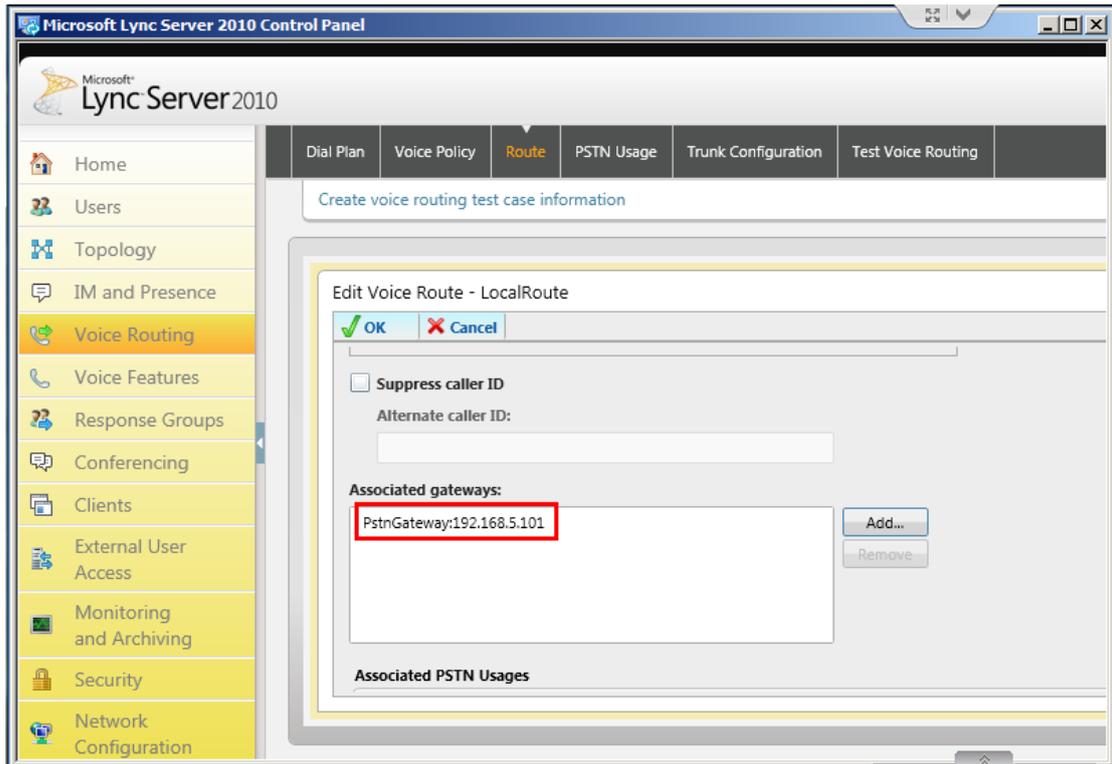


Figure 4.10

Click 'ok' to save it

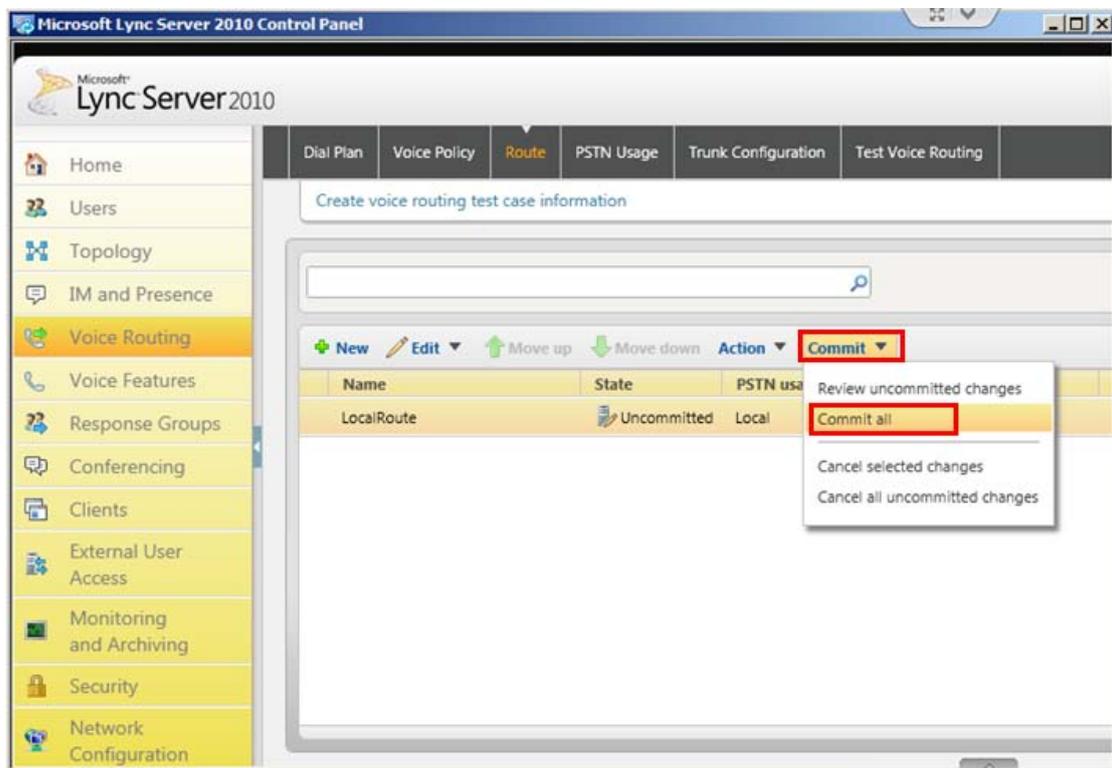


Figure 4.11

commit all the modification.
the configuration in Lync server side is finished .

5. Configurations in MyPBX

Create a 'peer to peer' sip trunk:

Hostname/IP: the IP of Lync server, 192.168.5.222

Port: 5068(the default port for TCP protocol)

Transport: TCP

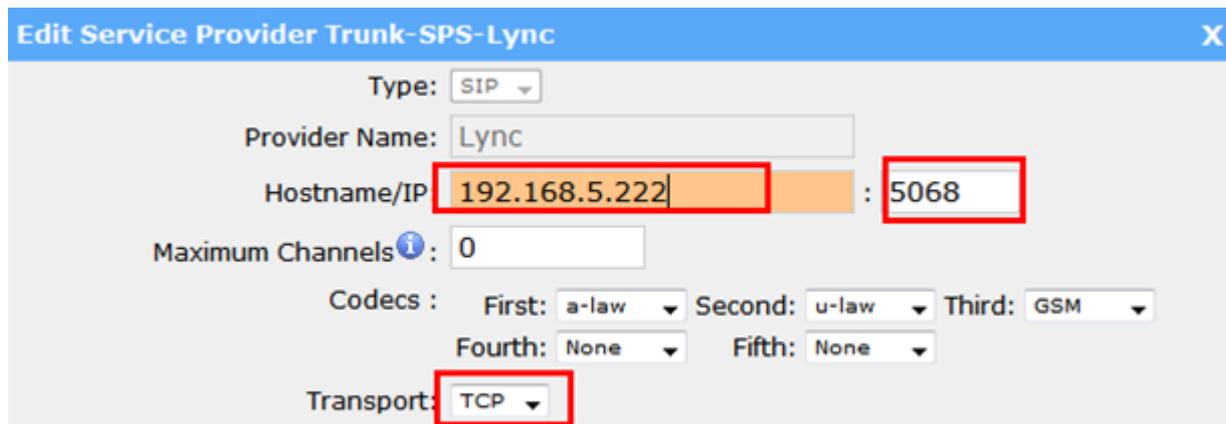


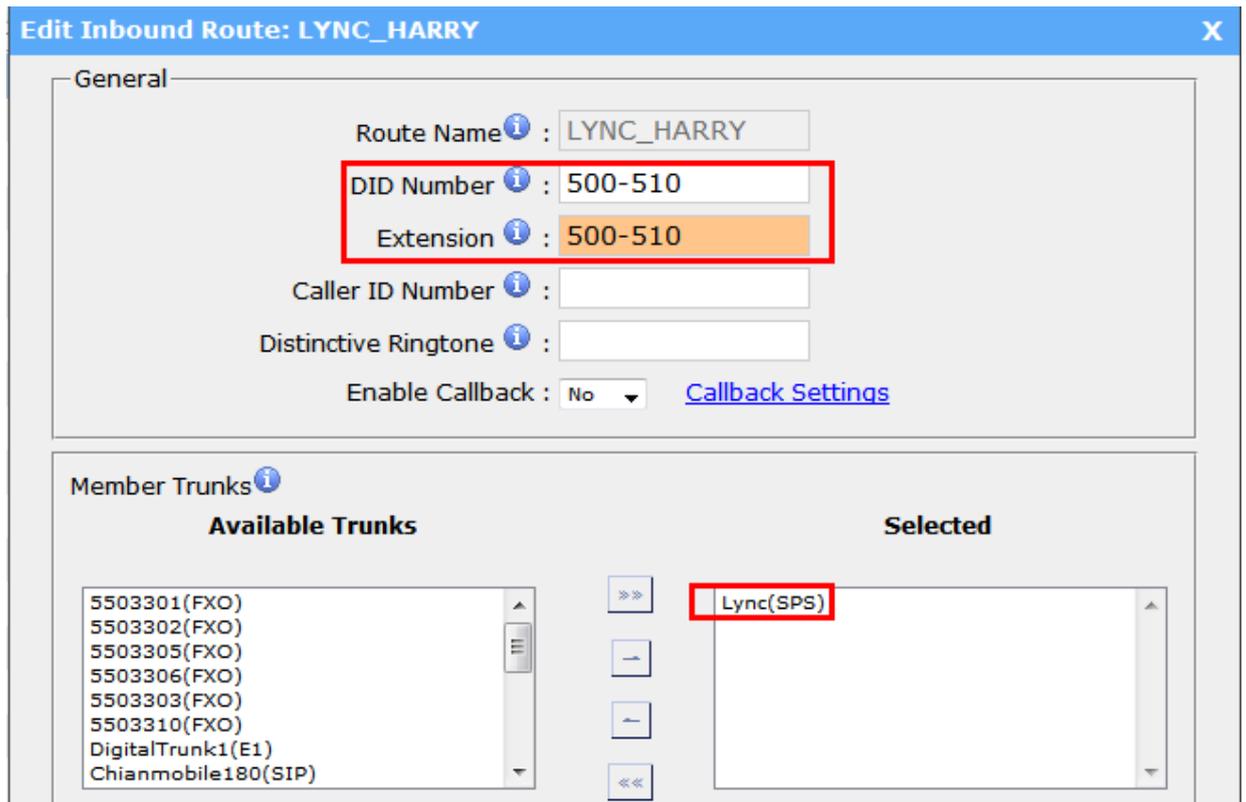
Figure 5.0

Check the status in 'line status' page:

OK (2 ms) Lync SP-SIP 192.168.5.222 OK (2 ms)

5.1 Configurations for calling between extensions

1. Create inbound route for this trunk with DID for each extension extension range in MyPBX(500-510 for example)



Edit Inbound Route: LYNC_HARRY

General

Route Name *i* : LYNC_HARRY

DID Number *i* : 500-510

Extension *i* : 500-510

Caller ID Number *i* :

Distinctive Ringtone *i* :

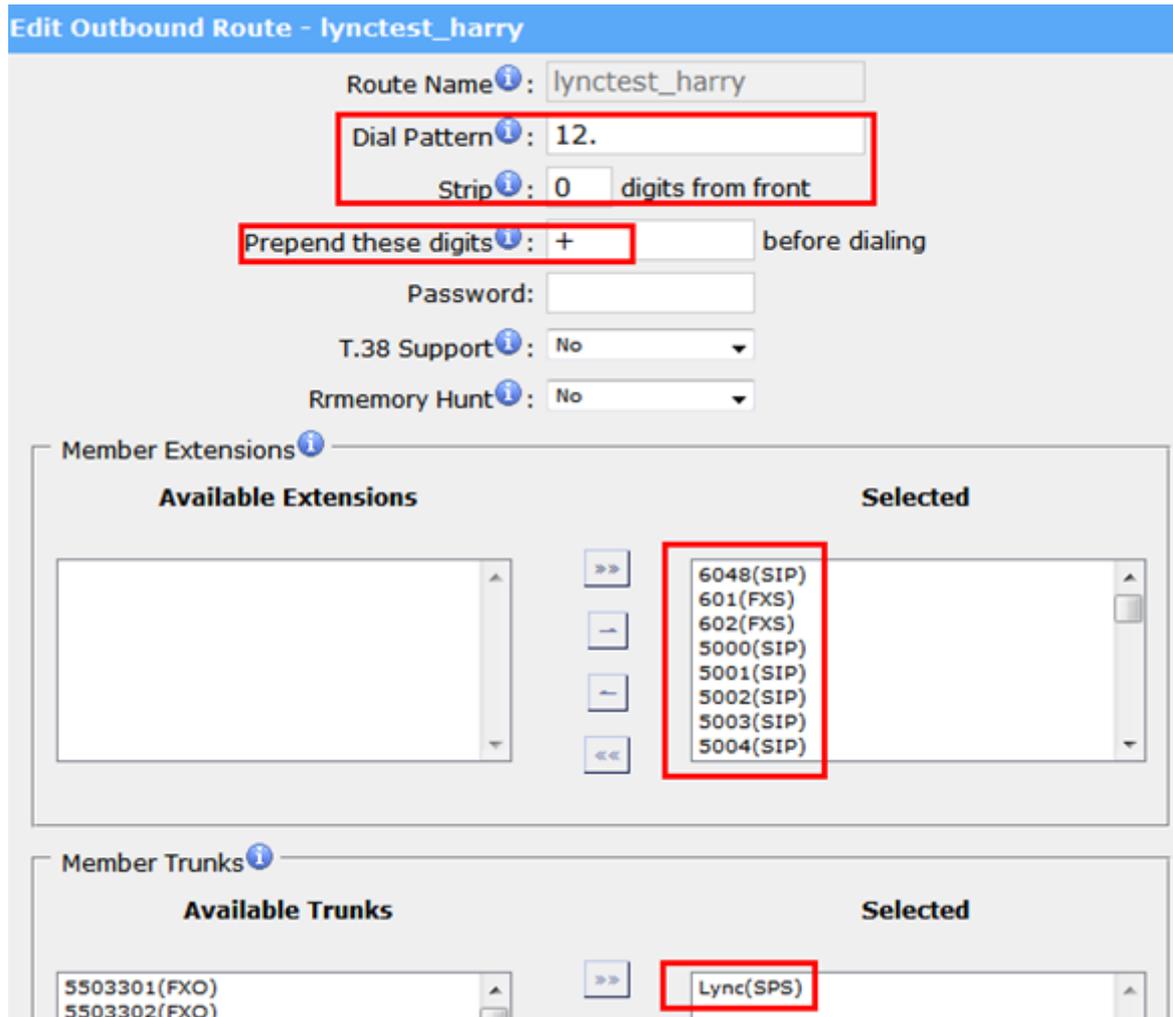
Enable Callback : No [Callback Settings](#)

Member Trunks *i*

Available Trunks	Selected
5503301(FXO) 5503302(FXO) 5503305(FXO) 5503306(FXO) 5503303(FXO) 5503310(FXO) DigitalTrunk1(E1) Chianmobile180(SIP)	Lync(SPS)

Figure 5.1

- In this case, you can dial the extension number of MyPBX from Lync client directly.
2. Create outbound route for this trunk for dialing the extension number of Lync server
- Note:** extension number of Lync server is '+12XXXX'
- in my example, the number of account 'harryhua' is +128888



The screenshot shows the configuration page for an outbound route named 'lynctest_harry'. The 'Dial Pattern' is set to '12.' and 'Strip' is set to '0 digits from front'. The 'Prepend these digits' field contains '+'. The 'Member Extensions' section shows a list of selected extensions: 6048(SIP), 601(FXS), 602(FXS), 5000(SIP), 5001(SIP), 5002(SIP), 5003(SIP), and 5004(SIP). The 'Member Trunks' section shows 'Lync(SPS)' selected from the available trunks.

Available Extensions	Selected
	6048(SIP)
	601(FXS)
	602(FXS)
	5000(SIP)
	5001(SIP)
	5002(SIP)
	5003(SIP)
	5004(SIP)

Available Trunks	Selected
5503301(FXO) 5503302(FXO)	Lync(SPS)

Figure 5.2

5.2 dialing out from Lync via the pstn trunk of MyPBX

Note: please check if the pstn trunk is available in MyPBX.

1. Create outbound route for pstn trunk

Edit Outbound Route - pstnout

Route Name *i*: pstnout

Dial Pattern *i*: X.

Strip *i*: 0 digits from front

Prepend these digits *i*: before dialing

Password:

T.38 Support *i*: No

Rmemory Hunt *i*: No

Member Extensions *i*

Available Extensions		Selected
	>>>	5002(SIP)
	-	5003(SIP)
	-	5004(SIP)
	-	5005(SIP)
	-	5006(SIP)
	-	5007(SIP)
	-	5009(SIP)
	<<<	6001(SIP)

Member Trunks *i*

Available Trunks		Selected
5503305(FXO)	>>>	5503301(FXO)

Figure 5.3

2. Create inbound route for Lync trunk and choose this route as the destination

Edit Inbound Route: LYNC_HARRY

General

Route Name i : LYNC_HARRY

DID Number i :

Extension i :

Caller ID Number i :

Distinctive Ringtone i :

Enable Callback : No v [Callback Settings](#)

Member Trunks i

Available Trunks		Selected
<div style="border: 1px solid #ccc; padding: 5px; min-height: 100px;"> 5503301(FXO) 5503302(FXO) 5503305(FXO) 5503306(FXO) 5503303(FXO) 5503310(FXO) DigitalTrunk1(E1) Chianmobile180(SIP) </div>	>>> > < <<<	<div style="border: 1px solid #ccc; padding: 5px; min-height: 100px;"> Lync(SPS) </div>

Business Days

Office Hours : default v

Office Hours Destination : Outbound Routes v Route Name -- pstnout v

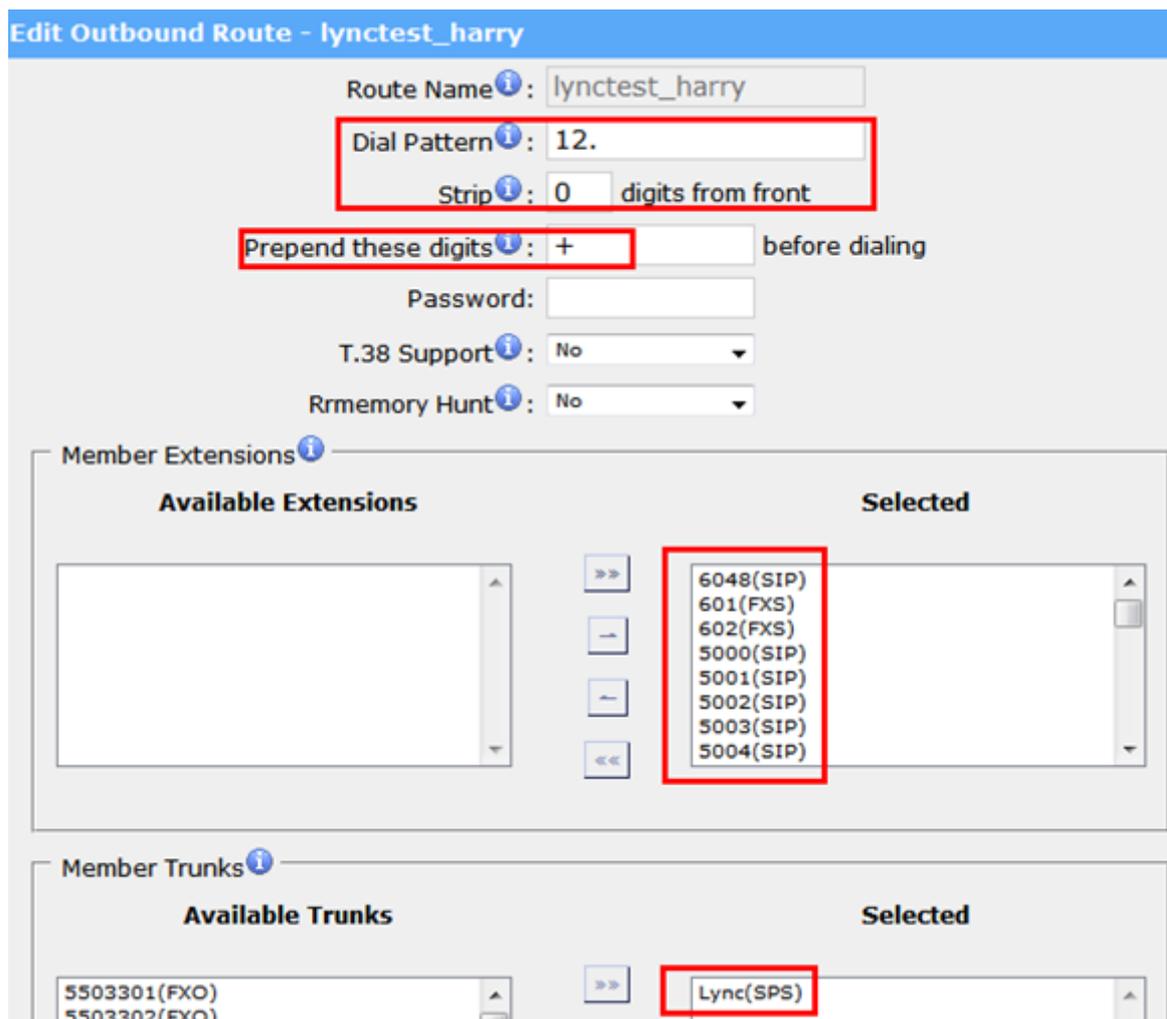
Non-office Hours Destination : Outbound Routes v Route Name -- pstnout v

Figure 5.4

Then you can dial your cell phone number from Lync client software directly.

5.3 dial into Lync server from outside

1. Create outbound route for the sip trunk to Lync server.



Edit Outbound Route - lyncstest_harry

Route Name: lyncstest_harry

Dial Pattern: 12.

Strip: 0 digits from front

Prepend these digits: + before dialing

Password:

T.38 Support: No

Rmemory Hunt: No

Member Extensions

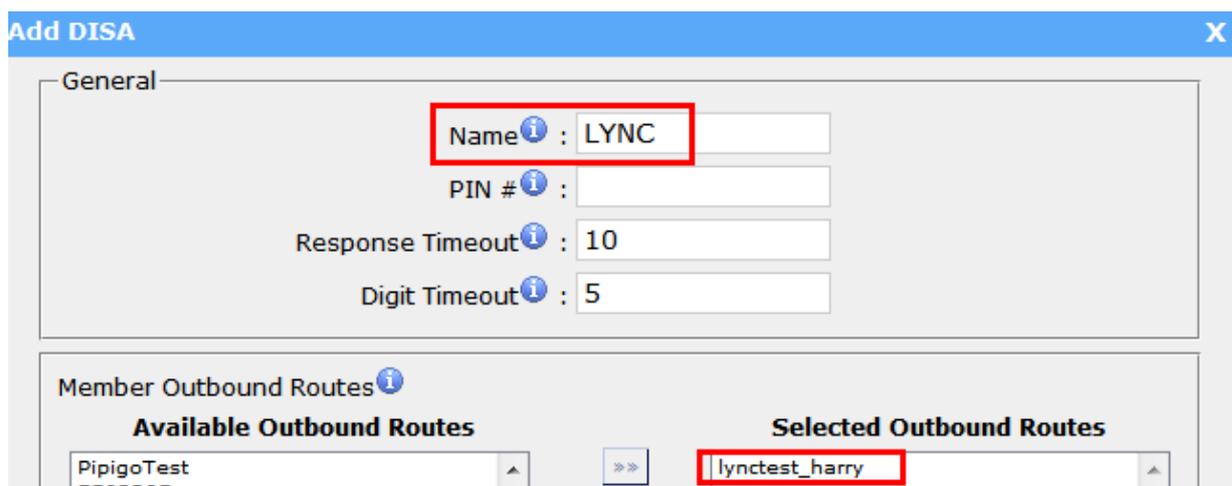
Available Extensions	Selected
	6048(SIP)
	601(FXS)
	602(FXS)
	5000(SIP)
	5001(SIP)
	5002(SIP)
	5003(SIP)
	5004(SIP)

Member Trunks

Available Trunks	Selected
5503301(FXO) 5503302(FXO)	Lync(SPS)

figure 5.5

- 2. Create DISA and choose this outbound route



Add DISA

General

Name: LYNC

PIN #:

Response Timeout: 10

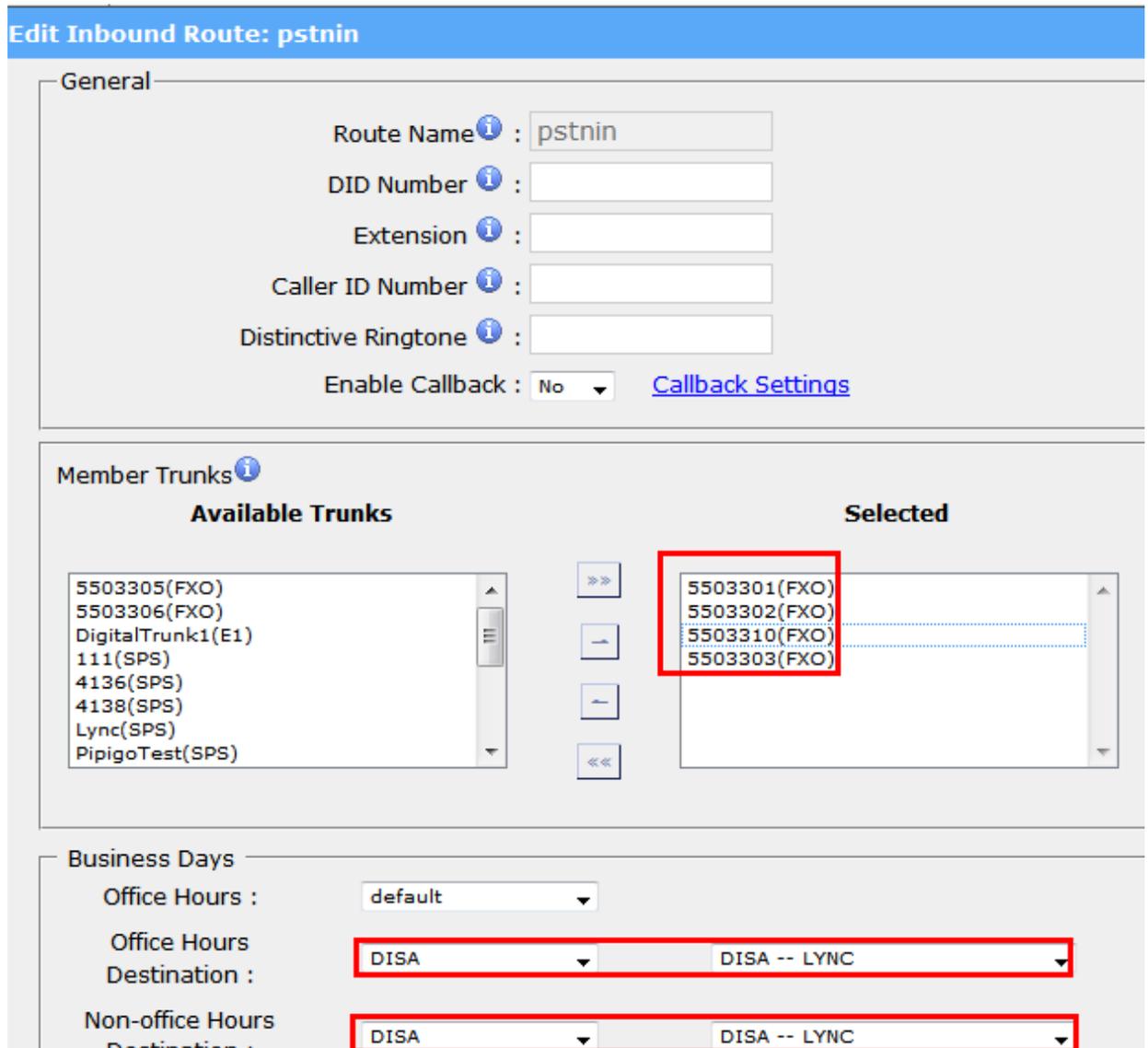
Digit Timeout: 5

Member Outbound Routes

Available Outbound Routes	Selected Outbound Routes
PipigoTest 5503305	lyncstest_harry

Figure 5.6

3. Create inbound route for pstn trunk and choose DISA as destination



Edit Inbound Route: pstnin

General

Route Name ⁱ : pstnin

DID Number ⁱ :

Extension ⁱ :

Caller ID Number ⁱ :

Distinctive Ringtone ⁱ :

Enable Callback : No [Callback Settings](#)

Member Trunks ⁱ

Available Trunks	Selected
5503305(FXO)	5503301(FXO)
5503306(FXO)	5503302(FXO)
DigitalTrunk1(E1)	5503310(FXO)
111(SPS)	5503303(FXO)
4136(SPS)	
4138(SPS)	
Lync(SPS)	
PipigoTest(SPS)	

Business Days

Office Hours : default

Office Hours Destination : DISA DISA -- LYNC

Non-office Hours Destination : DISA DISA -- LYNC

Figure 5.7

You can test by dialing the pstn number first, and then dial the extension number of Lync server after the second dial tone.

<The end>