How to setup a beroFix gateway in Microsoft LYNC Server

1. Topology Builder Setup

In Topology Builder click on PSTN gateways, and then on New IP/PSTN Gateway.



Set the IP address and listening port of the beroFix gateway.

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😽 Lync Server 2010, Topology Builder		_ <u> </u>
File Action View Help		
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Lync Server 2010	The properties for this item are unavailable for editing.	Actions
Beronet Standard Edition Front End Servers		PSTN gateways
Enterprise Edition Front End pools		New IP/PSTN Gateway
Director pools Al/ Conferencing pools		Topology >
		View
File stores Mediation pools PSTN gateways Monitoring Servers		7 Help
 Monitoring Servers Archiving Servers Geoge pools Trusted application servers Branch sites 	Define New IP/PSTN Gateway X Gateway FQDN or IP Address * 172.20.26.222 Listening gort for IP/PSTN gateway: * 5060 Sip Transport Protocol: • ① ICP • Melp OK Cancel	
	,	

In the Mediation Pools section click on Edit Properties.

1 vnc Server 2010. Topology Builder					-11	1 x
File Action View Help						
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	<u>г</u>					
Record	Mediation Server PSTN (ateway			Actions	
Generation Front End Servers					lync-test.berolync.test	
🗉 🧰 Enterprise Edition Front End pools	TLS listening port:	5067			Edit Properties	
🕀 🚞 Director pools	TCP listening port:	5068			Topology	
A/V Conferencing pools	PSTN Gateways:	Default	Gateway	Site		
SQL stores File stores			outenay	510	View	-
E D Mediation pools					P Help	
g lync-test.berolync.test	1					
Edit Proper	ties					
Topology	•					
Archiving Servers View	•					
Edge pools						
Trusted application servers						
🗄 🔄 Branch sites						
Edit the properties for this server.						

Associate the gateway to the Mediation Server.

STN gateway	Mediation Server PSTN gateway			-
	Listening ports: * TLS: 5067 TC	P: 5068		
	Enable TCP port			
	The following gateways are not associated Server.	with any Mediation Serv	ver. Click Add to associat	e them with this Mediation
	Gateway	Site	7	
	172.20.26.222	Beronet	Add	
		200/11 *******	Addin	
	<u> </u>			
	The following gateways are associated wit	h this mediation server.	Click New to define a ne	w gateway and add it to
	The following gateways are associated wit the list. Click Remove to remove a gatew	h this mediation server. ay from the list.	Click New to define a ne	w gateway and add it to
	The following gateways are associated wit the list. Click Remove to remove a gatew Gateway	h this mediation server. ay from the list. Site	Click New to define a ne	w gateway and add it to
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	The following gateways are associated wit the list. Click Remove to remove a gatew Gateway	h this mediation server. ay from the list.	Click New to define a ne	w gateway and add it to

2. Configuring LYNC server 2010.

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Enable users for LYNC.

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Lync Server 2010)				Administrat	or Sign 4.0.75
Home	User Search					1017.5
Users	Court O IDAD and					
Topology	Search CLDAP sear					
IM and Presence	search for users by typing a	user's name or cucking Aa			d filter	
Voice Routing					Search	results:
Voice Features	🕵 Enable users 🔻 🥖 Eo	lit ▼ Action ▼				
Paspansa Groups	Display name	Enabled	SIP address	Registrar pool	Telephony	
Response Groups	Administrator	V	sip:administrator@sip.berolync.test	lync-test.berolync.test	Enterprise Voice	
Conferencing	testuser	\checkmark	sip:testuser@sip.berolync.test	lync-test.berolync.test	Enterprise Voice	
Clients						
External User						
Access						
Monitoring and Archiving						
Security						
Network						
Configuration						

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Edit the users and assign a Line URI. Invites from the gateway with this number as To User will be forwarded to this account.

Microsoft Lync Home Z Users M Topolo I M and C Voice R Voice R Respon D Confere	gy Presence Routing ise Groups	er Search Edit Lync Server User - tes Commit Cancel Display name: testuser Cancel Display name: testuser Cancel Display name: testuser SIP address:*	tuser		Administrator Sign ou 4.0.7577.
Lyrice Lyrice	gy Presence Routing eatures use Groups	Edit Lync Server User - tes Commit X Cancel Display name: testuser T Enabled for Lync Server SIP address:*	tuser		4.0.7577.
 Home Users Topolo Mand Voice R Voice R Respon Confere Cinete 	gy Presence Routing iseatures ise Groups	Edit Lync Server User - tes Commit X Cancel Display name: testuser Itestuser SIP address:*	tuser r		
33 Users 11 Topolog 12 IM and 13 Voice R 14 Voice R 15 Respon 15 Conference 15 Clipate	gy Presence Routing eatures use Groups	Edit Lync Server User - tes Commit X Cancel Display name: testuser T Enabled for Lync Server SIP address:*	tuser		•
Image: Second se	gy Presence Couting eatures use Groups Presence	Edit Lync Server User - tes Commit X Cancel Display name: testuser Lestuser SIP address:*	tuser		
 IM and Voice R Voice F Respon Conference Cliente 	Presence Routing eatures use Groups	Commit Cancel Display name: testuser Cancel Display name: testuser Cancel Display name: Display nam	it		
Image: Second se	Routing eatures use Groups	Display name: testuser I Enabled for Lync Server SIP address:*	и.		
 Voice F Respon Conference Clients 	eatures use Groups	testuser ✓ Enabled for Lync Server SIP address:*	f		
 Respon Conference Clients 	ase Groups	SIP address:*	HT .		
Confere	ancing				
Clients	chicing	sip:testuser	@ sip.berolync.tes	t 💌	
Chernos		Registrar pool:			
👞 Externa	l User	lync-test.berolync.test		(?)	
Access		Telephony:			
Monito	ring	Enterprise Voice		• •	
and Arc	chiving	Line URI:			
Security	У	tel:+49302529	1		
Network	rk 🛛	Dial plan policy:			
 Configu 	uration	<automatic></automatic>		View	
		Voice policy:			
		<automatic></automatic>		View	
		Conferencing policy:			
		<automatic></automatic>		▼ View	
		Client version policy:			-

Double click on your site to edit it.

🛃 Micro	soft Lync Server 2010 Co	ntrol Panel							_	
2	Lync Server 20	10							Administrator Sign o 4.0.7577	ut 7.0
	Home	Dial Plan		Route	PSTN Usage	Trunk Configuratio	n Test Voice R	outing		
33	Users	Create	e voice routing te	st case info	ormation				*	
24	Topology									
Ģ	IM and Presence						Q			
Q	Voice Routing	- Net	w 🔻 🥖 Edit 🔻	Action	Commit	,			0	
S	Voice Features		Name		▲ Scope	State	PSTN usage	Description		
22	Response Groups		💮 Global		Global	Committed				
Ð	Conferencing		Beronet		Site	Committed				
	Clients									
1	External User Access									6
	Monitoring and Archiving									K
	Security									
Ŷ	Network Configuration									Ż
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TypeNow click on Associated PSTN Usages +New.

S Micro	soft Lync Server 2010 Cont	roi Panei	
Se.	Lync Server 2010)	Administrator Sign out 4.0.7577.0
	Home	Dial Plan Voice Policy Route PSTN Usage Trunk Configuration Test Voice Routing	
33	Users	Create voice routing test case information	*
M	Topology		
Ģ	IM and Presence	Edit Voice Policy - Beronet	
Q	Voice Routing	J OK X Cancel	0
6	Voice Features	Scope: Site	
23	Response Groups	Beronet	
Ð	Conferencing	Description:	
	Clients		
-	External User	▼ Calling Features	
	Access	✓ Enable call forwarding ✓ Enable team call	
	and Archiving	✓ Enable delegation ✓ Enable PSTN reroute ✓ Enable call transfer Enable bandwidth policy override	
8	Security	Enable call park Enable malicious call tracing	
	Network	✓ Enable simultaneous ringing of phones	
-	Configuration	Associated PSTN Usages	
		New Select / Show details Remove 1	
		PSTN usage record Associated routes	
T			
>			
		Translated number to test:	
F		Go	
}			

Create a new record, e.g. name it outbound, then click on +New.

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👸 Micro	soft Lync Server 2010 Cor	trol Panel	
S.	Lync Server 201	0	Administrator Sign out 4.0.7577.0
	Home	Dial Plan Voice Policy Route PSTN Usage Trunk Configuration Test Voice Routing	
33	Users	Create voice routing test case information	*
242	Topology		
Ģ	IM and Presence	Edit Voice Policy IN New PSTN Usage Record	
E	Voice Routing	V OK X Cancel	0
C	Voice Features	Name:*	
22	Response Groups		
Ð	Conferencing	Associated Routes	
	Clients	Route Pattern to match	
B	External User Access		
	Monitoring and Archiving		
	Security		
9	Network Configuration		

Give it a name, e.g. outbound again, then click next to associated gateways on the Add button.

osoft Lync Server 2010 Coni	rol Panel	
Lync Server 201	0	Administrator Sign out
Home	Dial Plan Voice Policy Route PSTN Usage Trunk Configuration Test Voice Routing	4013770
Users	Create voice routing test case information	*
Topology		
IM and Presence	Edit Voice Policy Vew PSTN Usage Record Vew Route	
Voice Routing	V OK Cancel	0
Voice Features	Name:*	
Response Groups		
Conferencing		
Clients	Build a Pattern to Match	
External User Access	Add the starting digits that you want this route to handle, or create the expression manually by clicking Edit.	
Monitoring and Archiving	Starting digits for numbers that you want to allow: Type a valid number and then click Add. Add	K
Security	Exceptions	
Network Configuration	Remove	
	Match this pattern:* * Edit Reset Suppress caller ID Alternate caller ID: Associated gateways: Add	T A A A A A A A A A A A A A A A A A A A
	Microsoft Lync Server 2010 Cont Home Users Topology IM and Presence Voice Routing Voice Features Response Groups Conferencing Clients External User Access Monitoring and Archiving Security Network Configuration	Word: Server 2010 Home Dat Pan Voice Routing Users Create voice routing test case information Topology IM and Presence Voice Routing Voice Routing Voice Routing Ok Conferencing Description: Clients Build a Pattern to Match Access Security Network Configuration Security Network Configuration Wath this pattern:* Image: Image: Security Network Configuration Add this pattern:* Image: Image: Ascialer ID: Aternate caller ID: Associaled gateways: Add.

Select the gateway and click on OK.

छ м	icros	soft Lync Server 2010 Contro	l Panel							
	1	Microsoft							Administrator Sign	out
		Lyric Server 2010	1						4.0.75	77.0
		Home	Dial Plar	Voice Policy	Route PS1	TN Usage	Trunk Configuration	Test Voice Routing		
	22	Users	Create	e voice routing te	st case informa	tion			*	
	M	Topology								
	Ģ	IM and Presence	Edi	Select Gatew	ay			0 ×		
	¢			(
0	6	Voice Features						٩		
	22,	Response Groups		Service		Site				
(Ð	Conferencing		PstnGateway:1	72.20.26.222	Beronet				
l		Clients								
	-	External User Access								6
		Monitoring and Archiving								
	A	Security								
	Ŧ	Network Configuration								
								OK Cancel		
/				Suppress caller	ID					
				Alternate caller	ID:					
6				crociptod ante						MN
×			A	ssociated gatewa	/5;			Add		X

Finished PSTN Usage Record. Click OK.

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👸 Micro	soft Lync Server 2010 C	ntrol Panel	
-	Microsoft*		Administrator Sign out
6	Lync Server 20	10	4.0.7577.0
	Home	Dial Plan Voice Policy Route PSTN Usage Trunk Configuration Test Voice Routing	
23	Users	Create voice routing test case information	*
24	Topology		
Ţ	IM and Presence	Edit Voice Policy New PSTN Usage Record	
Ś	Voice Routing	V OK X Cancel	0
S	Voice Features	Name:*	
23	Response Groups	outbound	
Ð	Conferencing	Associated Routes	
-	Clients	Route Pattern to match	
謠	External User Access	outbound .*	
	Monitoring and Archiving		K
	Security		
Ŷ	Network Configuration		

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Now the changes have to be commited. Click on Commit.

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No.	Lync Server 20	10						Administrator Si 4.0.	gn out .7577.0	
	Home	Dial Plan		Route PSTN Usage	Trunk Configuratio	on Test Voice R	outing			
33	Users	Create v	oice routing test	case information					×	
M	Topology									
Ţ	IM and Presence					Q				
¢	Voice Routing	New	🔻 🥖 Edit 🔻	Action ▼ Commit	•				0	
S	Voice Features	Na	ame	▲ Scope	State	PSTN usage	Description			
22	Response Groups	e	Global	Globa	Committed					
Ð	Conferencing) Beronet	Site	🦆 Uncommitted	outbound				
	Clients									
詩	External User Access									K
	Monitoring and Archiving									1
	Security	<								4
Ŷ	Network Configuration									

Final Commit screen, click Commit.

🌄 Micr	rosoft Lync Server 20	10 Control Panel					
	Microsoft"	27 2010					Administrator Sign out
0	Lync Serve	2010				_	4.0.7577.0
	Home	Uncommitted Voice Co	nfiguration Setting:	5		0 ×	
33	Users					-	*
24	Topology	Policies			*		
Ę	IM and Presence	Identity	Action	New value	Old value		
C.		Beronet	Modified				0
6	, Voice Features						
22	Response Grou						
Ŗ	Conferencing	4			•		
) Clients						
	External User Access	PSTN usage			*		
	Monitoring	Identity	Action	New value	Old value		
0	and Archiving	outbound	Added				2
	Network						k
9	Configuration						
		4					
		Routes			*		2
-		Identity	Action	New value (pattern to match)	Old value (pattern to mat		
		outbound	Added	*			
							1244
\leq							200
					Commit	Cancel	No.
							M
2							- Ř

After committing changes it actually takes a while, one or two minutes, until they are active.

3. Configure beroFix

In beroFix you need to configure TCP as SIP Transport Method, you can do that under SIP->General:

bero*fix				Languages: 🔊 🕿				
SIP								
Dialplan • Sip +	PSTN + Hardware	Preferences + Mana	gement + Logout					
	Sip Ge	eneral						
	Bind Port:	5060						
	RTP Port Range:	6000-7000						
	Extern IP:							
	TOS RTP:	160						
	TOS SIP:	160						
P	Preresolve Addresses:	Image: A state of the state						
R	eject calls under load:							
	RTP port selection:	standard 💌						
	SIP transport:	tc p 💌						
	through DSP							
Save								
				Help beroNet :				

You also need to define a SIP Account for Lync, please note that berofix must not register with Lync, so you need to remove the "register" option:

bero*fix						
		SIP				
	Name:	LYNC				
	Server Address:	172.20.128.2:5068				
	User:					
	Secret					
	Register:					
		more				
	Save Close					
			bero <mark>Net</mark> iii			