Microsoft Lync 2013 Integration with VoIP.co.uk SAFEgateway

In order to integrate Microsoft Lync 2013 with the VoIP.co.uk SAFEgateway you must configure both the Microsoft Lync server and the VoIP.co.uk SAFEgateway. This document details and outline of how to complete this task and is aimed at technical users with a backing in the use of Microsoft Lync and Windows Powershell.

- Access the Lync Server Topology Builder from your Front-End Lync server. The Topology Builder is installed as part of the Lync Server Administartive Tools on the Lync installation DVD.
- 2. In the Topology Builder expand the **Shared Components** section then **PSTN gateways**. Rightclick on the **PSTN gateways** folder icon and select **New IP/PSTN Gateway...**



3. The **Define New IP/PSTN Gateway** window will appear, with the menu **Define the PSTN Gateway FQDN**. In the **FQDN** box enter the IP address of the internal interface of the VoIP.co.uk SAFEgateway, and then click **Next**.

16	Define New IP/PSTN Gateway	x
5	Define the PSTN Gateway FQDN	
Define th FQDN: *	ne fully qualified domain name (FQDN) for the PSTN gateway.	
10.1.25	5.2	
Help	Back Next Cancel	

4. The **Define the IP address** menu will appear. Leave the radial buttons select **Enable IPv4** and **Use all configured IP addresses**. Click **Next** to continue.

10	Define New IP/PSTN Gateway	x
5	Define the IP address	
 Enat I 	ble IPv4 Use all configured IP addresses. Limit service usage to selected IP addresses. PSTN IP address:	
⊖ Enal ● I	ble IPv6 Use all configured IP addresses. Limit service usage to selected IP addresses. PSTN IP address:	
Help	Back Next Cancel	

5. The Define the root trunk menu will appear. In the Trunk name field enter a logical name for your trunk, by default this will be the IP address. Set the Listening port for IP/PSTN gateway field to 5060. From the SIP Transport Protocol drop-down list select TCP. In the Associated Mediation Server drop-down list select your Mediation Server or Pool. Leave the Associated Mediation Server port field as its default setting of 5068. Click Finish to complete the setup of the PSTN gateway.

10	Define New IP/PSTN Gateway	x
Define the roo	ot trunk	
Trunk name: *		
10.1.255.2		
Listening port for IP/PSTN ga	teway: *	
5060		
SIP Transport Protocol:		
ТСР		-
Associated Mediation Server:		
front.forfusion.com Forfusi	on	-
Associated Mediation Server	port: *	
5068		
Help	Back Finish Can	cel

6. You now need to publish the new Topology to the Central Management Store. Right click the **Lync Server** icon at the top of the list and select **Publish Topology...** This will publish the new topology to the Central Management Store.

0	Ly	nc Server 2013, Topology	Builder		- 🗆 X
File Action Hel	p	-			
▲ 🛃 Lync Se ▲ 🖫 For ▷ 🛄 ▲ 🛄 ▷ ▷ ▷	New Central Site Edit Properties New Topology Open Topology Download Topology Save a copy of Topology As		forfusic Not co	on.com nfigured	
	Publish Topology Install Database Merge Publish topology to the Remove Deployment Help	e Central Management store.	Active	SIP doma	
🔁 O	ffice Web Apps Servers h sites	Administrative access URL: Central Management Serv	Not cor	https://meet.forfusion.com nfigured	forfusion.ci
		Central Management Server:	Active	Front End front.forfusion.com	Site <u>Forfusion</u>

 Open the Lync Server Web Control Panel and navigate to Voice Routing > Trunk Configuration. From the list of configured trunks select the trunk labelled PstnGateway:<YourTrunkName> and then select the Edit > Show Details... option from the toolbar.

Iv	nc Server 2013						James C. McMichael S	sign out
y							5.0.8308.0 Privacy sta	atement
	Home	Dial Plan Voice Policy	Route PS	TN Usage Truni	c Configuration	Test Voice Routing		
23	Users	Create voice routing t	est case informat	tion				*
×	Topology							
Ş	IM and Presence							
2	Persistent Chat	🖶 New 🔻 🥖 Edit	▼ Action ▼	Commit 🔻				0
প্ত	Voice Routing	Name	▲ Scope	e State	Media bypass	PSTN usage	Calling number rules	С
C	Voice Features	💮 Global	Globa	I Committed			0	0
23	Response Groups	PstnGateway:	10.1.7.2 Pool	Committed		Newcastle_COR_1	, 1	2

 In the Edit Trunk Configuration – PstnGateway:<YourTrunkName> sub-menu you will need to set the following options: Encryption support Level: Not supported Refer support: None Enable media bypass: Disabled Centralized media processing: Enabled Enable RTP latching: Disabled Enable forward call history: Disabled

Enable forward P-Asserted-Identity data: Disabled Enable outbound routing failover timer: Enabled

Once you have set these settings press the **OK** button at the top of the page.

Edit Trunk Configuration - PstnGateway:10.1.7.2	
✓ OK X Cancel	0
Scope: Pool	A
Name: *	
PstnGateway:10.1.7.2	
Description:	
VoIP.co.uk Secure Gateway	
Maximum early dialogs supported:	
20	
Encryption support level:	
Not supported 🔻	
Refer support:	
None	
Enable media bypass	
✓ Centralized media processing	
Enable RTP latching	
Enable forward call history	
Enable forward P-Asserted-Identity data	
✓ Enable outbound routing failover timer	

9. On the Lync Front-End server start the Lync Server Management Shell. Once the shell has opened enter the **Get-CsTrunkConfiguration** command.

₽ ₽	Lync Server Management Shell	_	x
PS C:\Users\a_james.	mcmichael> Get-CsTrunkConfiguration_		^
			=
			\checkmark

 The server will return the configuration of the trunks configured on the system. You are looking for a trunk labelled similar to Service:PstnGateway:<YourTrunkName>. Under the trunk configuration you will see that the following fields are set to True: RTCPActiveCalls RTCPCallsOnHold

You will be required to set these fields to False.

11. Enter the command Set-CsTrunkConfiguration -Identity PstnGateway:<YourTrunkName> -RTCPActiveCalls \$False –RTCPCallsOnHold \$False. You will see an error message WARNING: When RTCP active calls or RTCP calls on hold is false, it is recommended that you enable session timer to periodically verify that the call is still active. Ignore this warning as it is not applicable.

This completes the gateway setup in Microsoft Lync.

12. Connect a serial cable to the back of the VoIP.co.uk SAFEgateway. At the prompt enter **setup**.

P	COM3 - PuTTY	-	×
			\sim
SAFEgateway configuration.			
To configure SAFEgateway,	enter 'setup' at the login prompt.		
sgw00019 login: setup <mark>.</mark>			

13. From the setup menu complete the configuration as follows:

Enter C to configure SAFEgateway or U to undo last re-configuration C/u: c Select the relevant connection type for your setup, this setup assumes as single NIC connection.

Enter configuration type: 1 Enter IP address: <Enter the FQDN IP for the gateway in Lync> Enter netmask: <Enter your netmask, e.g. 255.255.255.0> Enter default gateway: <Enter your default gateway, e.g. 10.1.255.1> Enter incoming SIP call address range: <Enter your internal IP address range in CIDR notation, e.g. 10.0.0.0/24> Enter PBX IP address for call delivery: <Enter the IP of your Mediation Server including SIP listening port, e.g. 10.1.254.2:5068> Select UDP or TCP for SIP configuration: TCP Do you wish to change SIP credentials Y/N? n Save the configuration. This completes the SAFEgateway setup.

COM3 - PuTTY - 🗆	×
sgw00019 login: setup SAFEgateway Configuration Wizard. Enter C to configure SAFEgateway or U to undo last re-configuration C/u: c Two configurations are supported by the SAFEgateway: 1. NIC1 connected to firewall DMZ. 2. NIC1 connected to firewall DMZ, NIC2 connected to public internet Enter configuration type [1]: 1	^
Configure firewall connection: Enter IP address [172.21.1.51]: 10.1.255.2 Enter netmask [255.255.255.0]: Enter default gateway [172.21.1.1]: 10.1.255.1	
Enter incoming SIP call address range [172.16.0.0/12]: 10.0.0.0/24 Enter PBX IP address for call delivery [172.21.1.20:5068]: 10.1.254.2:5068 10.1.254.2:5068 Select UDP or TCP for SIP configuration [tcp]: tcp	
SIP credentials. Do you wish to change SIP credentials Y/N?n	~

Note - You will require a Dial Plan in Lync in order to send outbound calls via the SAFEgateway. Details on creating Dial Plans can be found at <u>http://technet.microsoft.com/en-us/library/gg398922.aspx</u>, alternatively you can the online tool created by Ken Lasko to generate a Dial Plan <u>http://www.lyncoptimizer.com/</u> (please note that while this tool is very good, it may not provide the same level of granularity you may want in your Dial Plan).