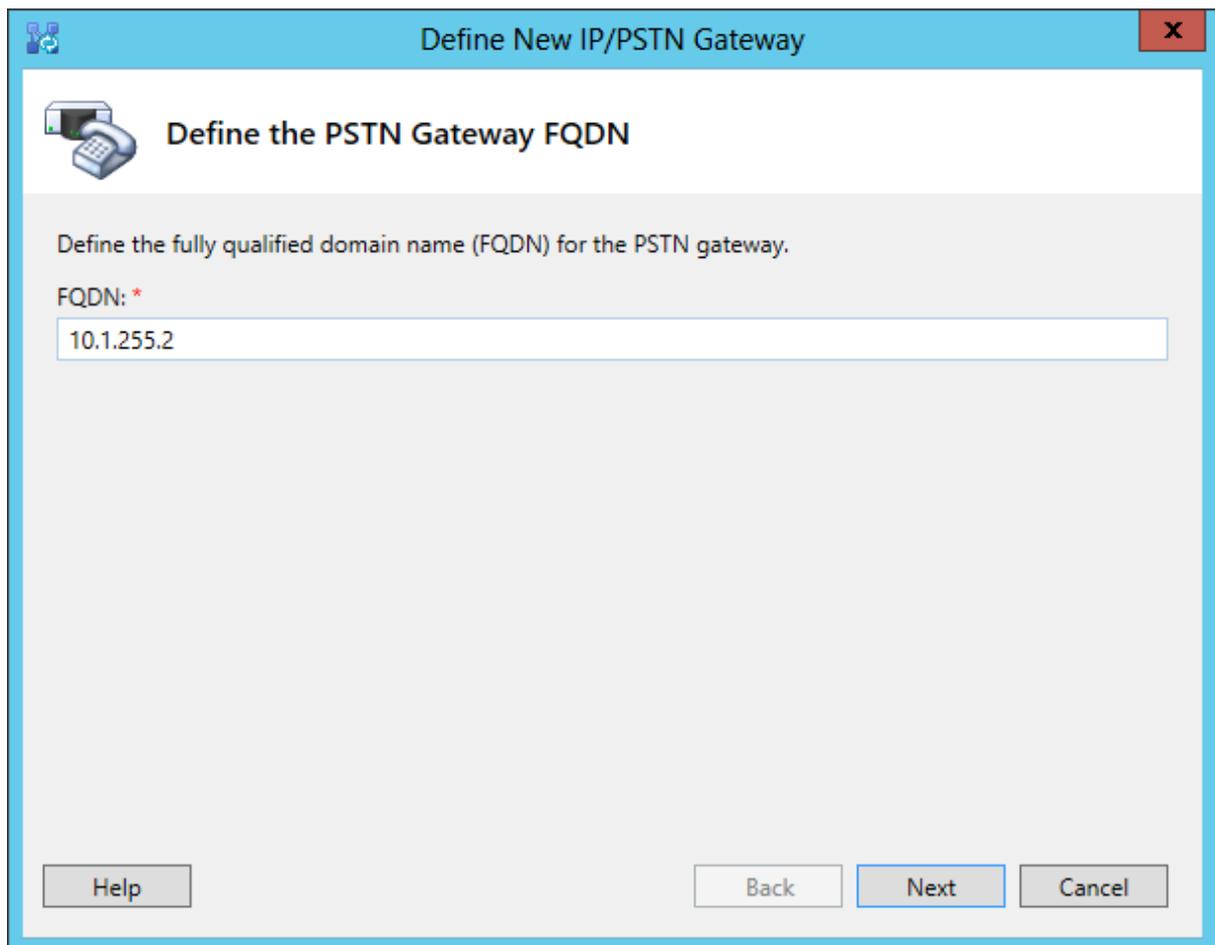# Microsoft Lync 2013 Integration with VoIP.co.uk SAFEgateway

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.

1. 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**. Right-click on the **PSTN gateways** folder icon and select **New IP/PSTN Gateway…**
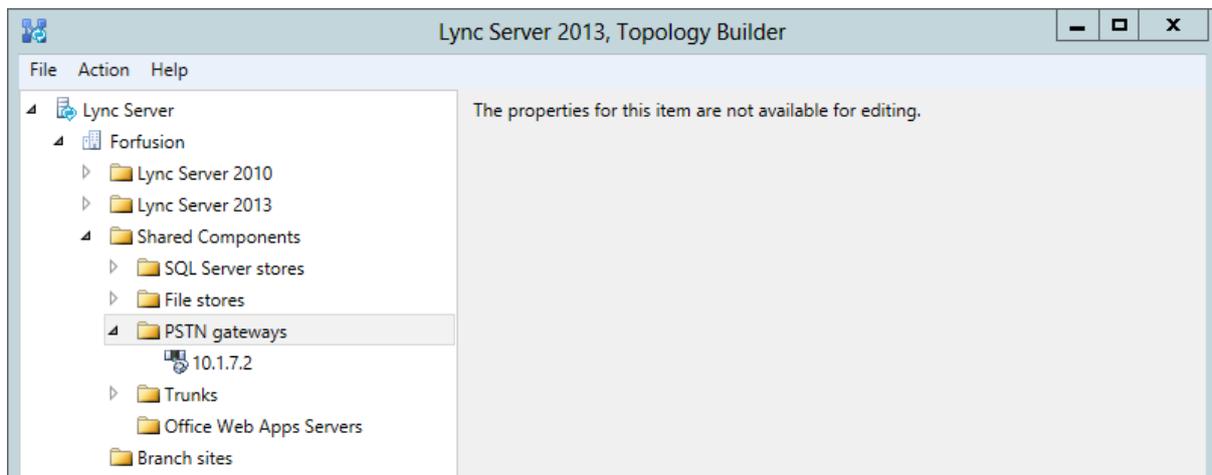
3. The **Define New IP/PSTN Gateway** window will appear, with the menu **Define the PSTN Gateway FQDN**. In the **FQDN** box enter the IP address of the internal interface of the VoIP.co.uk SAFEgateway, and then click **Next**.

Define New IP/PSTN Gateway

Define the PSTN Gateway FQDN

Define the fully qualified domain name (FQDN) for the PSTN gateway.

FQDN: *

10.1.255.2

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.

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.

Define New IP/PSTN Gateway

Define the root trunk

Trunk name: *

10.1.255.2

Listening port for IP/PSTN gateway: *

5060

SIP Transport Protocol:

TCP

Associated Mediation Server:

front.forfusion.com   Forfusion

Associated Mediation Server port: *

5068

Help   Back   Finish   Cancel

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.
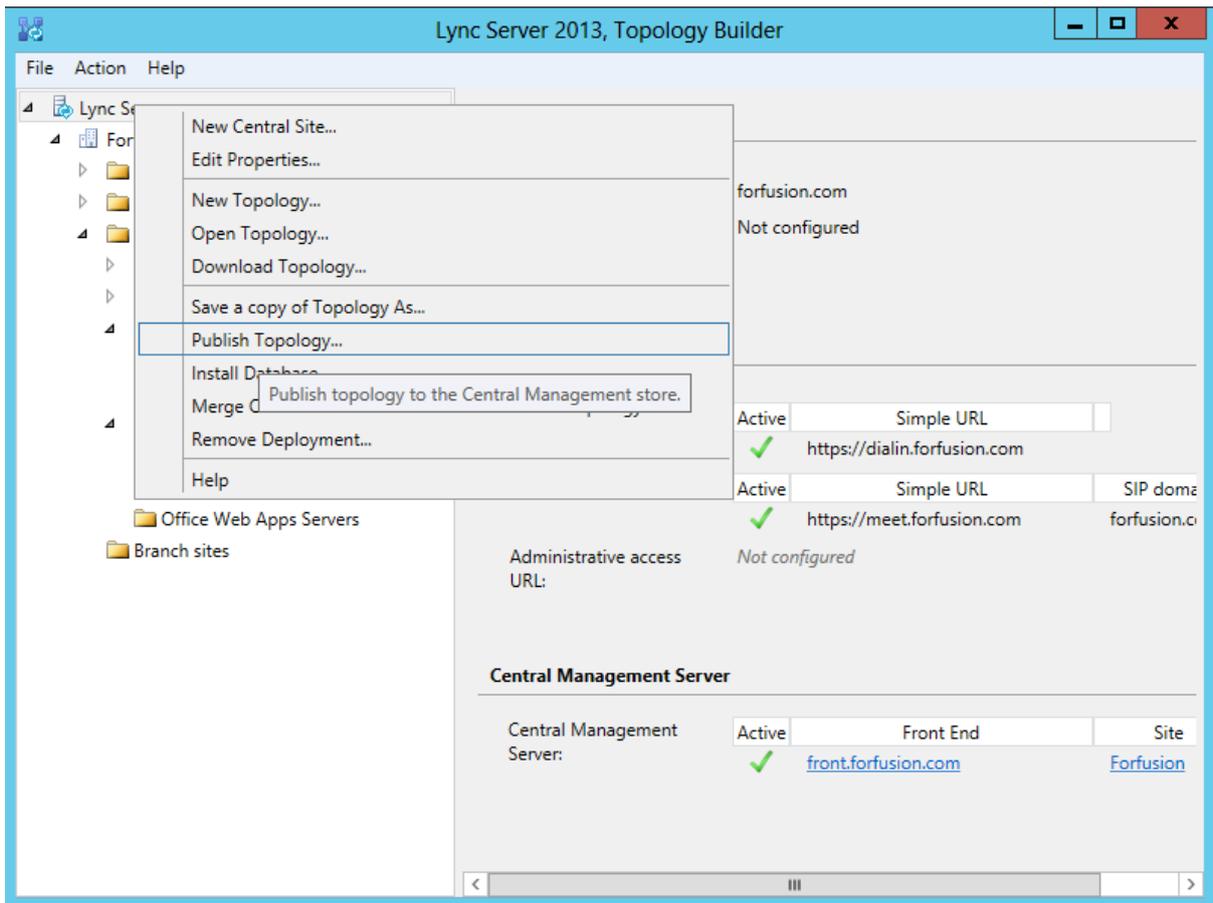
7. Open the Lync Server Web Control Panel and navigate to **Voice Routing > Trunk Configuration**. From the list of configured trunks select the trunk labelled **PstnGateway:<YourTrunkName>** and then select the **Edit > Show Details…** option from the toolbar.
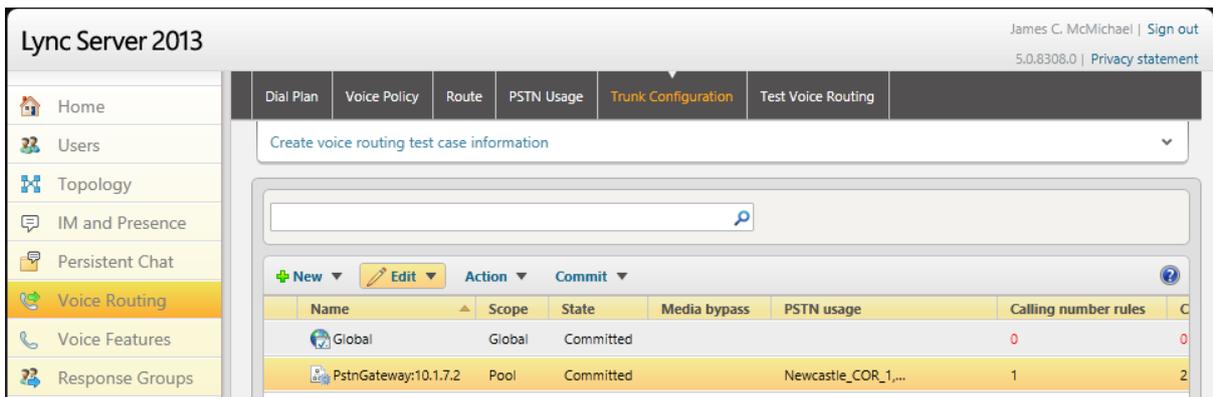
8. In the **Edit Trunk Configuration – PstnGateway:<YourTrunkName>** sub-menu you will need to set the following options:
   Encryption support Level: Not supported
   Refer support: None
   Enable media bypass: Disabled
   Centralized media processing: Enabled
   Enable RTP latching: Disabled
   Enable 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.

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

10. 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**.
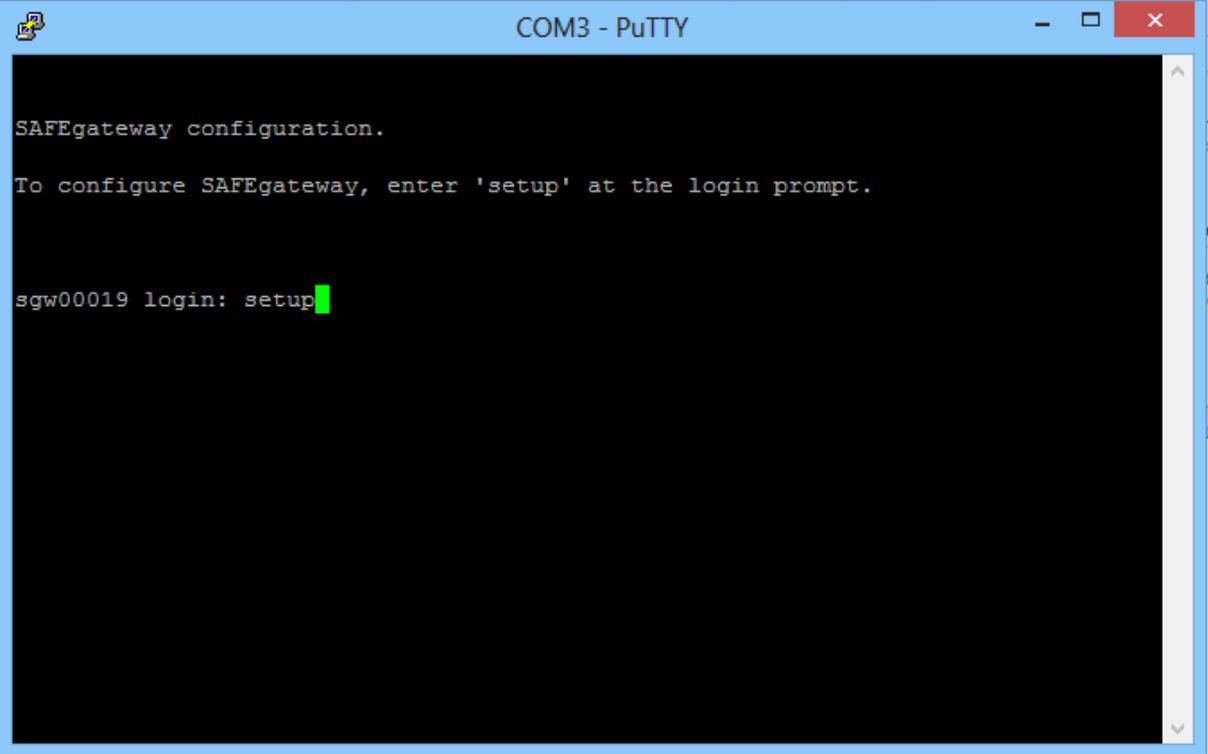
13. From the setup menu complete the configuration as follows:
Enter C to configure SAFEgateway or U to undo last re-configuration C/u: c
Select the relevant connection type for your setup, this setup assumes as single NIC connection.
Enter configuration type: 1
Enter IP address: <Enter the FQDN IP for 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.

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 http://technet.microsoft.com/en-us/library/gg398922.aspx, alternatively you can the online tool created by Ken Lasko to generate a Dial Plan http://www.lyncoptimizer.com/ (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).