Integration of MiVoice MX-ONE and Microsoft® Lync Server™ 2013

QUICK SETUP GUIDE

Mitel®

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TRADEMARKS

CONTENTS

1 INTRODUCTION

The MiVoice MX-ONE communication system is based on an open software and hardware environment, using standard servers with a Linux SUSE operating system. This open standards approach enables Mitel to offer our customers a choice and with this in mind we have worked together with Microsoft to ensure that MiVoice MX-ONE can be integrated with the latest Microsoft UC products.

MiVoice MX-ONE 5.0 was the first communications system (IP-PBX) to be fully UCOIP qualified with Microsoft Lync Server 2013. This is a complete direct SIP integration, including security and media bypass, enabling customers to have both MX-ONE 5.0/6.x and MS Lync 2013 co-exist side by side in the same infrastructure and benefit from the best of both worlds. MX-ONE integrates with Microsoft UC solutions directly via a SIP connection to reduce the overall cost and complexity of the combined solution.

Please refer to Microsoft's TechNet site for "Infrastructure Qualified for MS Lync" for more information on the Microsoft Unified Communications Open Interoperability Program (UCOIP).
http://technet.microsoft.com/en-us/lync/gg131938

1.1 GENERAL

Integration of MiVoice MX-ONE with Microsoft Lync Server 2013 is supported as a complementary solution providing end user services, like instant messaging, conferencing etc.

Microsoft Partner Program has certified the integration between MX-ONE communications system running the MX-ONE Service Node software 5.0 SP4 and Microsoft Lync Server 2013 via a Direct SIP connection. Also later versions of MX-ONE can be integrated with Microsoft Lync Server 2013.

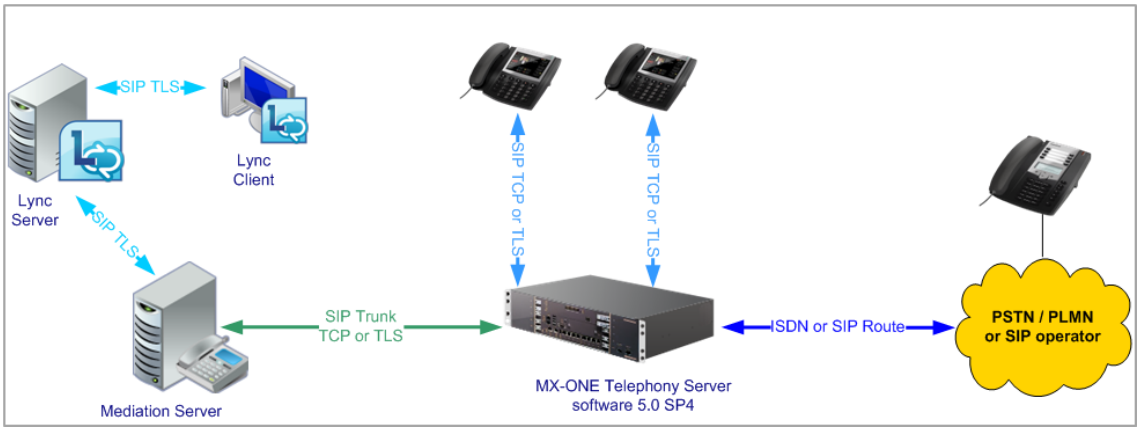
1.2 SCOPE OF THIS DOCUMENT

The intent of this guide is to describe the basic integration between MiVoice MX-ONE and Microsoft Lync Server 2013. The following sections describe the solution integration that has been certified through the Microsoft Partner Program and covers only the Direct SIP integration. For more information on how this integration is set-up and functions, please refer to the relevant CPI documentation for MX-ONE or go to the Microsoft UC product websites.

As a general rule, it is always recommended to check the latest products documentation.

2 INTEGRATION DESCRIPTION

The integration of MiVoice MX-ONE and Microsoft Lync Server 2013 described in this guide is achieved via Direct SIP. Direct SIP that is specified by Microsoft means that a SIP trunk is used to connect MX-ONE and Microsoft Lync Server 2013 (Mediation Server). The SIP trunk connection between the systems can be deployed with or without encryption. MX-ONE supports TLS for signaling and SRTP for media encryption when connected with Mediation Server.



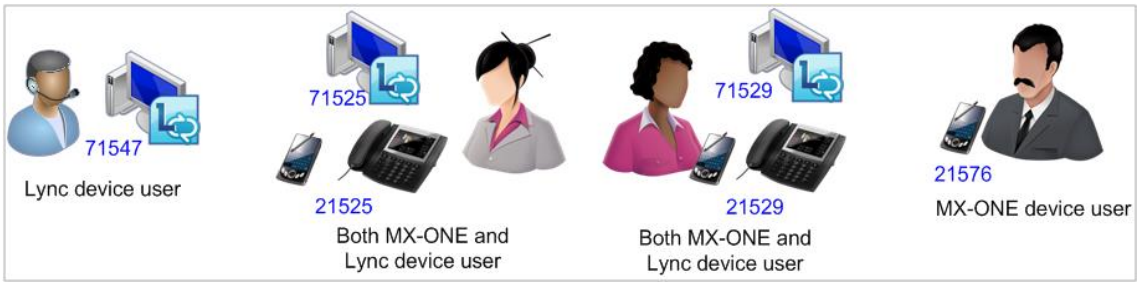
This guide covers only the components that are required in the integration between MX-ONE 5.0 SP4 or later versions, and Lync Server 2013 via Direct SIP to offer the functionality required by the Microsoft UC Open Interoperability Program for enterprise telephony services and infrastructure.

At least the following Microsoft Lync Server 2013 components are required in order to support this integration:

- Server Infrastructure
  - Microsoft infrastructure (Domain Controller, Active Directory, DNS, etc.)
  - Microsoft Lync Server 2013 Standard or Enterprise Edition
  - Microsoft Mediation Server
- Client
  - Lync 2013

2.1 DIRECT SIP

In Direct SIP integration, referred to as Enterprise Voice by Microsoft Lync 2013 users will have dedicated phone numbers that differs from those used in the MX-ONE.



This enables the Lync 2013 client to make and receive external calls through a PC. The calls are routed from the Lync Server 2013 by the SIP trunk to the MX-ONE and further to the PSTN and vice-versa. MX-ONE and Microsoft Lync Server 2013 will behave as networked PBX's, as typically is the case with all external trunks in the MX-ONE.

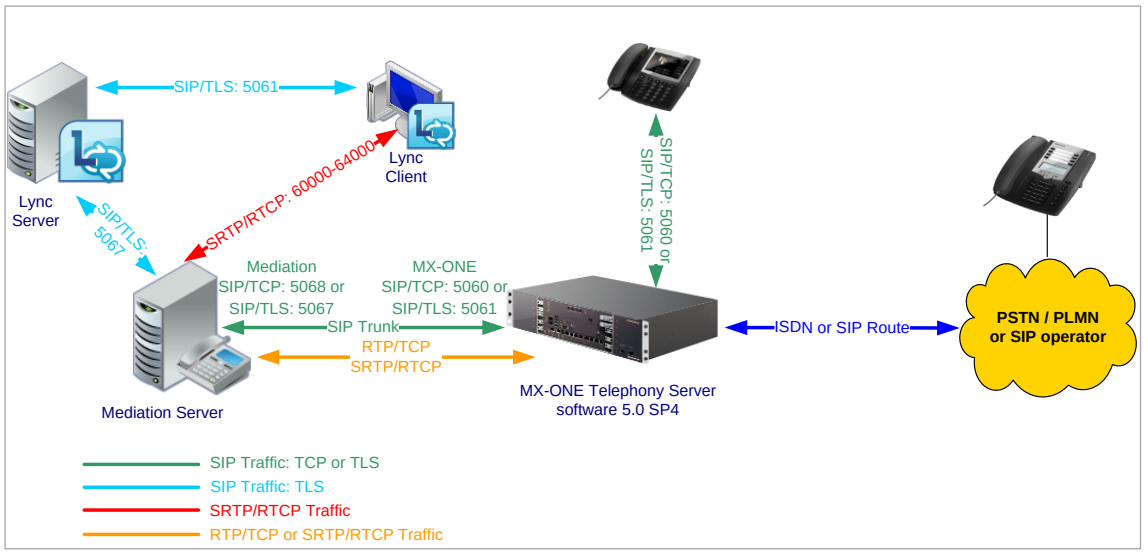
2.2 DIRECT SIP SIGNALING OVERVIEW

MiVoice MX-ONE supports SIP/TCP or SIP/TLS as the SIP transport mechanism when connected with Mediation Server.

The MX-ONE ports used for such connections are:

- SIP/TCP: 5060
- SIP/TLS: 5061

In additional, MX-ONE also supports media encryption (SRTP) when connected with Microsoft Lync 2013 Server when TLS is used. The media encryption will be done between MX-ONE media gateway unit (MGU) and Microsoft Mediation Server or between MX-ONE media gateway unit (MGU) and Lync client when Media Bypass is configured in Lync 2013 Server.



2.3 DIRECT SIP SUPPORTED FEATURES

During the certification process the following Lync features were validated with MX-ONE Service Node software 5.0 SP4.

- Basic Call services between MX-ONE and Lync end-points over SIP trunks
  - Anonymous user calls
  - Caller ID on both ends
  - Decline call
  - Call forwarding and simultaneously ring feature
  - Inbound and outbound calls
- Media bypass (a.k.a. direct media between MX-ONE and Lync clients). Encryption (TLS and SRTP) is required for this functionality.
  - Inbound call from MX-ONE user device to Lync client
  - Outbound call from Lync client to MX-ONE user device
  - Outbound call: Call Forward All (CFA) to another Lync client
  - Outbound call from Lync with by-pass enabled and CFA enabled to another Lync user
- Outbound call: PBX CFB (Call Forward on Busy) to another Lync user
  - Outbound call from Lync with by-pass enabled and CFB enabled to another Lync user
- Conference
- Failover (to secondary Mediation Server - Lync gateway)
- Security (support for TLS/SRTP encryption)

3 PREREQUISITES

In order to have the proper integration between MiVoice MX-ONE and Microsoft Lync Server using Direct SIP, there are some prerequisites on both sides that must be fulfilled.

3.1 MIVOICE MX-ONE REQUIREMENTS

On the MiVoice MX-ONE side, at least one MX-ONE Service Node and one Media Gateway are required to interwork with Microsoft Lync Server 2013.

3.1.1 MAIN COMPONENTS:

At least the following MX-ONE components are required:

- MX-ONE communications system
  - MX-ONE Service Node
    - MX-ONE Service Node 5.0 SP4 or later versions
- Supported media gateways with the latest compatible firmware with 5.0 SP4 (or later versions)
  - MX-ONE Classic - 7U 19-inch chassis, MGU boards or
  - MX-ONE Lite - 3U 19-inch chassis, using MGU board
  - MX-ONE Slim – 1U 19-inch chassis, using MGU board
- Terminals
  - All current MX-ONE terminal types are supported with this integration: SIP, H.323, analog, digital, DECT and mobile extension

3.1.2 LICENSES

The MX-ONE licenses needed for this integration are:

- SIP trunk licenses, please note that the quantity of licenses depend on how the system is deployed.
- Encryption licenses are required if encryption (TLS/SRTP) is used.

Please always check with your Mitel partner that your system has the correct licenses, before beginning the integration deployment.

3.2 MICROSOFT LYNC SERVER 2013

A Microsoft environment needs to be in place in the customer site. Note that the Microsoft Lync is not part of the MX-ONE offering. It is important that Microsoft competent engineers are used for installation and integration according to the MX-ONE configuration guidelines for the interface between the systems.

3.2.1 MAIN COMPONENTS

The main Microsoft components that are required to interconnect with MiVoice MX-ONE are Microsoft Lync Server, Mediation Server and Lync clients. The Lync requirements are found in the Microsoft Lync Server documentation, see the chapter References at the end of this guide.

Note! In Mitel´s lab validation a single Lync Server Standard Edition with a co-located Mediation Server was used. When testing load balancing and failover two stand-alone Mediation Servers were added to the topology.

3.2.2 LICENSES

Microsoft licenses needed for this integration are not included as part of the scope of this guide.

Please contact Microsoft or a qualified Microsoft partner to obtain the proper license requirements for each component of the Microsoft Lync Server solution.

4 INSTALLATION AND CONFIGURATION

4.1 INSTALLATION

4.1.1 MIVOICE MX-ONE INSTALLATION

It is assumed that MX-ONE Service Node software 5.0 SP4 or later versions is installed in the customer environment. The system installation is not covered in this guide and should be performed by a qualified Mitel certified partner prior to the start of the integration work.

For Mitel MX-ONE installation, please check the appropriate CPI documentation.

4.1.2 MICROSOFT INFRASTRUCTURE

It is assumed that Microsoft infrastructure and Microsoft Lync Server are installed in the customer environment by a qualified engineer.

For Microsoft infrastructure and Microsoft Lync Server requirements please check the appropriate Microsoft documentation.

4.2 CONFIGURATION

The following information was used in Mitel's laboratory setup during the validation of the solution. The setup may change depending of the customer specific needs.

Note! Fully Qualified Domain Name (FQDN) needs to be properly specified in the Domain Name System (DNS).

- MX-ONE 5.0 SP4 (or later version)
  - Domain: lab.moon.galaxy Note that MX-ONE is part of a sub-domain.
  - IP address: 192.168.222.10
    FQDN: mx-one-lync.lab.moon.galaxy.
- Microsoft Domain Controller, Active Directory, Certification Authority and DNS Server
  - Domain: moon.galaxy
  - IP address: 192.168.222.2
    FQDN: lync-infra.moon.galaxy
- Lync Server Standard Edition and Mediation pool
  - Domain: moon.galaxy
  - IP address: 192.168.222.3
    FQDN: lync-2013-se.moon.galaxy

Note! Mitel recommends that complex scenarios shall be validated in the partner labs prior to customer deployment.

4.2.1 DIRECT SIP SETUP

A SIP trunk has to be configured in MX-ONE as well as the access code for this route.

MX-ONE uses ports TCP 5060 and TLS 5061 to be interconnected with Microsoft Lync 2013.

Note! MX-ONE 5.0 SP4 (or later version) works with pre-defined SIP profiles for certain SIP service providers, if used; the profile file will help you configure the right data for the type selected. Each profile file may contain a number of profiles. The profile will pre-configure settings like "-register", "-

trusted" etc. according to the telephony provider requirements.

MX-ONE 5.0 SP4 (or later version) has pre-defined SIP trunk profiles to be used with Lync 2013. One of the following trunk profiles needs to be selected during the MX-ONE SIP trunk configuration.

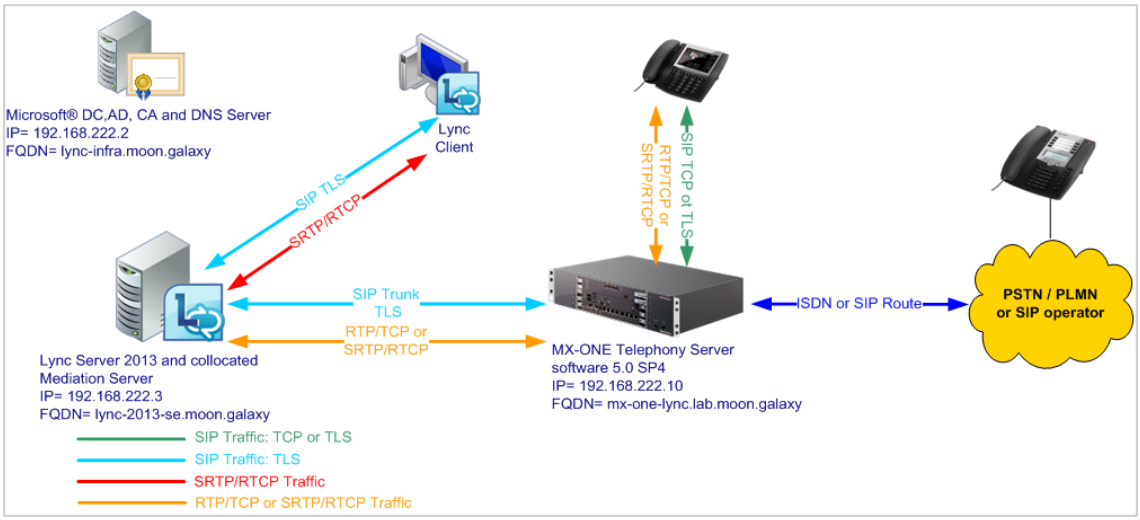
- Lync_TCP
  TCP is used as transport protocol and the listening port is 5068.
- Lync_TLS_SRTP. TCP is used as transport protocol and the listening port is 5067. SRTP is used to encrypt the media, it uses RTP/SAVP.

The setup presented below uses Lync_TCP where TCP is the transport protocol, in this case the remote port is expected to listening on port 5068.

In order to secure a good interoperability between MiVoice MX-ONE and Microsoft Lync Server 2013, the SIP trunk profiles defined to Lync are “Forced Gateway”, because it will guarantee the same behavior for all type of calls passing through MX-ONE and going to Lync Server 2013.

4.2.1.1 MiVoice MX-ONE Direct SIP setup - TCP

The figure below shows the Direct SIP configuration used in this guide:



The following setup needs to be done in MX-ONE in order to configure Direct SIP, please note that only SIP Route definitions are showed.

1. Use the following command to check more details regarding SIP Profile Lync_TCP

   sip_route -print -profile Lync_TCP

2. Define SIP route category:

   ROCAI:ROU=99,SEL=7110000000000010,SIG=0111110000A0,TRAF=03151515,TRM=4, SERV=3100000001,BCAP=001100;

3. Define SIP route data

   RODAI:ROU=99,TYPE=TL66,VARC=00000000,VARI=00000000,VARO=00000000;

4. Define SIP trunk data specific:

   sip_route -set -route 99 -profile Lync_TCP -uristring0=sip:?@ lync-2013-se.moon.galaxy (or 192.168.222.3) -remoteport 5068 -accept REMOTE_IP -match 192.168.222.3 -codecs PCMA,PCMU

5. Verify your configuration:

   sip_route -print –route 99 –short

6. Define the SIP Route equipment initiate, for example:

   ROEQI:ROU=99,TRU=1-1&&1-30;

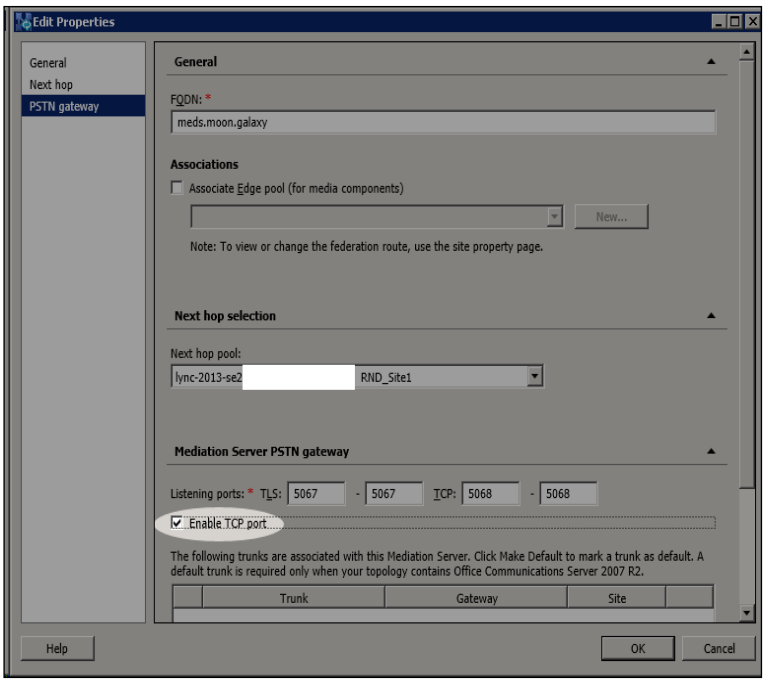
7. Define external destination SIP route data

RODDI:ROU=99,DEST=99,ADC=000500000000025000000101000O,SRT=3;

4.2.1.2 *Lync Server 2013 configuration - TCP*

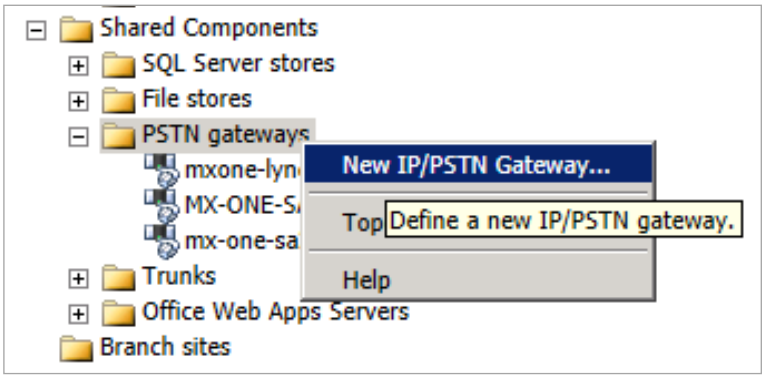
In order to finalize the configuration between MX-ONE and Microsoft Lync Server 2013 the following needs to be done:

Enable TCP support for the Mediation pool, because it is disabled by default.



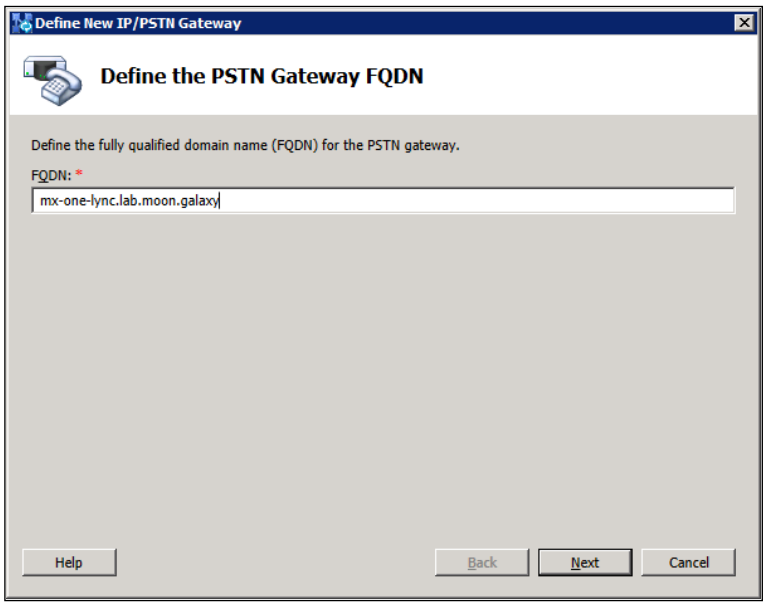
4.2.1.3 *Define PSTN Gateway in the Lync Server 2013 Topology Builder*

1. Open Lync Server 2013, Topology Builder and define a PSTN gateway to be used between Lync and MX-ONE.
2. To define the PSTN gateway, expand Shared Components, right click in the PSTN gateways.

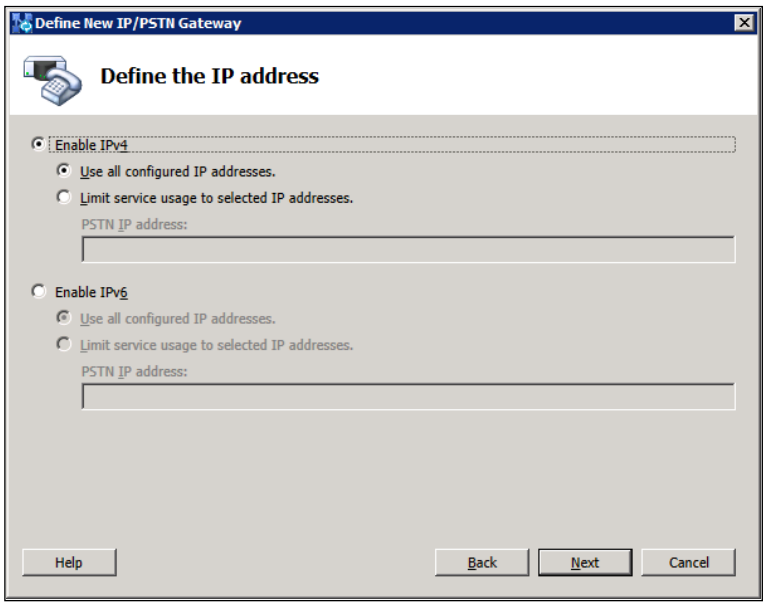


3. Click in New IP/PSTN Gateway, the Define New IP/PSTN Gateway dialog box appears, type the following:

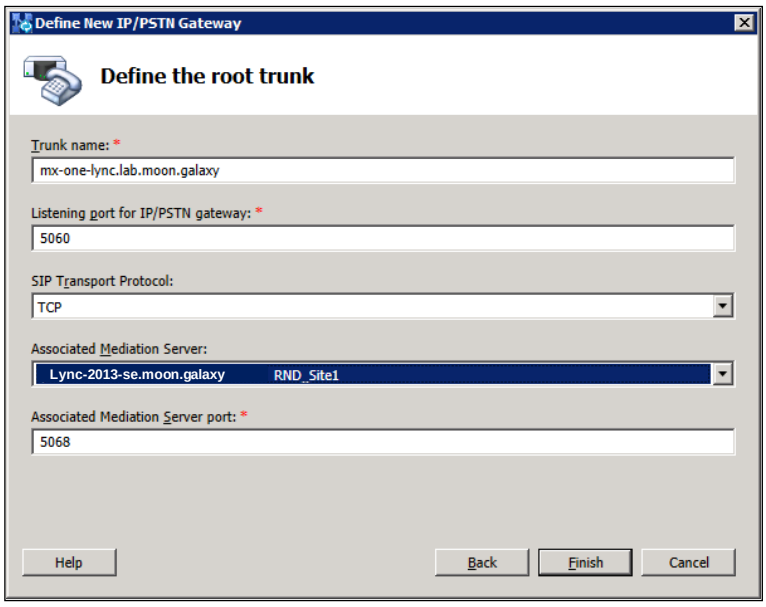
   Gateway FQDN or IP Address: specify the MX-ONE IP Address or FQDN, click Next



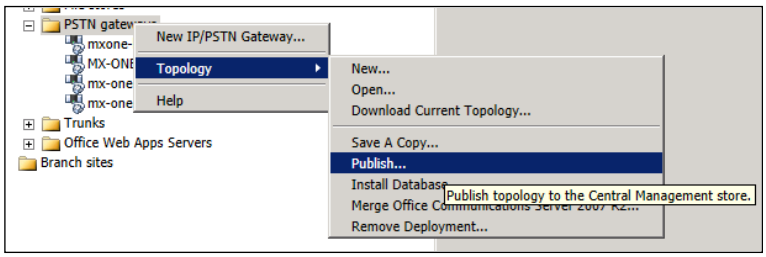
4. Define the IP address: in this example the default is kept. Click Next.



5. Define the root trunk
   - Trunk name: FQDN (MX-ONE FQDN)
   - Listening port for IP/PSTN gateway: 5060 (MX-ONE SIP TCP port)
   - SIP Transport Protocol: TCP
   - Associated Mediation Server: lync-2013-se.moon.galaxy
   - Associated Mediation Server Port: 5068 (default)
6. Click Next



7. Publish the topology



4.2.1.4 Define a Dial Plan

The Dial Plan configuration is required to allow Lync users to dial to MX-ONE terminals as well as PSTN. To define it, execute the following:

1. Open the Lync Server Control Panel
2. Click Voice Routing and choose Dial Plan
3. Define Normalization rules that fits your organization needs, at least a rule for Lync users to dial to MX-ONE terminals and another for PSTN (assuming that MX-ONE is connected with the PSTN) is required. Please contact Microsoft for the appropriate setup for your company as needed

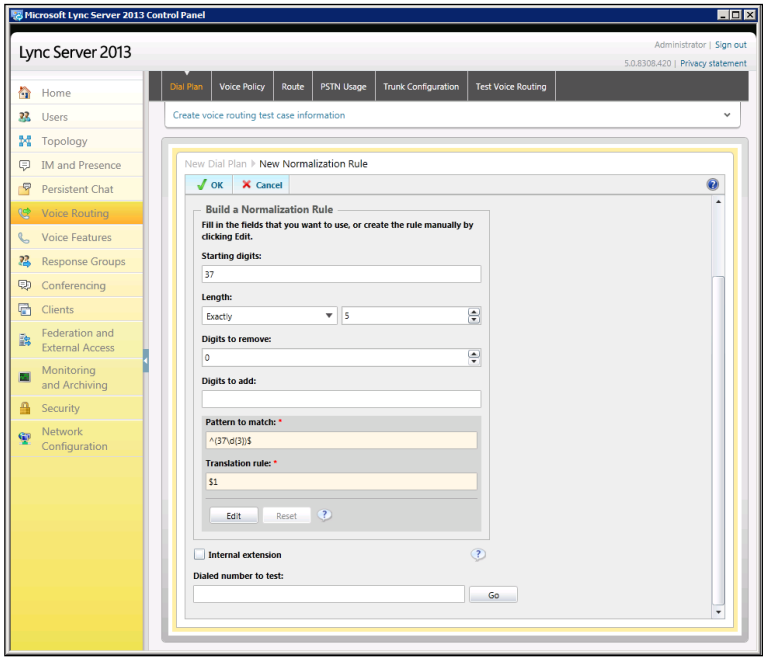


Figure 1 - - New Normalization Rule, five digits example

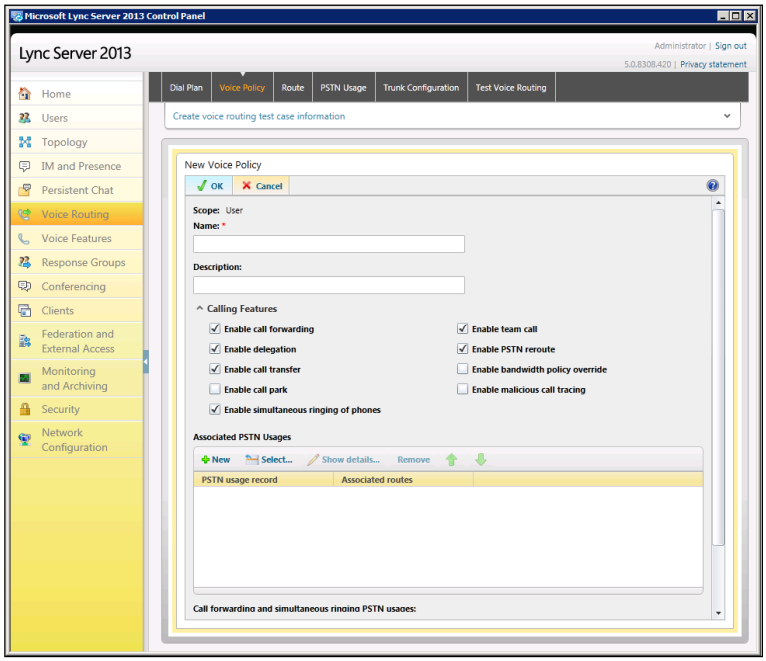
4. Commit the changes

4.2.1.5 *Define Voice Policy*

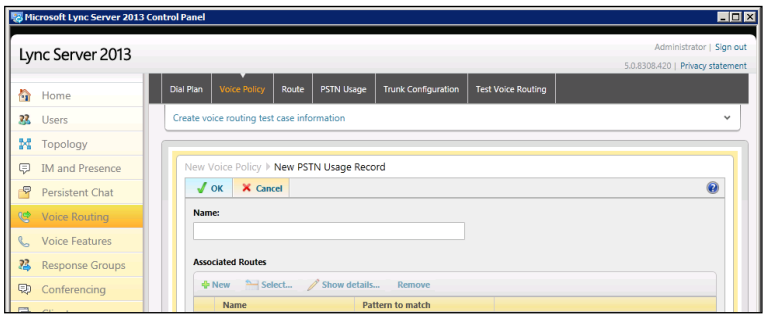
A voice policy is required to make possible Lync users to dial out via the Direct SIP connection using MX-ONE. Lync client users need to be assigned for this policy afterwards.

Create the Voice Policy

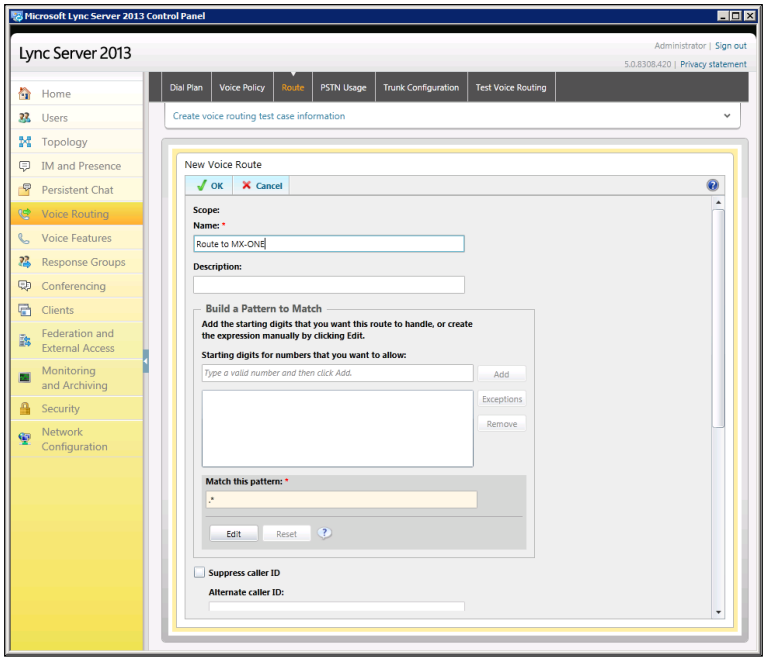
1. Click Voice Routing and choose Voice Policy
2. Click in New and choose the type of policy that is applicable for your company setup, site policy or user policy
3. Define a name and description for this voice policy



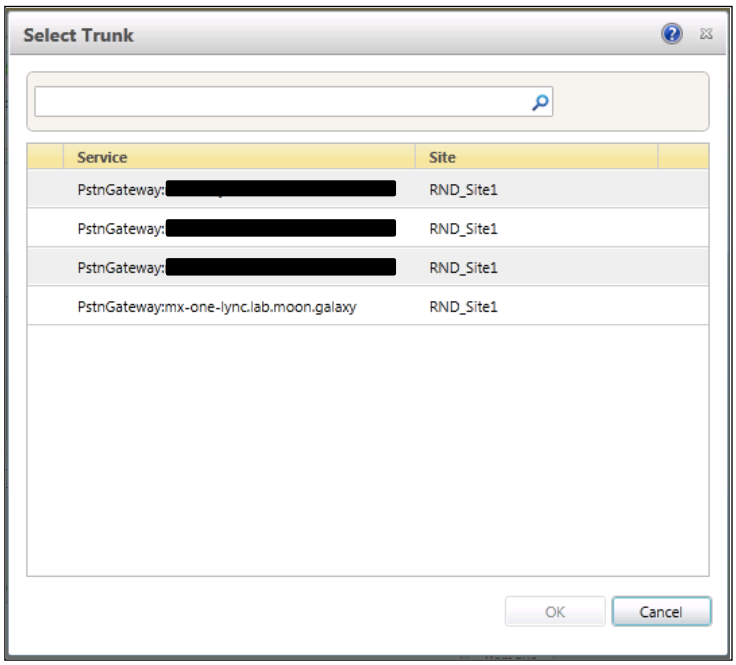
4. Associate a new PSTN for this policy, click New
5. Define a name and description for this new PSTN usage record.



6. Click New to associate a Route with this PSTN usage record.
7. Define a name and description for this New Route.
8. Associate the MX-ONE gateway created previously with this New Route, to do it click Add in Associated Gateways.



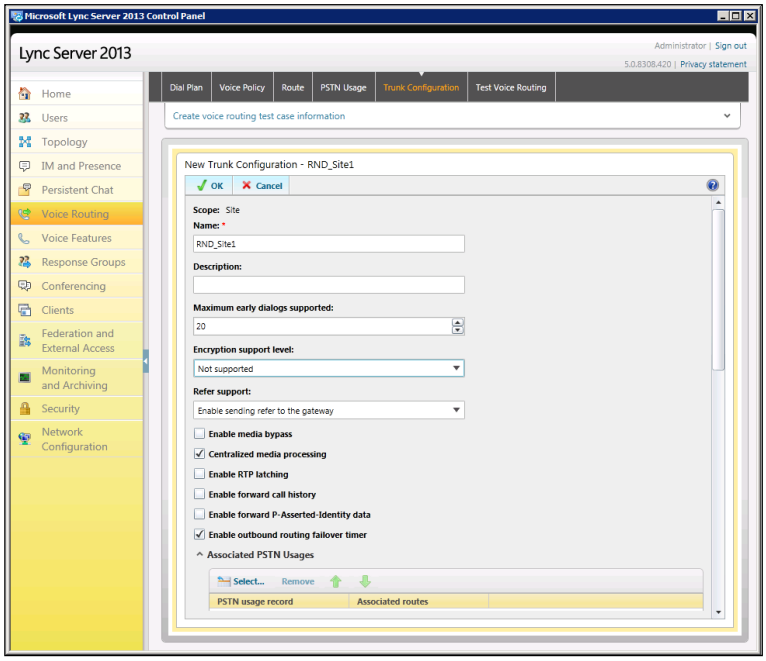
9. In the Select Gateway select the MX-ONE gateway created previously.
10. Click OK for all questions in order to keep the configurations.
11. Commit all changes.



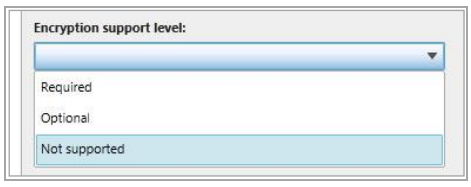
4.2.1.6 *Define Trunk Configuration*

In order to assign the MX-ONE gateway to a site or pool trunk execute the following:

1. Click in Voice Routing and then click in Trunk Configuration.
2. Click in New and choose the type of trunk that is applicable for your company setup, site trunk or pool trunk.



3. Select the Encryption support level, in this case, Not supported.



4. Commit all changes

4.2.1.7 *Conclusion*

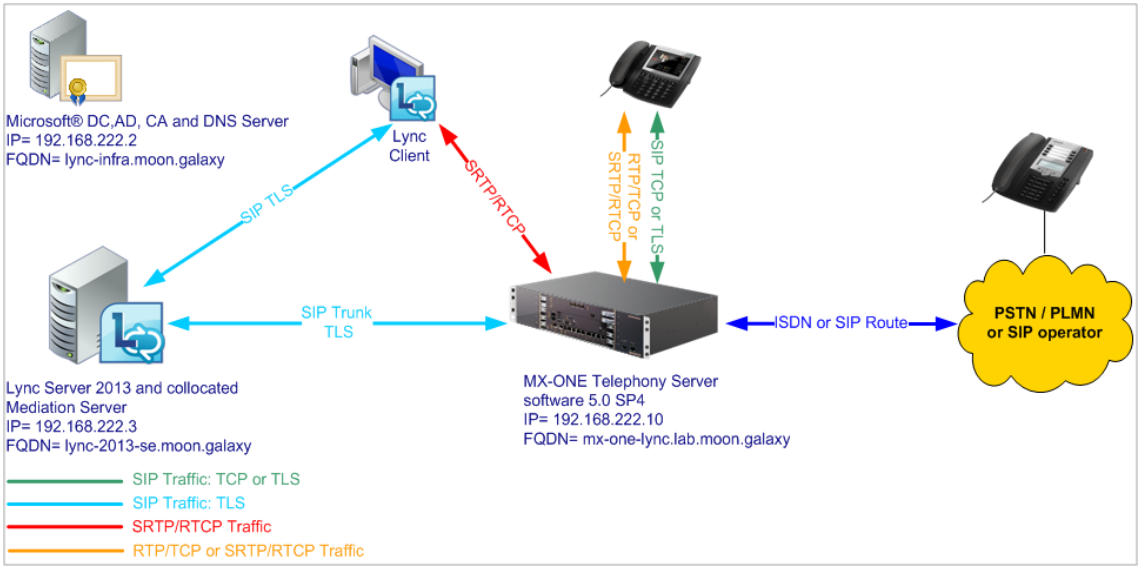
Now the setup is concluded, assign users with the Policy created previously and test the integration making calls between the systems.

Please check Enable Users for Enterprise Voice setup in the link below:

http://technet.microsoft.com/en-us/library/gg413011.aspx

4.2.2 DIRECT SIP WITH SECURITY AND MEDIA BYPASS SETUP

The figure below shows the Direct SIP with security and Media Bypass configuration used in this guide.



4.2.2.1 *MiVoice MX-ONE Direct SIP with security and Media Bypass setup*

The following setup needs to be done in MX-ONE in order to configure Direct SIP with security (encryption), please note that only Route definitions are showed.

Note! MX-ONE FQDN needs to be properly defined in the DNS Server.

When using security an appropriate certificate needs to be installed in MX-ONE as well as the encryption licenses. Please check Certificate Management on MX-ONE CPI documentation in case you need more details regarding certificates.

Note! TLS/SRTP security is required for Media bypass functionality. It means that the proper encryptions licenses shall be loaded in the MX-ONE system.

1. Use the following command to check more details regarding SIP Profile Lync_TLS_SRTP

   sip_route -print -profile Lync_TLS_SRTP

2. Define SIP route category:

   ROCAI:ROU=98,SEL=7110000000000010,SIG=0111110000A0,TRAF=03151515,TRM=4, SERV=3100000001,BCAP=001100;

3. Define SIP route data

   RODA I:ROU=98,TYPE=TL66,VARC=00000000,VARI=00000000, VARO=00000000;

4. Define SIP trunk data specific:

   sip_route -set -route 98 -profile Lync_TLS_SRTP –uristring0 sip:?@ lync-2013-se.moon.galaxy -remoteport 5067 -accept REMOTE_IP -match 192.168.222.3 -codecs PCMA,PCMU

5. Verify your configuration:

sip_route -print –route 98 -short

6. Define the SIP Route equipment initiate

   ROEQI:ROU=98,TRU=1-1;

7. Define external destination SIP route data

   RODDI:ROU=98,DEST=98,ADC=000500000000025000000101000O,SRT=3;

4.2.2.2 *Import the certificate to MX-ONE Service Node*

Import the server certificate mx-one-certificate.pfx to MX-ONE Service Node. On the access Server, for example, MX-ONE Service Node 1 runs the following command

1. Install the certificate in the MX-ONE Service Node 1:

   cert_install_local mx-one-certificate.pfx

2. Enable Media Encryption in the route:

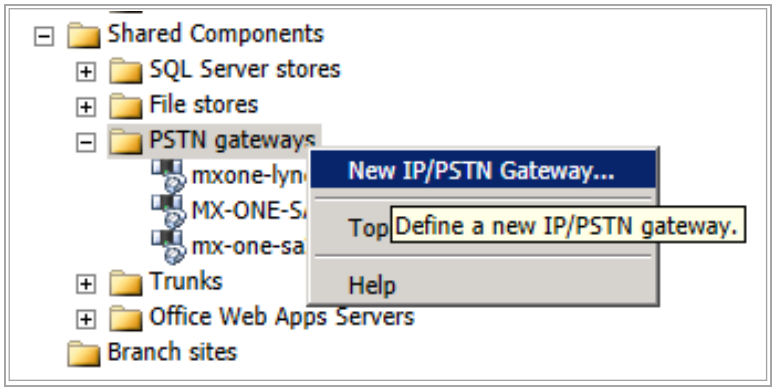
   media_encryption_enable –type route

4.2.2.3 *Lync configuration with security and Media Bypass setup*

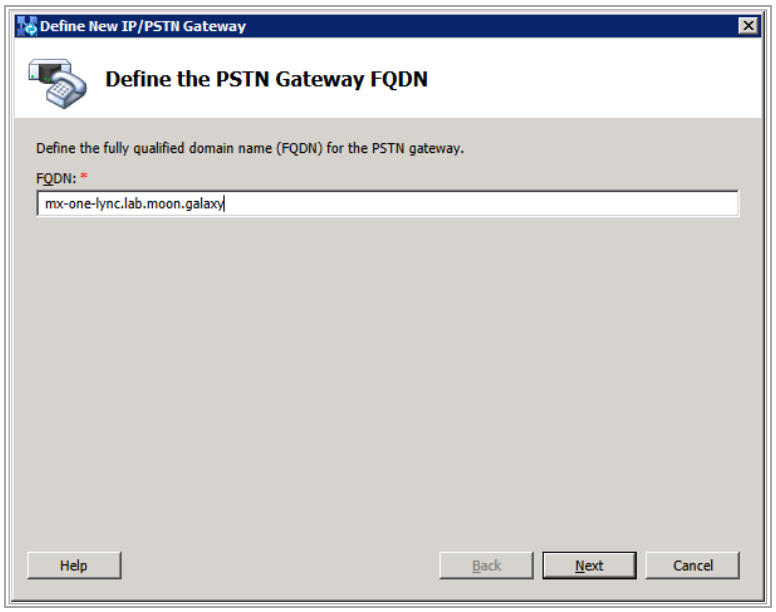
In order to finalize the configuration between Mitel MX-ONE and Microsoft Lync Server 2013 the following needs to be done:

Define PSTN Gateway in the Lync Server 2013 Topology Builder

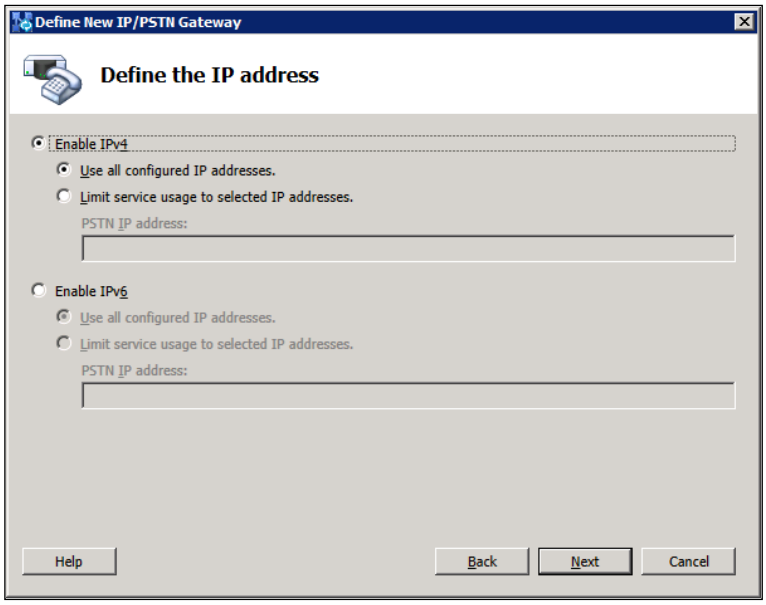
1. Open Lync Server 2013, Topology Builder and define a PSTN gateway be used between Lync and MX-ONE.
2. To define the PSTN gateway, expand Shared Components, right click in the PSTN gateways.



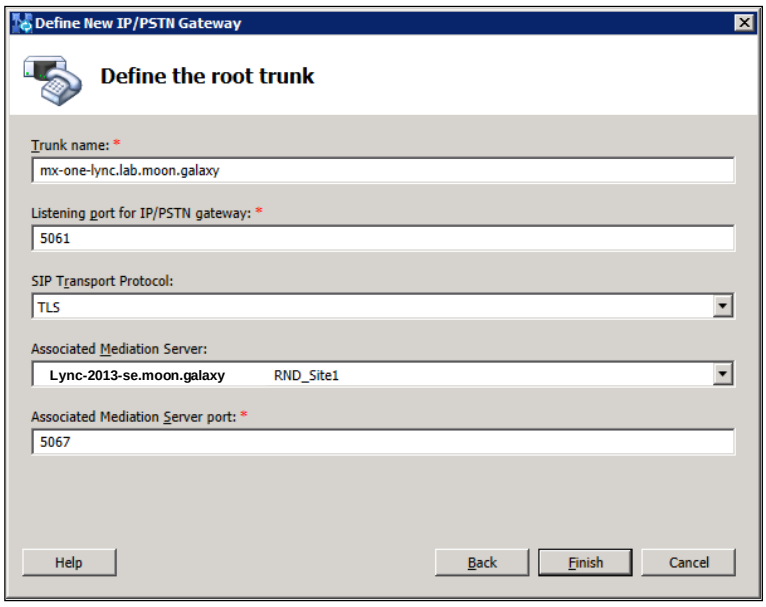
3. Click in New IP/PSTN Gateway, the Define New IP/PSTN Gateway dialog box appears, type the following:
4. Gateway FQDN or IP Address: specify the MX-ONE IP Address or FQDN, click Next



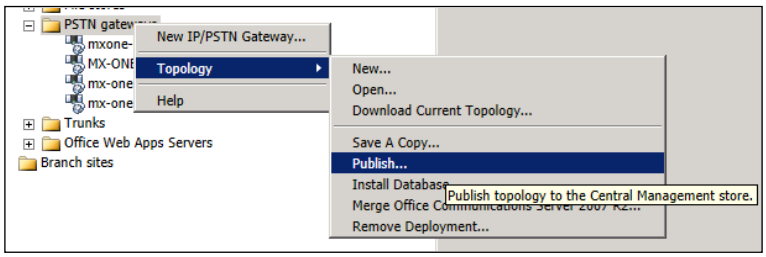
5. Define the IP address: in this example the default is kept. Click Next.



6. Define the root trunk
   - Trunk name: FQDN (MX-ONE FQDN)
   - Listening port for IP/PSTN gateway: 5061 (MX-ONE SIP TLS port)
   - SIP Transport Protocol: TLS
   - Associated Mediation Server: Lync-2013-se.moon.galaxy
   - Associated Mediation Server Port: 5067 (default)
7. Click Next



8. Publish the topology



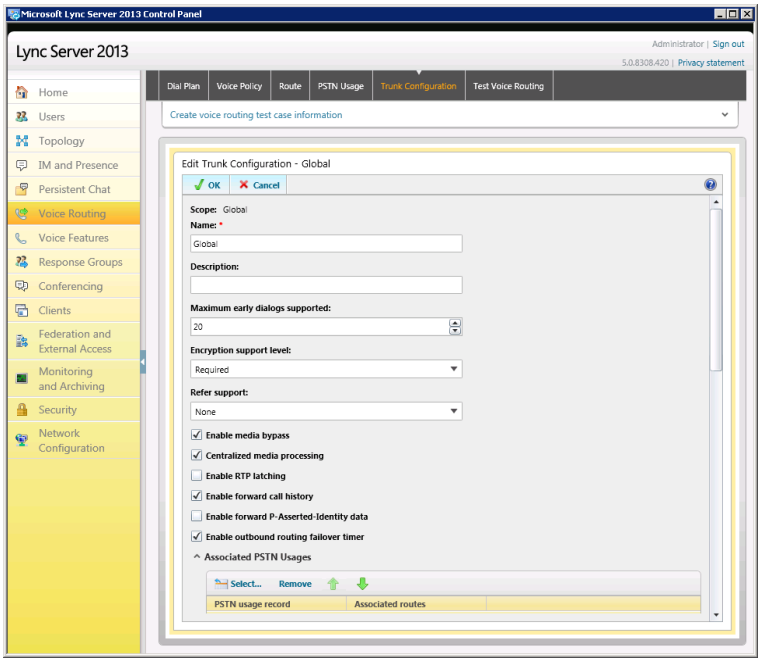
4.2.2.4 *Define Dial Plan, Voice Policy*

Define Dial Plan, Voice Policy as explained previously in this guide.

4.2.2.5 *Define Trunk Configuration*

In order to assign the MX-ONE gateway to a site or pool trunk execute the following:

1. Click in Voice Routing and then click in Trunk Configuration
2. Click in New and choose the type of trunk that is applicable for your company setup, site trunk or pool trunk
3. Click in Enable media bypass



4. Keep the default Encryption support level, in this case, Required

Now the setup is concluded, assign users with the Policy created previously and test the integration making calls between the systems.

4.2.3 LOAD BALANCING AND FAILOVER SETUP

4.2.3.1 Load balancing

Mitel MX-ONE 5.0 and later versions support load balancing setup when connected with more than one Mediation Server. To be able to use such a scenario the Microsoft DNS Load Balancing functionality is used.

MX-ONE 5.0 and later versions support DNS SRV and multiple A-record query where a list with multiple entries can be used. When properly configured, MX-ONE will attempt to send INVITE to the entries in the list until the call is successful. No answer or 503 Service Unavailable will trigger MX-ONE to try the next entry.

For more details, check MX-ONE SIP Route command description in CPI or sip_route –help, parameter remote port.

4.2.3.2 Failover

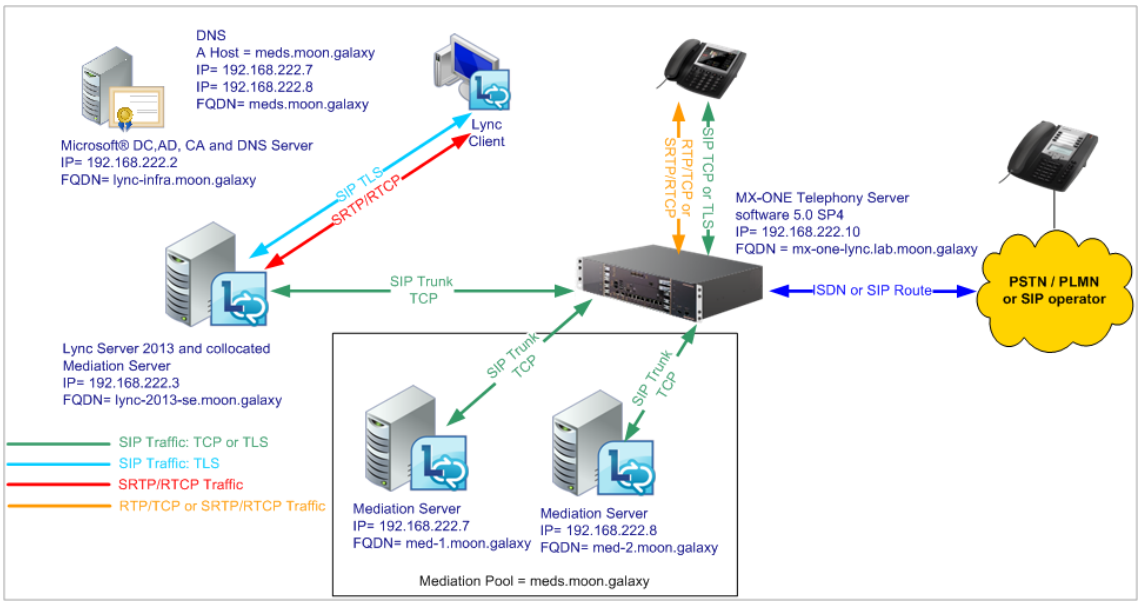
The failover functionality also uses the Microsoft DNS Load Balancing functionality. When integrating MX-ONE and Mediation Server the same configuration is valid for both failover and load balancing.

In a scenario where 2 Mediations Server are used and one of the servers is unavailable, a first call will be attempted to set up to the first server, but it will be redirected after a few seconds and answered, subsequent calls will be redirected and answered in the second Mediation Server.

The reason it takes some seconds before getting answer is that the INVITE is sent to the first server, then the system waits 4 seconds for an answer, if no answer is received, the host is grey listed for 32 seconds and an INVITE is sent to the second server.

For more details, check MX-ONE SIP Route command description in CPI or sip_route –help, parameter remote port.

The following scenario shows the setup that was verified in Mitel´s lab.



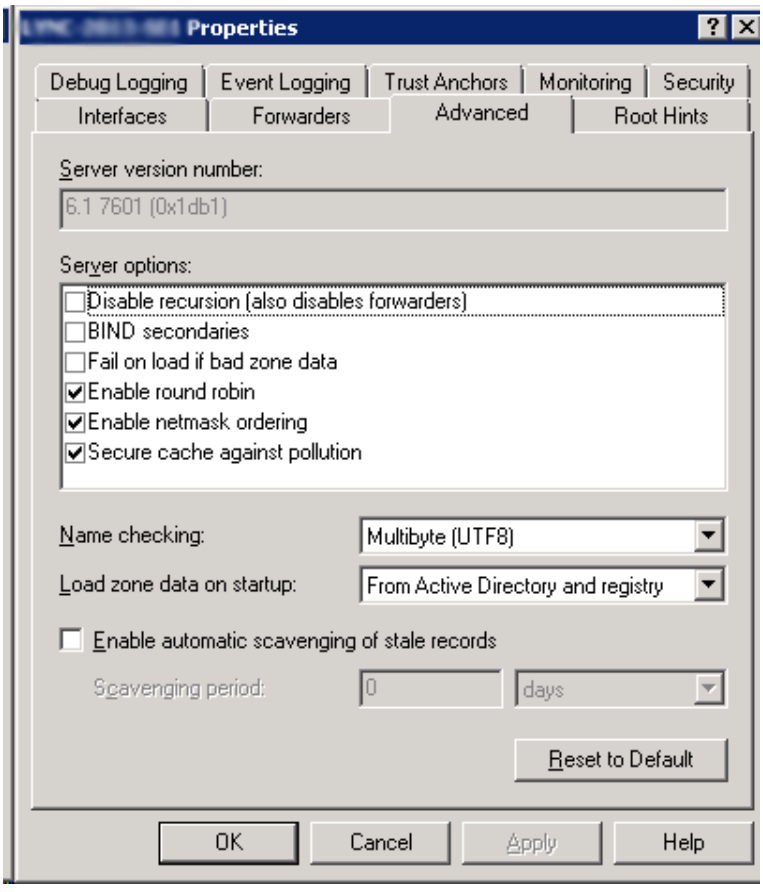
For this scenario, two stand alone Mediations Servers were used. In the MX-ONE side only one MX-ONE Service Node was used and it was configured with the Mediation Pool entry.

4.2.3.3 *DNS setup*

Microsoft DNS needs to be configured to support Round Robin as described in the TechNet article “Configure DNS for Load Balancing”, please see the link below, item “To enable round robin for Windows Server”.

http://technet.microsoft.com/en-us/library/gg398251.aspx

The figure below shows the Round Robin option enabled.



DNS Multiple A record setup – Mediation Servers

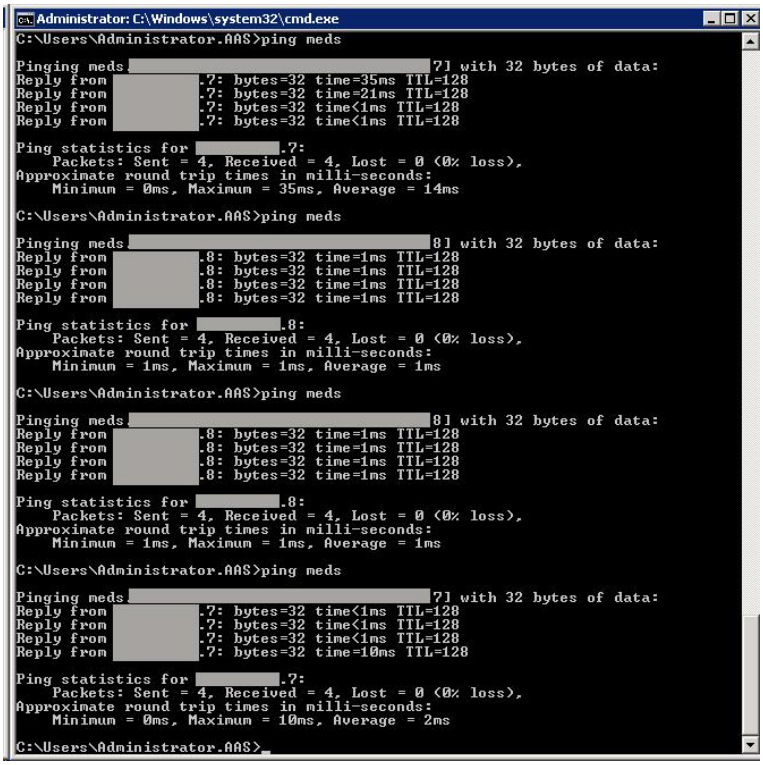
In order to setup DNS Host (A) records to the two Mediation Servers the following shall be configured.

Go to DNS Manager Tool and create the entries as shown in the table.

Note! For more information on how to create the DNS Host A records, please check http://technet.microsoft.com/en-us/library/gg398593.

FQDN	TYPE	IP ADDRESS
med.moon.galaxy	Host (A)	192.168.222.7
med.moon.galaxy	Host (A)	192.168.222.8

Test your configuration. Use the command ping to check the setup.



4.2.3.4 *MX-ONE Direct SIP with Load balancing and failover setup - TCP*

The following setup needs to be done in MX-ONE in order to configure Direct SIP with load balancing and failover setup, please note that only Route definitions are showed.

Note! MX-ONE FQDN needs to be properly defined in the DNS Server.

1. Use Use the following command to check more details regarding SIP Profile Lync_TCP

   sip_route -print -profile Lync_TCP

2. Define SIP route category:

   ROCAI:ROU=97,SEL=7110000000000010,SIG=0111110000A0,TRAF=03151515,TRM=4,SERV=3100000001,BCAP=00110;

3. Define SIP route data

   RODAI:ROU=97,TYPE=TL66,VARC=00000000,VARI=00000000, VARO=00000000;

4. Define SIP trunk data specific:

   sip_route -set -route 97 -profile Lync_TCP –uristring0 sip:?@meds.moon.galaxy -remoteport 5068 -accept REMOTE_IP -match 192.168.222.7,192.168.222.8 -codecs PCMA,PCMU

5. Verify your configuration:

sip_route -print –route 97 -short

6. Define the SIP Route equipment initiate

   ROEQI:ROU=97,TRU=1-1;

7. Define external destination SIP route data

   RODDI:ROU=97,DEST=97,ADC=0005000000000250000001010000,SRT=3;

4.2.3.5 *Lync configuration with Load balancing and failover setup - TCP*

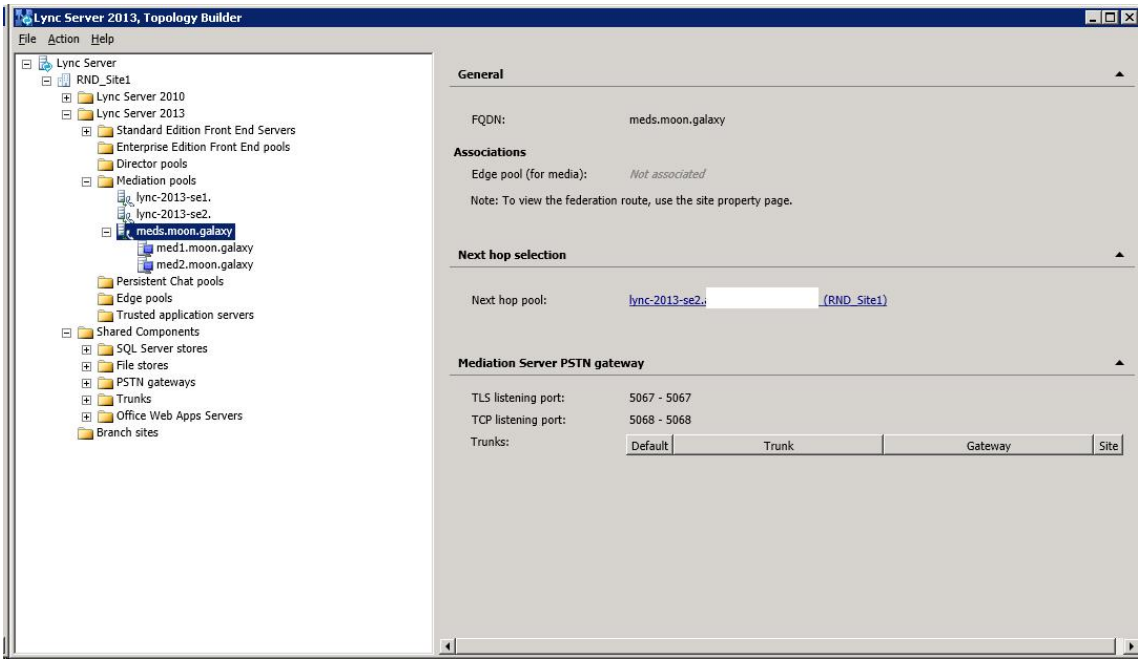
Define a Mediation poll in the Lync Server 2013 Topology Builder.

In the test validation a Mediation poll called meds.moon.galaxy was created with two standalone Mediation servers.

Mediation Pool FQDN=meds.moon.galaxy

Mediation Server 1 FQDN= med-1.moon.galaxy

Mediation Server 2 FQDN= med-2.moon.galaxy



To setup the PSTN gateways please follow the item 4.2.1, 2) Lync Server 2013 configuration - TCP.

Execute calls between MX-ONE and Lync and check that the calls are distribute between the systems.

4.2.3.6 *MX-ONE Direct SIP with Load balancing and failover setup - TLS*

The following setup needs to be done in MX-ONE in order to configure Direct SIP with load balancing and failover setup, please note that only Route definitions are showed.

Note! MX-ONE FQDN needs to be properly defined in the DNS Server.

1. Use Use the following command to check more details regarding SIP Profile Lync_TLS

   sip_route -print -profile Lync_TLS

2. Define SIP route category:

   ROCAI:ROU=96,SEL=7110000000000010,SIG=0111110000A0,TRAF=03151515,TRM=4, SERV=3100000001,BCAP=00110;

3. Define SIP route data

   RODAI: ROU=96,TYPE=TL66,VARC=00000000,VARI=00000000, VARO=00000000;

4. Define SIP trunk data specific:

sip_route sip_route -set -route 96 -profile Lync_TLS –uristring0 sip:?@meds.moon.galaxy -remoteport 5067 -accept REMOTE_IP -match 192.168.222.7,192.168.222.8 -codecs PCMA,PCMU

5. Verify your configuration:

   sip_route -print –route 96 -short

6. Define the SIP Route equipment initiate

   ROEQI:ROU=96,TRU=1-1;

7. Define external destination SIP route data

   RODDI: ROU=96,DEST=96,ADC=000500000000025000000101000O,SRT=3;

4.2.3.7 Import the certificate to MX-ONE Service Node

Import the server certificate mx-one-certificate.pfx to MX-ONE Service Node. On the access Server, for example, MX-ONE Service Node 1 runs the following command:

1. Install the certificate in the MX-ONE Service Node 1:

   mxone_certificate, and select the certificate mx-one-certificate.pfx

2. Enable Media Encryption in the route:

   media_encryption_enable –type route

4.2.3.8 Lync configuration with Load balancing and failover setup - TLS

Define a Mediation poll in the Lync Server 2013 Topology Builder.

In the test validation a Mediation poll called meds.moon.galaxy was created with two standalone Mediation servers.

Mediation Pool FQDN=meds.moon.galaxy

Mediation Server 1 FQDN= med-1.moon.galaxy

Mediation Server 2 FQDN= med-2.moon.galaxy

To setup the PSTN gateways please follow the item 4.2.2, 2) Lync configuration with security and Media Bypass setup

Execute calls between MX-ONE and Lync and check that the calls are distribute between the systems

5 INTEGRATION NOTES

The latest software and firmware version of MX-ONE components shall be used.

Note! Mitel recommends that complex scenarios shall be validated in the partner labs prior to customer deployment.

6 REFERENCES

Please always check the latest documentation. The links below are the ones available at the time of this guide was written.

Mitel CPI Documentation – Mitel MX-ONE 5.0 SP4 or later version.

Lync Server

Deploying Enterprise Voice

Enable Users for Enterprise Voice

7 REVISION HISTORY

DOCUMENT VERSION	COMMENTT	DATE
A	First release	2013-11-19
B	Minor corrections	2014-03-28
C	Updated with Mitel template	2015-06-08
D	Updated in 4.2.3.7, cert_install_local replaced by mxone_certificate. MX-ONE version information also corrected.	2015-10-27
D3	Spelling correction.	2017-04-05