

Cbeyond Quick Start ITSP Setup

Author: Zultys Technical Support

This configuration guide was created to assist knowledgeable vendors with configuring the Zultys MX Phone System with Cbeyond's BeyondVoice™ and SIPconnect service.

Questions about software installation or other PBX configuration issues should be directed to Zultys support at support@zultys.com. The Zultys Phone System Manual is available on the Zultys KBS: <http://kbs.zultys.com>.

For administrative or technical questions related to Cbeyond contact Cbeyond at <https://www.cbeyondonline.net> or call 866.424.5100.

Contents

1.1	CREATE ITSP ACCOUNT	2
1.2	AUTHENTICATION	4
1.3	DISABLE SESSION TIMERS.....	5
1.4	SET UP ALG (MX VERSION 3.2.10 TO 4.2.14).....	6
1.5	ENABLING ALG / SBC ON MX (MX VERSION 5.0+).....	8
1.5.1	NETWORKS.....	8
1.5.2	RTP MAPPING.....	9

1.1 Create ITSP Account

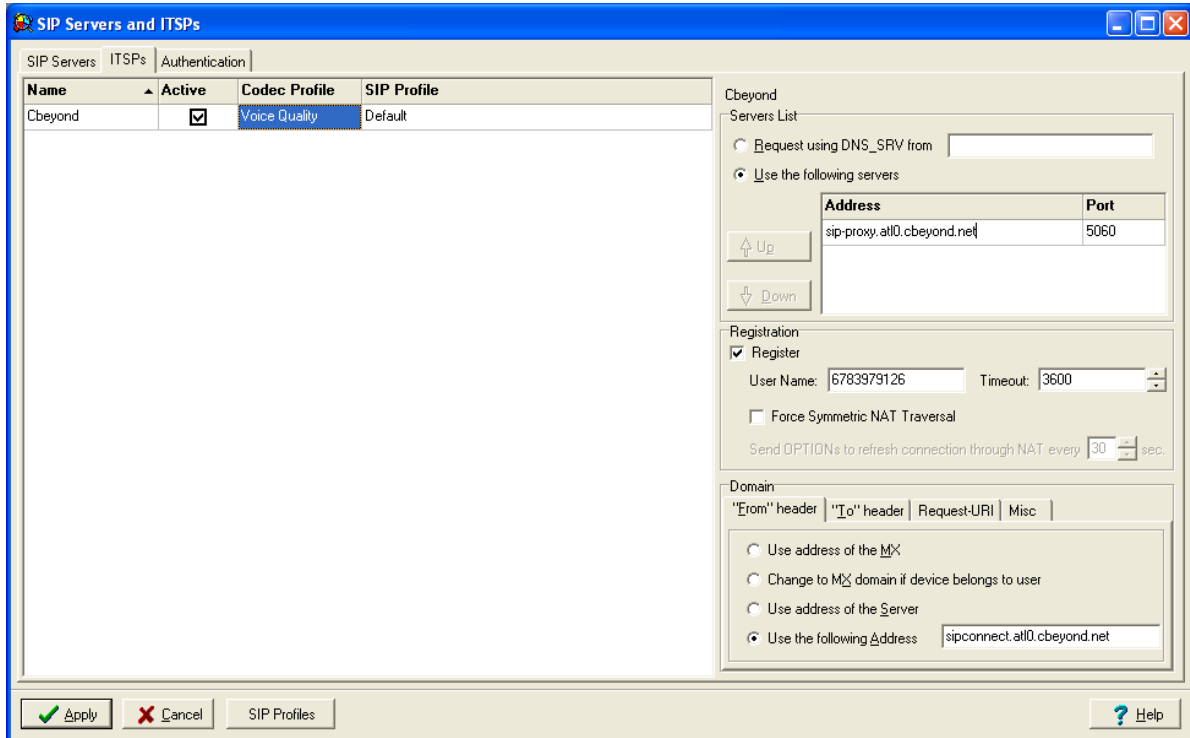
In the Admin UI goto Provision → SIP servers and ITSPs

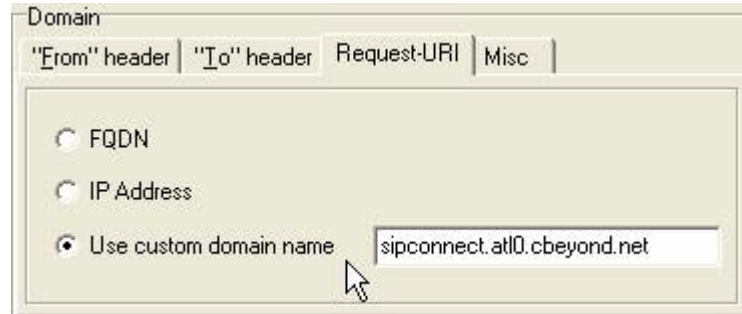
The following section(s) contain URLs and Domain Names that should only be viewed as examples. These details are Cbeyond account and region specific. You must use the detailed information that is provided to you on the Cbeyond ‘Install profile’ provided by your Cbeyond Service Coordinator

Enter the following information

- Name: Cbeyond
- Active: Check
- Codec Profile: Voice Quality
- SIP Profile: Default
- Use the following servers: the IP address given to you by Cbeyond (See the Cbeyond “Install profile”).
- Port: 5060
- Register: Check
- Username: user name/phone number given by Cbeyond (See the Cbeyond “Install profile”).
- From header: Use the following address: address given to you by Cbeyond (See the Cbeyond “Install profile”).
- To header: Use the following address: address given to you by Cbeyond (See the Cbeyond “Install profile”).

- Request-URI: Use the following address: address given to you by Cbeyond (See the Cbeyond “Install profile”).
- Misc: Nothing checked





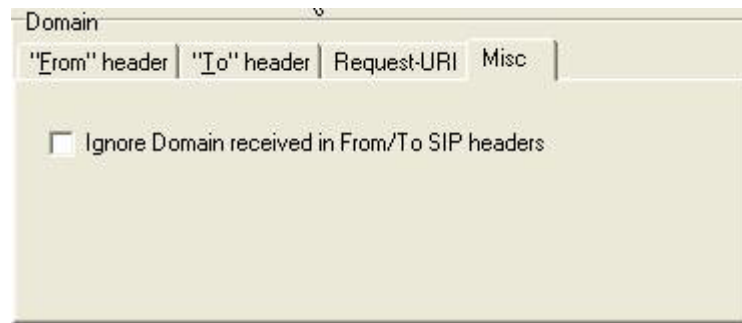
Domain

"From" header | "To" header | Request-URI | Misc

FQDN

IP Address

Use custom domain name



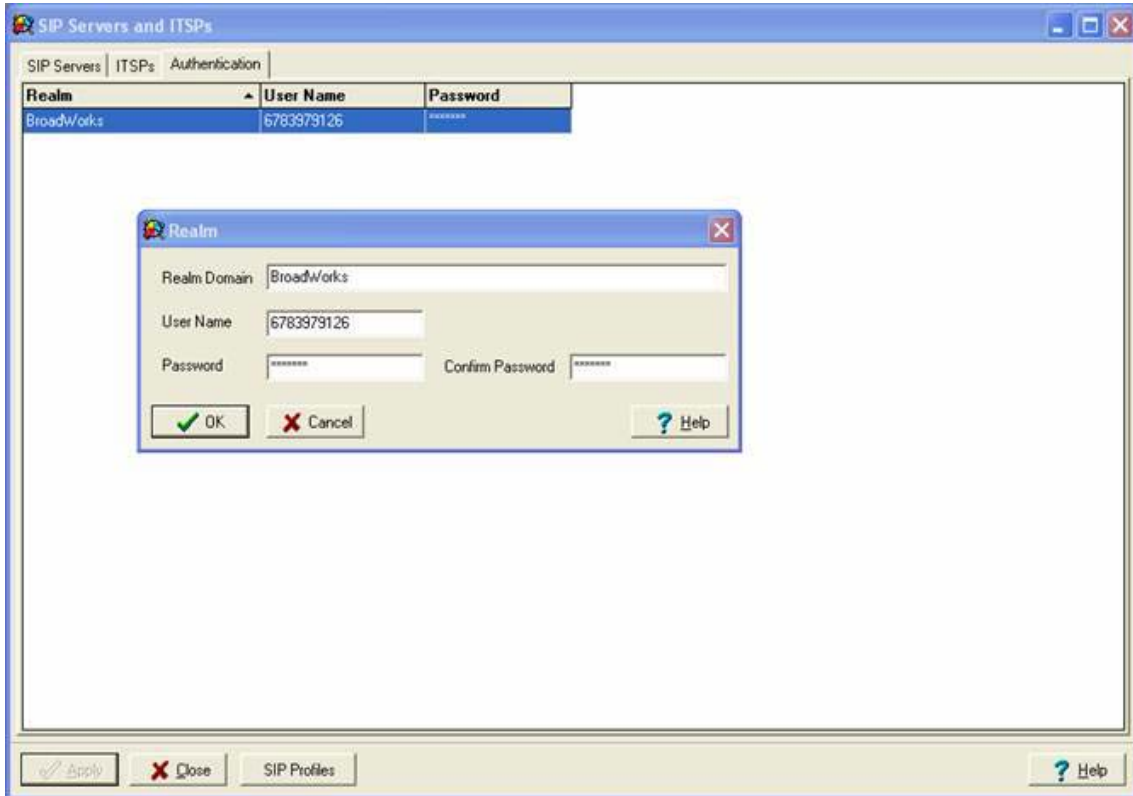
Domain

"From" header | "To" header | Request-URI | Misc

Ignore Domain received in From/To SIP headers

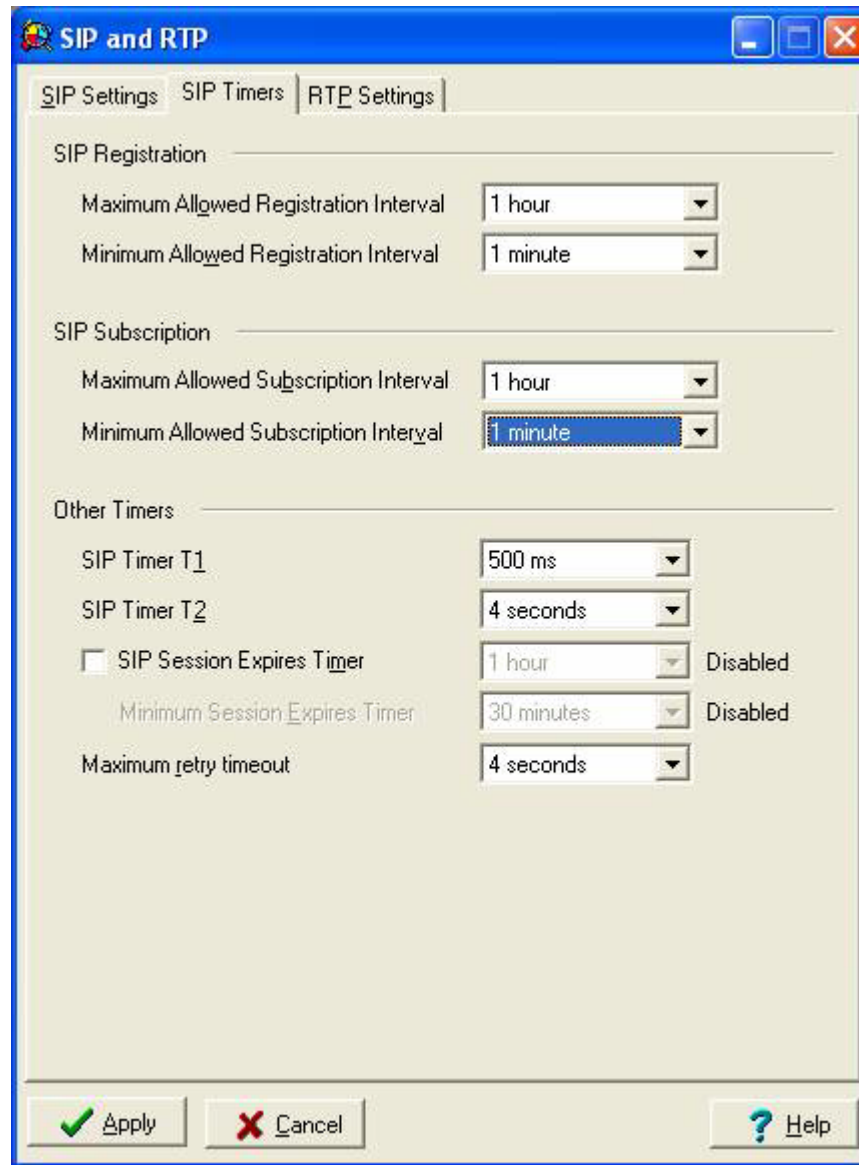
1.2 Authentication

The authentication tab is used to define the authentication information for realm based authentication.



1.3 Disable Session Timers

Clear the check mark from *SIP Session Expires Timer*. This will require a system reboot. This can be found under *Provision | SIP and RTP*.



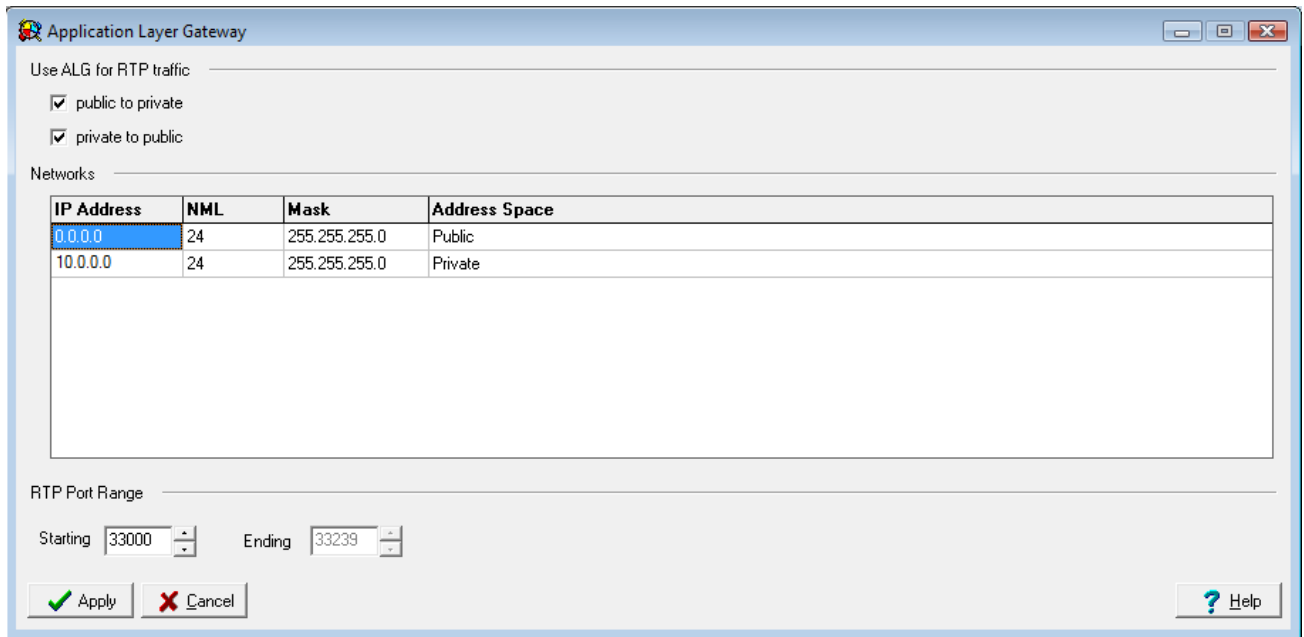
1.4 Set Up ALG (MX version 3.2.10 to 4.2.14)

Set up ALG in *Provision / ALG*

For the example below:

- Network 10.0.0.0/24 is the private side (LAN) of the MX, this is where all the local phones are connected to the MX.

- Network 0.0.0.0/24 is mapping all other network to the public side of the MX, thus performing the ALG functions to correct all RTP packets.



Application Layer Gateway

Use ALG for RTP traffic

public to private

private to public

Networks

IP Address	NML	Mask	Address Space
0.0.0.0	24	255.255.255.0	Public
10.0.0.0	24	255.255.255.0	Private

RTP Port Range

Starting Ending

1.5 *Enabling ALG / SBC on MX (MX version 5.0+)*

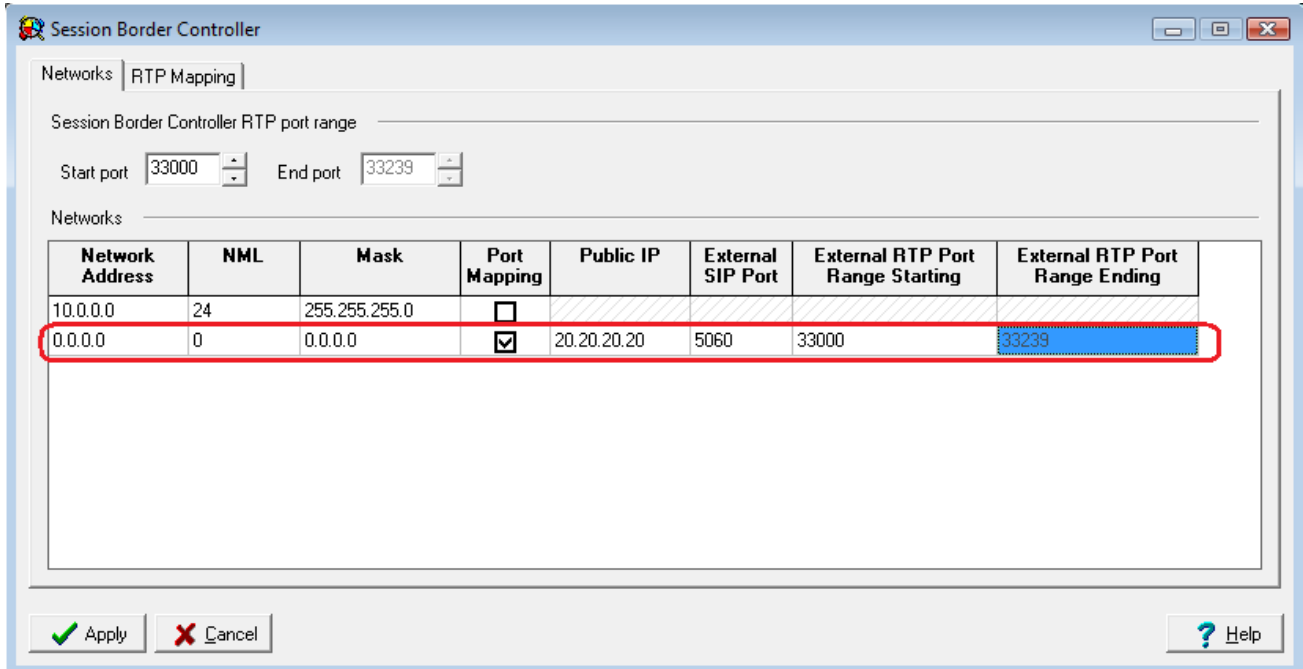
ALG was replaced / improved in MX version 5.0 by SBC. For full details on SBC please refer to the SBC document available from the KBS <http://kbs.zultys.com/issue.php?bid=wp-998&fdwn=SBC.pdf> or from Technical Support named *sbc.pdf* document number 0000000150.

For the example below:

- Network 10.0.0.0/24 is the private side (LAN) of the MX, this is where all the local phones are connected to the MX.
- Network 0.0.0.0/0 is mapping all other network to the public side of the MX, thus performing the SBC functions to correct all RTP packets by inserting the public IP listed in the *Public IP* field, and the External SIP port with the port listed in the *External SIP Port* field.
- *Session Border Controller RTP port range* are the ports that the session border controller will send and receive voice packets.
- *External RTP Port Range* is the port range that is forwarded by the edge firewall to the MX, this port range is independent of the *Session Border Controller RTP port range*. (In the example below there were made to be the same.)

1.5.1 Networks

To configure SBC in the 0.0.0.0 route enable port mapping, and assign the Public IP and ports in the fields circled below. If you are not using SBC and have the MX in routing mode with public IPs assigned to interface 2/WAN do not check the Port Mapping.



Session Border Controller RTP port range

Start port End port

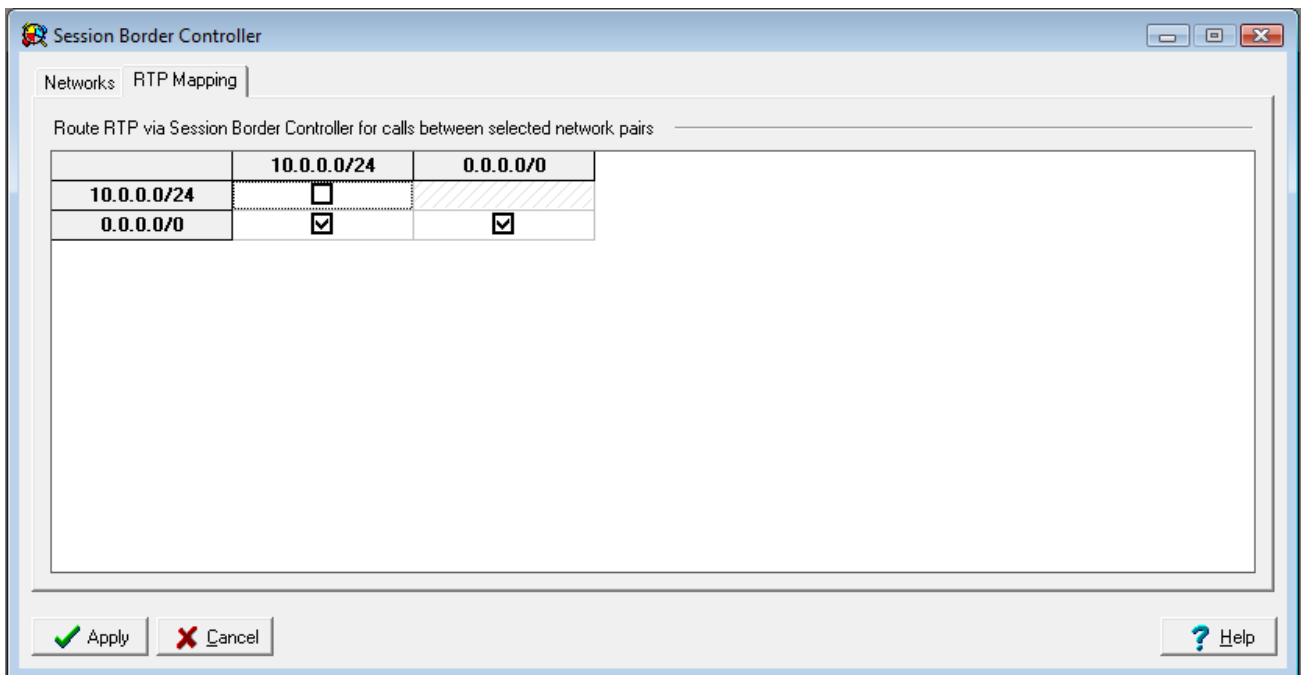
Networks

Network Address	NML	Mask	Port Mapping	Public IP	External SIP Port	External RTP Port Range Starting	External RTP Port Range Ending
10.0.0.0	24	255.255.255.0	<input type="checkbox"/>				
0.0.0.0	0	0.0.0.0	<input checked="" type="checkbox"/>	20.20.20.20	5060	33000	33239

Apply Cancel Help

1.5.2 RTP Mapping

Place check each network you wish the MX to perform ALG/SBC modifications for.



Route RTP via Session Border Controller for calls between selected network pairs

	10.0.0.0/24	0.0.0.0/0
10.0.0.0/24	<input type="checkbox"/>	
0.0.0.0/0	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

Apply Cancel Help

Note 1: Sip trunk licenses are required by MX in order to place/receive calls via ITSP, MX firmware's **PRIOR** to version 5.0. Starting with Version 5.0 SIP Trunk licenses are no longer needed.

Note 2: Networks 192.168.0.0/16, 172.16.0.0/12 are used by Cbeyond routers, therefore they cannot be configured in the ALG table as a private network.

Note 3: When the Zultys PBX has a private static IP address (and NAT traversal) from Cbeyond's Cisco IAD, you must do the following for the remote phone to function:

- Provide the RTP port range configured in section 1.6.2 of this guide to the Cbeyond activation team.