Installation manual for using 3CX with MachCloud

Title	Installation manual for using 3CX with MachCloud
Owner	MachCloud BV
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History

Versie	Auteur	Status	Datum
1.0	MachCloud	Final	2019-11-04
1.1	MachCloud	Final	2019-11-15
1.2	MachCloud	Final	2022-07-21
1.3	MachCloud	Final	2022-09-03
1.4	MachCloud	Final	2022-01-04
1.5	MachCloud	Final	2022-11-15

Contents

Introduction 3

Installation steps 3

Trouble shooting steps 13

- Trunk will not become operational 13
- Inbound calls will be ended after 30 seconds. 13
- Can’t make outbound calls 13

Introduction

This installation manual will help to setup a basic 3CX PBX configuration with a MachCloud provided SIP trunk.

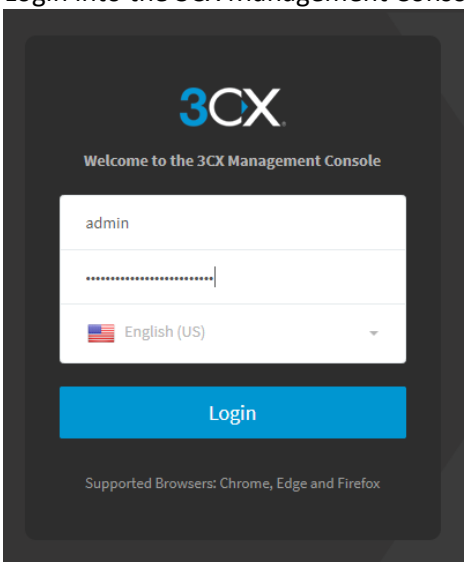
This manual assumes that the following is available.

- An operational 3CX Phone System version 18 (or higher) with admin rights.
- A MachCloud SIP trunk that has at least one phone number assigned to it.

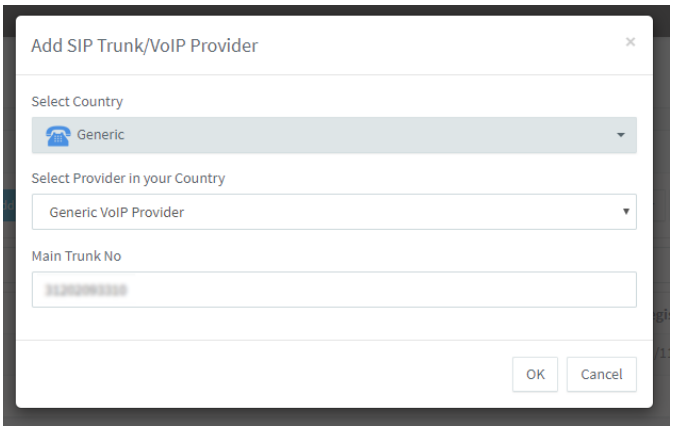
Installation steps

Follow the steps to add a MachCloud Trunk to the 3CX PBX.

1. Login into the 3CX Management Console with administrator privileges via a web browser.



2. Open the SIP Trunks section and click on ‘Add SIP Trunk’. Choose in the Country drop down box for ‘Generic’ and select in Provider in your Country for ‘Generic VoIP Provider’.



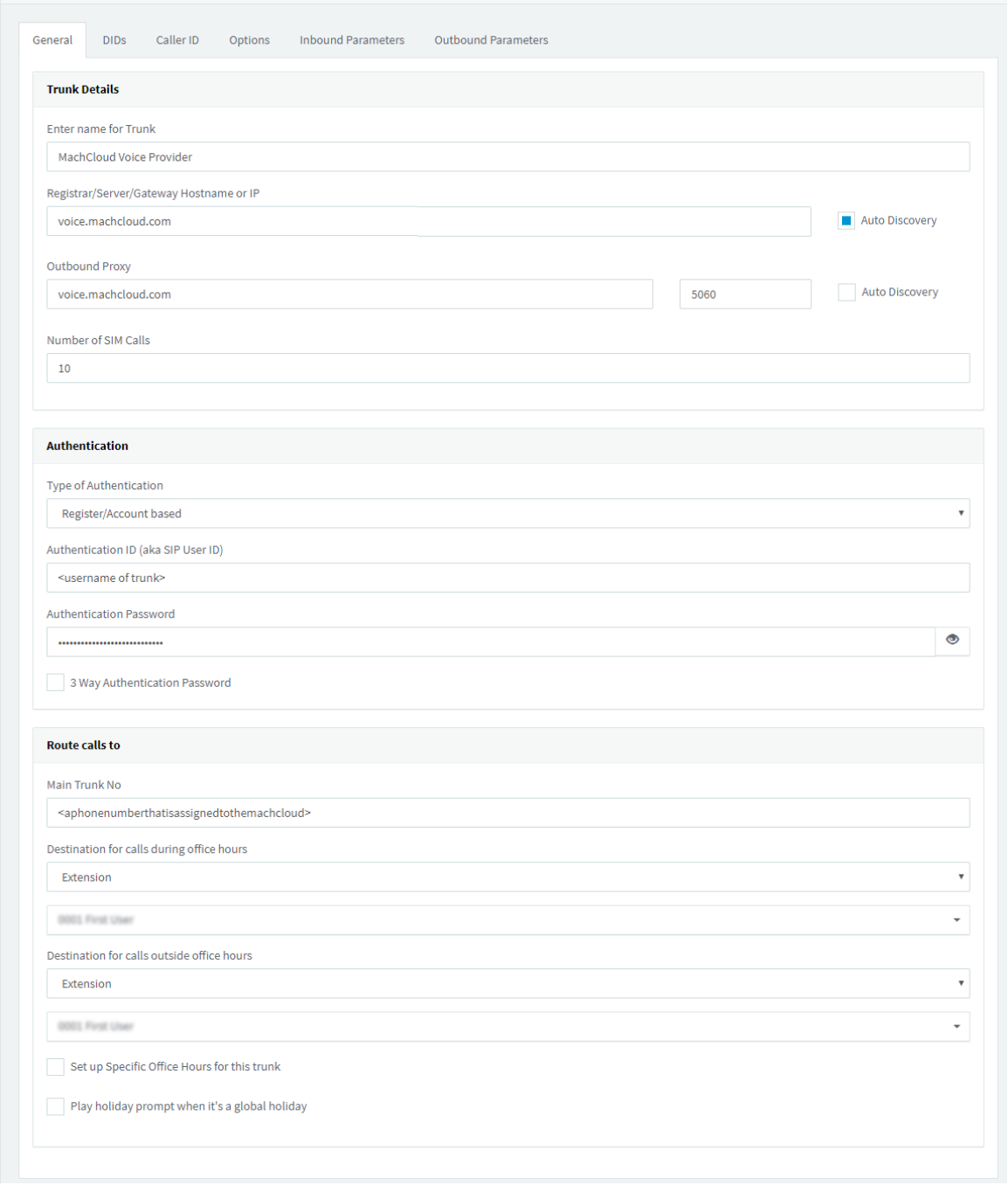
Enter a known trunk phone number to use as default main phone number.

Click on OK to continue.

3. Continue the trunk setup by fill out the other fields of the SIP trunk.

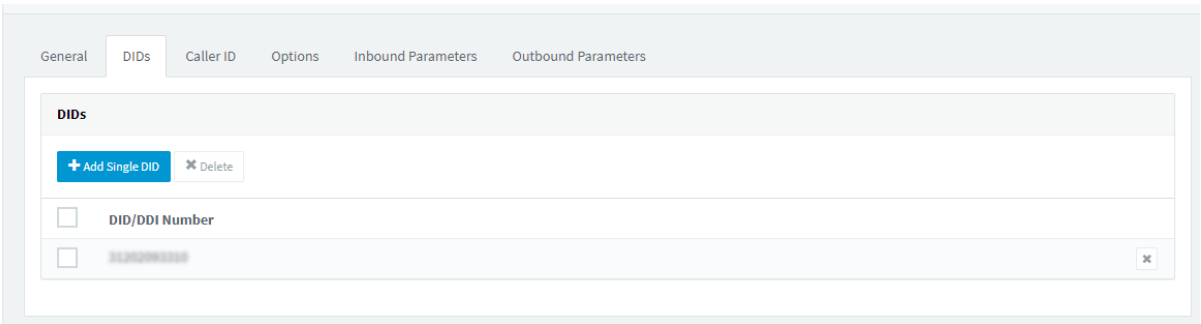
Check the following tabs and make changes where it is needed.

General



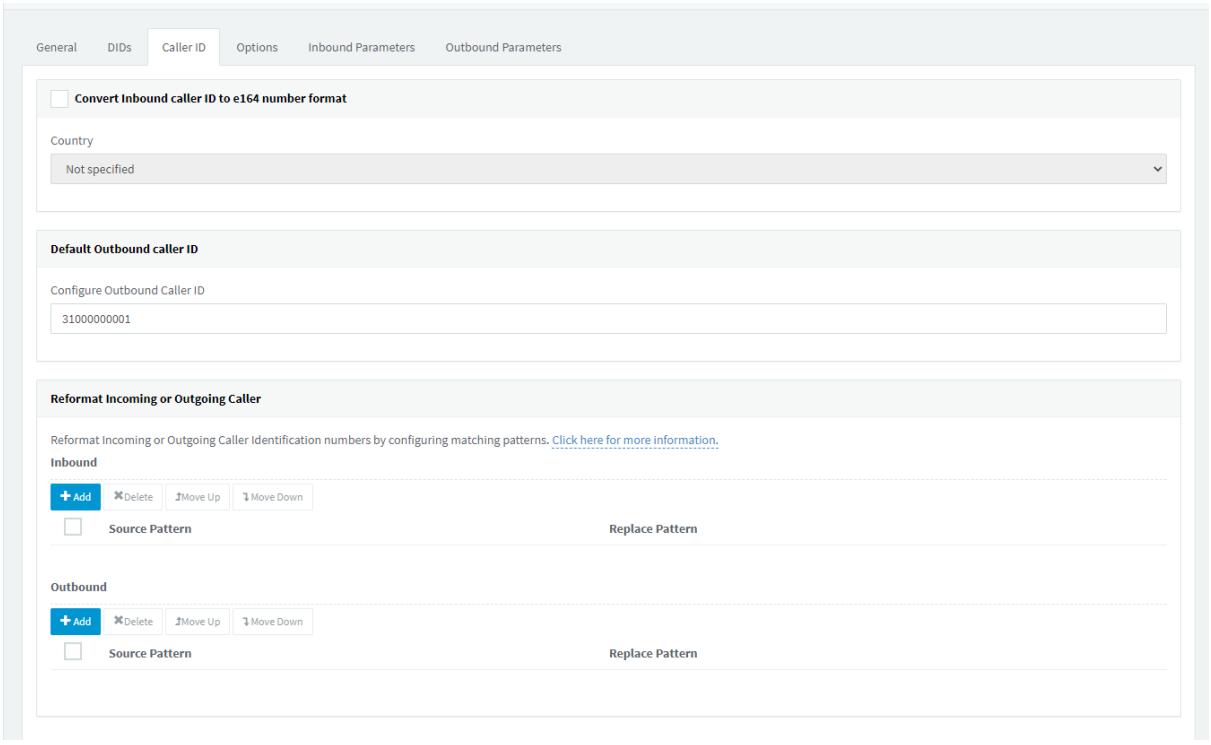
- The 'Number of SIM Calls' is variable. The default value is 10 but MachCloud don't have a limit in allowed simultaneous calls. Increase this value if needed.
- Replace the Authentication ID/User ID with the available SIP trunk username and enter the associated sip trunk user password.
- Enter an assigned phone number to handle as main phone number. This number should be E.164 formatted (without leading 00 or + sign). Example 310000000001
- Select an appropriated call destination to route inbound calls to.

DIDs



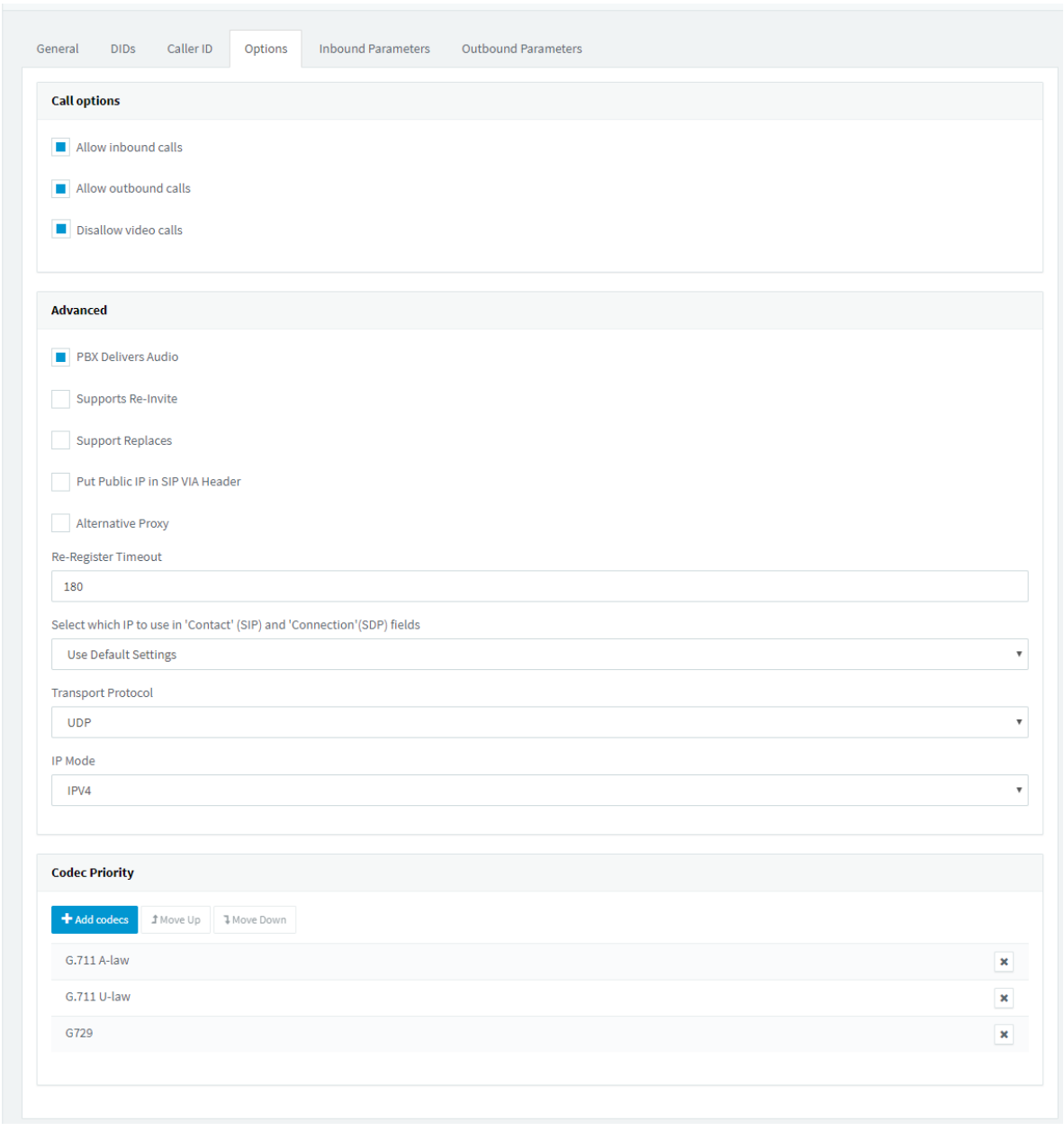
- Enter phone number(s) that are available on the MachCloud SIP trunk

Caller ID



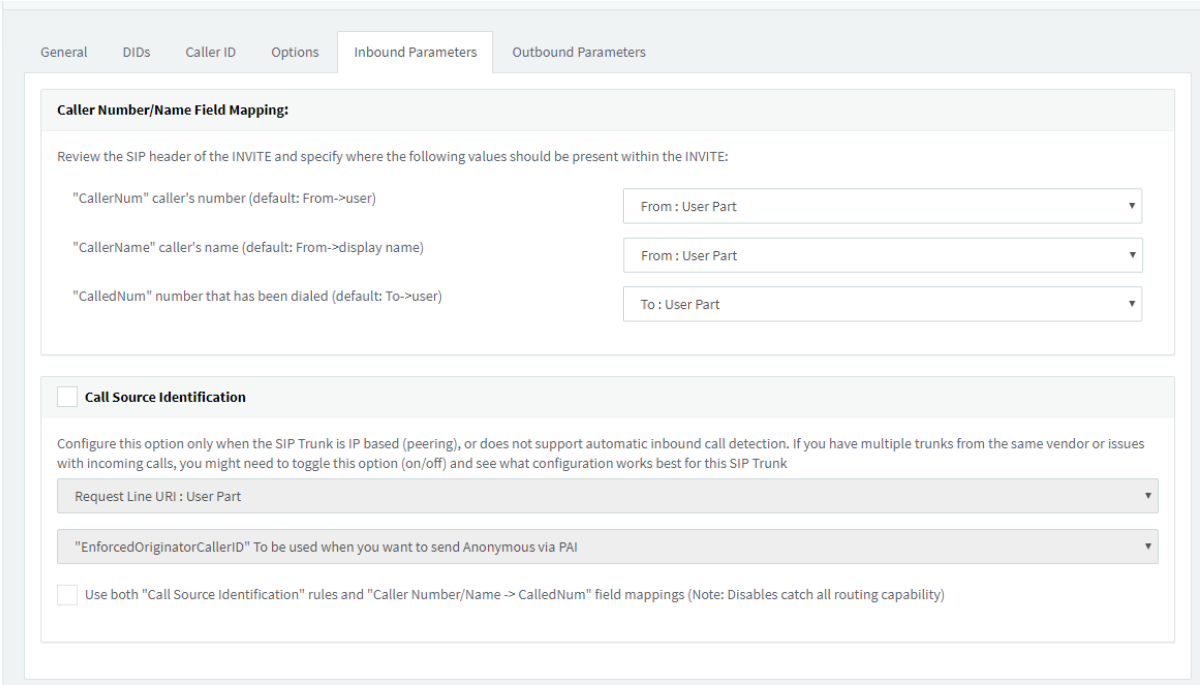
- Configure a default outbound caller id is preferred to do.

Options



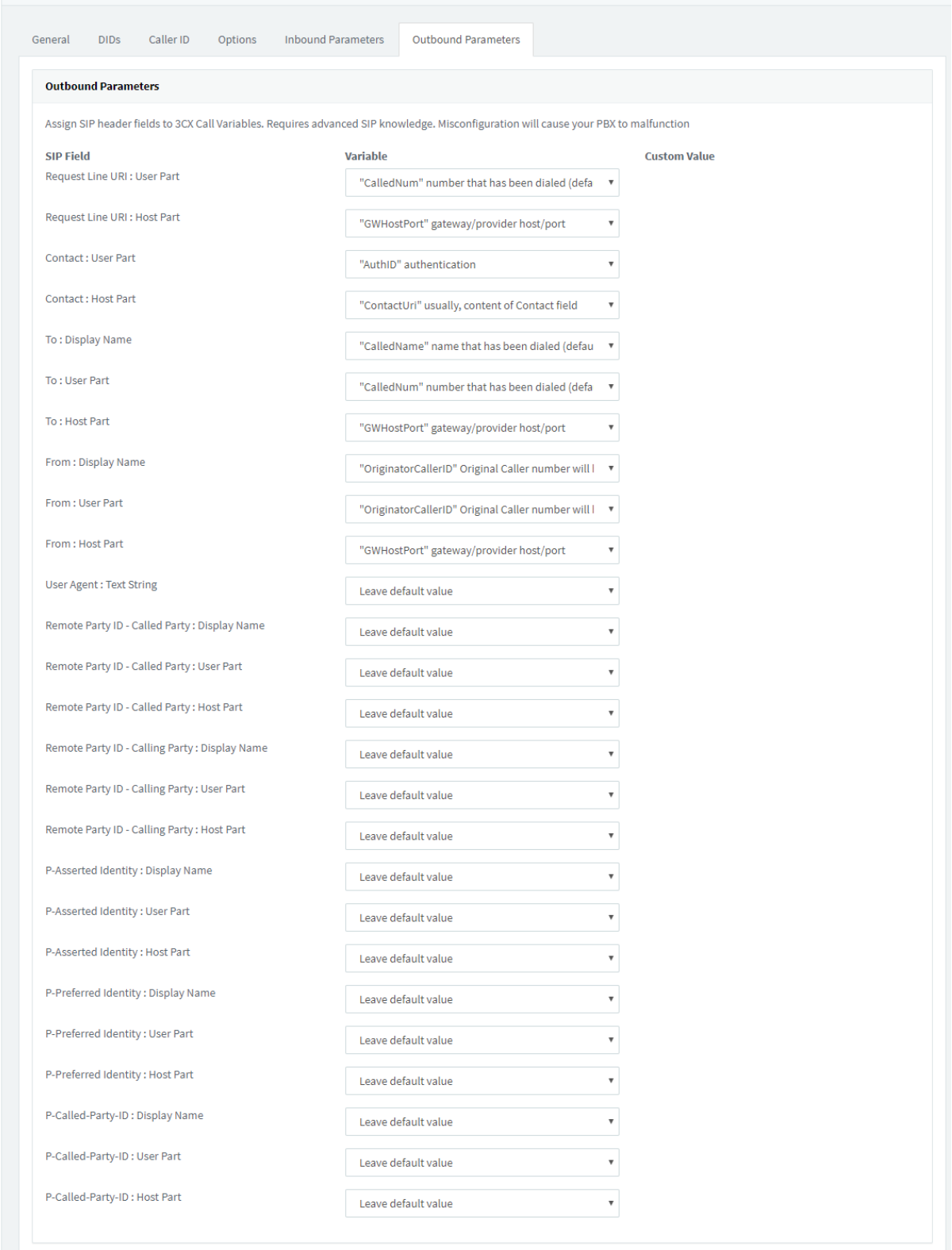
- Transport Protocol can be set to ‘UDP’ or keep it on Any.
- Set the IP Mode to IPv4 is preferred.
- Codec Priority can be set to: G.711 A-law, G.711 U-law, G729

Inbound Parameters



- Call source identification is disabled.

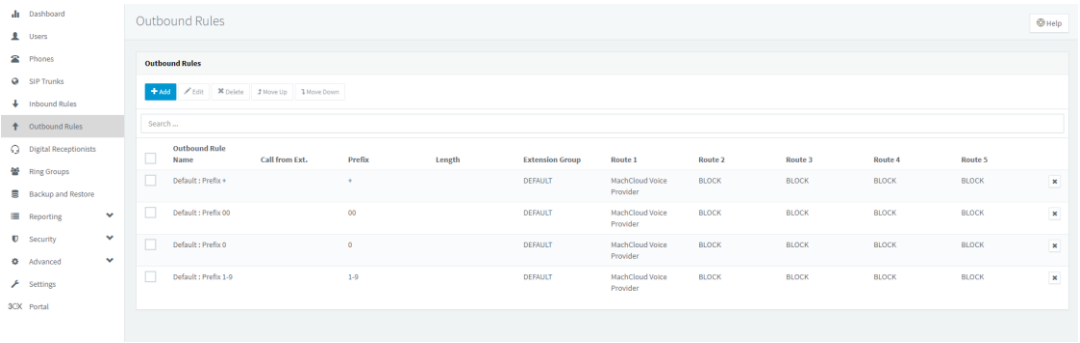
Outbound Parameters



- Contact : User Part → "AuthID"authentication
- From : Display Name → "OriginatorCallerID" Original Caller number will be sent
- From : User Part → "OriginatorCallerID" Original Caller number will be sent
- Remote Party ID - Calling Party : Display Name → Leave default value
- Remote Party ID - Calling Party : User Part → Leave default value
- Remote Party ID - Calling Party : Host Part → Leave default value

Click on OK to save the settings for the trunk.

4. Add outbound rules to route calls to the MachCloud SIP Trunk.

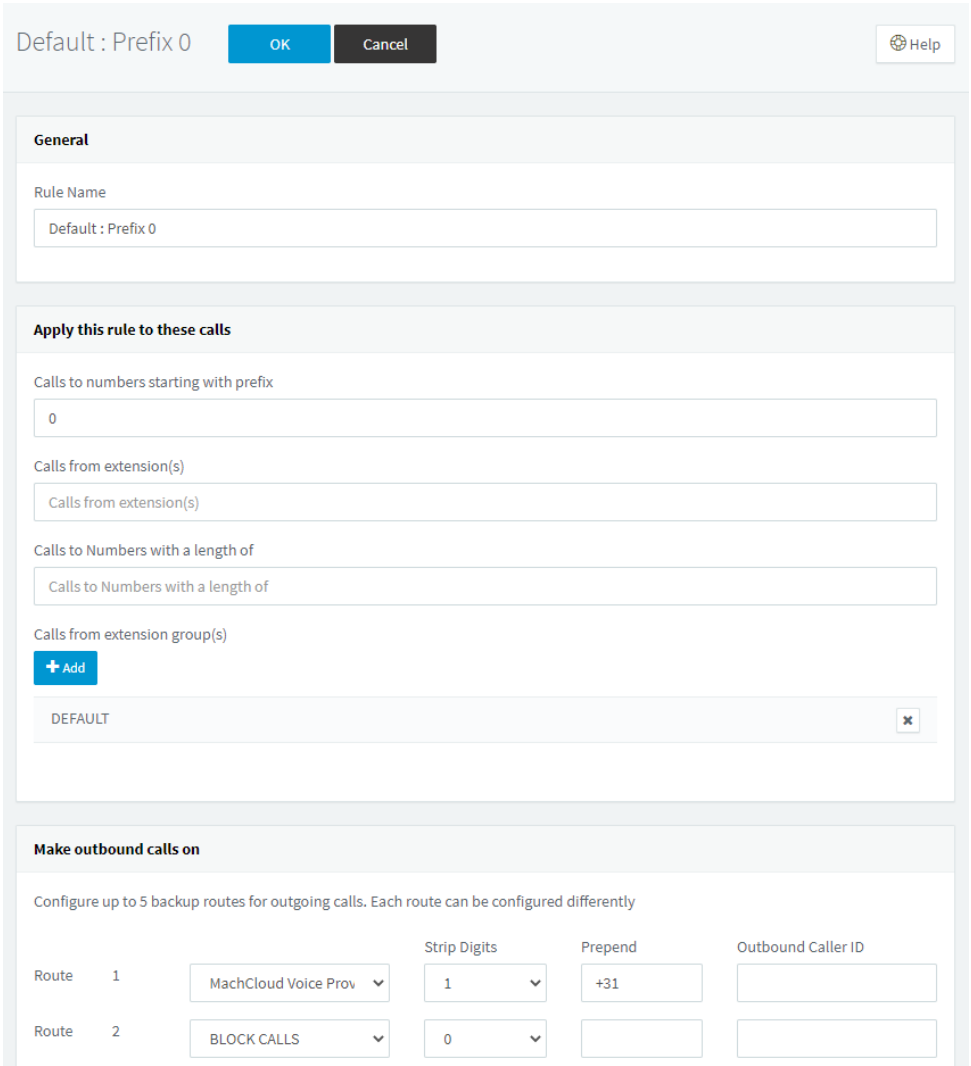


Click on '+ Add' button and create four outbound rules. Use the table below.

Rule name	***Calls to numbers starting with prefix***	***Calls from extension group(s)***	***Route (trunk name)***	***Strip digits***	***Prepend***
Default : Prefix +	+	DEFAULT	'MachCloud Voice Provider'		
Default : Prefix 00	00	DEFAULT	'MachCloud Voice Provider'	2	+
Default : Prefix 0	0	DEFAULT	'MachCloud Voice Provider'	1	+31 (Change if your country calling code is different)
Default : Prefix 1-9	1-9	DEFAULT	'MachCloud Voice Provider'	0	+

Note that the order of the rules is imported.

Example of how an outbound rule is filled into the form.

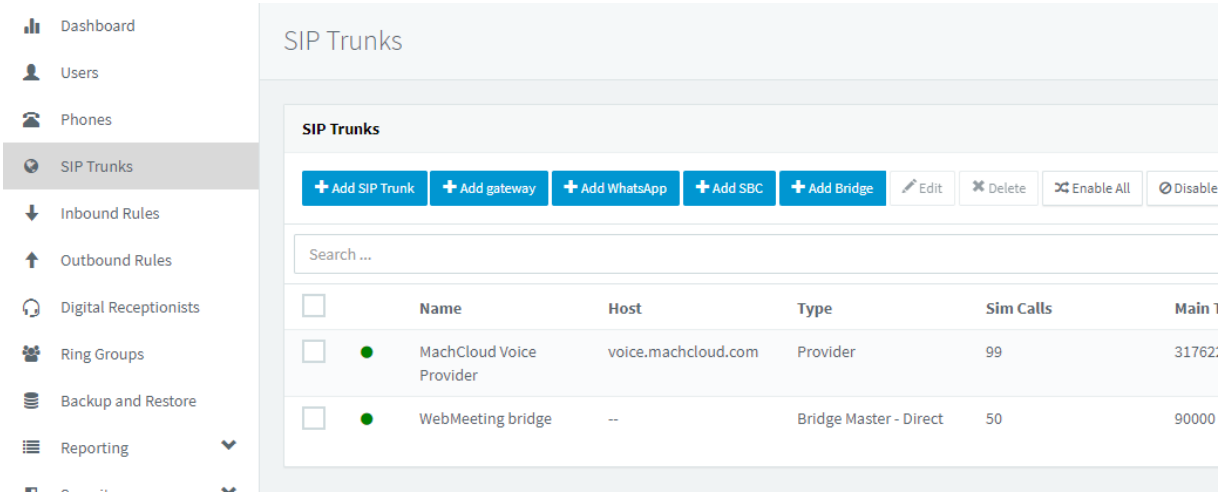


If +31 is not the country calling code then change this into the correct code.

By default the extension group(s) needs to be set to DEFAULT.

Click on OK to save the outbound rule.

5. Check if the trunk is operational. This should be indicated by a green ● symbol.



Trouble shooting steps

Trunk will not become operational

- This could help to restart the whole 3CX PBX the make sure that changes are applied.

Inbound calls will be ended after 30 seconds.

- Check the value of ‘DEFAULT_CONFIGURED_PUBLIC_IP’ in ‘Settings/Network’. Adjust the value if it is not right.

Can’t make outbound calls

- Make sure that the trunk is online. On the SIP Trunks section this should be indicated by a green symbol. If it is red, please check the config of the trunk. Make sure that the username and password are correct.