

How to Configure SIP Trunk for Jaguar Network-France

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Date	Version	Changes
10.10.2019	0.1	First version for V2R7.1

Trunk Configuration Data provided by Jaguar Network

Example of info provided by Jaguar

Primary trunk : siprouting.trunking.private.mar02.as30781.net (mar -> Marseille)

Rescue trunk : siprouting.trunking.private.par01.as30781.net (par -> Paris)

Login : ST0123456

Password : 123abc!xyz

NDI : 0970660130

NDS : 0970660131 to 0970660134

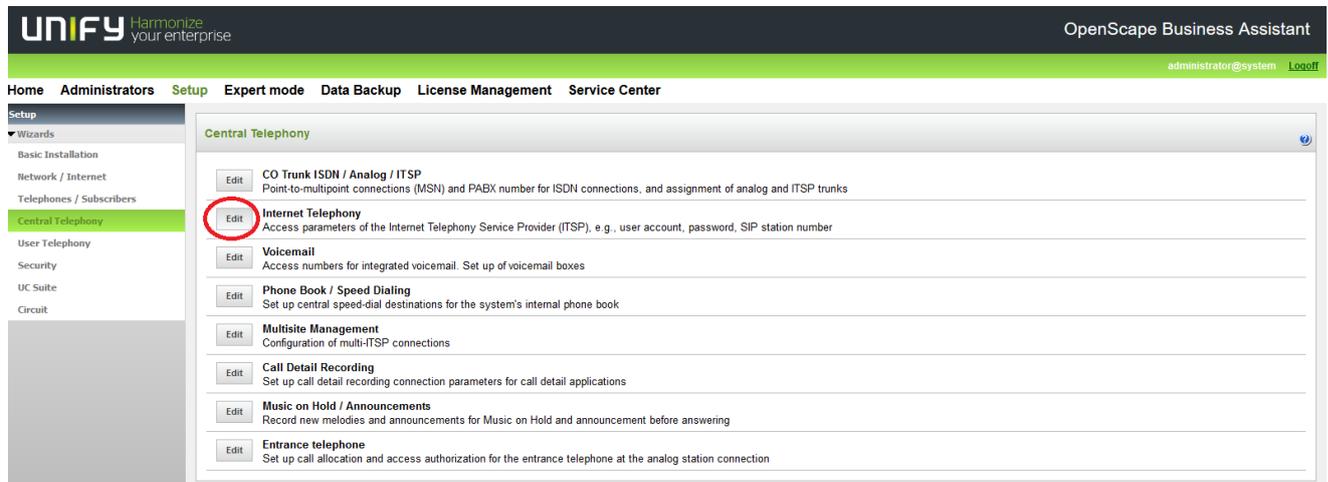
Codecs : G711a , G729, G711u

Number of channels: 8

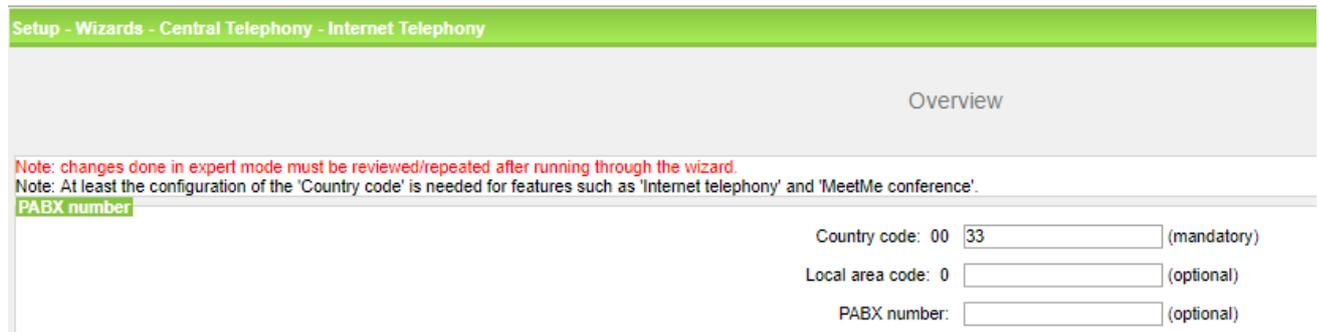
Configuration Wizard

Internet Telephony

Go to Central Telephony – “Internet Telephony“

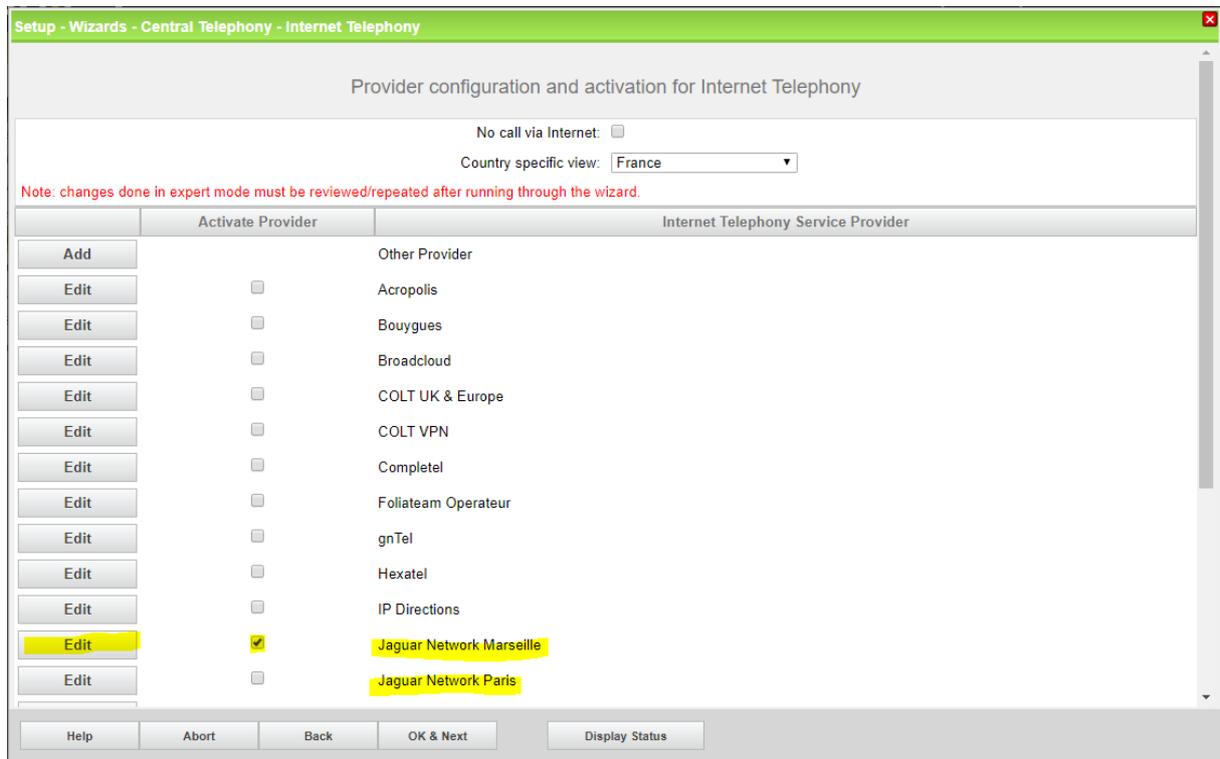


The overview page appears for entering the location data. The most flexible type of configuration is to enter the Country code only.



Click [OK & Next].

Provider configuration and activation for Internet Telephony -> No call via Internet -> uncheck
Use Country specific view: France and select primary trunk location e.g. "Jaguar Network Marseille"



Which of the two locations (Paris or Marseille) needs to be selected for primary is defined by Jaguar in the data received for the trunk configuration

Activate Provider and click on [Edit].

Nothing needs to be entered in this page, the server addresses are predefined:

Setup - Wizards - Central Telephony - Internet Telephony

Internet Telephony Service Provider

Provider Name: Jaguar Network Marseille
Enable Provider:
Secure Trunk:
Domain Name: siprouting.trunking.private.m

Provider Registrar

Use Registrar:
IP Address / Host name:
Port: 5060
Reregistration Interval at Provider (sec): 600

Provider Proxy

IP Address / Host name: siprouting.trunking.private.m
Port: 5060

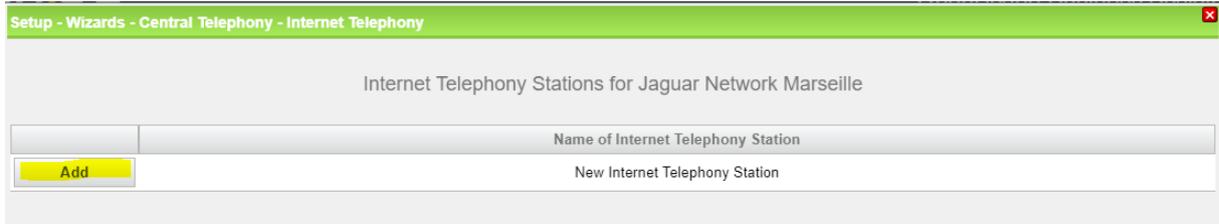
Provider Outbound Proxy

Use Outbound Proxy:
IP Address / Host name: 0.0.0.0
Port: 0

Help Abort Back **OK & Next** Delete Data

Click [OK & Next].

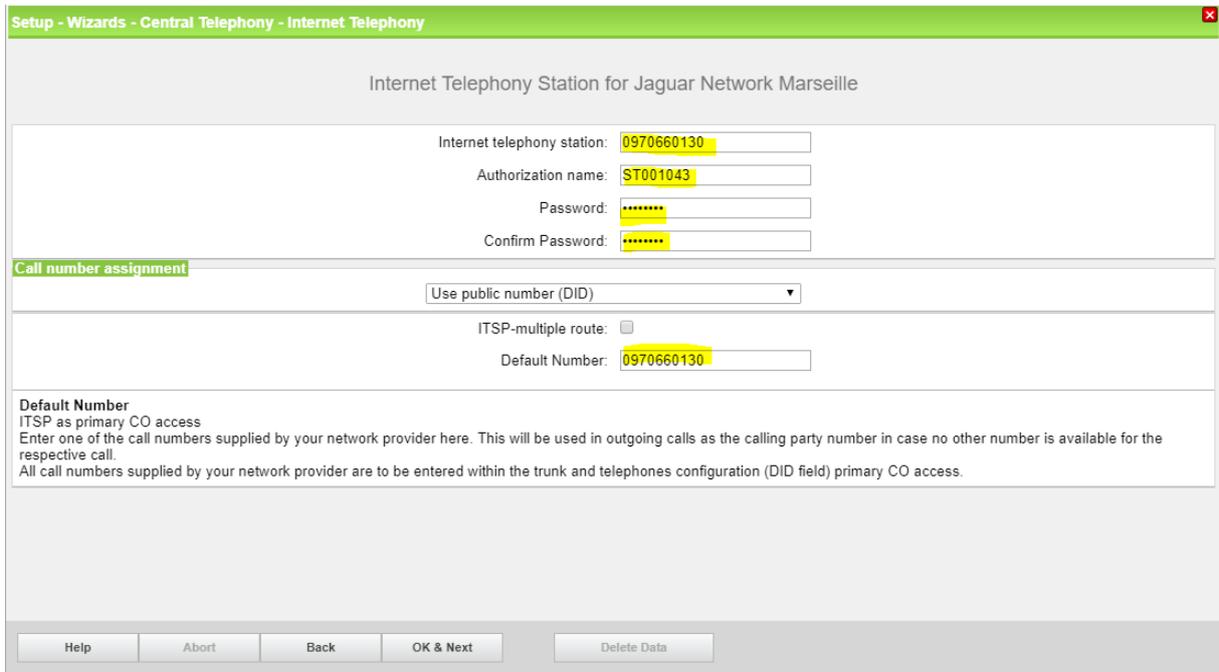
In the next dialog the specific customer SIP Userdata will be configured.



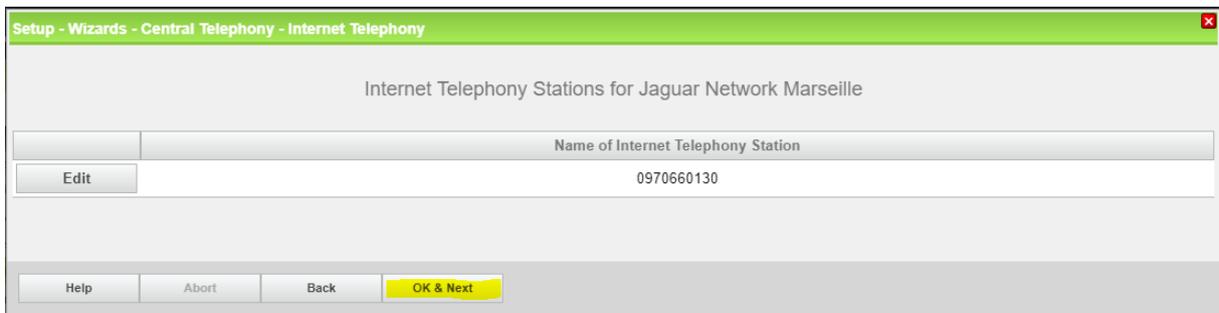
Click on [Add].

Data provided by the technician:

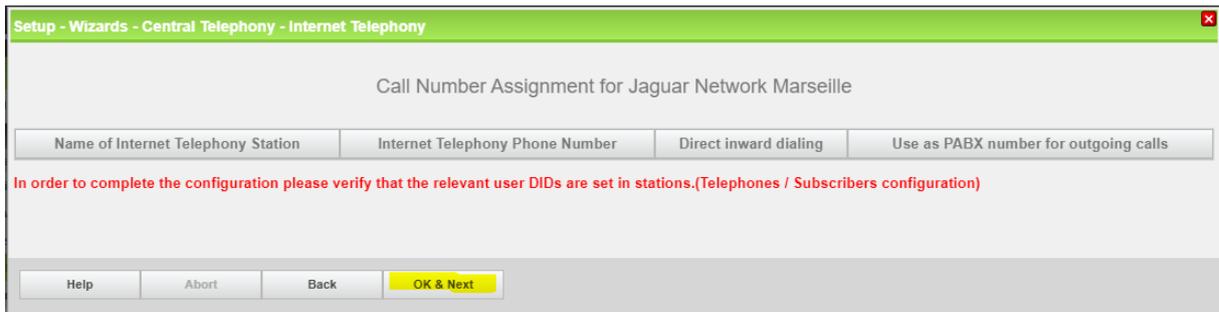
- Internet telephony station:** Username is inserted here (e.g: 0970660130)
- Authorization name:** Username is inserted here (e.g: ST001043)
- Password:** Password provided by Jaguar Network
- Default number:** Main number of connection. The default number is used as outgoing number when no DDI number is assigned to a station. (e.g: 0970660130). Usually the **Lead Number** is entered here.



Enter the relevant data and click [OK & Next].

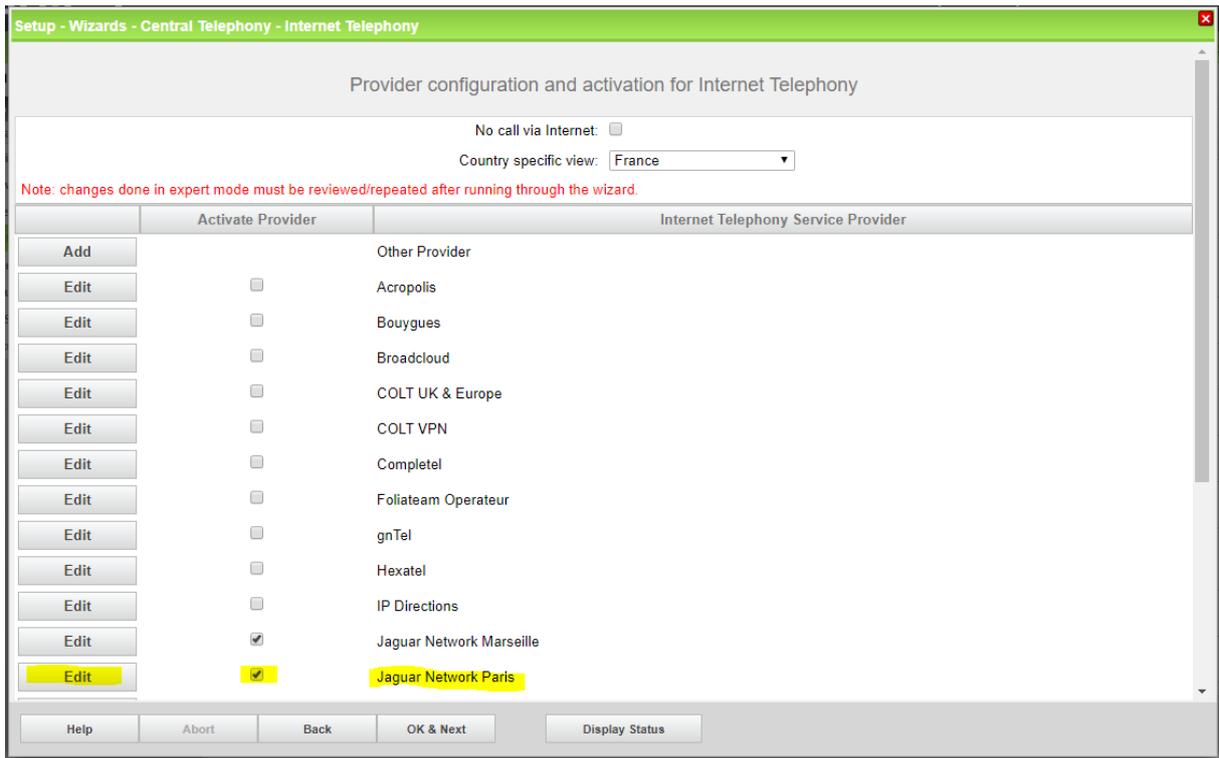


Click [OK & Next]



Click [OK & Next] (no input needed)

The next page displays the different ITSPs again. Now it is time to activate the “rescue trunk”



Activate Provider and click on [Edit].

Nothing needs to be entered in this page, the server addresses are predefined:

Setup - Wizards - Central Telephony - Internet Telephony

Internet Telephony Service Provider

Provider Name: Jaguar Network Paris
Enable Provider:
Secure Trunk:
Domain Name: siprouting.trunking.private.pa

Provider Registrar

Use Registrar:
IP Address / Host name:
Port: 5060
Reregistration Interval at Provider (sec): 600

Provider Proxy

IP Address / Host name: siprouting.trunking.private.pa
Port: 5060

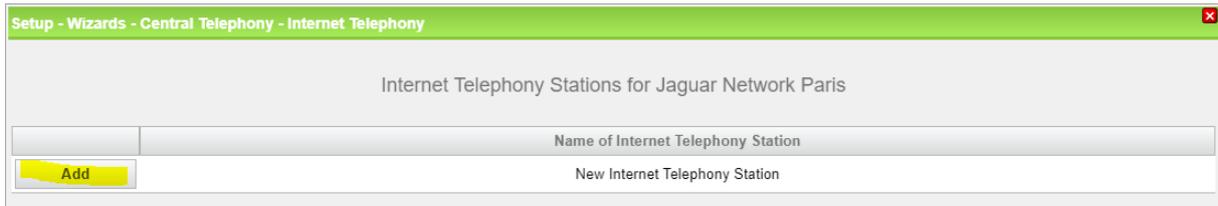
Provider Outbound Proxy

Use Outbound Proxy:
IP Address / Host name: 0.0.0.0
Port: 0

Help Abort Back **OK & Next** Delete Data

Click [OK & Next].

In the next dialog the specific customer SIP Userdata will be configured.



Click on [Add].

The Internet telephony station MUST be unique, so please use either a unique string or take the Username with a suffix

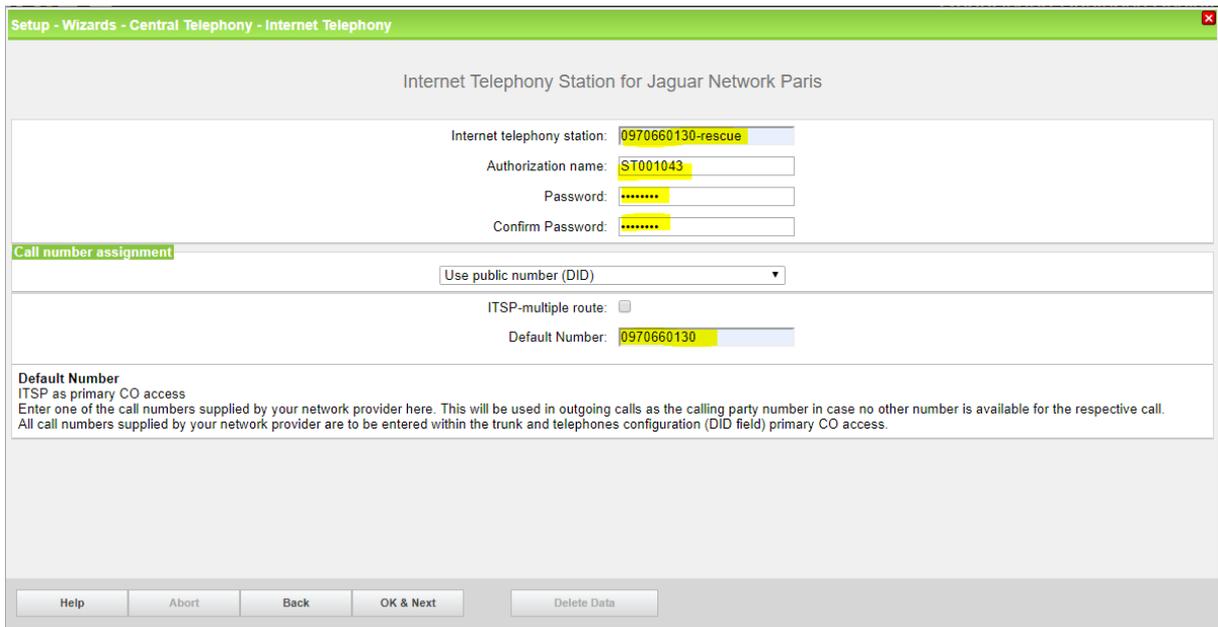
Data provided by the technician:

Internet telephony station: Username with suffix is inserted here (e.g: 0970660130-rescue) (different from entry in primary trunk !)

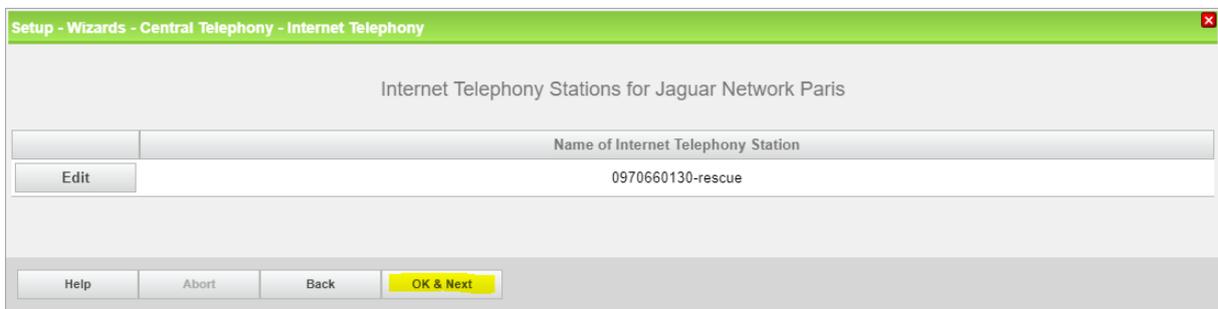
Authorization name: Username (same entry as in primary trunk)

Password: Password (same entry as in primary trunk)

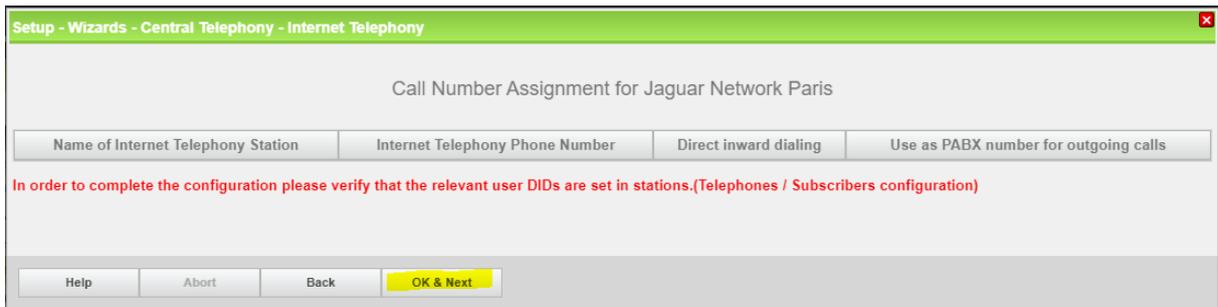
Default number: Lead number of connection (same entry as in primary trunk)



Enter the relevant data and click [OK & Next].

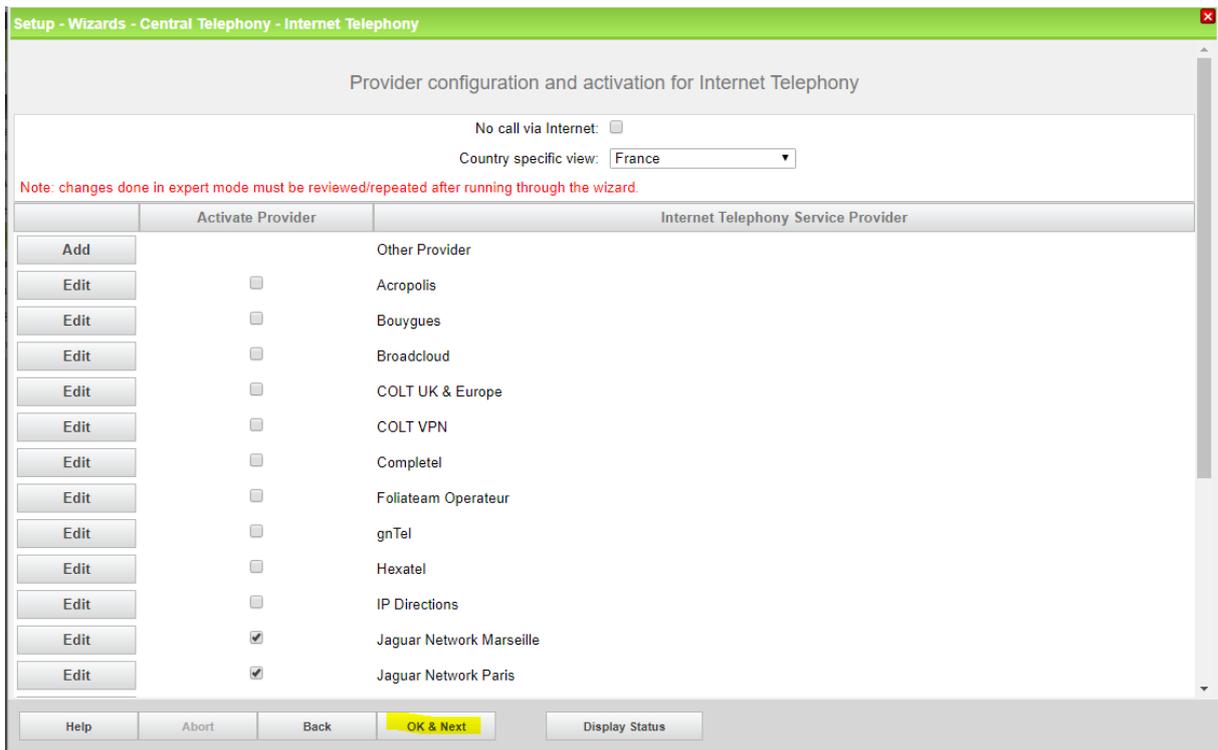


Click [OK & Next]



Click [OK & Next] (no input needed)

The next page displays the different ITSPs again.



Click [OK & Next]

Define bandwidth (# Trunks)

The amount of simultaneous Internet calls (**Assigned Lines**) must be aligned with the **Number of channels** assigned by Jaguar Network for this particular trunk. The information is provided from the technician at the time of the installation of the service.

Setup - Wizards - Central Telephony - Internet Telephony

Settings for Internet Telephony

Simultaneous Internet Calls

Available Lines for ITSP: 202

Please enter in field 'Upstream up to (Kbit/sec)' the Upstream of your Internet connection communicated by your Provider. You have typed in **Upstream up to (Kbps) = 10000**

In the 'Change Feature --> Internet Telephony' Assistant. This upstream allows you to conduct up to 60 Internet phone calls simultaneously. If the call quality deteriorates due to the network load, you will need to reduce this number of simultaneous calls.

The number of simultaneous Internet Calls also depends on the licensing.

Upstream up to (Kbps):

Number of Simultaneous Internet Calls:

Line assignment

Internet Telephony Service Provider	Configured Lines	Assigned Lines
Jaguar Network Marseille	0	<input type="text" value="8"/>
Jaguar Network Paris	0	<input type="text" value="8"/>

Help Abort Back **OK & Next**

Click [OK & Next]

Special phone numbers

In this dialog it is possible to route special phone numbers.

Special phone number	Dialed digits	Dial over Provider
1	0C15	Jaguar Network Marseille
2	0C17	Jaguar Network Marseille
3	0C18	Jaguar Network Marseille
4	0C112	Jaguar Network Marseille
5	0C115	Jaguar Network Marseille
6	0C119	Jaguar Network Marseille
7		Jaguar Network Marseille
8		Jaguar Network Marseille
9		Jaguar Network Marseille
10		Jaguar Network Marseille
11		Jaguar Network Marseille
12		Jaguar Network Marseille
13		Jaguar Network Marseille
14		Jaguar Network Marseille
15		Jaguar Network Marseille

Please make sure that the numbers are routed to the primary trunk

Click [OK & Next]

On next page status of ITSP is displayed.

Provider	Status	User
Jaguar Network Marseille	Enabled	0970660130 registered
Jaguar Network Paris	Enabled	0970660130-rescue registered

Click [Next]

„Exchange Line Seizure“: Select the primary trunk with access code 0. Enter the local area code without prefix digits (needed only when local area code was not entered in first step PBX number)

Exchange Line Seizure

Trunk Access Code: 0

Dial over Provider: Jaguar Network Marseille

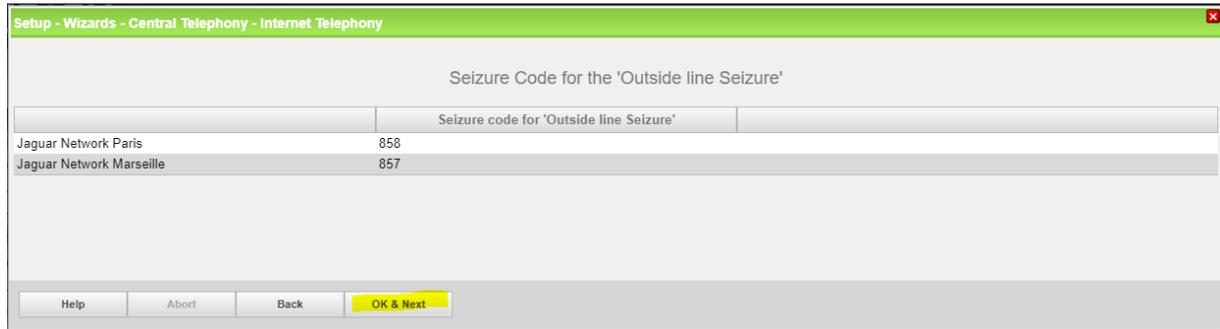
Area Code

Please enter the local area code.

Local area code: 0 97

Click [OK & Next]

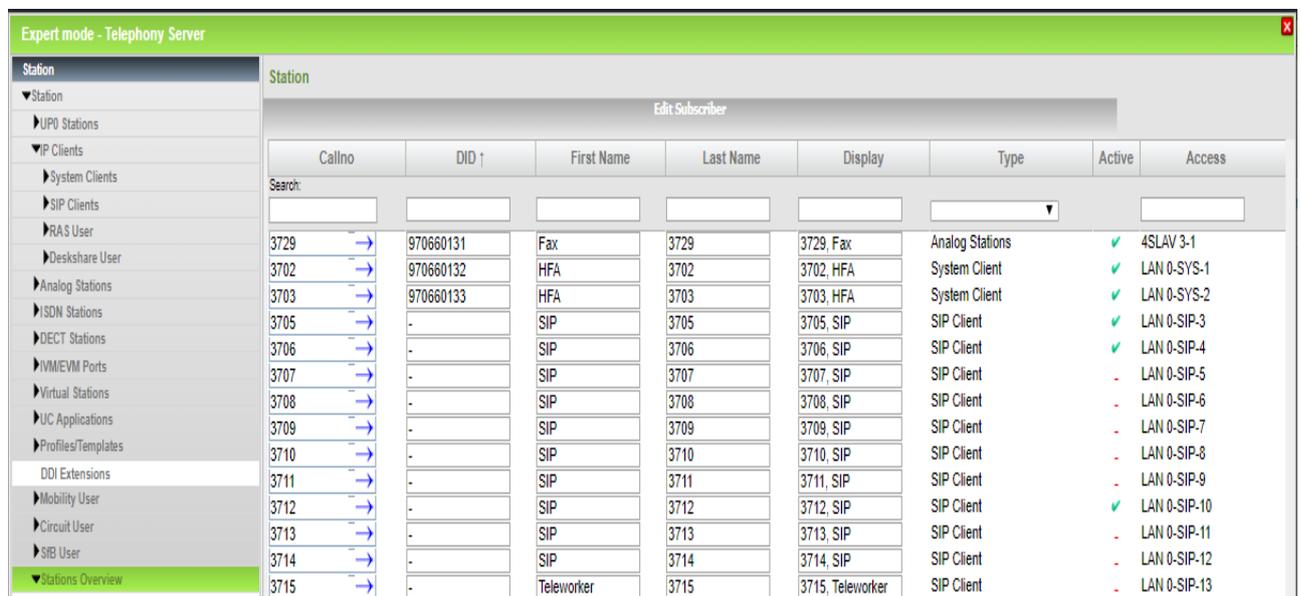
Overview with all configured „Outside line Seizure“ are displayed.



Click [OK & Next] and on the next page [Finish]

DID configuration

In the DID Section, the full DID will need to be entered without the country code.



Additional Configuration

License

Add the “S2M/SIP Trunk” license to the SIP-Trunk

The screenshot shows the 'License Management' interface. On the left is a navigation menu with 'License Management' at the top, followed by 'License information', 'Additional Products' (with a dropdown arrow), 'OpenScape Personal Edition', 'Local User licenses' (with a dropdown arrow), and 'CO Trunks' (highlighted in green). Under 'Local User licenses', there are sub-items: 'Overview', 'IP User', 'TDM User', 'Mobility User', and 'Deskshare User'. The main content area is titled 'CO Trunks' and contains the following text: 'The access to central office via PRI(S2m/T1) trunks or via Internet telephony is licensed by CO trunk licenses' and 'Available licenses for SIP and PRI(S2m/T1) trunks: 250'. Below this is a section for 'SIP trunks' with the text: 'The configured number of simultaneous Internet calls for each Internet Telephony Service Provider is: 8' and 'License number of simultaneous Internet calls in this node: 0'. At the bottom of this section is a dropdown menu for 'License demand for number of simultaneous Internet calls in this node:' with the value '8' selected. The bottom part of the interface shows a table header for 'PRI (S2M/T1)' with columns: 'Type Slot', 'Port', 'Feature', and 'Demands'.

Known limitations and restrictions:

Limitation:

In cases where an active call has negotiated a single codec (e.g. G711 only) Jaguar does not support renegotiating the media parameters to use a different one (e.g. G729). As a consequence it is not recommended to configure an OpenScape business endpoint to use G729 only. G711 must be configured at least with 2nd priority.

Mandatory configuration in Expert Mode

For the usage of the Jaguar trunk the following configuration is mandatory:

- LCR overflow route configuration
- SIP Parameters
- SIP port configuration
- T.38 must be disabled in system

LCR

For the rescue trunk the routing tables in LCR needs to be configured manually

1. Note all routing tables used in the dial plan entries for the primary route (e.g. 8,9,30,40 in the example)

The screenshot shows the 'Expert mode - Telephony Server' interface for LCR configuration. The 'Dial Plan' section is active, displaying a table of dial plan entries. The table has columns for Dial Plan, Name, Dialed digits, Routing Table, Acc. code, Classes of service, and Emergency. The following table represents the data shown in the screenshot:

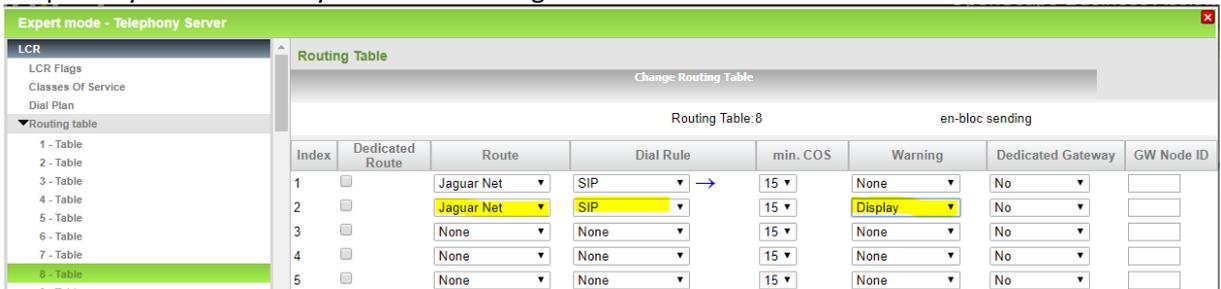
Dial Plan	Name	Dialed digits	Routing Table	Acc. code	Classes of service	Emergency
1	Appel d'urgence	0C15	8		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
2	Appel d'urgence	0C17	8		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
3	Appel d'urgence	0C18	8		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
4	Appel d'urgence	0C112	8		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
5	Appel d'urgence	0C115	8		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
6	Appel d'urgence	0C119	8		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
7			8		<input checked="" type="checkbox"/>	<input type="checkbox"/>
8			8		<input checked="" type="checkbox"/>	<input type="checkbox"/>
9			8		<input checked="" type="checkbox"/>	<input type="checkbox"/>
10			8		<input checked="" type="checkbox"/>	<input type="checkbox"/>
11			8		<input checked="" type="checkbox"/>	<input type="checkbox"/>
12			8		<input checked="" type="checkbox"/>	<input type="checkbox"/>
13			8		<input checked="" type="checkbox"/>	<input type="checkbox"/>
14			8		<input checked="" type="checkbox"/>	<input type="checkbox"/>
15			8		<input checked="" type="checkbox"/>	<input type="checkbox"/>
16	Services	0CZ	8		<input checked="" type="checkbox"/>	<input type="checkbox"/>
17	National	0C0-Z	30		<input checked="" type="checkbox"/>	<input type="checkbox"/>
18	Local	0C1Z	9		<input checked="" type="checkbox"/>	<input type="checkbox"/>
19	Local	0CNZ	9		<input checked="" type="checkbox"/>	<input type="checkbox"/>
20	International	0C00-Z	40		<input checked="" type="checkbox"/>	<input type="checkbox"/>
21	Standard	855CZ	4		<input checked="" type="checkbox"/>	<input type="checkbox"/>

2. These routing tables must be used in the dial plan entries of the rescue trunk as well:

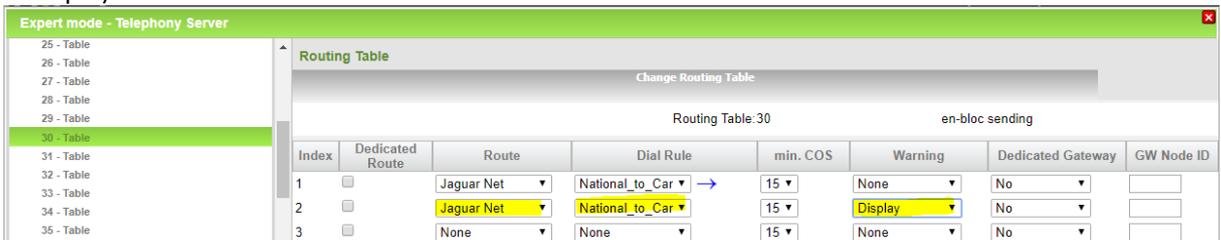
The screenshot shows the 'Expert mode - Telephony Server' interface for LCR configuration. The 'Dial Plan' section is active, displaying a table of dial plan entries. The table has columns for Dial Plan, Name, Dialed digits, Routing Table, Acc. code, Classes of service, and Emergency. The following table represents the data shown in the screenshot:

Dial Plan	Name	Dialed digits	Routing Table	Acc. code	Classes of service	Emergency
35	Ann-Player		12		<input checked="" type="checkbox"/>	<input type="checkbox"/>
36	Jaguar Network M	857CZ	8		<input checked="" type="checkbox"/>	<input type="checkbox"/>
37	Jaguar Network M	857C0-Z	30		<input checked="" type="checkbox"/>	<input type="checkbox"/>
38	Jaguar Network M	857C1Z	9		<input checked="" type="checkbox"/>	<input type="checkbox"/>
39	Jaguar Network M	857CNZ	9		<input checked="" type="checkbox"/>	<input type="checkbox"/>
40	Jaguar Network M	857C00-Z	40		<input checked="" type="checkbox"/>	<input type="checkbox"/>
41	Jaguar Network P	858CZ	8		<input checked="" type="checkbox"/>	<input type="checkbox"/>
42	Jaguar Network P	858C0-Z	30		<input checked="" type="checkbox"/>	<input type="checkbox"/>
43	Jaguar Network P	858C1Z	9		<input checked="" type="checkbox"/>	<input type="checkbox"/>
44	Jaguar Network P	858CNZ	9		<input checked="" type="checkbox"/>	<input type="checkbox"/>
45	Jaguar Network P	858C00-Z	40		<input checked="" type="checkbox"/>	<input type="checkbox"/>
46	Standard	80CZ	16		<input checked="" type="checkbox"/>	<input type="checkbox"/>
47	Standard	80C0-Z	16		<input checked="" type="checkbox"/>	<input type="checkbox"/>
48	Standard	80C1Z	16		<input checked="" type="checkbox"/>	<input type="checkbox"/>
49	Standard	80CNZ	16		<input checked="" type="checkbox"/>	<input type="checkbox"/>
50	Standard	80C00-Z	16		<input checked="" type="checkbox"/>	<input type="checkbox"/>
51	Standard	81CZ	18		<input checked="" type="checkbox"/>	<input type="checkbox"/>
52	Standard	81C0-Z	18		<input checked="" type="checkbox"/>	<input type="checkbox"/>
53	Standard	81C1Z	18		<input checked="" type="checkbox"/>	<input type="checkbox"/>
54	Standard	81CNZ	18		<input checked="" type="checkbox"/>	<input type="checkbox"/>
55	Standard	81C00-Z	18		<input checked="" type="checkbox"/>	<input type="checkbox"/>

3. Add the Route of the rescue trunk in the Routing Table and select the same Dial Rule as for the primary trunk. You may choose a warning for the overflow.

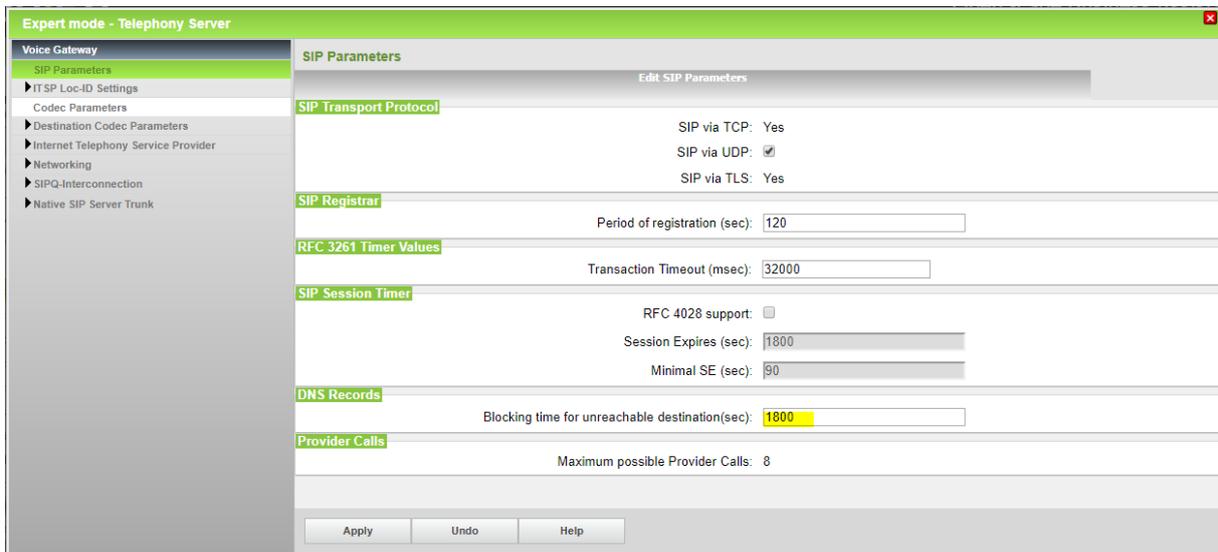


4. Repeat this step for all routing tables used for the Jaguar trunk ((e.g. 8,9,30,40 in the example))



SIP Parameter

If a trunk goes out of service the system needs 32 sec (SIP timeout) to initiate the call to the overflow route. Once a destination is detected as out of service it will not be used for “Blocking time for unreachable destination”. This timer is set to 60 sec in default and must be increased in a rescue route is available. A value of 1800 (30 min) is recommended.

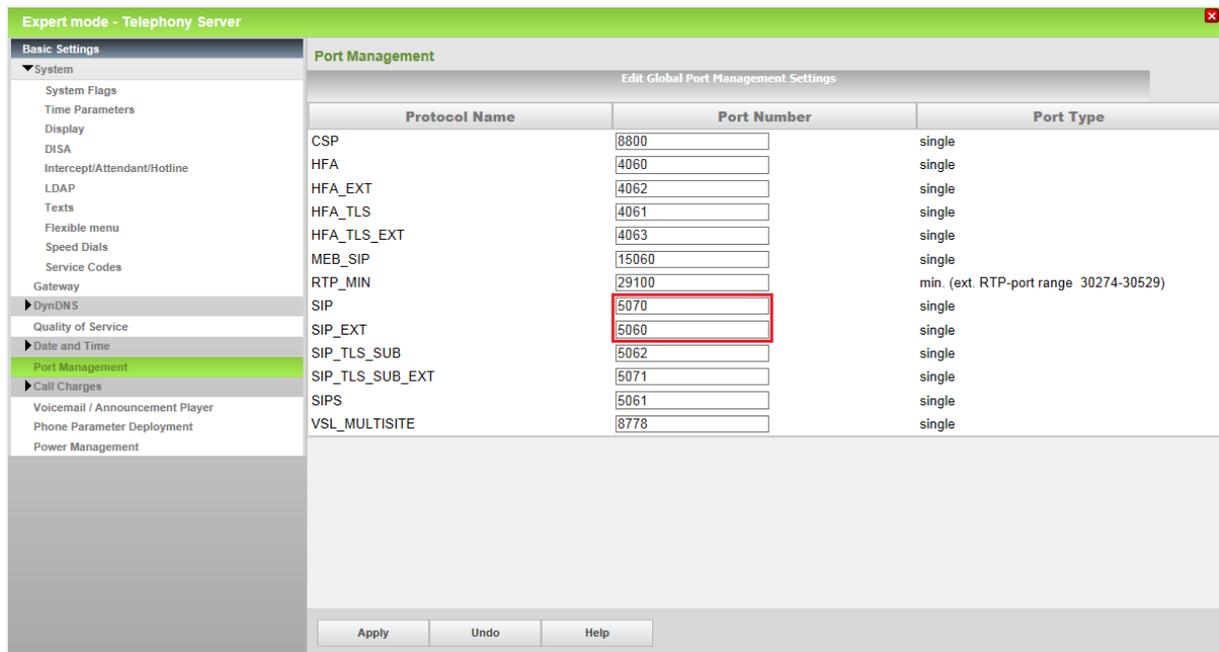


This change needs a system restart.

Port management

Go to Expert Mode → Telephony Server → Port Management

To comply with the requirements of the Jaguar Network the EXT_SIP port **MUST** be configured with 5060 (default is 5070).



The internal SIP port should be set to a different port (e.g. 5070). Having internal and external port with the same value is possible but may lead to significant security risks.

After the ports are changed OSBiz **MUST** be restarted.

Codec Parameters

Go to Expert Mode → Telephony Server → Voice Gateway → Codec Parameters

To comply with the requirements of the Jaguar Network the following codec parameter **MUST** be changed:

1. Unsupported G729AB codec must be disabled.
2. T38 fax protocol is not supported by Jaguar Network, fax is supported via G.711 only. For this you MUST disable T38 protocol

The screenshot displays the 'Expert mode - Telephony Server' configuration window. The left sidebar shows a tree view with 'Voice Gateway' expanded, and 'Codec Parameters' selected. The main area is titled 'Edit Codec Parameters' and contains a table of codec settings.

Codec	Priority	Voice Activity Detection	Frame Size
G.711 A-law	Priority 1	VAD: <input type="checkbox"/>	20 msec
G.711 μ-law	Priority 2	VAD: <input type="checkbox"/>	20 msec
G.729A	Priority 4	VAD: <input type="checkbox"/>	20 msec
G.729AB	not used	VAD: <input checked="" type="checkbox"/>	20 msec

Below the table, there are several sections with checkboxes and dropdown menus:

- Enhanced DSP Channels:** Use G.711 only:
- T.38 Fax:** T.38 Fax: (highlighted in yellow). Use FillBitRemoval: . Max. UDP Datagram Size for T.38 Fax (bytes): 1472. Error Correction Used for T.38 Fax (UDP): 138UDPRedundancy
- T.30 Fax:** Enable ECM:
- Misc.:** ClearChannel: . Frame Size: 20 msec
- RFC2833:** Transmission of Fax/Modem Tones according to RFC2833: . Transmission of DTMF Tones according to RFC2833: . Payload Type for RFC2833: 98. Redundant Transmission of RFC2833 Tones according to RFC2198:

At the bottom, there are 'Apply', 'Undo', and 'Help' buttons.