

# OpenScape Business V3

## How to Configure Keyyo SIP Trunk France

## About this document

This configuration guide describes an example of how to set up the **Keyyo** SIP trunk as an ITSP connection to the OpenScape Business.

**Note:** The basis for this document is the current OpenScape Business *V3R2.1*. Since OpenScape Business is constantly developed, input masks and interfaces as well as requirements may change in the future. The settings and entries described here then apply accordingly.

<b>System</b>	OpenScape Business
<b>Released with Version</b>	<i>V3R2.1</i>
<i>Keyyo SIP Trunk</i>	<b>Features &amp; Capabilities</b>
<b>Account (DID/Client)</b>	<i>DID</i>
<b>Multisite</b>	<i>yes - single trunk</i>
<b>CLIP / CLIR</b>	<i>yes / yes</i>
<b>CLIP no Screening</b>	<i>no</i>
<b>COLP</b>	<i>no</i>
<b>Call Forwarding (302)</b>	<i>No</i>
<b>DTMF (RFC2833/4733)</b>	<i>yes</i>
<b>Codecs G711/G729</b>	<i>yes / no</i>
<b>T.38 Fax</b>	<i>no</i>
<b>Secure trunk</b>	<i>no</i>

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## Table of History

Date	Version	Changes
31/05/2022	1.0	Release for OpenScape Business V3R2
01/12/2022	1.1	Release of profile for OpenScape Business V3R2.1

## Information

The **Keyyo** SIP Trunk will be released for the first time with OpenScape Business V3R2.

## Trunk Configuration Data provided by Keyyo

### SIP Parameters

#### Mandatory parameters

- **Authentication mechanism** : MD5 digest (based on username / password)
- **Codecs**: G.711 A-Law (negotiated)
- **SIP domain** : keyyo.net
- **SIP server port** : 5060
- **SIP realm** : keyyo.net (provided by the server)
- **Number format**: E.164 (with or without "+") <sup>1)</sup>
- **DTMF Mode** : RFC 2833 (with Payload set to 101 in SDP)
- **SIP management on WAN router** : SIP ALG option disabled.
- **NAT Keepalive** : Should be adjusted regarding the router (30 seconds is OK for most)

#### Optional parameters

- **STUN** (on/off): off
- **Outbound proxy server** : keyyo.net
- **Outbound proxy server port** : By default
- **Registrar server** : keyyo.net
- **Registrar server port** : 5060
- **Fax codecs** :
  - Initial call: G.711 (A-Law)
  - Carrier: T38 with G.711 (A-Law) fallback

<sup>1)</sup> *Number format in signalisation from/to proxies (for a 0ZABPQMCDU French number, that means 33ZABPQMCDU or +33ZABPQMCDU).*

## Firewall

If you use a firewall, make sure the communications with the Keyyo platform are authorized.

### Voice services

- IP address ranges: 83.136.161.0/24, 83.136.162.0/24, 83.136.163.0/24, and 83.136.164.0/24
- UDP ports: 5060, 8060, and from 35000 to 64999

### Fax emission

- IP address ranges: 83.136.161.0/24 and 83.136.162.0/24
- TCP port: 21

## Network Devices

### *Router/Switch*

If you use devices not provided by **Keyyo**, make sure the following points are OK:

- IP fragmentation.
- Only one device doing NAT.
- Private IP addresses allocation (RFC 1918).

### *VLAN*

For enterprise deployments, it is recommended to use a VLAN (Virtual LAN) that will prioritize VoIP packets for optimal use.

### *CDP / LLDP*

CDP (Cisco Discovery Protocol) and LLDP (Link Layer Discovery Protocol) features are not supported.

## Internet Access

### *Bandwidth*

- Standard audio quality (G.729 codec): 45 kbit/s ATM i.e., 30 kbit/s IP (symmetrical).
- Premium audio quality (G.711 codec) and HD (G.722 codec): 110 kbit/s ATM i.e., 90 kbit/s IP (symmetrical).

### *Misc.*

Using a proxy is not supported: The access to the Internet must be direct.

Internet access aggregation and load balancing are not supported.

# Configuration Wizard

## Internet Telephony

Go to Central Telephony – “Internet Telephony”

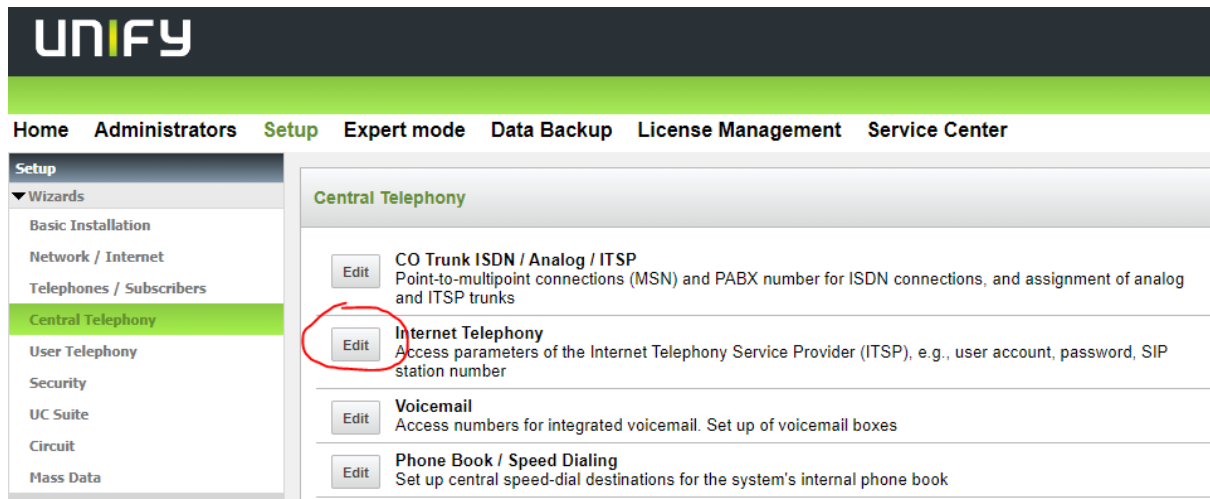


Figure 1

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

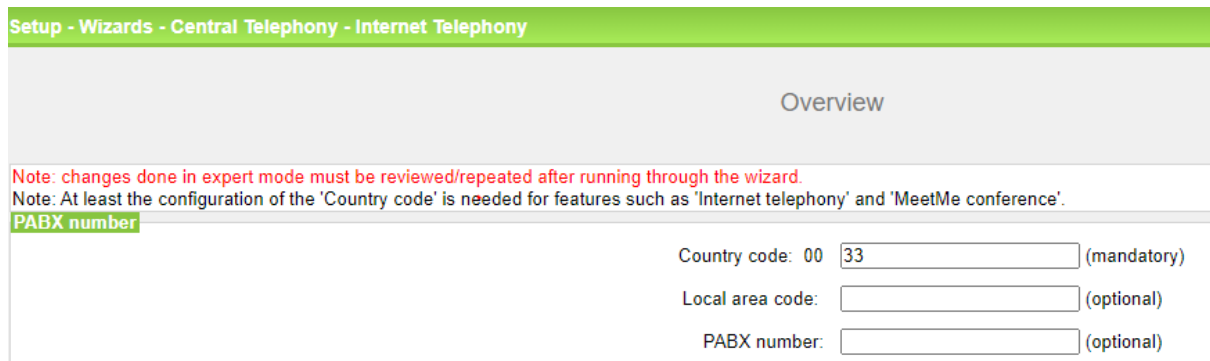


Figure 2

Click [OK & Next].

Provider configuration and activation for Internet Telephony

No call via Internet -> uncheck  
Use County specific view: **France** and select **Keyyo**

Setup - Wizards - Central Telephony - Internet Telephony

Provider configuration and activation for Internet Telephony

No call via Internet:

Country specific view:

Note: changes done in expert mode must be reviewed/repeated after running through the wizard.

	Activate Provider	Internet Telephony Service Provider
Add		Other Provider
Edit	<input type="checkbox"/>	Bouygues
Edit	<input type="checkbox"/>	Broadcloud
Edit	<input type="checkbox"/>	CODEPI SIP-Trunk
Edit	<input type="checkbox"/>	COLT UK & Europe
Edit	<input type="checkbox"/>	COLT VPN
Edit	<input type="checkbox"/>	Completel
Edit	<input type="checkbox"/>	Foliateam Operateur
Edit	<input type="checkbox"/>	gnTel
Edit	<input type="checkbox"/>	Hexatel
Edit	<input type="checkbox"/>	IP Directions
Edit	<input type="checkbox"/>	Jaguar Network Marseille
Edit	<input type="checkbox"/>	Jaguar Network Paris
<b>Edit</b>	<input checked="" type="checkbox"/>	<b>Keyyo</b>
Edit	<input type="checkbox"/>	MyStream

Figure 3

Activate Provider and click on [Edit].



On the next page the server addresses are predefined:

Setup - Wizards - Central Telephony - Internet Telephony

### Internet Telephony Service Provider

Provider Name:

Enable Provider:

Secure Trunk:

Domain Name:

Transport protocol:

---

**Provider Registrar**

Use Registrar:

IP Address / Host name:

Port:

Reregistration Interval at Provider (sec)

---

**Provider Proxy**

IP Address / Host name:

Port:

---

**Provider Outbound Proxy**

Use Outbound Proxy:

IP Address / Host name:

Port:

---

**Provider Inbound Proxy**

Use Inbound Proxy:

IP Address / Host name:

Port:

Figure 4

Click [OK & Next].

In the next dialog the specific customer SIP User data will be configured.

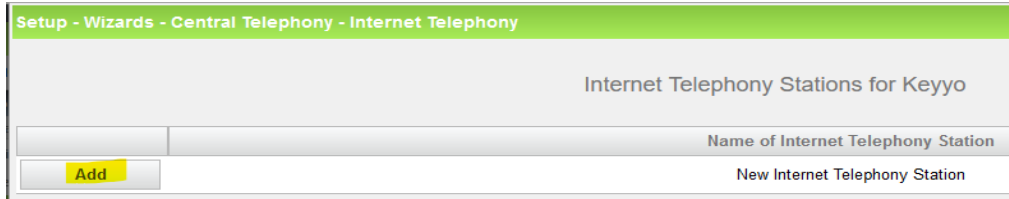


Figure 5

Click on [Add].

Data provided by the technician:

**Internet telephony station: Username** is inserted here (e.g: 33175430236)

**Authorization name: Username** is inserted here (e.g: 33175430236)

**Password: Password** provided by **Keyyo**

**Default number:** Main number of connections. The default number is used as outgoing number when no DDI number is assigned to a station. (e.g: 33175430236). Usually, the **Lead Number** is entered here.

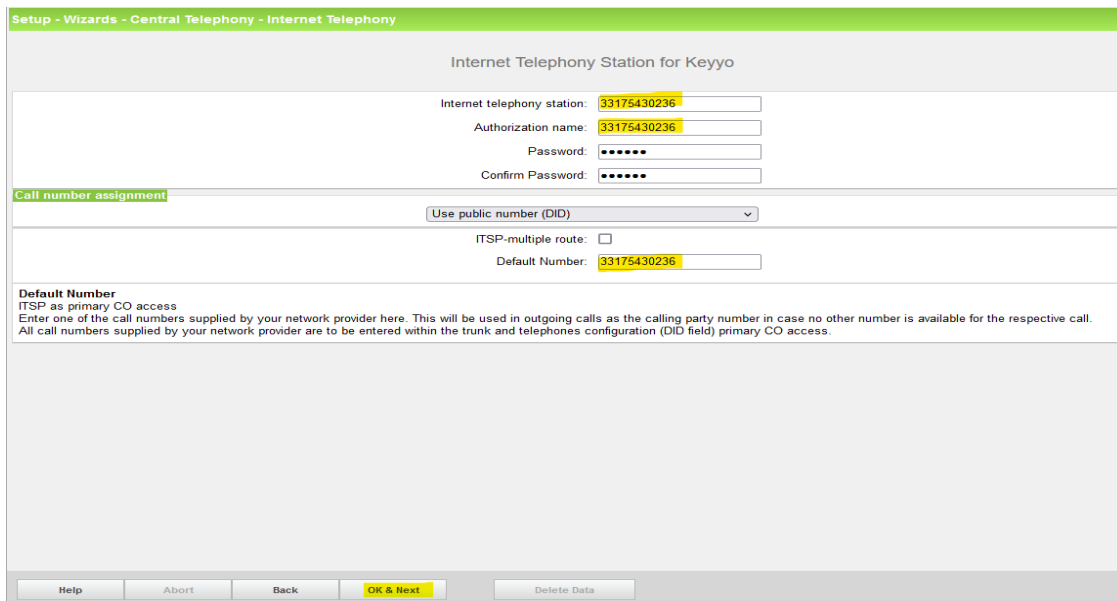


Figure 6

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

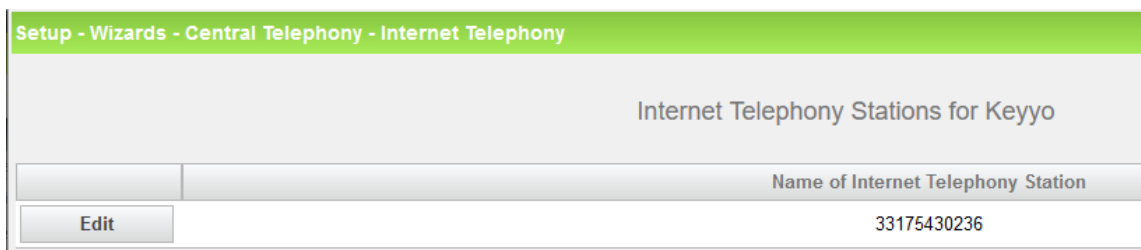
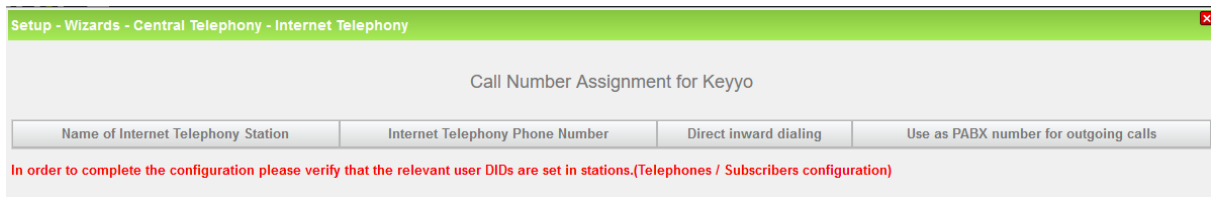


Figure 7

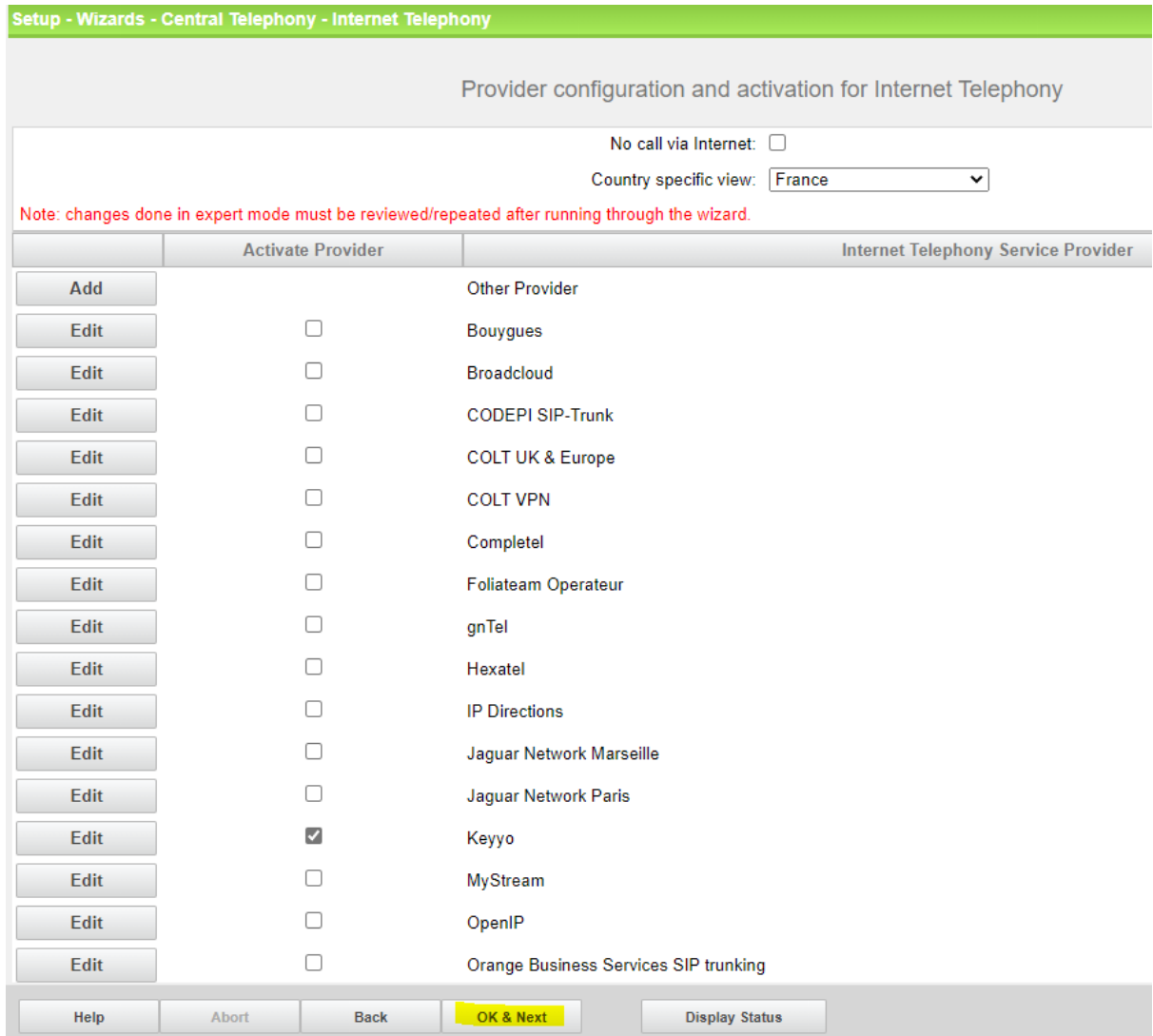
Click [OK & Next]



**Figure 8**

Click [OK & Next] (no input needed)

The next page displays the different ITSPs again.



**Figure 9**

Click [OK & Next]

## Define bandwidth (# Trunks)

The amount of simultaneous Internet calls (**Assigned Lines**) must be aligned with the **Number of channels** assigned by **Keyyo** 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: 170

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) = 20000**

In the 'Change Feature -> Internet Telephony' Assistant. This upstream allows you to conduct up to 156 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
Keyyo	4	<input type="text" value="4"/>

Help Abort Back **OK & Next**

**Figure 10**

Click [OK & Next]

## Special phone numbers

In this dialog it is possible to route special phone numbers. Please make sure that the numbers are routed to the primary trunk.

Special phone number	Dialed digits	Dial over Provider
1	0C112	Keyyo
2		Keyyo
3		Keyyo
4		Keyyo
5		Keyyo
6		Keyyo
7		Keyyo
8		Keyyo
9		Keyyo
10		Keyyo
11		Keyyo
12		Keyyo
13		Keyyo
14		Keyyo
15		Keyyo

Figure 11

Click [OK & Next]

On next page status of ITSP is displayed.

Provider	User
Keyyo Enabled	33175430236 registered

Figure 12

Click [Next]

„Exchange Line Seizure“:

Select which trunk will 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)

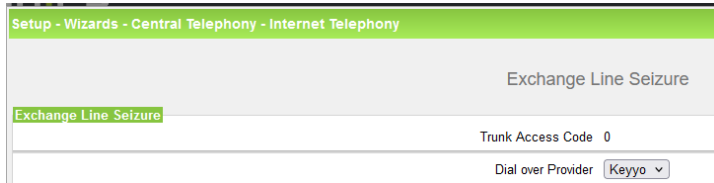


Figure 13

Click [OK & Next]

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

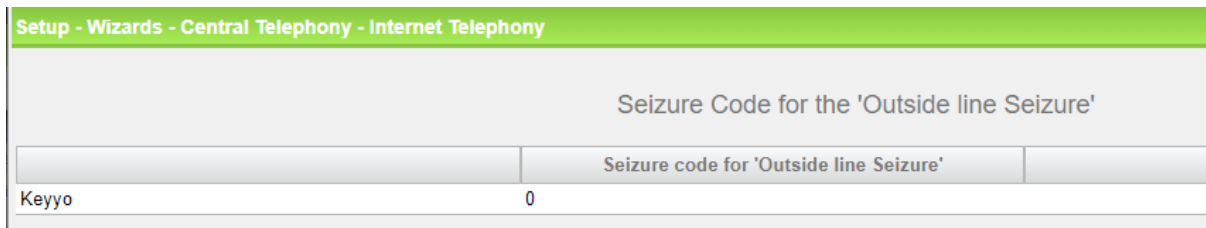


Figure 14

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

## DID configuration

In this example the location data is chosen with the most flexible type of configuration: *Country code* only. Therefore in the DID Section, the full DID will need to be entered without the country code.

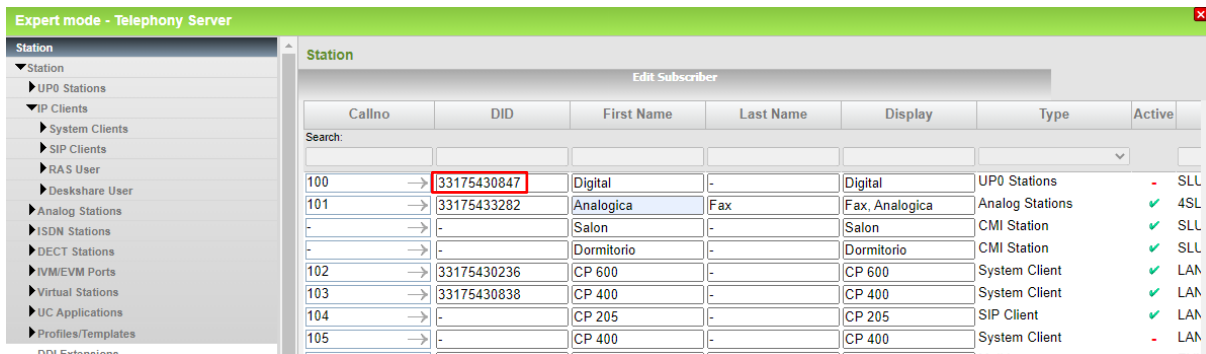


Figure 15

## Additional Configuration

### License

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

**UNIFY**

Home Administrators Setup Expert mode Data Backup License Management Service Center

**License Management**

License information

Additional Products

OpenScape Personal Edition

Local User Licenses

Overview

IP User

TDM User

Mobility User

Deskshare User

**CO Trunks**

System Licenses

**CO Trunks**

The access to central office via PRI(S2m/T1) trunks or via Internet telephony is licensed by CO trunk licenses  
Available licenses for SIP and PRI(S2m/T1) trunks: 0

**SIP trunks**

The configured number of simultaneous Internet calls for each Internet Telephony Service Provider is: 4

License number of simultaneous Internet calls in this node: 4

License demand for number of simultaneous Internet calls in this node: 4

**PRI (S2M/T1)**

Type Slot	Port	Feature	Demands
-----------	------	---------	---------

Figure 16

### Route configuration

Check “Add direction prefix incoming” and uncheck “Call No. with international / national prefix”

In “No and type outgoing” select PABX Number

**Expert mode - Telephony Server**

**Trunks/Routing**

Trunks

Route

ISDN

Circuit

Trk Grp. 3

Trk Grp. 4

Trk Grp. 5

Trk Grp. 6

Trk Grp. 7

UC Suite

Trk Grp. 9

Trk Grp. 10

Trk Grp. 11

**Keyyo SIP**

Trk Grp. 13

Trk Grp. 14

Trk Grp. 15

Networking

QSIG-Feature

MSN assign

ISDN Parameters

**Route**

Change Route

Change Routing Parameters

Special Parameter ch

**Routing flags**

Digit repetition on:

Analysis of second dial tone / Trunk monitoring:

Intercept per direction:

Over. service 3.1 kHz audio:

Add direction prefix incoming:

Add direction prefix outgoing:

Call No. with international / national prefix:

Ringback tone to CO:

Name in CO:

Segmentation: yes

deactivate UUS per route:

Always use DSP:

Analog trunk seizure: no pause

Trunk call pause: Pause 6 s

Type of seizure: linear

Route type: CO

No. and type, outgoing: PABX number

Call number type: Direct inward dialing

**Rerouting**

Change route allowed:

Route optimize active: No

Figure 17

# Mandatory configuration in Expert Mode

## Codec Parameters

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

To comply with the requirements of the **Keyyo** the following codec parameters **MUST** be changed:

1. Unsupported G729AB codec must be disabled.
2. G.729 disabled. Use G.711 only.
3. T38 fax protocol is not supported by **Keyyo**, fax is supported via G.711 only. For this you **MUST** disable T38 protocol

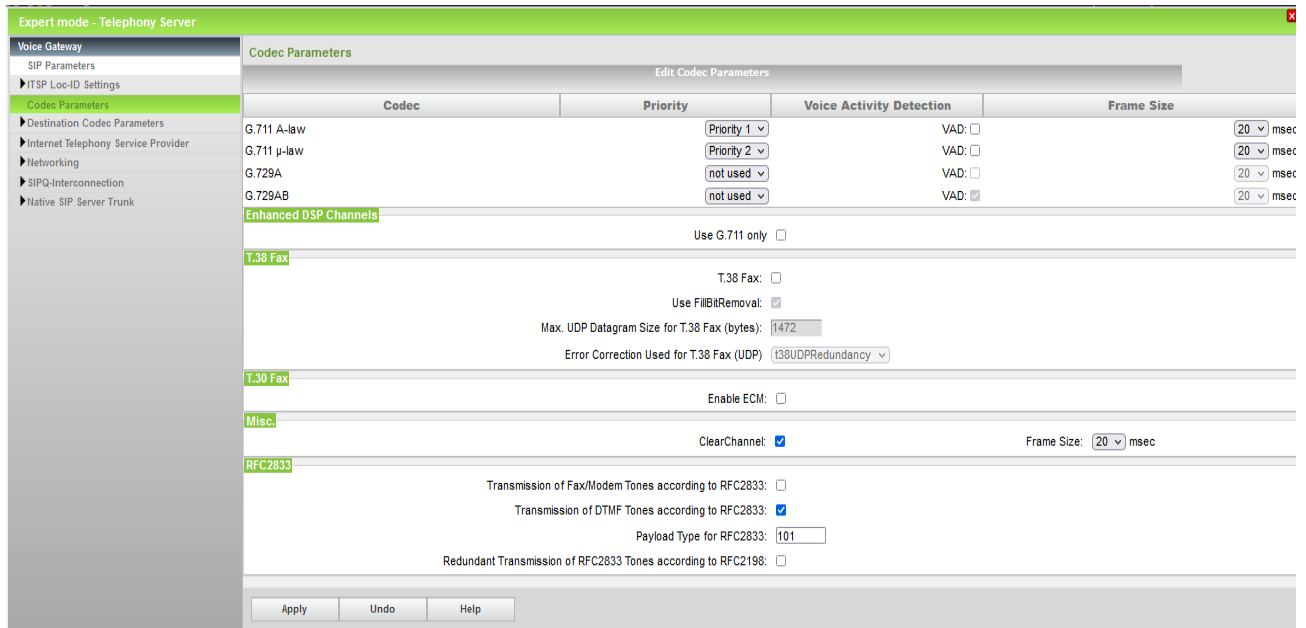


Figure 18

After disabling T.38 OpenScape Business **MUST** be restarted.