OpenScape Business V3

Configure SIP Trunk for Telenor Norway

OpenScape Business V3 Mainboard Family
OpenScape Business S

About this document

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

Note: The basis for this document is the current OpenScape Business *V3R4.2*. 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.

System	OpenScape Business
Released with Version	*V3R4.2*
Telenor Norway	**Features & Capabilities**
Account (DID/Client)	*DID*
Multisite	*no*
CLIP / CLIR	*yes*
CLIP no Screening	*no*
COLP	*no*
Call Forwarding (302)	*yes [1]*
DTMF (RFC2833/4733)	*yes*
Codecs G.722/G.711/G.729	*yes [2] / yes / no*
T.38 Fax	*yes [3]*
Secure trunk	*no*

Remarks:

For security reasons OpenScape Business uses dedicated SIP server ports for internal (5060) and external (5070) traffic. As **Telenor Norway** can handle SIP traffic on port 5060 only, the external SIP port in OpenScape Business MUST be configured to port 5060. It is recommended to set the SIP port (internal) to port 5070.

[1] Call Forwarding (302) - Route optimize – is active in default.

[2] The use of the G.722 codec must be enabled on the end devices with priority 1 (first line codec). The use of G.722 depends on the characteristics of the remote device (end device, IP system connection, etc.).

[3] The option of sending or receiving T.38 faxes depends on the properties of the remote station.

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Table of History

Date	Version	Changes
2025-09-22	1.0	release with OpenScape Business V3R4.2

Information

The *Telenor Norway* SIP-Trunk is released for the first time with OpenScape Business V3R4.2 variants

- OpenScape Business V3 Mainboard Family
- OpenScape Business S

Trunk Configuration Data provided by Telenor Norway

The customer administrator interface "Min Bedrift" (="My company") is available at
https://www.telenor.no/bedrift/mbw/.

More details can be found under:

https://www.telenor.no/binaries/bedrift/kundeservice/mobilt-bedriftsnett/mbn-admin/Brukermanual-MBN-Admin-V5-2.pdf.

Configuration Wizard

Internet Telephony

Go to Central Telephony – "Internet Telephony"
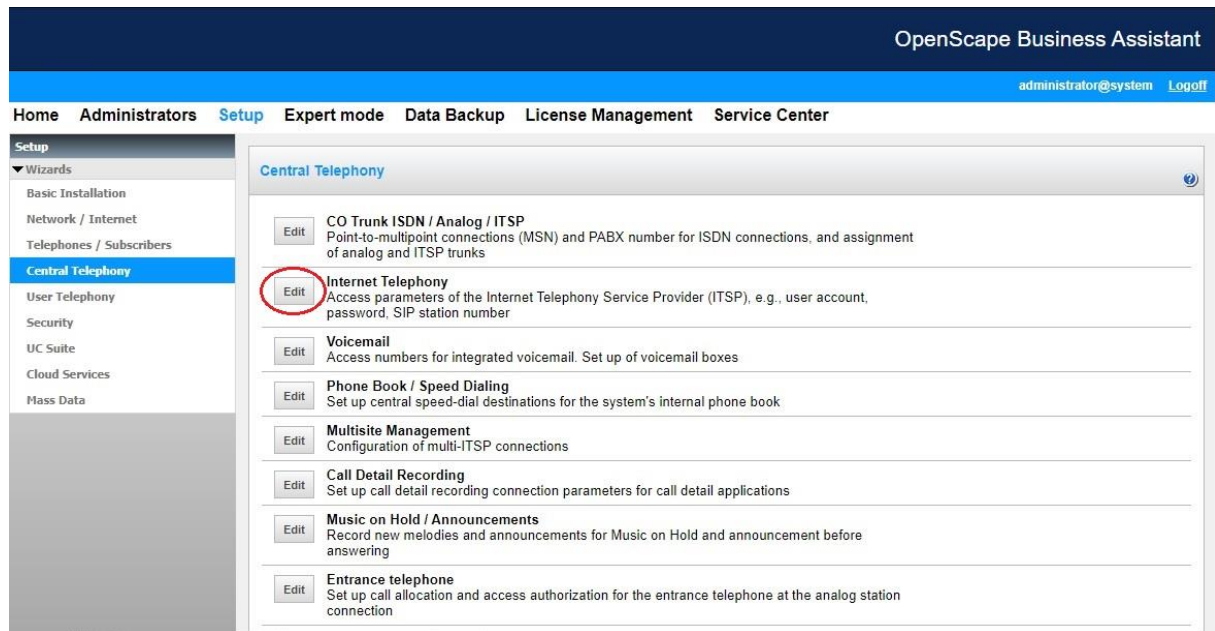
Figure 1

The overview page appears for entering the location data. The most flexible type of configuration is to enter the Country code only.
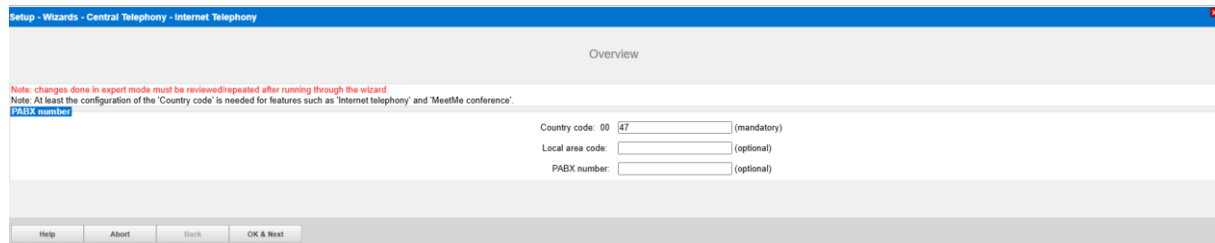
Figure 2

Click [OK & Next].

Provider configuration and activation for Internet Telephony

- No call via Internet -> uncheck
- Use County specific view: "*Norway*" and select "*Telenor Norway*"

(i)	As long as the profile *Telenor Norway* is not available, please create a private profile *TeleNor_2* (see appendix).
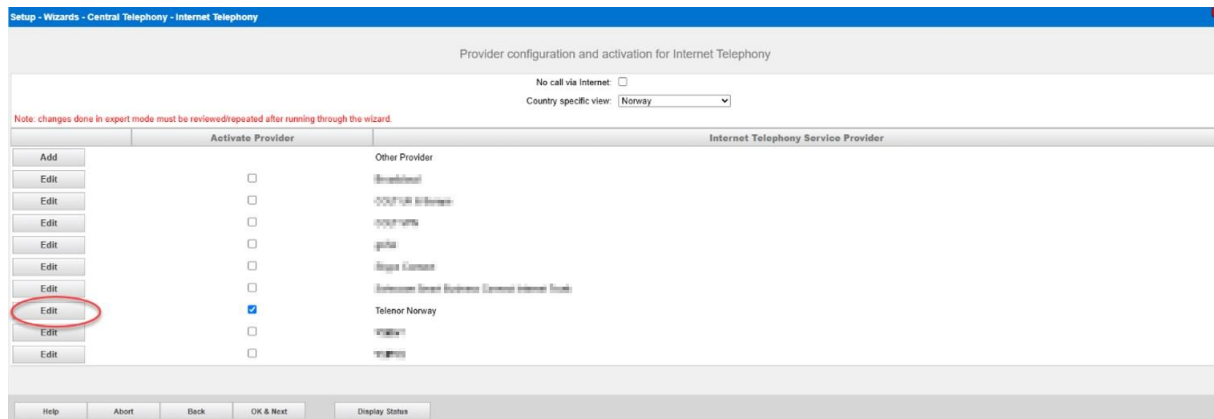
Figure 3

Activate Provider and click on [Edit].

On the next page the preconfigured **Telenor Norway** server data are displayed and need not to be changed.

Registered account is for single user/single number accounts only - primarily use case are a deskphone or SIP/analogue adapter without PBX. Trunks are static at **Telenor** SBC.

Provider STUN

The **Telenor** IPT platform requires that the layer 3 (IP) address used for the signalling is fixed. This static address is provisioned in the **Telenor** SBC. For Internet based access, the received IP-address must be public and unique per end-customer.
Therefore 3rd party STUN servers must be used to discover what public IP address the OpenScape Business is recognized by when traversing Internet.

Route optimize active

This option is enabled by default. Rerouting is carried out by **Telenor** SBC during a call forwarding (SIP 302). The system loses further control over the call, the control of the call remains at **Telenor** SBC.
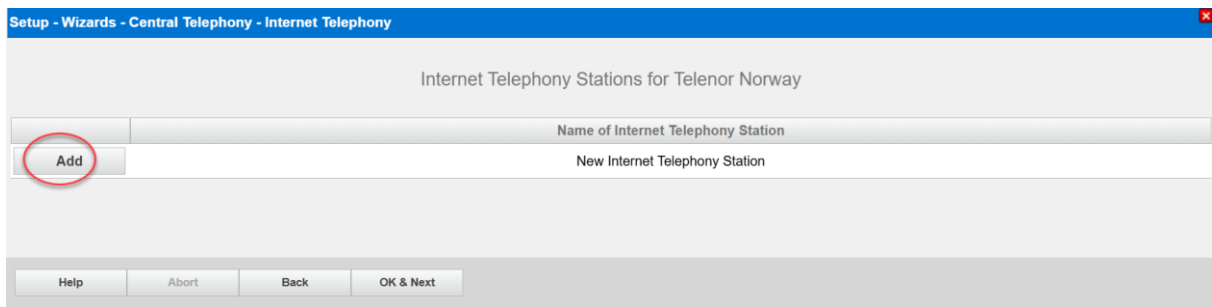
Figure 4

Click [OK & Next].

In the next dialog the specific customer SIP user data will be configured.
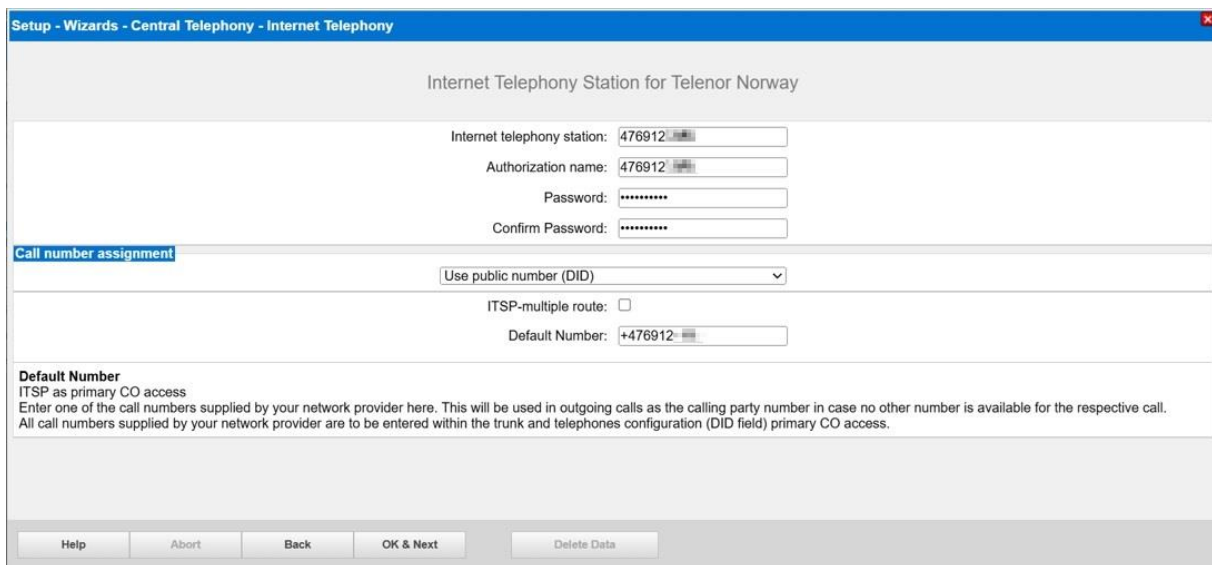
Figure 5

Click on [Add].

Data is provided by the *Telenor Norway*.

Internet telephony station:	**Username** is inserted here
Authorization name:	**Username** is inserted here
Password:	**Password** not provided by Telenor Norway, just fill main number
Default number:	Main number of connection. The default number is used as outgoing number when no DDI number is assigned to a station. 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)

Figure 9

Click [OK & Next]

Define bandwidth (# Trunks)

The amount of simultaneous Internet (**Assigned Lines**) calls must be aligned with the **Maximum Active Calls** assigned to the Trunk Group of the Telenor Norway Enterprise Portal.

Setup - Wizards - Central Telephony - Internet Telephony ✖

Settings for Internet Telephony

Simultaneous Internet Calls

Available Lines for ITSP: 174

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 **78** 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): 10000

Number of Simultaneous Internet Calls: 2   [Distribute Lines]

Line assignment

Internet Telephony Service Provider	Configured Lines	Assigned Lines
Telenor Norway	2	2

[Help]   [Abort]   [Back]   [OK & Next]

Figure 10

Click [OK & Next]

Special phone numbers

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

Figure 11

Click [OK & Next]

On next page status of ITSP is displayed.
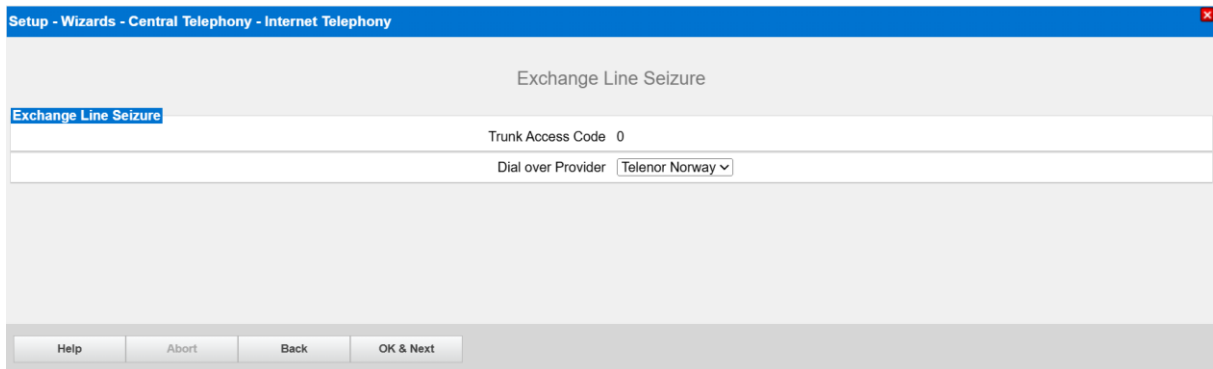
Figure 12

Click [Next]

„Exchange Line Seizure"

Select which trunk will access code 0. Note: No area code necessary in Norway

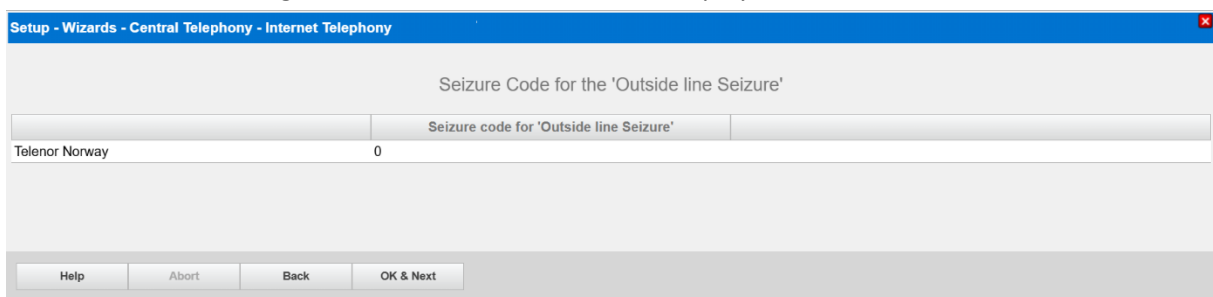Setup - Wizards - Central Telephony - Internet Telephony

Exchange Line Seizure

Exchange Line Seizure

Trunk Access Code 0

Dial over Provider [Telenor Norway ⌄]

| Help | Abort | Back | OK & Next |

Figure 13

Click [OK & Next]
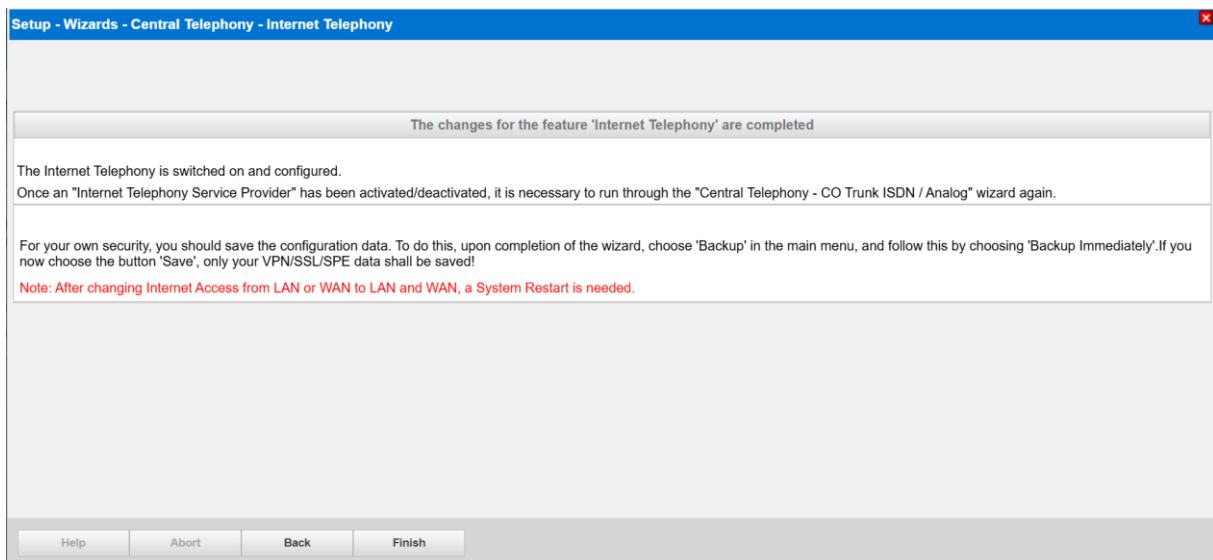
Overview with all configured „Outside line Seizure" are displayed.

Setup - Wizards - Central Telephony - Internet Telephony

Seizure Code for the 'Outside line Seizure'

	Seizure code for 'Outside line Seizure'	
Telenor Norway	0	

| Help | Abort | Back | OK & Next |

Figure 14

Click [OK & Next] and

Setup - Wizards - Central Telephony - Internet Telephony

The changes for the feature 'Internet Telephony' are completed

The Internet Telephony is switched on and configured.
Once an "Internet Telephony Service Provider" has been activated/deactivated, it is necessary to run through the "Central Telephony - CO Trunk ISDN / Analog" wizard again.

For your own security, you should save the configuration data. To do this, upon completion of the wizard, choose 'Backup' in the main menu, and follow this by choosing 'Backup Immediately'.If you now choose the button 'Save', only your VPN/SSL/SPE data shall be saved!

Note: After changing Internet Access from LAN or WAN to LAN and WAN, a System Restart is needed.

| Help | Abort | Back | Finish |

Figure 15

on the next page [Finish].

DID configuration

In the DID Section, the DID will need to be entered (remaning part without country code, and if configured without local area code, PABX number).

Figure 16

Additional Configuration
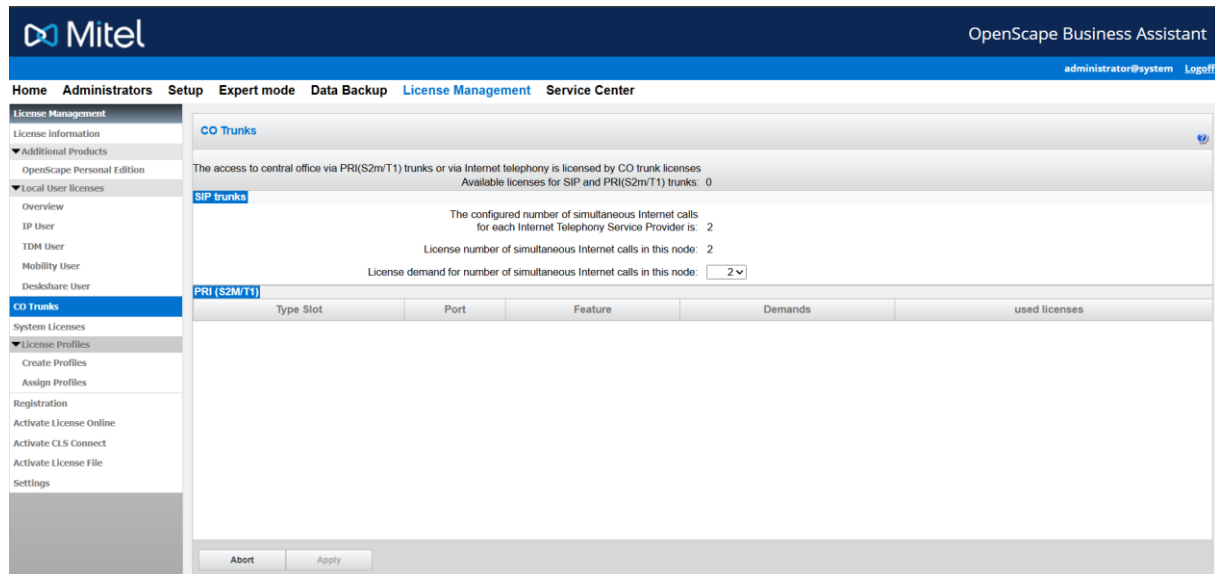
License

Add the "S2M/SIP Trunk" license to the SIP-Trunk

Known limitations and restrictions

Office router needs to be configured for use of **Telenor Norway** ITSP, IP traffic from Telenor Norway should be forwarded to internal IP address of OpenScape Business

Telenor's central IP addresses

Telenor has 3 IPT Access Points (AP) Arthur, Marvin and Trillian. These are defined by their own IP addresses, and incoming traffic to a customer will come from any of these access points. Outbound traffic can be sent any of the AP's. Please note that it **is a requirement** that you are able to receive traffic from multiple access points, and **it is recommended** that outbound traffic can be distributed between access points. You can choose which allocation method you want to use, the most common being round-robin or hunt. If your telephony server only supports 2 access points, Arthur and Marvin should be used. Note that the availability of IPT defined in the SLA agreement assumes that *at least* 2 access points have been applied.

Access point	IP address	Dns
Arthur	148.122.97.152	
Marvin	148.122.97.184	ipt-internet.telenor.com
Trillian	148.122.97.120	

It is possible to use DNS or IP addresses directly. See attachmendt for an overview of DNS records.
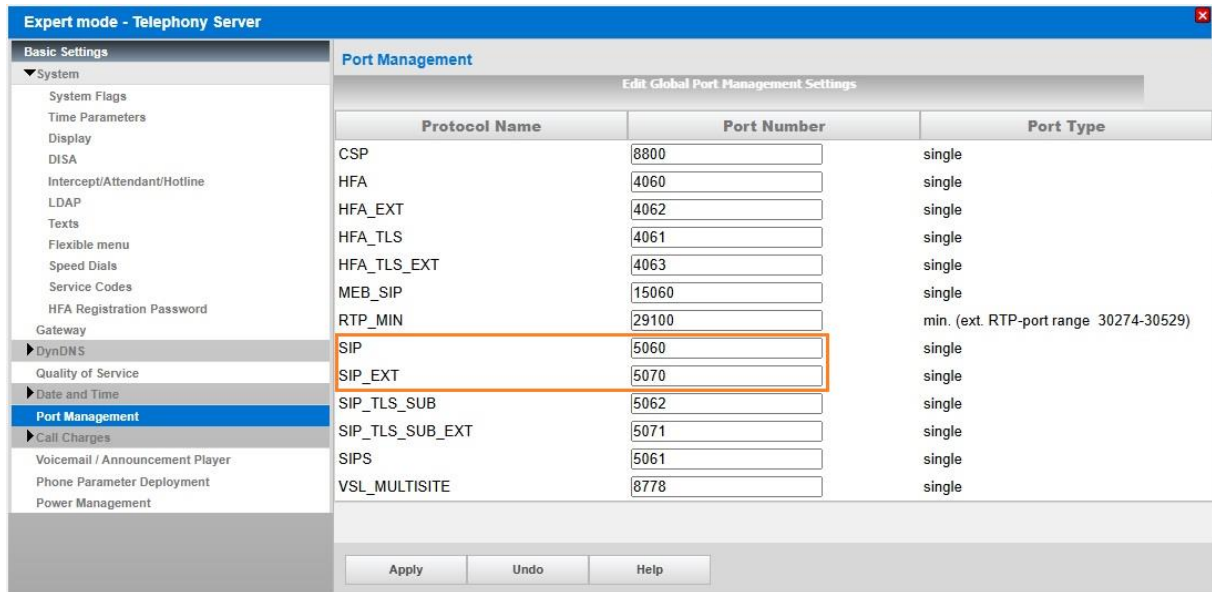
Mandatory configuration in Expert Mode

In this chapter hints about mandatory settings are listed for:

- Port Management
- Codec Parameters

Port Management

Go to Expert Mode → Telephony Server → Basic Settings → Port Management

To comply with the requirements of *Telenor Norway* the SIP_EXT 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 OpenScape Business **MUST** be restarted.

Codec Parameters

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

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

1. G.729AB is **NOT** supported by Telenor Norway and **SHOULD** be disabled.

Hint: if the T.38-Fax settings are changed OpenScape Business **MUST** be restarted.

Appendix

Create profile

As long as the **Telenor Norway** SIP Trunk profile is not yet available, please first create a private profile with the name **TeleNor_2** as follows.

Please open the wizard for "Central Telephony – Internet Telephony" as described in **Figure 1** and **Figure 2** and go to:

Provider Configuration and -activation for Internet-Telephony:

- "No call via Internet" -> uncheck
- "County specific view": **Norway** and select **Other Provider**

Click on [Add].

Use the *default* template with name *TeleNor_2*, enable the provider and configure the server data provided for the *Telenor Norway* SIP Trunk

- - **Gateway Domain Name:**   ipt-internet.telenor.com
- - **Provider Proxy**:   ipt-internet.telenor.com
- - **STUN server**:   see page 7 – **Figure 4**

as follows (see **Figure 4**):

Click [OK & Next]

In the following dialog, the access data is entered, as described in the instructions from **Figure 5** onwards.

Extended SIP Provider Data

To ensure compatibility with the *Telenor Norway* SIP Trunk, the following settings must be made in Expert Mode → Voice Gateway → Internet Telephony Service Provider → *TeleNor_2* for the extended SIP provider data:

Internet Telephony Service Provider

Edit Internet Telephony Service Provider	Delete Internet Telephony Service Provider	Add Internet Telephony Station

Call number formatting

Incoming call - Called party number:	To header user part
Incoming call - Calling party number:	From header user part
Incoming call - Type of number (calling):	automatic
Incoming call - Type of number (called):	automatic
Outgoing call - Type of number (calling):	automatic
Outgoing call - Type of number (called):	automatic
Mapping of provider number:	off
CLIP no Screening support:	CLIP in From / DID number in PAI
Call No. with international/national prefix:	no
Called number in E164 format:	yes
Route optimization:	allowed
MEX supported:	no
Contact URI contains:	call number:
TCP port used in Contact URI:	ephem. src-port

Registration

Register Contact contains IP-Address:	localIPAddr
ContactUriWithProtocol:	☐
BNC Registration (SIPconnect):	normal registration
ReRegistration interval after failure (sec):	120
ReRegistration mode:	continuous
ReRegistration after call failure:	CallFailureIsNoRegFailure

Click on [Apply] and restart the ITSP [Restart ITSP].

Please close the window and run through the ITSP Wizard for *TeleNor_2* again (**Figure 3**).