

How to Configure SIP Trunk for IP Directions France

Table of Contents

| | |
|--|----|
| Trunk Configuration Data provided by IP Directions | 4 |
| Network configuration | 5 |
| Configuration Wizard | 6 |
| Internet Telephony..... | 6 |
| Define bandwidth (# Trunks)..... | 9 |
| Special phone numbers..... | 10 |
| DID configuration | 12 |
| Mandatory configuration in Expert Mode | 13 |
| Port management..... | 13 |
| Codec Parameters | 14 |
| Known limitations and restrictions | 14 |
| Additional Configuration | 14 |
| License..... | 14 |

Table of History

| Date | Version | Changes |
|------------|---------|------------------------|
| 09.07.2019 | 1.0 | First version for V2R7 |
| | | |
| | | |

Trunk Configuration Data provided by IP Directions

You receive two e-mails with relevant information to configure the SIP trunk.

The first mail providing information about

- your public IP
- the amount of simultaneous calls
- main callnumbers
- server IP

Madame, Monsieur,

Vous trouverez ci-après les paramètres de l'interconnexion SIP que vous avez commandée :

NOM : **UNIFY_3**

Interfaces :

IP : **85.119.57.79:5060** (UDP), PRIORITE 100
-- : **Nombre maximum de communications simultanées : 4**
--- : Codecs : G729a, PCMA (G711a), PCMU (G711u), G723
--- : Fax : T38, Fallback PCMA (G711a)
--- : Voice Activity Detection automatic.
-- : Temps d'établissement (ptime) : 20ms
-- : Numérotation : + et Indicatif Pays (CC) et Numéro National (NSN : sans le 0 initial)

Numéro de Désignation de l'Installation : **09702681**

Serveur :

IP : 128.140.150.200 (Public)

Documentation:
<https://extranet.ipdirections.net/online/Documentation/Aide/Specifications%20dinteroperabilite%20passerelles%20SIP.pdf>

Cordialement,

  **IP Directions**

Service Production
production@ipdirections.net

0811097402 Service 0,15 € / appel + prix appel

The second mail providing information about all callnumbers assigned to your trunk:

Madame, Monsieur,

Vous trouverez ci-après les ressources de numérotation avez commandées pour votre client UNIFY :

Commande: **35879**, Ticket: 44735

Ressource de numérotation pour le client final: 'UNIFY' à BEZONS (95870)

Prévue: **15/01/2019 00:00:00**

1 tranches, 3 SDA



NDI: 0970268120 (1 tranches / 3 SDA): résidentiel

09702681 09702681. (3)

Commentaire:

Ces ressources seront activées dans les 24 heures.

Cordialement,

  **IP Directions**

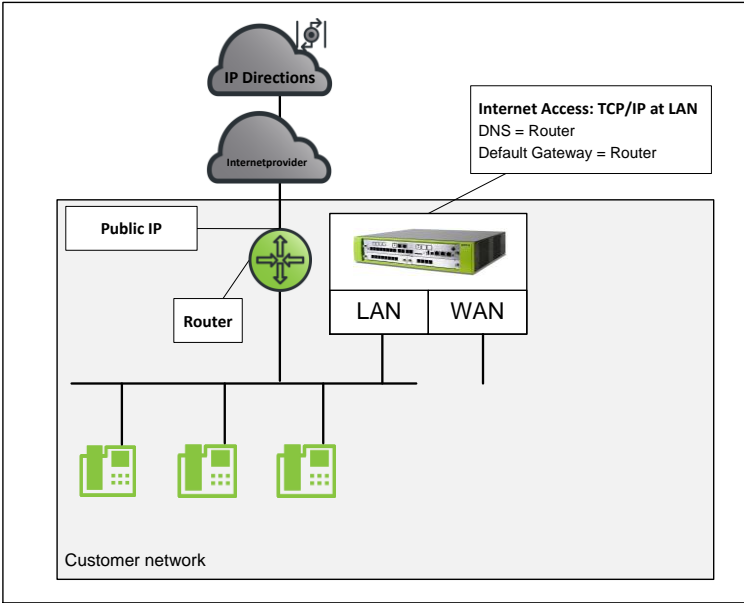
Service Production
production@ipdirections.net

0811097402 Service 0,15 € / appel + prix appel

Network configuration

IP Directions allows SIP traffic from the public IP of your network only. Appropriate configuration of the router is necessary.

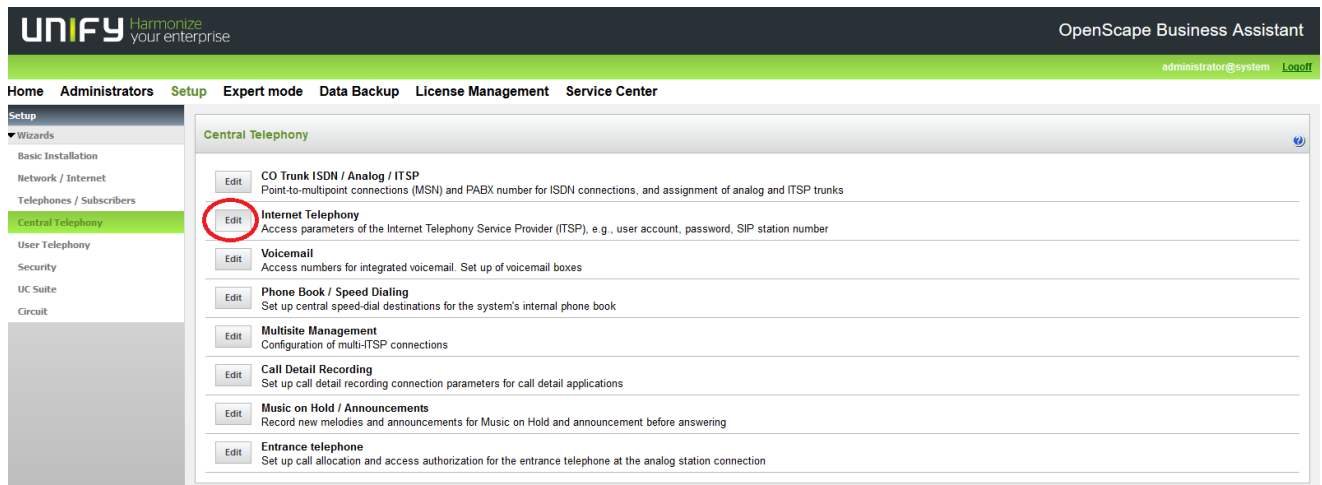
The following (simplified) network topology is used for the configuration in this document.



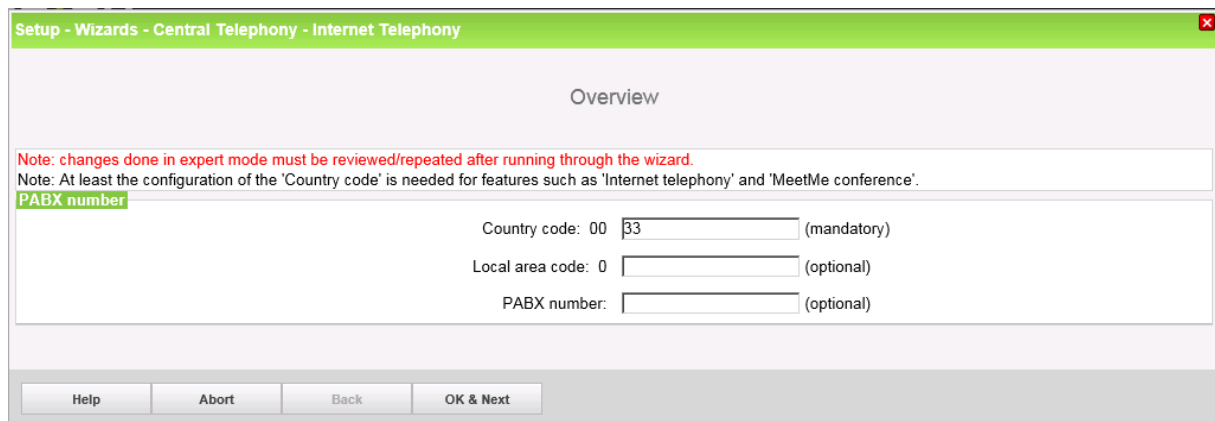
Configuration Wizard

Internet Telephony

Go to Central Telephony – “Internet Telephony“

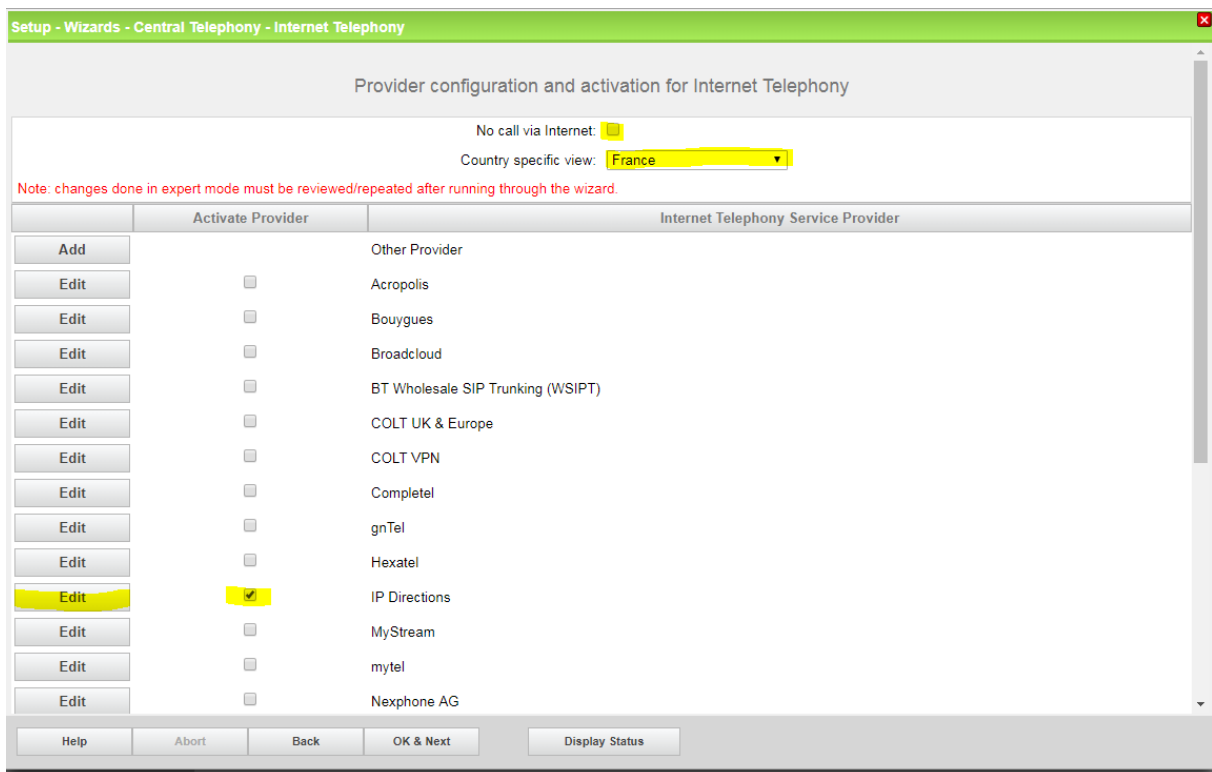


The overview page appears for entering the location data. The most flexible type of configuration is to enter the Country code only.



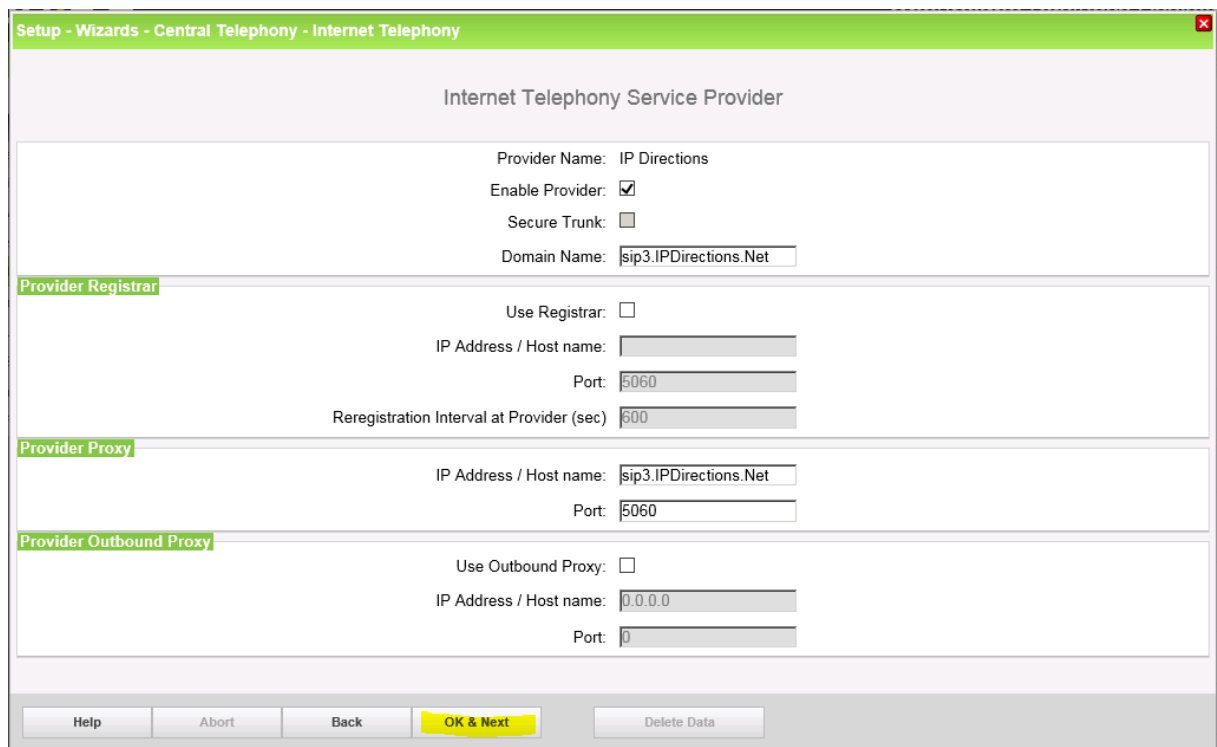
Click [OK & Next].

Provider configuration and activation for Internet Telephony -> No call via Internet -> uncheck
Use County specific view: France and select "IP Directions".



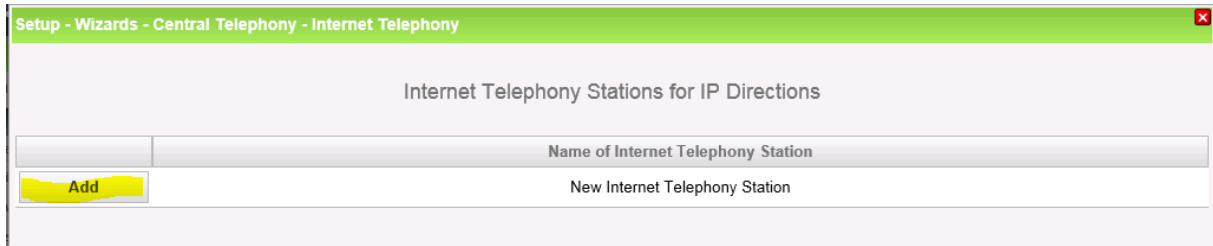
Activate Provider and click on [Edit].

On the next page the server addresses are shown. All values are preconfigured, nothing has to be entered on this page:



If no DNS server is accessible replace **sip3.ipdirections.net** by **128.140.150.200**
Click [OK & Next].

In the next dialog the SIP User will be created:

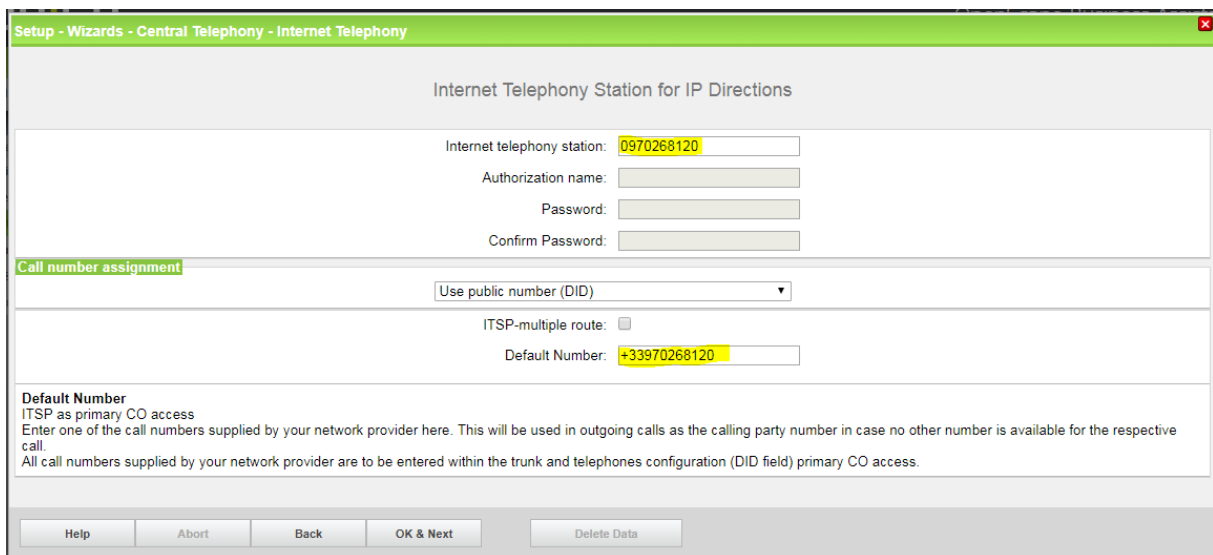


Click on [Add].

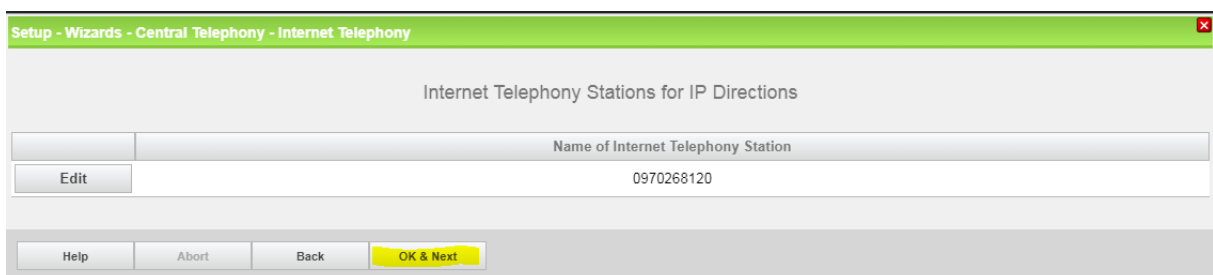
Please enter the following data:

Internet telephony station: a unique string representing the user (e.g. the NDI Number)

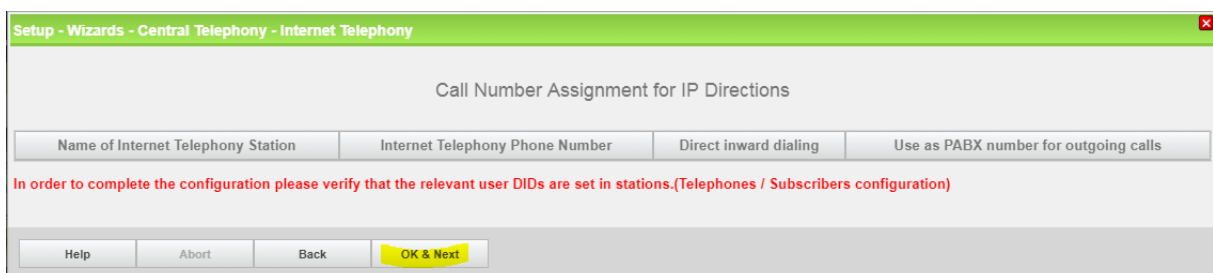
Default number: Main number of connection must be entered here in international E.164 format (+33...). Usually the **NDI** is entered here.



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

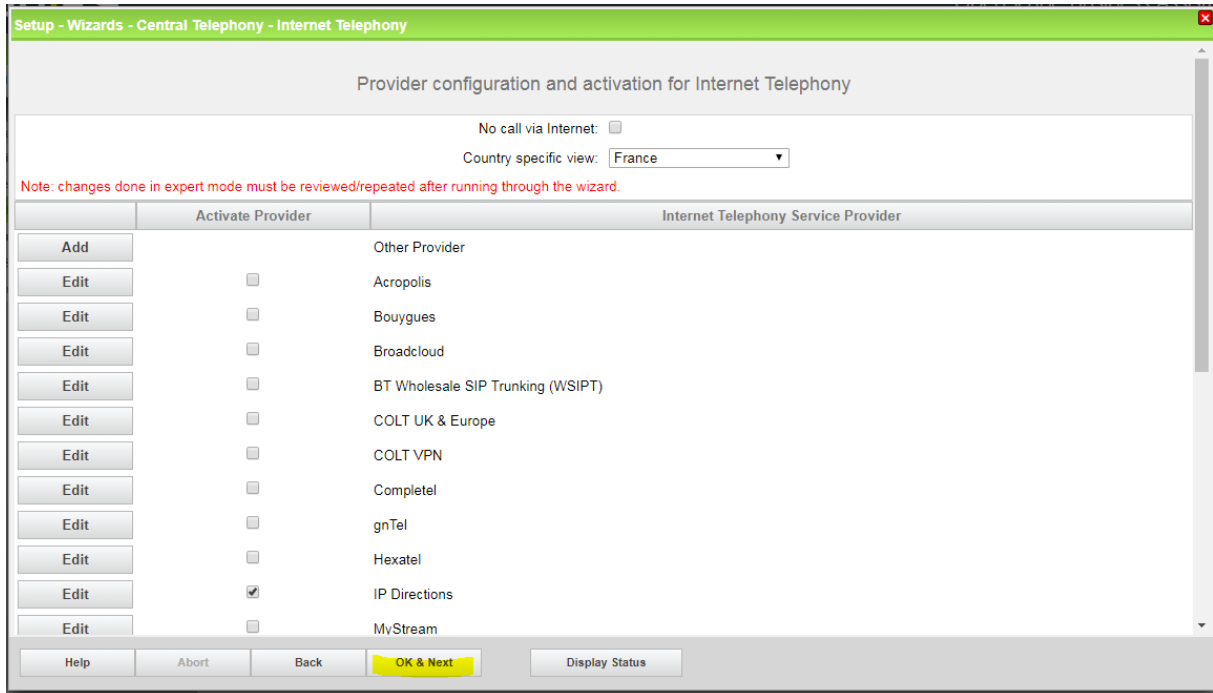


Click [OK & Next]



Click [OK & Next] (no input needed)

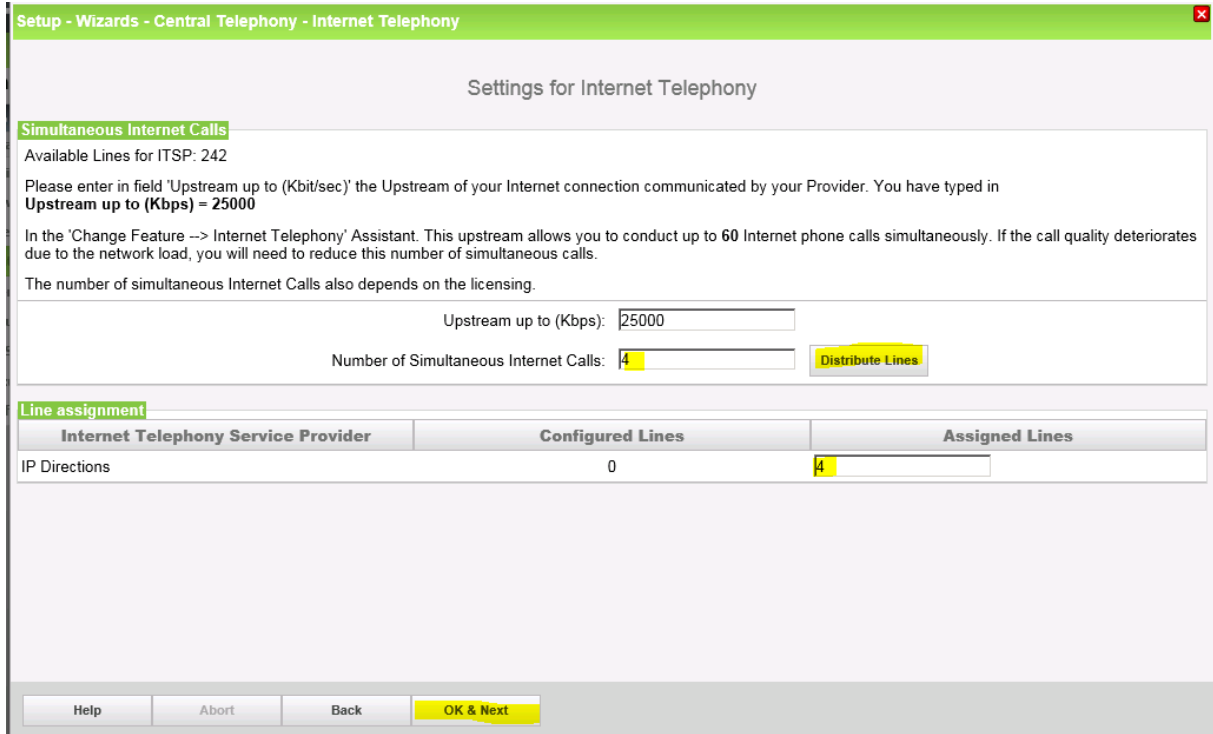
You will return to the overview page



Click [OK & Next]

Define bandwidth (# Trunks)

The amount of simultaneous Internet calls (**Assigned Lines**) must be aligned with the **Number of Channels** assigned by IP Directions.



Click [OK & Next]

Special phone numbers

In this dialog it is possible to route special phone numbers (add 114, 191, 196, 197, 116000, 116117 and 116111 if needed).

| Special phone number | Dialed digits | Dial over Provider |
|----------------------|---------------|--------------------|
| 1 | 0C15 | IP Directions ▼ |
| 2 | 0C17 | IP Directions ▼ |
| 3 | 0C18 | IP Directions ▼ |
| 4 | 0C112 | IP Directions ▼ |
| 5 | 0C115 | IP Directions ▼ |
| 6 | 0C119 | IP Directions ▼ |
| 7 | | IP Directions ▼ |
| 8 | | IP Directions ▼ |
| 9 | | IP Directions ▼ |
| 10 | | IP Directions ▼ |

| Special phone number | Dialed digits | Dial over Provider |
|----------------------|---------------|--------------------|
| 1 | 0C15 | IP Directions ▼ |
| 2 | 0C17 | IP Directions ▼ |
| 3 | 0C18 | IP Directions ▼ |
| 4 | 0C112 | IP Directions ▼ |
| 5 | 0C115 | IP Directions ▼ |
| 6 | 0C119 | IP Directions ▼ |
| 7 | 0C114 | IP Directions ▼ |
| 8 | 0C191 | IP Directions ▼ |
| 9 | 0C196 | IP Directions ▼ |
| 10 | 0C197 | IP Directions ▼ |
| 11 | 0C116000 | IP Directions ▼ |
| 12 | 0C116111 | IP Directions ▼ |
| 13 | 0C116117 | IP Directions ▼ |
| 14 | | IP Directions ▼ |
| 15 | | IP Directions ▼ |

Click [OK & Next]

On next page status of ITSP is displayed.

| Provider | Status | User | Restart |
|---------------|---------|------------|------------|
| IP Directions | Enabled | 0970268120 | registered |

Click [Next]

„Exchange Line Seizure“:

Select which trunk will access code 0 and enter your area code

Setup - Wizards - Central Telephony - Internet Telephony

Exchange Line Seizure

Exchange Line Seizure

Trunk Access Code 0

Dial over Provider IP Directions ▾

Area Code

Please enter the local area code.

Local area code: 0 9

Help Abort Back **OK & Next**

Click [OK & Next]

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

The screenshot shows a web browser window with the title bar "Setup - Wizards - Central Telephony - Internet Telephony". The main content area is titled "Seizure Code for the 'Outside line Seizure'". Below the title is a table with two columns: "IP Directions" and "Seizure code for 'Outside line Seizure'". The first row contains the values "IP Directions" and "855". At the bottom of the window, there are four buttons: "Help", "Abort", "Back", and "OK & Next".

| IP Directions | Seizure code for 'Outside line Seizure' |
|---------------|---|
| IP Directions | 855 |

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

DID configuration

In the DID Section, the full DID will need to be entered.

The screenshot shows a web browser window with the title bar "Setup - Wizards - Telephones / Subscribers - IP Telephones". The main content area is titled "Select a station -LAN Phones/WLAN Phones". Below the title is a checkbox labeled "Take DID from changed call number". Below the checkbox is a table with the following columns: "Callno", "First Name", "Last Name", "Display", "DID", "Type", "Fax Callno", and "Fax DID". The table contains five rows of data. The "DID" column for rows 101 and 102 is highlighted in yellow.

| Callno | First Name | Last Name | Display | DID | Type | Fax Callno | Fax DID |
|--------|------------|-----------|---------|-----------|---------------|------------|---------|
| 100 | - | - | - | - | No Port | - | - |
| 101 | Alice | - | Alice | 970268121 | System Client | - | - |
| 102 | Bob | - | Bob | 970268122 | System Client | - | - |
| 103 | - | - | - | - | No Port | - | - |
| 104 | - | - | - | - | No Port | - | - |
| 105 | - | - | - | - | No Port | - | - |

Page 1 of 81

Mandatory configuration in Expert Mode

The following setting must be checked and changed

- SIP port configuration
- T.38 must be disabled in system

Port management

IP Directions allows traffic from the public port 5060 only. As OpenScape Business has port 5070 as default for internet connections you must either

- Configure appropriate port forwarding in your router (internal 5070 to external 5060)
- Change the default port in OpenScape Business

Go to Expert Mode → Telephony Server → Port Management

Change EXT_SIP port to 5060 (default is 5070).

The screenshot shows the 'Expert mode - Telephony Server' interface. The 'Port Management' section is active, displaying a table of port settings. The 'SIP' row is highlighted with a red border, indicating the port number is 5070. The 'SIP_EXT' row is also visible, with a port number of 5060.

| Protocol Name | Port Number | Port Type |
|-----------------|-------------|--|
| CSP | 8800 | single |
| HFA | 4060 | single |
| HFA_EXT | 4062 | single |
| HFA_TLS | 4061 | single |
| HFA_TLS_EXT | 4063 | single |
| MEB_SIP | 15060 | single |
| RTP_MIN | 29100 | min. (ext. RTP-port range 30274-30529) |
| SIP | 5070 | single |
| SIP_EXT | 5060 | single |
| SIP_TLS_SUB | 5062 | single |
| SIP_TLS_SUB_EXT | 5071 | single |
| SIPS | 5061 | single |
| VSL_MULTISITE | 8778 | single |

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

Due to T.38 interoperability issues Fax is supported via G.711 only. For this reason you MUST disable T38 protocol.

Expert mode - Telephony Server

Codec Parameters

| 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 | Priority 3 | VAD: <input checked="" type="checkbox"/> | 20 msec |

Enhanced DSP Channels

Use G.711 only:

T.38 Fax

T.38 Fax:

Use FillBitRemoval:

Max. UDP Datagram Size for T.38 Fax (bytes): 1472

Error Correction Used for T.38 Fax (UDP): E38UDPRedundancy

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:

Buttons: Apply, Undo, Help

Known limitations and restrictions

T.38 MUST be deactivated in the OpenScape Business system
 Due to interoperability issues UC-Fax is not released with IP-Directions

Additional Configuration

License

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

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

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: 32

SIP trunks

The configured number of simultaneous Internet calls for each Internet Telephony Service Provider is: 10

License number of simultaneous Internet calls in this node: 10

License demand for number of simultaneous Internet calls in this node: 10

PRI (S2M/T1)

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