

# OpenScape Business V3



## How to Configure SIP Trunk for KPN EEN over TLS (KPN TLS NL) Netherlands

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## Table of History

Date	Version	Changes
10.08.2021	0.1	First version
13.12.2021	1.0	Released with OpenScape Business V3R1 FR2

## Trunk Configuration Data provided by NDI ICT Solutions

The configuration data needed to setup the SIP trunk can be found on the Routit Beheerportal under “Telefooncentrale instellingen” Page > Trunk Group > Algemeen:

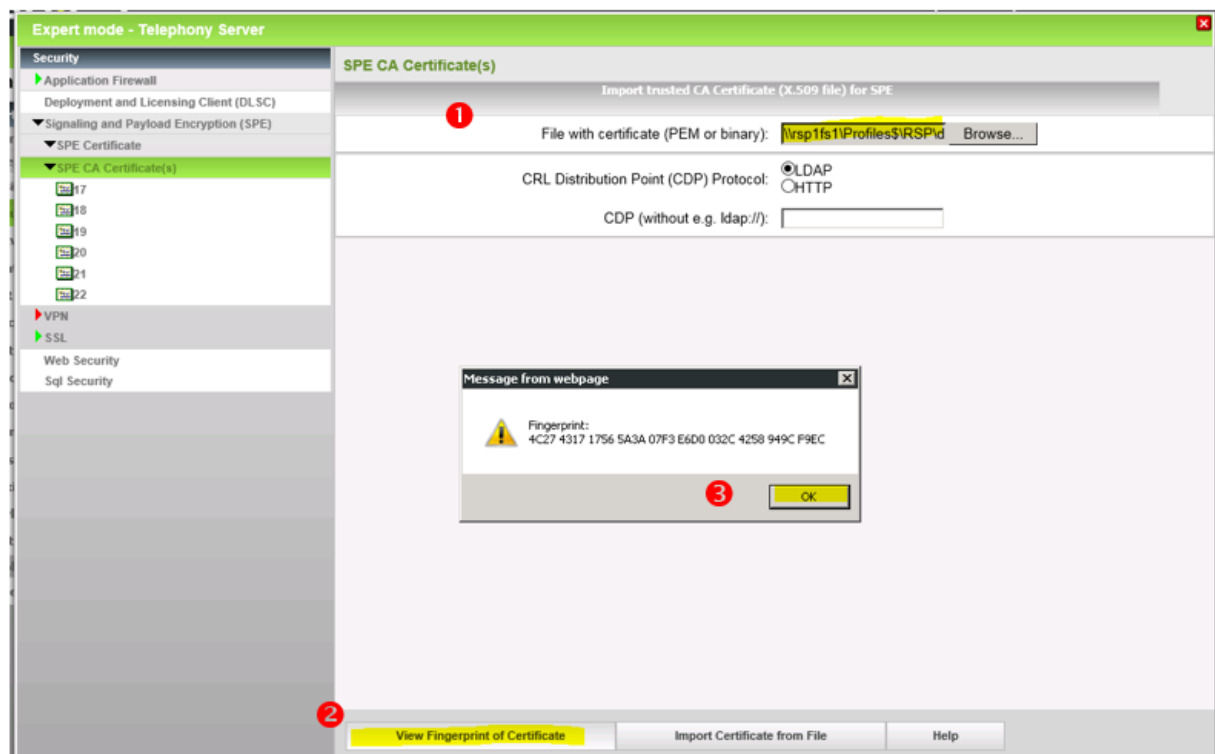
The screenshot shows the 'Telefooncentrale instellingen' web interface. The main content area is titled 'Algemeen' and contains the following configuration fields:

- Trunk-groepnaam: [text input]
- Aantal spraakanalen: [input type="text" value="2"]
- Wizig Bedrijf Connect groep wachtwoord: [button 'Nieuw wachtwoord']
- Authentication User Name: [text input]
- Line/port: [input type="text" value="3120"]
- Gebruik IP-VPN:
- Bestemming indien onbereikbaar: [input type="text" value="6"] Time out (sec): [input type="text" value="6"]
- Autoprovisie van gateway: [dropdown menu]
- MAC adres gateway: [text input]
- Variabel deel telefoonnummer: [input type="text" value="0"]
- Pilot: [input type="text" value="020"]
- [button 'Opslaan']

## Certificate import

Before OpenScape Business can establish a TLS connection to the ITSP server, the certificates provided by the ITSP must be imported.

The certificate import is performed in the WBM page Expert mode -> Telephony Server -> Security -> Signaling and Payload Encryption (SPE) -> SPE CA Certificates:

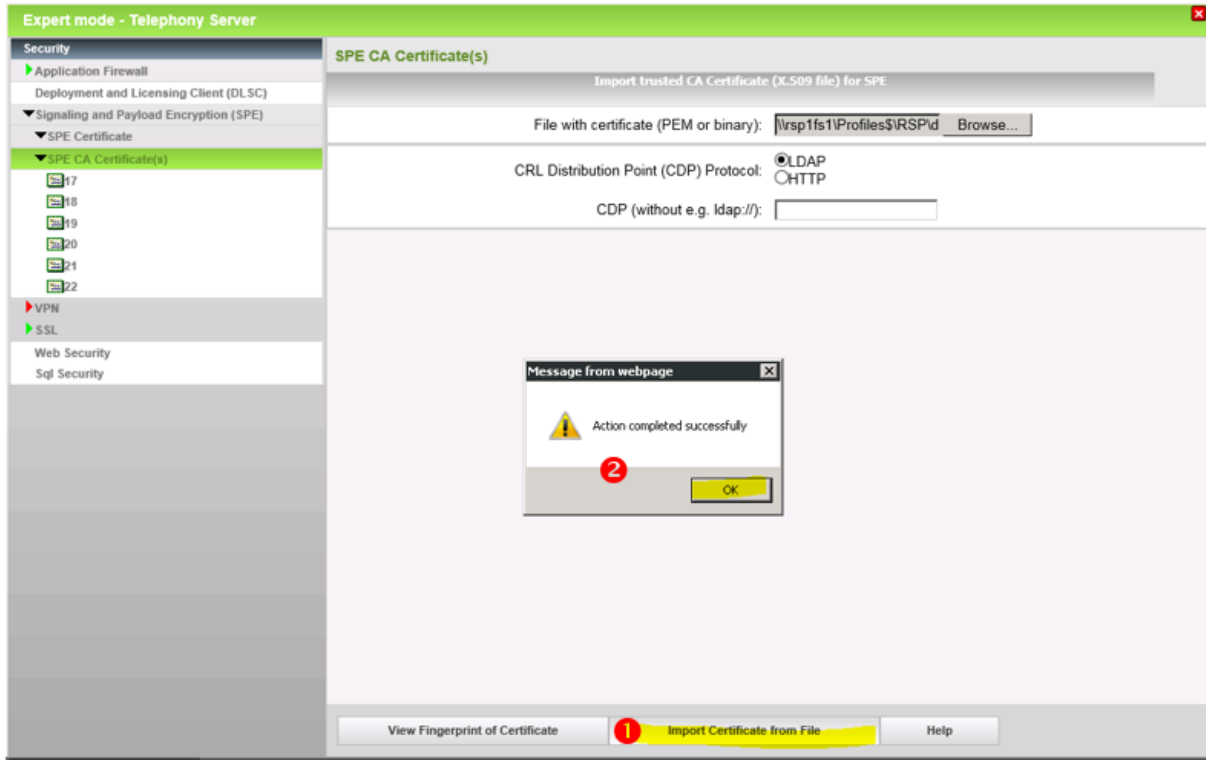


Select the \*.pem file of your CA certificate and press „View Fingerprint...“.

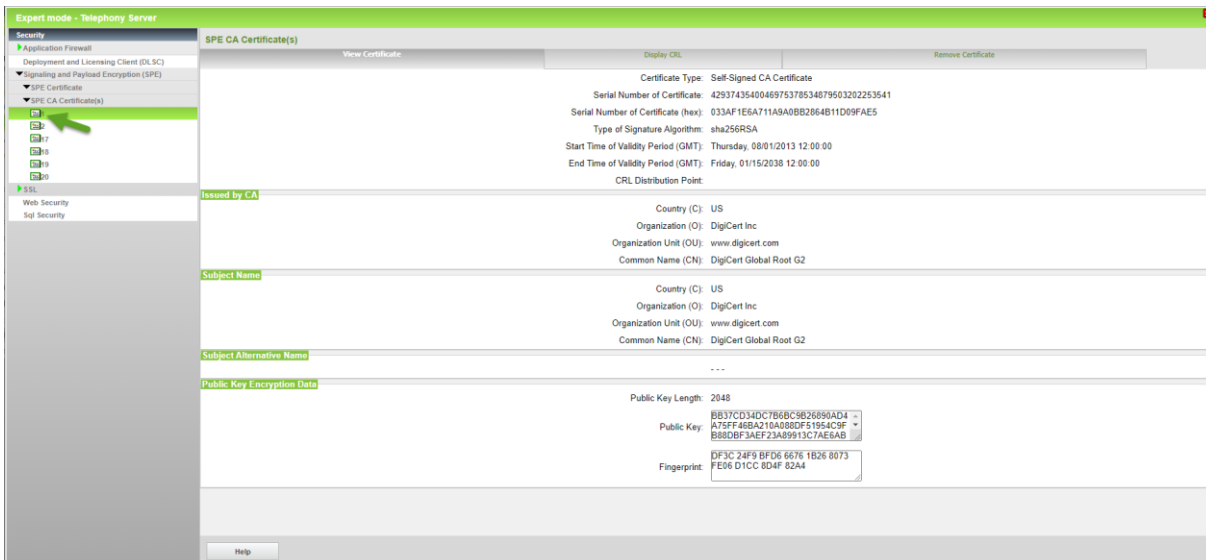
Close the window showing the fingerprint with OK.

Note: OpenScope Business cannot import files with a "certificate chain". Each file can contain only one certificate.

Click "Import Certificate from File" and wait until the confirmation window appears.  
Close with OK.



The imported certificate can now be displayed. Click on the "number", not on the symbol.



Then import the CA root certificate in the same way

# Configuration Wizard

## Internet Telephony

Go to Central Telephony – “Internet Telephony“

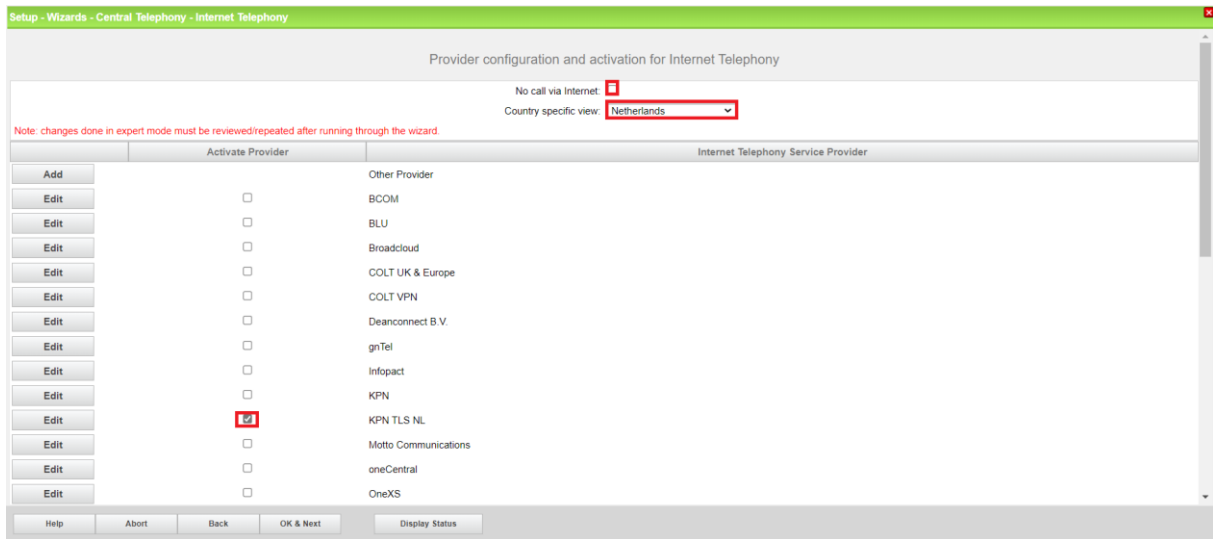
The screenshot shows the UNIFY OpenScope Business Assistant interface. The top navigation bar includes 'Home', 'Administrators', 'Setup', 'Expert mode', 'Data Backup', 'License Management', and 'Service Center'. The left sidebar lists various setup categories, with 'Central Telephony' selected. The main content area displays the 'Central Telephony' configuration page, which includes several sections: 'CO Trunk ISDN / Analog / ITSP', 'Internet Telephony' (highlighted with a red circle), 'Voicemail', 'Phone Book / Speed Dialing', 'Multisite Management', 'Call Detail Recording', 'Music on Hold / Announcements', and 'Entrance telephone'. Each section has an 'Edit' button.

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

The screenshot shows the 'Overview' page for the 'Internet Telephony' configuration. The page title is 'Setup - Wizards - Central Telephony - Internet Telephony'. Below the title, there is a 'Note: changes done in expert mode must be reviewed/repeated after running through the wizard.' and another 'Note: At least the configuration of the 'Country code' is needed for features such as 'Internet telephony' and 'MeetMe conference'. The 'PABX number' section is highlighted in green. The input fields are: 'Country code: 00 31 (mandatory)', 'Local area code: 0 (optional)', and 'PABX number: (optional)'.

Click [OK & Next].

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



Activate Provider and click on [Edit].

On the next page you have to enter the following information:

- **Domain Name**

The SIP Domain Name is provided by KPN partner.

Voice Connect Group Password (authentication password)

Ez [redacted]

SIP / Line port Credentials - INVITE

Domain pl [redacted] n.kpneen.nl  
Username/Pilot 31202807825  
Application Server KPN EEN v2 (ASB5)

- **Provider Registrar and the Provider Proxy:**

The **Provider Proxy** : 145.131.159.203

The **Provider Outbound Proxy** : 145.131.159.203

Internet Telephony Service Provider

Provider Name: KPN TLS NL  
Enable Provider:   
Secure Trunk:   
Domain Name: n.kpneen.nl  
Transport protocol: tcp

**Provider Registrar**

Use Registrar:   
IP Address / Host name: bbc.sc.kpneen.nl  
Port: 5081  
Reregistration Interval at Provider (sec): 600

**Provider Proxy**

IP Address / Host name: 145.131.159.203  
Port: 5081

**Provider Outbound Proxy**

Use Outbound Proxy:   
IP Address / Host name: 145.131.159.203  
Port: 5081

**Provider Inbound Proxy**

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

**Provider STUN**

Use STUN:   
IP Address / Host name: [empty]  
Port: 3478

Help About Back OK & Next Delete Data

Click [OK & Next].



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

Name of Internet Telephony Station	New Internet Telephony Station
	New Internet Telephony Station

Click on [Add].

Data provided by KPN Partner:

**Internet telephony station:** Username/Pilot is inserted here (e.g: 31202807825)

**Authorization name:** Authentication User Name is inserted here (e.g: 31202807825)

**Password:** Password provided by KPN Partner

**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: 31202807825). Usually the **Lead Number** is entered here.

Internet telephony station: 31202807825

Authorization name: TA313257-7260812

Password: .....

Confirm Password: .....

Call number assignment: Use public number (DID)

ITSP-multiple route:

Default Number: 31202807825

**Default Number**  
ITSP as primary CO access  
Enter one of the call numbers supplied by your network provider here. This will be used in outgoing calls as the calling party number in case no other number is available for the respective call. All call numbers supplied by your network provider are to be entered within the trunk and telephones configuration (DID field) primary CO access.

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

Name of Internet Telephony Station	31202807825
	31202807825

Click [OK & Next]

Setup - Wizards - Central Telephony - Internet Telephony

### Call Number Assignment for KPN TLS NL

Name of Internet Telephony Station	Internet Telephony Phone Number	Direct inward dialing
In order to complete the configuration please verify that the relevant user DIDs are set in stations.(Telephones / Subscribers configuration)		

Click [OK & Next] (no input needed)

Setup - Wizards - Central Telephony - Internet Telephony

### Provider configuration and activation for Internet Telephony

No call via Internet:

Country specific view: Netherlands

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"/>	BCOM
Edit	<input type="checkbox"/>	BLU
Edit	<input type="checkbox"/>	Broadcloud
Edit	<input type="checkbox"/>	COLT UK & Europe
Edit	<input type="checkbox"/>	COLT VPN
Edit	<input type="checkbox"/>	Deanconnect B.V.
Edit	<input type="checkbox"/>	gnTel
Edit	<input type="checkbox"/>	Infopact
Edit	<input type="checkbox"/>	KPN
Edit	<input checked="" type="checkbox"/>	KPN TLS NL
Edit	<input type="checkbox"/>	Motto Communications
Edit	<input type="checkbox"/>	oneCentral
Edit	<input type="checkbox"/>	OneXS

Help   Abort   Back   **OK & Next**   Display Status

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 on the Routit Beheer Portal.

The screenshot shows the configuration page for a Trunk Group. The 'Aantal spraakkanalen' field is highlighted with a red box and contains the value '2'. Other fields include 'Trunk-groepnaam', 'Wijzig Bedrijf Connect groep wachtwoord' (with a 'Nieuw wachtwoord' button), 'Authentication User Name', 'Line/port' (set to 3120), 'Gebruik IP-VPN' (unchecked), 'Bestemming indien onbereikbaar' (set to 6), 'Time out (sec)', 'Autoprovisioning van gateway', 'MAC adres gateway', 'Variabel deel telefoonnummer' (set to 0), and 'Pilot' (set to 020). An 'Opslaan' button is at the bottom.

The screenshot shows the 'Settings for Internet Telephony' wizard window. The 'Simultaneous Internet Calls' section is highlighted. It shows 'Available Lines for ITSP: 150' and 'Upstream up to (Kbps) = 2000'. The 'Number of Simultaneous Internet Calls' is set to 2, with a 'Distribute Lines' button next to it. The 'Line assignment' table shows the following data:

Internet Telephony Service Provider	Configured Lines	Assigned Lines
KPN TLS NL	0	2

At the bottom, there are buttons for 'Help', 'Abort', 'Back', and '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	@C112	KPN TLS NL
2	@C14Z	KPN TLS NL
3		KPN TLS NL
4		KPN TLS NL
5		KPN TLS NL
6		KPN TLS NL
7		KPN TLS NL
8		KPN TLS NL
9		KPN TLS NL
10		ISDN
11		ISDN
12		ISDN
13		ISDN
14		ISDN
15		ISDN

Click [OK & Next]

On next page status of ITSP is displayed.

Provider	User
KPN TLS NL	Enabled

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)

Setup - Wizards - Central Telephony - Internet Telephony

Exchange Line Seizure

Exchange Line Seizure

Trunk Access Code 0

Dial over Provider KPN TLS NL

Area Code

Please enter the local area code.

Local area code: 0 20

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'
ISDN	88
KPN TLS NL	81

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.

Callno	DID	First Name	Last Name	Display	Type	Clip/Lin	Active	Fax Callno	Fax DID	ITSP Loc-ID
3201	202807826		Menhir	Obaix Menhir	System Client	-	✓	3274	202807825	-

# 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:

**PRI (S2M/T1)**

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

## Codec Parameters

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

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

1. G.729A and G.729AB are **NOT** supported by Routit/KPN and **SHOULD** be disabled.

Codec Parameters				
Edit 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	not used	VAD: <input type="checkbox"/>	20 msec	
G.729AB	not used	VAD: <input checked="" type="checkbox"/>	20 msec	