



OpenScape Business

Configuration of htp Business FleX SIP-Trunk

OpenScape Business V3 Mainboard Family
OpenScape Business S

About this document

This configuration guide describes an example of how to set up a trunk of the **htp Business Flex SIP-Trunk Services**

- **htp Business Flex SIP-Trunk smart** siptrunk.htp.net
- **htp Business Flex SIP-Trunk smart ME** siptrunk.htp.net
- **htp Business Flex SIP-Trunk pure** siptrunkpure.htp.net

with the profile **htp Business Flex SIP-Trunk** as an ITSP connection to the OpenScape Business.

Note: The basis for this document is the current OpenScape Business V3R4.3. 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	V3R4.3
htp Business Flex SIP-Trunk	Features & Capabilities
Account (DID/Client)	DID
Multisite	yes - dedicated trunk
CLIP / CLIR	yes
CLIP no Screening	yes
COLP	no
Call Forwarding (302)	yes
DTMF (RFC2833/4733)	yes
Codecs G.722/G.711/G.729	yes / yes / no
T.38 Fax	no
Secure trunk	yes

Remarks:

- CLIP no Screening is available in **htp Business Flex SIP-Trunk** default configuration.
- Call Forwarding (SIP 302) is activated by default.
- The use of the G.722 codec must be enabled with priority 1 on the end devices (first-line codec). The use of G.722 depends on the characteristics of the receiving end (end device, IP PBX connection, etc.).

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Table of History

Date	Version	Changes
06.05.2026	1.0	release htp Business FleX SIP-Trunk with OpenScape Business V3R4.3 <ul style="list-style-type: none"> • includes <ul style="list-style-type: none"> - recertification of htp Business FleX SIP-Trunk smart - secure trunk (TLS)

Information

The **htp Business FleX SIP-Trunk** profile is released with OpenScape Business V3R4.3 variants

- OpenScape Business V3 Mainboard Family
- OpenScape Business S

This profile includes the recertification of the **htp Business FleX SIP-Trunk smart** from OpenScape Business V3R3.

Trunk Configuration Data

The configuration data required for setting up the **htp Business FleX SIP-Trunk** will be send to the customer by **htp GmbH** with the order confirmation.

The **htp Business FleX SIP-Trunk Services** are addressed via the SIP-Registrar-Server:

- **htp Business FleX SIP-Trunk smart** siptrunk.htp.net
- **htp Business FleX SIP-Trunk smart ME** siptrunk.htp.net
- **htp Business FleX SIP-Trunk pure** siptrunkpure.htp.net

The domain siptrunk.htp.net is only reachable within the **htp** network.

The service **Business FleX SIP-Trunk smart MPLS** is not released with OpenScape Business.

The following transport protocols are certified: udp, tcp, tls.

Further information is available here: <https://www.htp.net/geschaeftskunden/anleitungen>

Other than German supported countries allow the registration of **htp Business FleX SIP-Trunk pure** but do not provide a country specific call number range:

- Austria
- Belgium
- France
- Germany
- Liechtenstein
- Luxembourg
- Monaco
- Netherland
- Switzerland

In future further countries will be possible and do not require an additional certification.

Configuration Wizard

Encryption (TLS/SRTP)

Optionally, signaling encryption using TLS and the voice channel encryption using SRTP can be enabled. **htp GmbH** uses public trust certificate from DigiCert. The required root and intermediate certificates can be downloaded in pem format here:

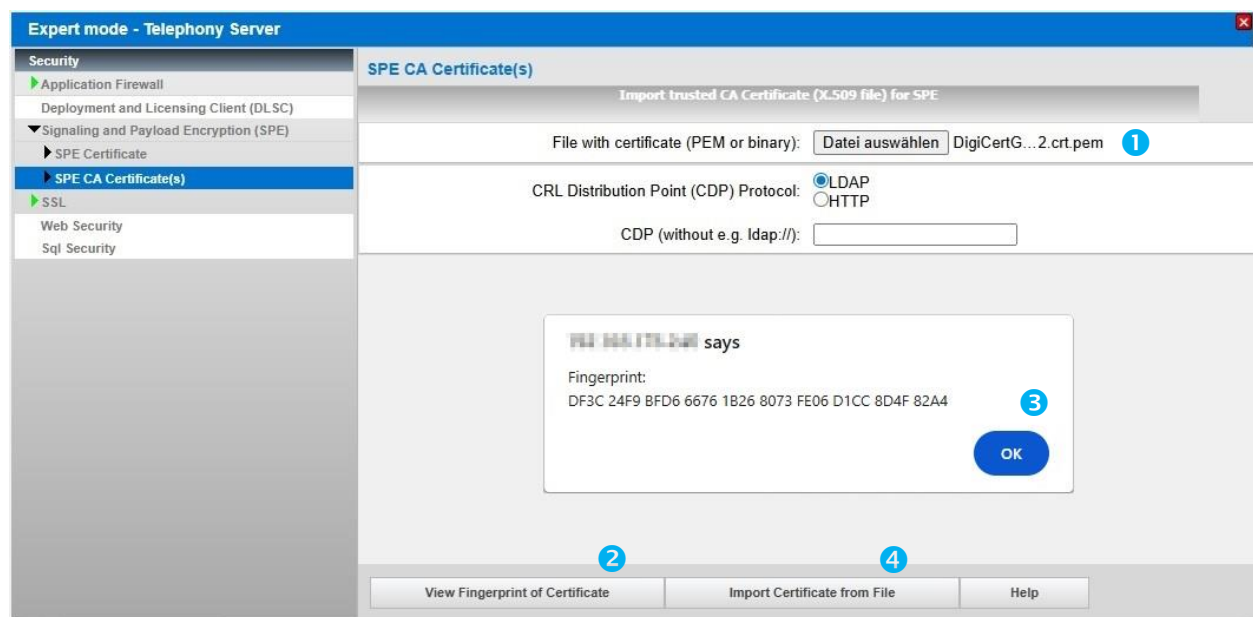
<https://www.digicert.com/digicert-root-certificates.htm>

The certificates are imported in WBM under **Expert Mode** → **Telephony** → **Security** → **Signaling and Payload Encryption (SPE)** → **SPE CA Certificates**.

DigiCert Global Root G2

Valid until: 15/Jan/2038

Serial #: 03:3A:F1:E6:A7:11:A9:A0:BB:28:64:B1:1D:09:FA:E5
SHA1 Fingerprint: DF:3C:24:F9:BF:D6:66:76:1B:26:80:73:FE:06:D1:CC:8D:4F:82:A4
SHA256 Fingerprint: CB:3C:CB:B7:60:31:E5:E0:13:8F:8D:D3:9A:23:F9:DE:47:FF:C3:5E:43:C1:14:4C:EA:27:D4:6A:5A:B1:CB:5F



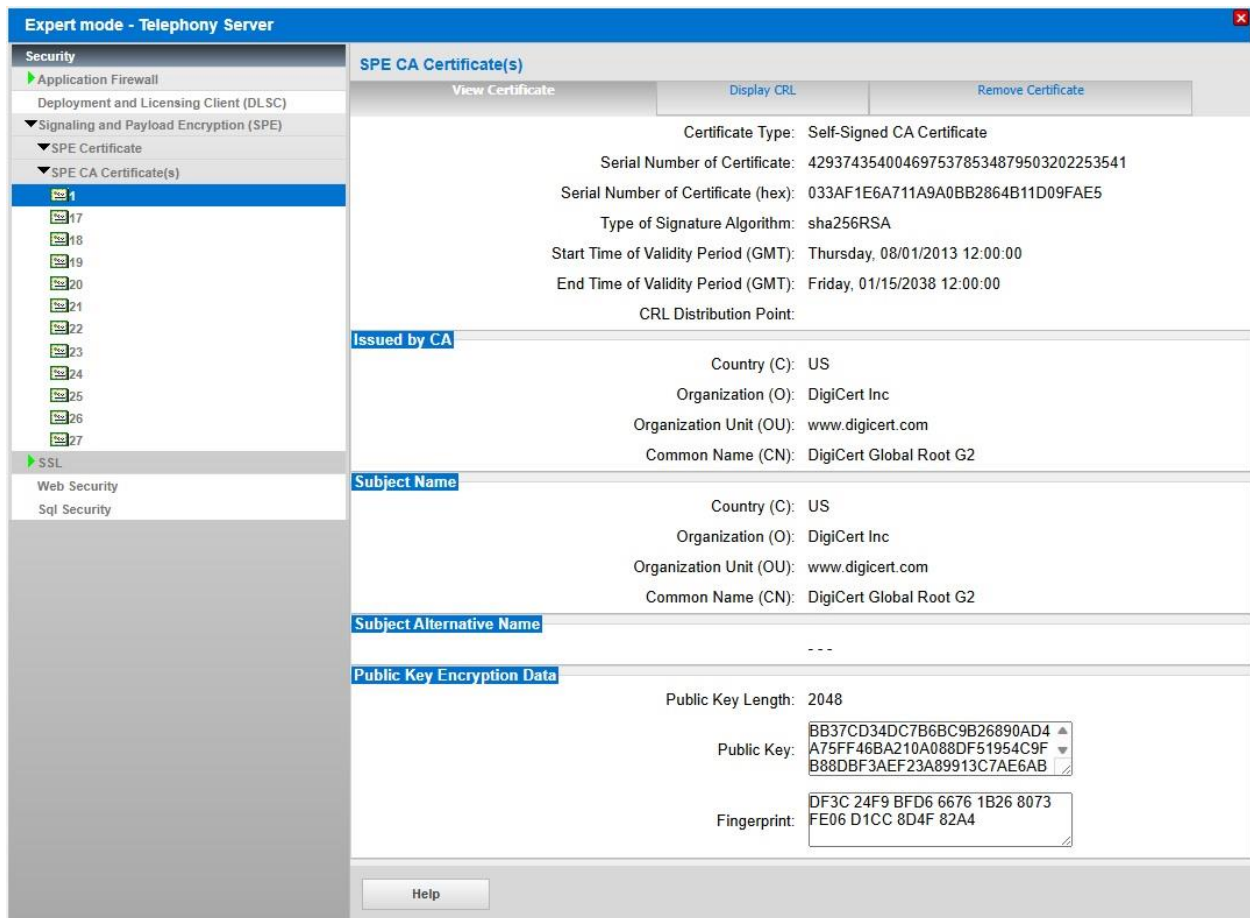
Select the *.pem file containing the root certificate for import (1) and click [View fingerprint of Certificate] (2). Then close the fingerprint window with [OK] (3). Click [Import Certificate from File] (4) and wait until the confirmation window appears.

Close with [OK].



OpenScope Business cannot import files containing a certificate chain. Each file may only contain one certificate.

The imported certificate can now be displayed. To do this, click on the "number" (here: "1"), not on the icon.



As a next step, import the intermediate certificate in the same way (optionally).

Thawte TLS RSA CA G1

Issuer: DigiCert Global Root G2

Valid until: 02/Nov/2027

Serial #: 09:0E:E8:C5:DE:5B:FA:62:D2:AE:2F:F7:09:7C:48:57

SHA1 Fingerprint: C9:FE:FC:76:3D:95:48:B4:87:69:6F:04:7A:CB:A0:AB:E4:5C:7B:C1

SHA256 Fingerprint: 4B:CC:5E:23:4F:E8:1E:DE:4E:AF:88:3A:A1:9C:31:33:5B:0B:26:
E8:5E:06:6B:99:45:E4:CB:61:53:EB:20:C2

Internet Telephony

Go to Central Telephony – “Internet Telephony“

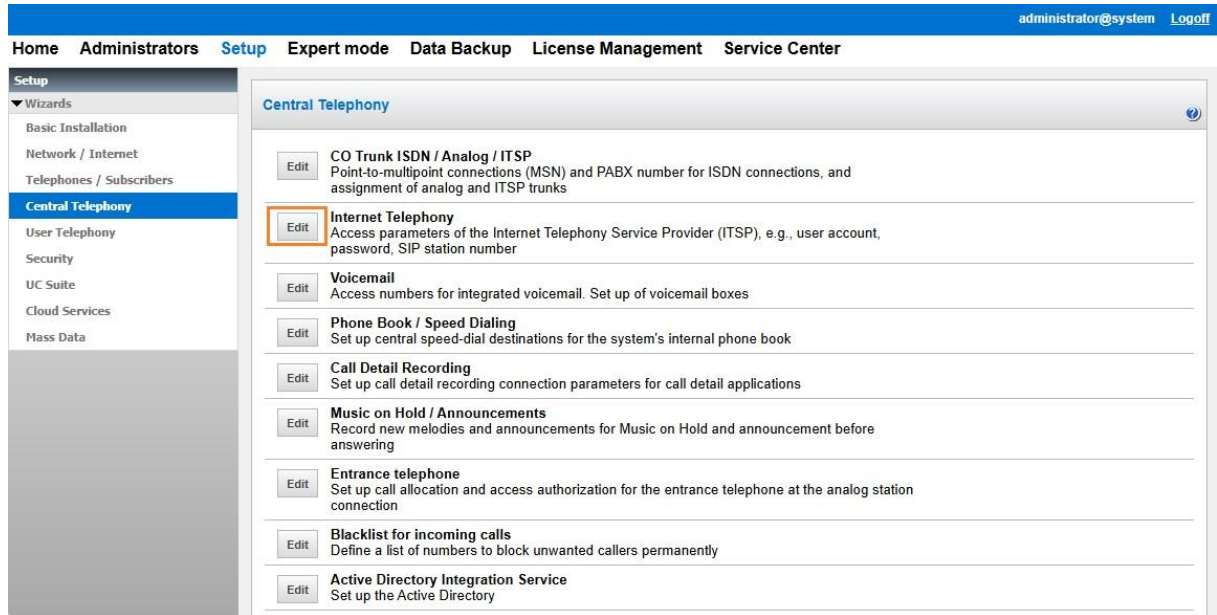


Figure 1

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

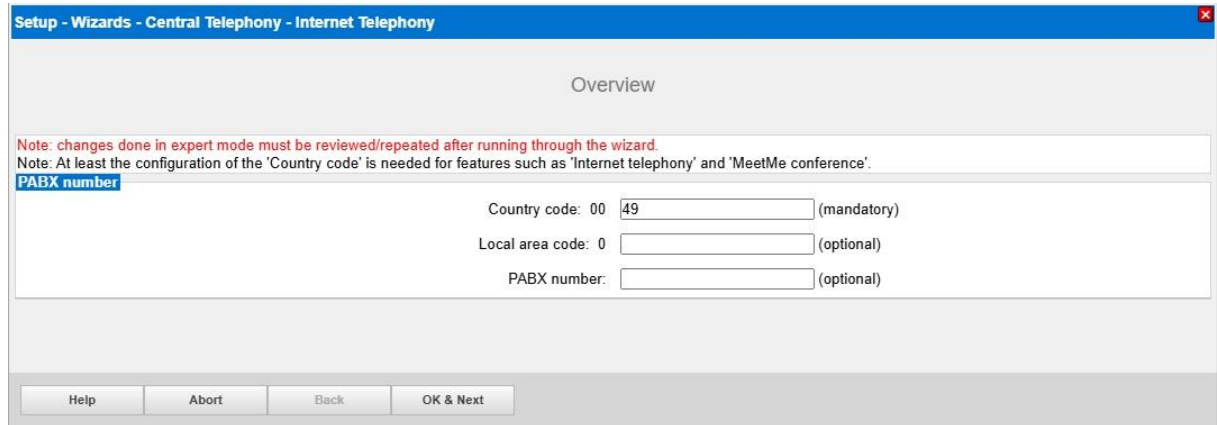



Figure 2

Click [OK & Next].

Provider configuration and activation for Internet Telephony

- No call via Internet -> uncheck
- Use County specific view: “**Germany**” and select “**htp Business FleX SIP-Trunk**”

	As long as the profile htp Business FleX SIP-Trunk is not available, please reuse profile htp Business FleX SIP-Trunk smart (see appendix).
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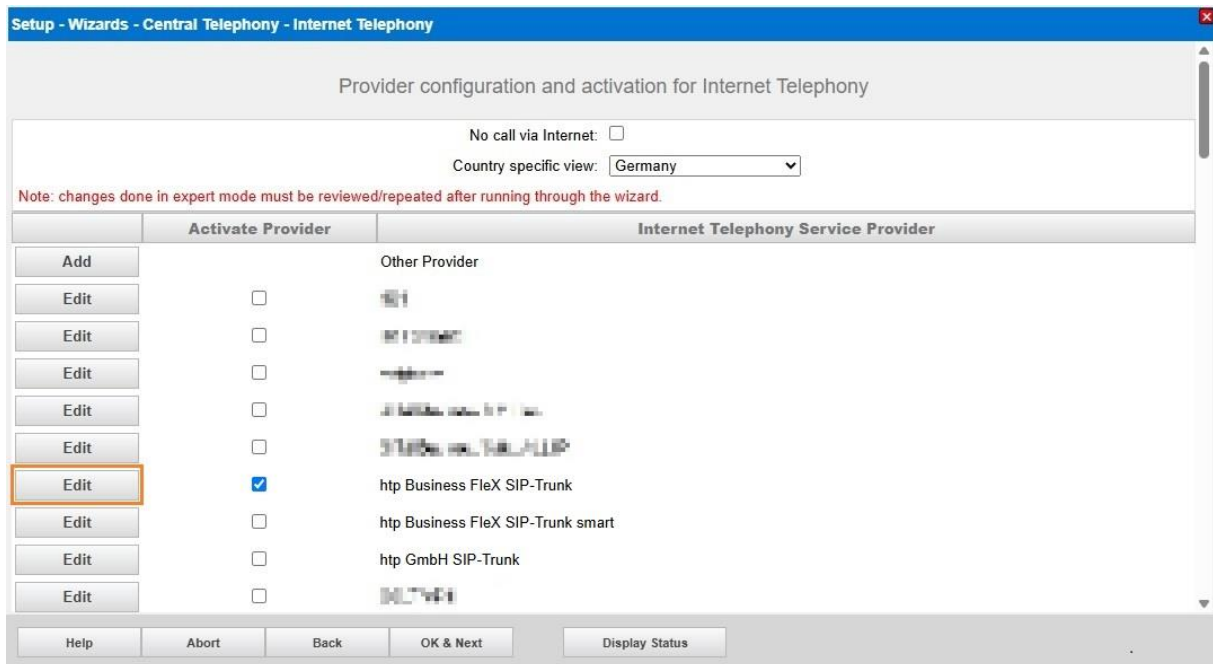


Figure 3

Activate Provider and click on [Edit].

On the next page the provider information is displayed. This data is partly pre-configured and the SIP-Registrar server of customers configuration data is required for

- **Domain Name:** SIP-Registrar server
- **Provider Registrar:** SIP-Registrar server
- **Provider Proxy:** SIP-Registrar server

The **htp Business Flex SIP-Trunk Services** are addressed via the following SIP-Registrar-Server:

- **htp Business Flex SIP-Trunk smart** siptrunk.htp.net (only in the **htp** network)
- **htp Business Flex SIP-Trunk smart ME** siptrunk.htp.net (only in the **htp** network)
- **htp Business Flex SIP-Trunk pure** siptrunkpure.htp.net (following example)

Further optional features can be controlled:

- Secure trunk
- "Route optimize active" activated (default) -> Rerouting takes place in the Central Office during a call forwarding (SIP 302) and control of the call remains with the Central Office.
- "Route optimize active " deactivated (optional) -> a call forwarding establishes a second connection and control of the call remains in the OpenScape Business.

Setup - Wizards - Central Telephony - Internet Telephony

Internet Telephony Service Provider

Provider Name: htp Business FleX SIP-Trunk
 Enable Provider:
 Secure Trunk:
 Domain Name: siptrunkpure.htp.net

Provider Registrar
 Use Registrar:
 IP Address / Host name: siptrunkpure.htp.net
 Port: 0
 Reregistration Interval at Provider (sec): 300

Provider Proxy
 IP Address / Host name: siptrunkpure.htp.net
 Port: 0

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

Provider Feature
 Route optimize active:

Help Abort Back OK & Next Delete Data

Figure 4

Click [OK & Next].

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

Setup - Wizards - Central Telephony - Internet Telephony

Internet Telephony Stations for htp Business FleX SIP-Trunk

	Name of Internet Telephony Station
Add	New Internet Telephony Station

Help Abort Back OK & Next

Figure 5

Click on [Add].

Insert customer specific data provided by **htp GmbH**.

Internet telephony station: SIP-Login

Authorization name: SIP-Login

Password: Password

Default number: 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. Usually, the Lead Number is entered here.

Setup - Wizards - Central Telephony - Internet Telephony

Internet Telephony Station for htp Business Flex SIP-Trunk

Internet telephony station: +49511600

Authorization name: +49511600

Password: *****

Confirm Password: *****

Call number assignment

Use public number (DID)

ITSP-multiple route:

Default Number: +49511600

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.

Help Abort Back OK & Next Delete Data

Figure 6

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

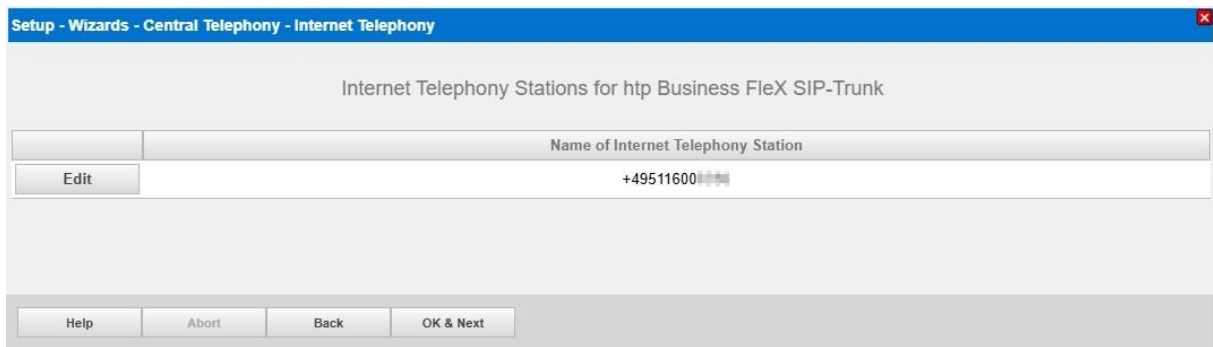


Figure 7

Click [OK & Next]

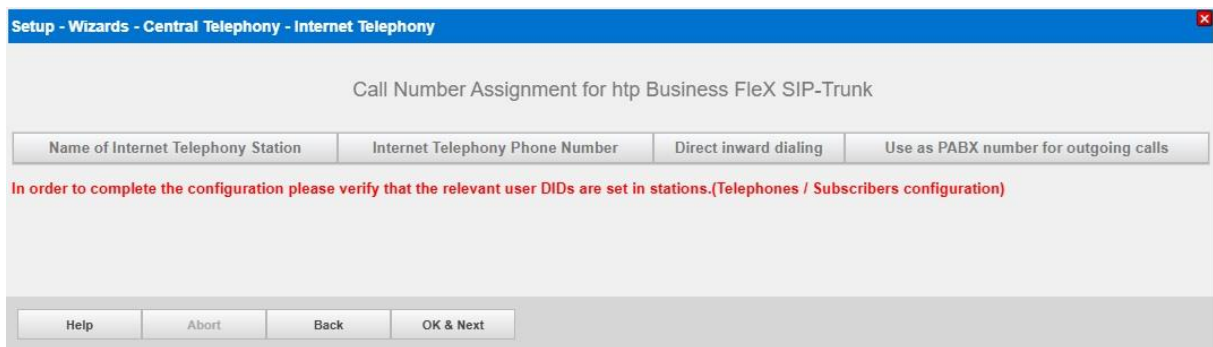


Figure 8

Click [OK & Next] (no input needed)

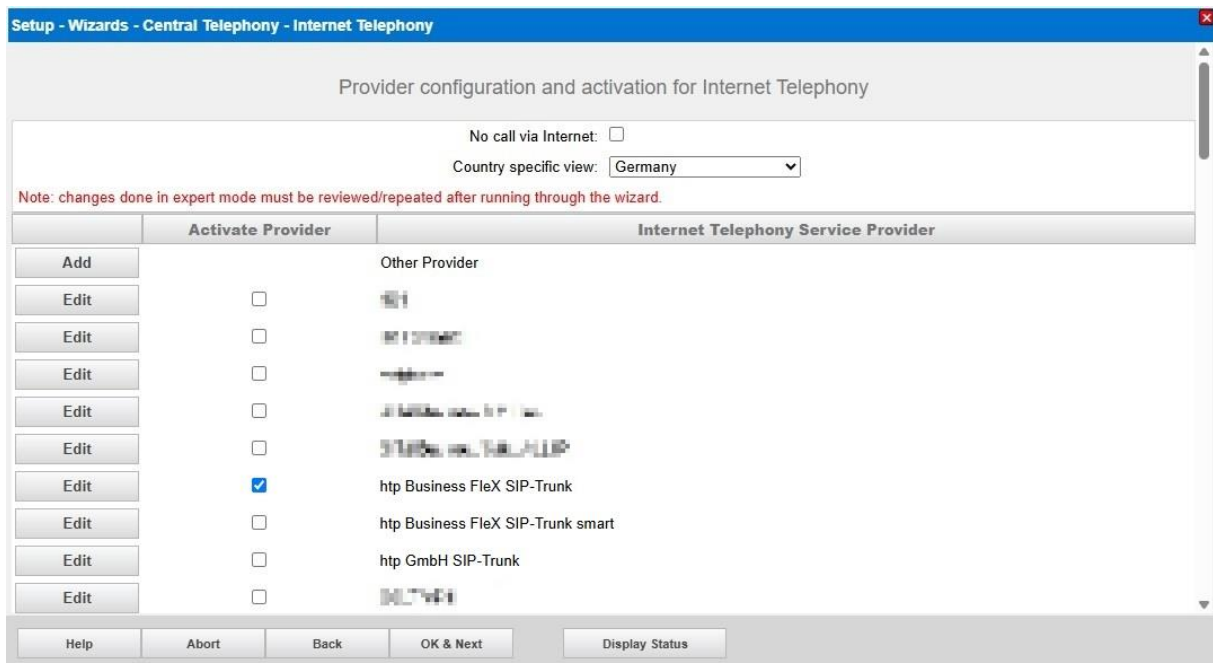


Figure 9

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 by *htp GmbH*.

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) = 2048**

In the 'Change Feature --> Internet Telephony' Assistant. This upstream allows you to conduct up to 16 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
htp Business Flex SIP-Trunk	0	<input type="text" value="4"/>

Figure 10

Click [OK & Next]

Now the corresponding configuration data will be created and entered into the system, please wait until the progress bar reaches 100%.

Special phone numbers

In this dialog it is possible to adjust routing of special phone numbers.

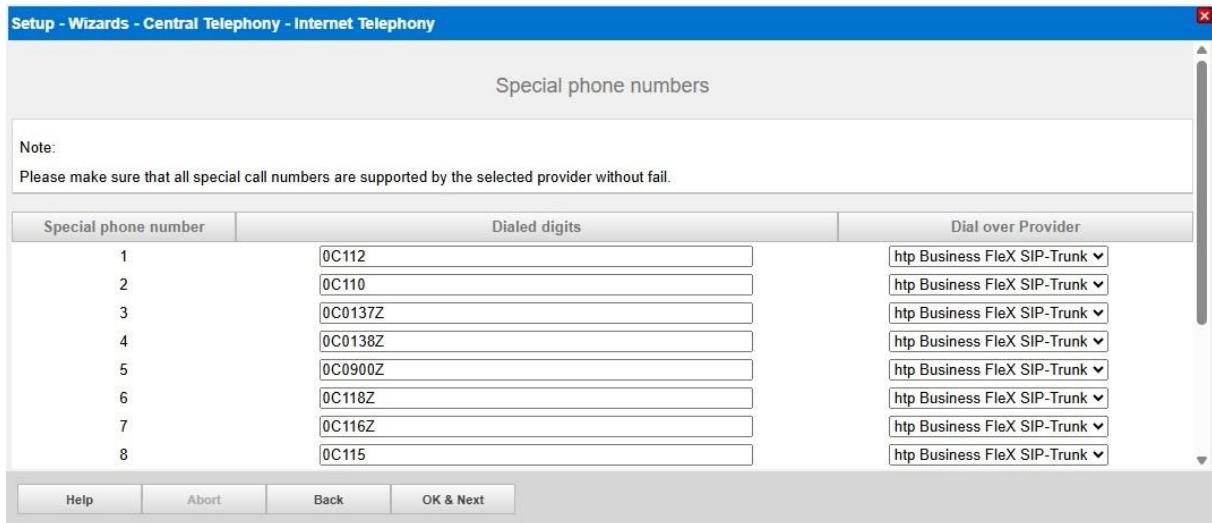


Figure 11

Click [OK & Next]

On next page status of ITSP is displayed.

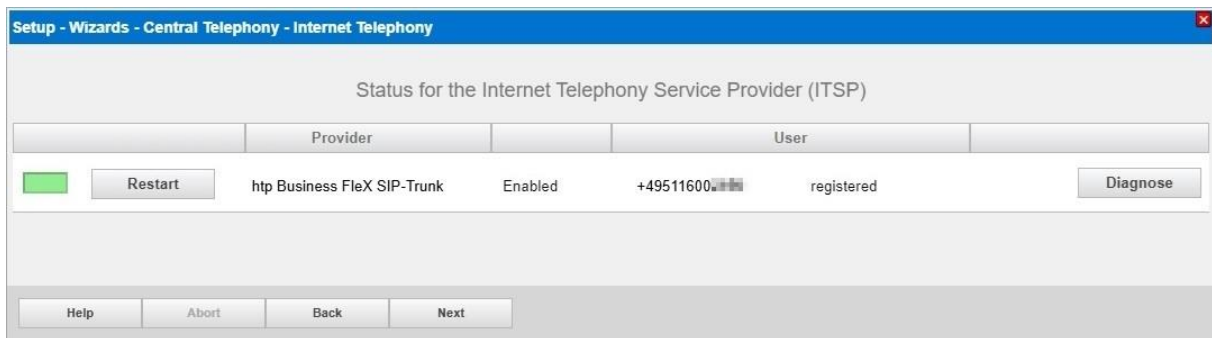


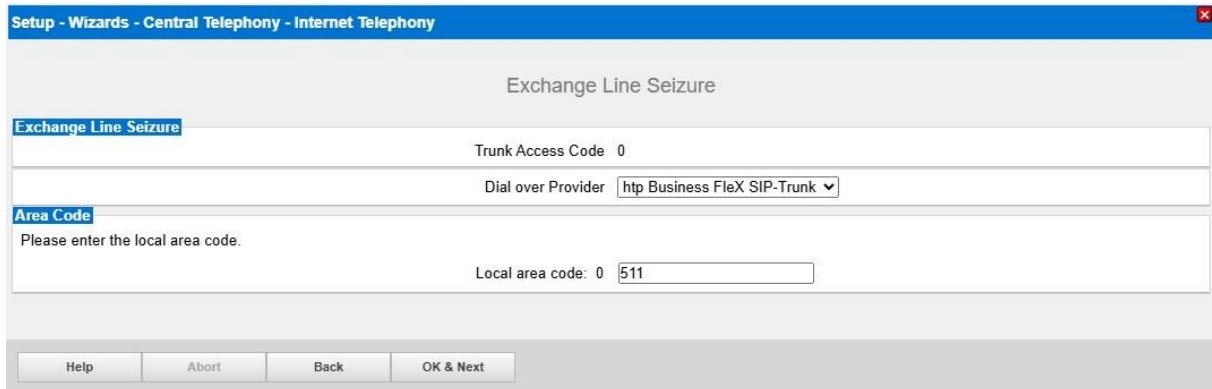
Figure 12

- If the SIP trunk has been successfully registered, the light will be green, and you can proceed to the next step. The "Diagnose" button opens a new window with a list of configured data.
- If the light is orange, clicking the "Diagnose" button will open a new window. This window provides information about potential problems and a list of configured data for review.

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)



The screenshot shows a wizard window titled "Setup - Wizards - Central Telephony - Internet Telephony". The main heading is "Exchange Line Seizure". Below this, there are two sections: "Exchange Line Seizure" and "Area Code".

In the "Exchange Line Seizure" section, there is a text field for "Trunk Access Code" containing "0" and a dropdown menu for "Dial over Provider" set to "htp Business FleX SIP-Trunk".

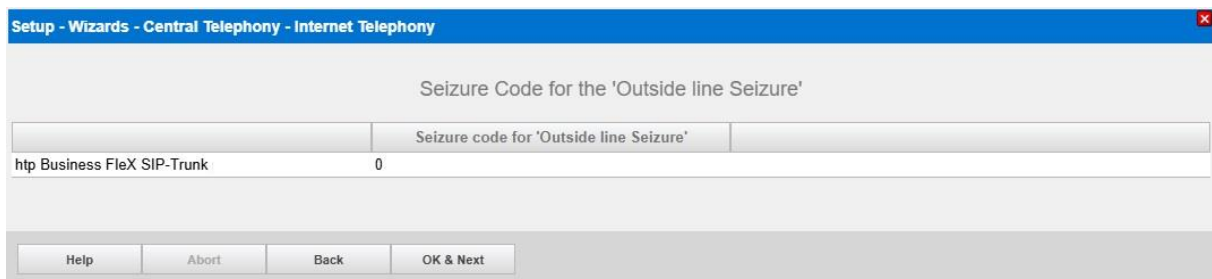
In the "Area Code" section, there is a text field for "Local area code" containing "511".

At the bottom, there are four buttons: "Help", "Abort", "Back", and "OK & Next".

Figure 13

Click [OK & Next]

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



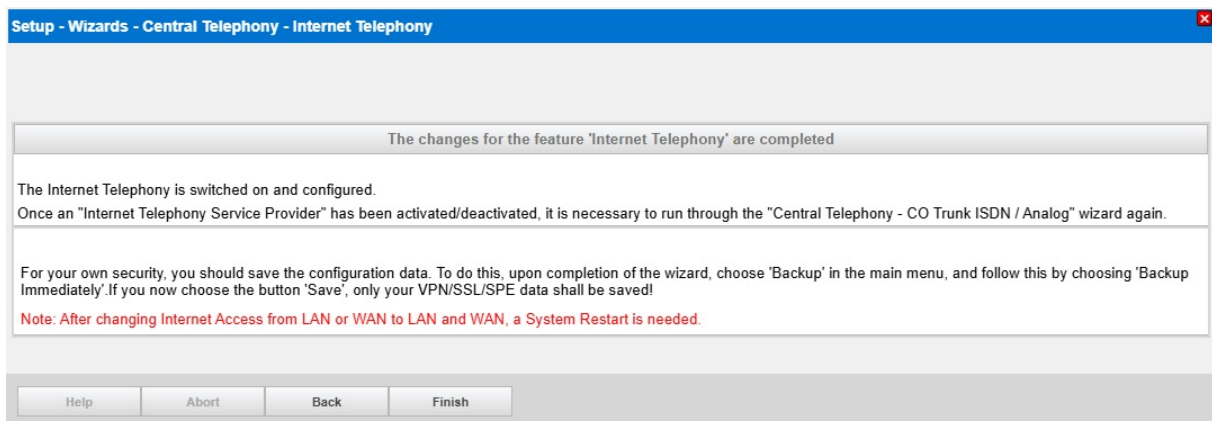
The screenshot shows a wizard window titled "Setup - Wizards - Central Telephony - Internet Telephony". The main heading is "Seizure Code for the 'Outside line Seizure'".

Below the heading, there is a table with two columns: "Seizure code for 'Outside line Seizure'" and an empty column. The table contains one row with "htp Business FleX SIP-Trunk" in the first column and "0" in the second column.

At the bottom, there are four buttons: "Help", "Abort", "Back", and "OK & Next".

Figure 14

Click [OK & Next] and



The screenshot shows a wizard window titled "Setup - Wizards - Central Telephony - Internet Telephony". The main heading is "The changes for the feature 'Internet Telephony' are completed".

Below the heading, there is a text box containing the following information:

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.

At the bottom, there are four buttons: "Help", "Abort", "Back", and "Finish".

Figure 15

on the next page [Finish].

DID configuration

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

Setup - Wizards - Basic Installation - Basic Installation

1 System Overview 2 Central Functions for Stations 3 ISDN Configuration 4 Configure Internet Access 5 Provider configuration and activation for Internet Telephony 6 Select a station - LAN Phones 7 Configured Stations 8 Automatic Configuration of Application Suite 9 Configure MeetMe Conference 10 Configure E-Mail Forwarding

Take DID from changed call number

Box	Slot	Callno	First Name	Last Name	Display	DID	Type	Fax Callno
1	0	260	-	-	-	511600 110	System Client	-
1	0	264	-	-	-	511600 114	System Client	-
1	0	265	-	-	-	511600 115	System Client	-
-	-	-	-	-	-	-	No Port	-

Page 1 of 39

Items per page 10 25 50 100

Help Abort Back OK & Next Save Data

Figure 16

Additional Configuration

License

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

The screenshot displays the 'License Management' section of the OpenScape Business configuration tool. The top navigation bar includes 'Home', 'Administrators', 'Setup', 'Expert mode', 'Data Backup', 'License Management', and 'Service Center'. The user is logged in as 'administrator@system'. The left sidebar shows a tree view with 'License Management' expanded, containing 'License information', 'Additional Products', 'Local User licenses', 'CO Trunks', 'System Licenses', and 'License Profiles'. The 'CO Trunks' section is selected, showing a summary of trunk licenses. Below the summary, there is a table for 'PRI (S2M/T1)' trunks with columns for 'Type Slot', 'Port', 'Feature', 'Demands', and 'used licenses'. The table is currently empty. At the bottom of the configuration area, there are 'Abort' and 'Apply' buttons.

administrator@system [Logout](#)

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
- License Profiles
 - Create Profiles
 - Assign Profiles

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: 8

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	used licenses
-----------	------	---------	---------	---------------

Abort Apply

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 **htp Business FleX SIP-Trunk** the following codec parameters **MUST** be changed:

1. G.729 is not supported by **htp Business FleX SIP-Trunk** and should be disabled.
2. T.38-Fax protocol is not released for **htp Business FleX SIP-Trunk**. For this reason, you must disable T.38-Fax protocol.
3. RFC 2833 payload type must be 101.

The screenshot shows the 'Expert mode - Telephony Server' configuration window. The left sidebar lists navigation options: Voice Gateway, SIP Parameters, SIP Emergency, Codec Parameters (selected), Destination Codec Parameters, Internet Telephony Service Provider, Networking, SIPQ-Interconnection, and Native SIP Server Trunk. The main area is titled 'Codec Parameters' and contains the following sections:

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

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): t38UDPRedundancy

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: 101
Redundant Transmission of RFC2833 Tones according to RFC2198:

Buttons: Apply, Undo, Help

After the T.38-Fax settings are changed OpenScape Business **MUST** be restarted.

Appendix

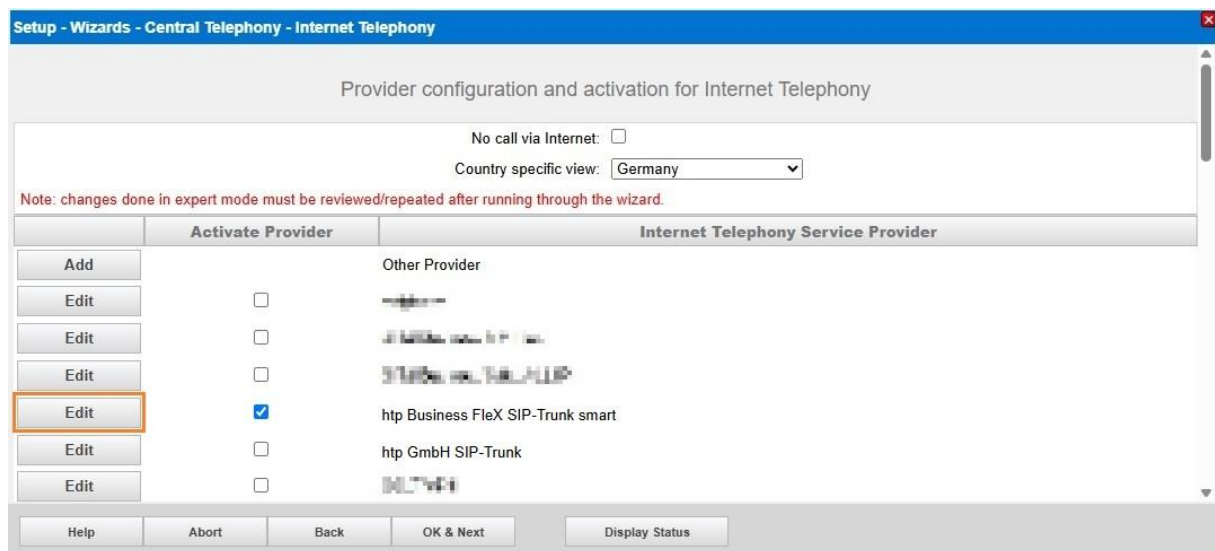
Create profile

As long as the **htp Business Flex SIP-Trunk** profile is not yet available, please reuse the profile **htp Business Flex SIP-Trunk smart** 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
- “Country specific view”: “**Germany**” and select **htp Business Flex SIP-Trunk smart**



Click on [Add].

Use the **htp Business FleX SIP-Trunk smart** template, enable the provider and configure the server data provided by **htp GmbH**.

- **Domain Name:** siptrunkpure.htp.net
- **Provider Registrar:** siptrunkpure.htp.net **Port:** 0 *)
- **Provider Proxy:** siptrunkpure.htp.net **Port:** 0 *)

*) utilizing the **htp** SBC cluster redundancy (DNS-SRV)

as follows (see [Figure 4](#)):

The screenshot shows a wizard window titled "Setup - Wizards - Central Telephony - Internet Telephony". The main heading is "Internet Telephony Service Provider". The configuration fields are as follows:

- Provider Name:** htp Business FleX SIP-Trunk smart
- Enable Provider:**
- Secure Trunk:**
- Domain Name:** siptrunkpure.htp.net
- Provider Registrar:**
 - Use Registrar:**
 - IP Address / Host name:** siptrunkpure.htp.net
 - Port:** 0
 - Reregistration Interval at Provider (sec):** 300
- Provider Proxy:**
 - IP Address / Host name:** siptrunkpure.htp.net
 - Port:** 0
- Provider Outbound Proxy:**
 - Use Outbound Proxy:**
 - IP Address / Host name:** 0.0.0.0
 - Port:** 0
- Provider Feature:**
 - Route optimize active:**

At the bottom, there are buttons for "Help", "Abort", "Back", "OK & Next", and "Delete Data".

Activate "**Route optimize active**" and click [OK & Next]

In the following dialog, the access data is entered, as described in the instructions from [Figure 5](#) onwards.

The screenshot shows a wizard window titled "Setup - Wizards - Central Telephony - Internet Telephony". The main heading is "Internet Telephony Stations for htp Business FleX SIP-Trunk smart". Below the heading is a table with the following structure:

	Name of Internet Telephony Station
<input type="button" value="Add"/>	New Internet Telephony Station

At the bottom, there are buttons for "Help", "Abort", "Back", "OK & Next", and "Delete Data".

Extended SIP Provider Data

To ensure compatibility with the **htp Business Flex SIP-Trunk**, the following settings must be made in Expert Mode → Voice Gateway → Internet Telephony Service Provider → **htp Business Flex SIP-Trunk smart** for the extended SIP provider data:

- | | |
|---|---|
| - COLP / TIP supported for outgoing calls: | COLP not supported |
| - CLIP no Screening support: | CLIP in FROM / DID number in PAI |
| - Contact URI contains: | RegistrationAOR |
| - Support 100rel: | <input checked="" type="checkbox"/> (enabled) |
| - P-Early-Media header support: | supported |
| - Session Timer support: | refresher Policy Remote |

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

Please close the window and run through the ITSP Wizard for **htp Business Flex SIP-Trunk smart** again (Figure 3).

Secure Trunk

As long as the option for transmission via TLS (“Secure Trunk”) is not available in the wizard of the **htp Business Flex SIP-Trunk** profiles, go to Expert mode → Telephony Server → Voice Gateway → Internet Telephony Service Provider → **htp Business Flex SIP-Trunk** or **htp Business Flex SIP-Trunk smart** and set following parameters:

- | | |
|-----------------------|---------------------|
| - Transport protocol: | tcp |
| - Transport security: | secure (tls) |
| - Media security: | SDES only |

Internet Telephony Service Provider

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

Provider Name: htp Business Flex SIP-Trunk

Enable Provider:

Provider Identifier in System: Trunk Group 12

Domain Name: siptrunkpure.htp.net

Transport protocol: tcp

Transport security: secure (tls)

Media security: SDES only

Provider Registrar

Use Registrar:

IP Address / Host name: siptrunkpure.htp.net

Port: 0

Reregistration Interval at Provider (sec): 300

Provider Proxy

IP Address / Host name: siptrunkpure.htp.net

Port: 0