

# OpenScape Business V2

How to Configure SIP Trunk for BroadCloud  
Germany

France

Italy

United Kingdom

Australia

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## Table of History

<b>Date</b>	<b>Version</b>	<b>Changes</b>
13.10.2016	0.7	First version
26.10.2016	0.8	Setting for rest of world
24.01.2017	0.9	Review by BroadCloud
23.02.2017	0.10	Adaption for V2R3; separate USA from rest of world
05.03.2017	0.11	Editorial changes after internal development review
17.03.2017	0.12	Final review by BroadCloud
06.04.2017	1.0	Released

## Information

The BroadCloud provider is available and released for the countries USA, UK, Germany, France, Italy and Australia.

**This configuration guide is valid for all countries listed above except the USA**

## Trunk Configuration Data provided by BroadCloud

The configuration data needed to setup the SIP trunk can be found on the BroadCloud Enterprise Portal under SIP Trunking Page > Trunk Group > Edit under the selected Trunk Group:

breadsoft  
broadcloud

Site: LAB1\_TRUNKING\_SITE Site SIP Trunking

UK\_Eng\_Lab1 Sign Out

DASHBOARD  
SIP TRUNKING  
ASSIGNMENTS  
SERVICES  
ANALYTICS  
NOTES  
PROFILE

### Trunk Capacity

\* Channels Assigned To Site  
8 1 Available

Channels In Use By Site  
7/8

Save

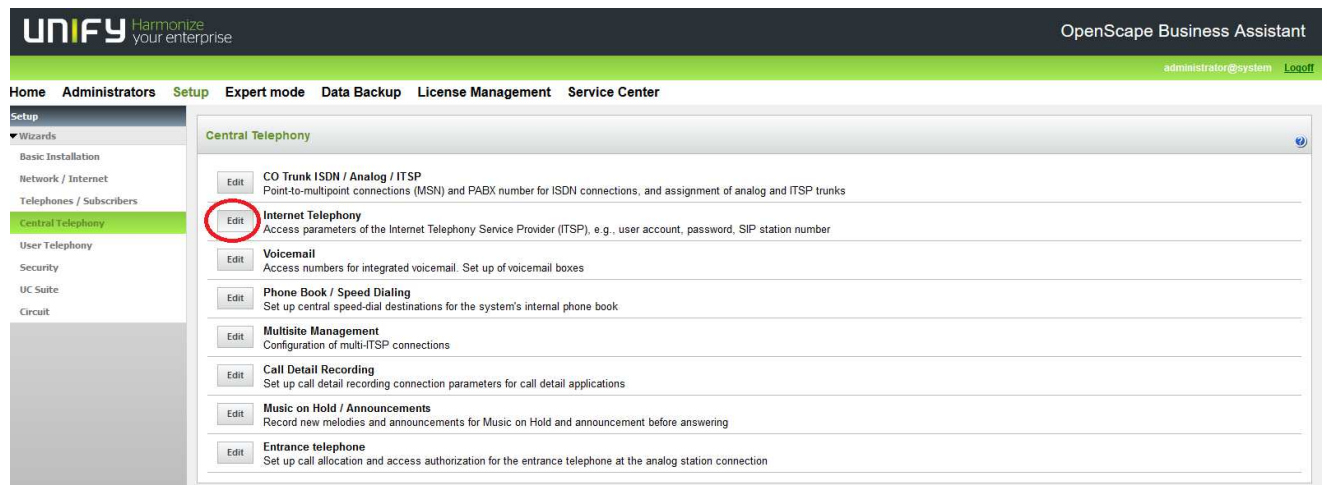
### Trunk Groups

Name	Lead Number	Device Name	Call Forwarding	
<a href="#">Edit</a> +442038593092	+442038593092	123452315121	Disabled	<a href="#">Device Status</a>
<a href="#">Edit</a> Audiocodes M500	+442034093809	123452315121	Disabled	<a href="#">Device Status</a>
<a href="#">Edit</a> trunkgroupstest	+442034093810	123452315121	Disabled	<a href="#">Device Status</a>

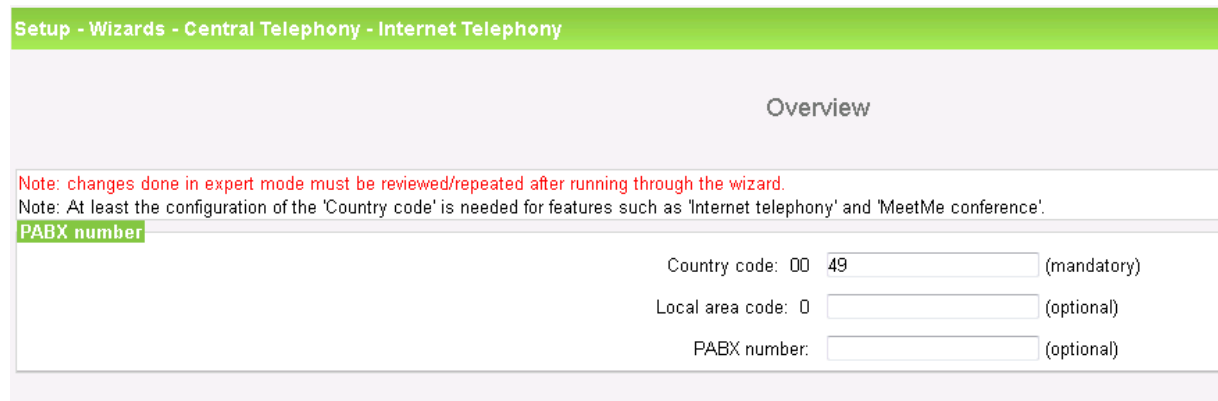
# Configuration Wizard

## 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: UK, Germany, France, Italy or Australia and select "BroadCloud".

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
<input type="button" value="Add"/>		Other Provider
<input type="button" value="Edit"/>	<input type="checkbox"/>	1&1
<input type="button" value="Edit"/>	<input checked="" type="checkbox"/>	BroadCloud
<input type="button" value="Edit"/>	<input type="checkbox"/>	COLT UK & Europe
<input type="button" value="Edit"/>	<input type="checkbox"/>	COLT VPN

Activate Provider and click on [Edit].

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

- **Domain Name**

The SIP Domain Name can be found on the BroadCloud Enterprise Portal, under SIP Trunking Page > Trunk Group > Edit under the selected Trunk Group. The part required is found on the section called Registered Domain.

!!! The Domain in the screenshot is only an example. !!!

Settings

\* Name  
+442038593092

\* Lead Number  
+442038593092

Outbound Proxy  
uk.sipconnect.broadcloud.eu

Register Domain  
ukdemo.broadcloud.eu

- **Provider Registrar and the Provider Proxy.** Use the country individual names:

- BroadCloud UK:** uk.sipconnect-udp.broadcloud.eu
- BroadCloud Germany:** de.sipconnect-udp.broadcloud.eu
- BroadCloud France:** fr.sipconnect-udp.broadcloud.eu
- BroadCloud Italy:** it.sipconnect-udp.broadcloud.eu
- BroadCloud Australia:** me.sipconnect-udp.broadcloud.com.au

The **Provider Outbound Proxy** is not used and therefore left deactivated.

Setup - Wizards - Central Telephony - Internet Telephony

Internet Telephony Service Provider

Provider Name: BroadCloud  
Enable Provider:   
Secure Trunk:   
Domain Name: please.enter.domain

Provider Registrar

Use Registrar:   
IP Address / Host name: please.enter.here  
Port: 0  
Reregistration Interval at Provider (sec): 600

Provider Proxy

IP Address / Host name: please.enter.here  
Port: 0

Provider Outbound Proxy

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

Help Abort Back OK & Next Delete Data

Click [OK & Next].

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

Internet Telephony Stations for BroadCloud	
Name of Internet Telephony Station	New Internet Telephony Station
	New Internet Telephony Station

Click on [Add].

Data provided on the BroadCloud Enterprise Portal, under SIP Trunking Page > Trunk Group > Edit under the selected Trunk Group:

**Device**

\* Device: 123452315121

MAC Address: 123452315121

Username: +4922116534624

Password: Password [Reset]

**Settings**

\* Name: +4922116534615

\* Lead Number: +4922116534615

The data provided on this page are used to fill the following fields:

**Internet telephony station:** Username is inserted here (e.g: +4922116534624)

**Authorization name:** Username is inserted here (e.g: +4922116534624)

**Password:** Password provided by BroadCloud

**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: +4922116534615). Usually the **Lead Number** is entered here.



Setup - Wizards - Central Telephony - Internet Telephony

### Internet Telephony Station for BroadCloud

Internet telephony station: +4922116534624  
 Authorization name: +4922116534624  
 Password: .....  
 Confirm Password: .....

**Call number assignment**

Use public number (DID)

If using 'configurable clip' you have to change the configuration to 'Use public number (DID)' here!  
 Changing trunk parameters in case of internal subscriber no. is not allowed!

Default Number: +4922116534615

**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

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

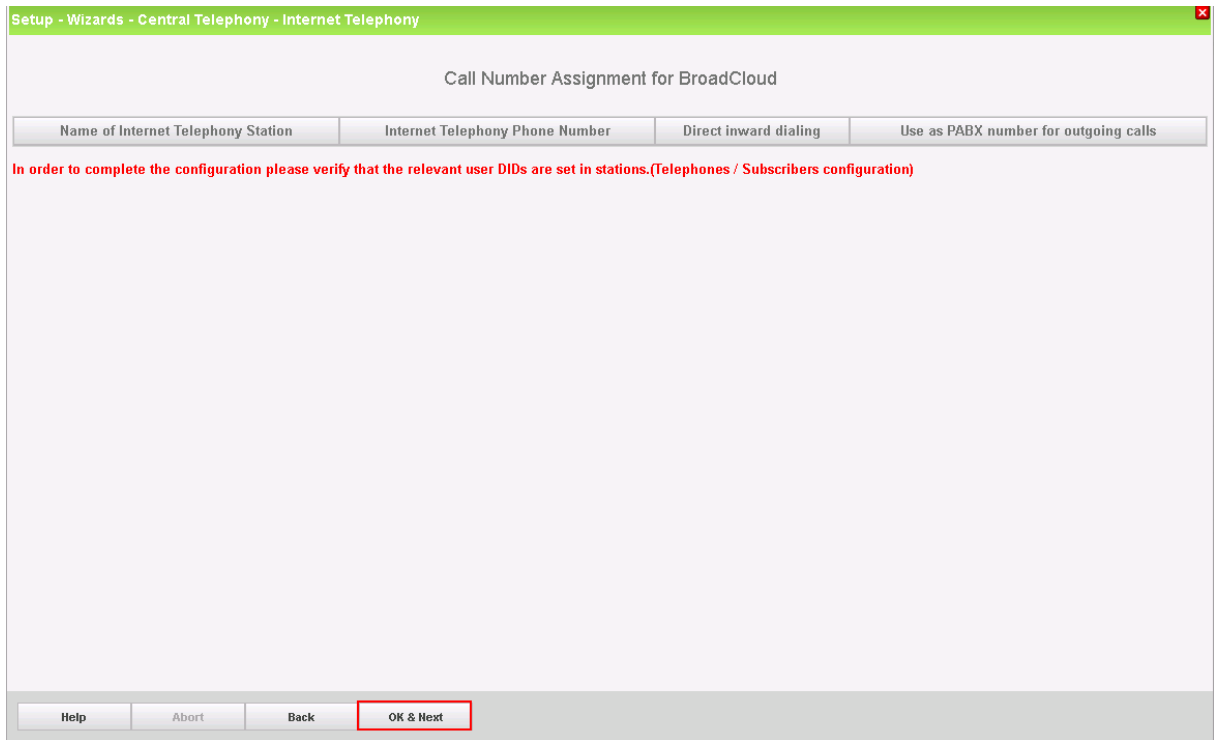
Setup - Wizards - Central Telephony - Internet Telephony

### Internet Telephony Stations for BroadCloud

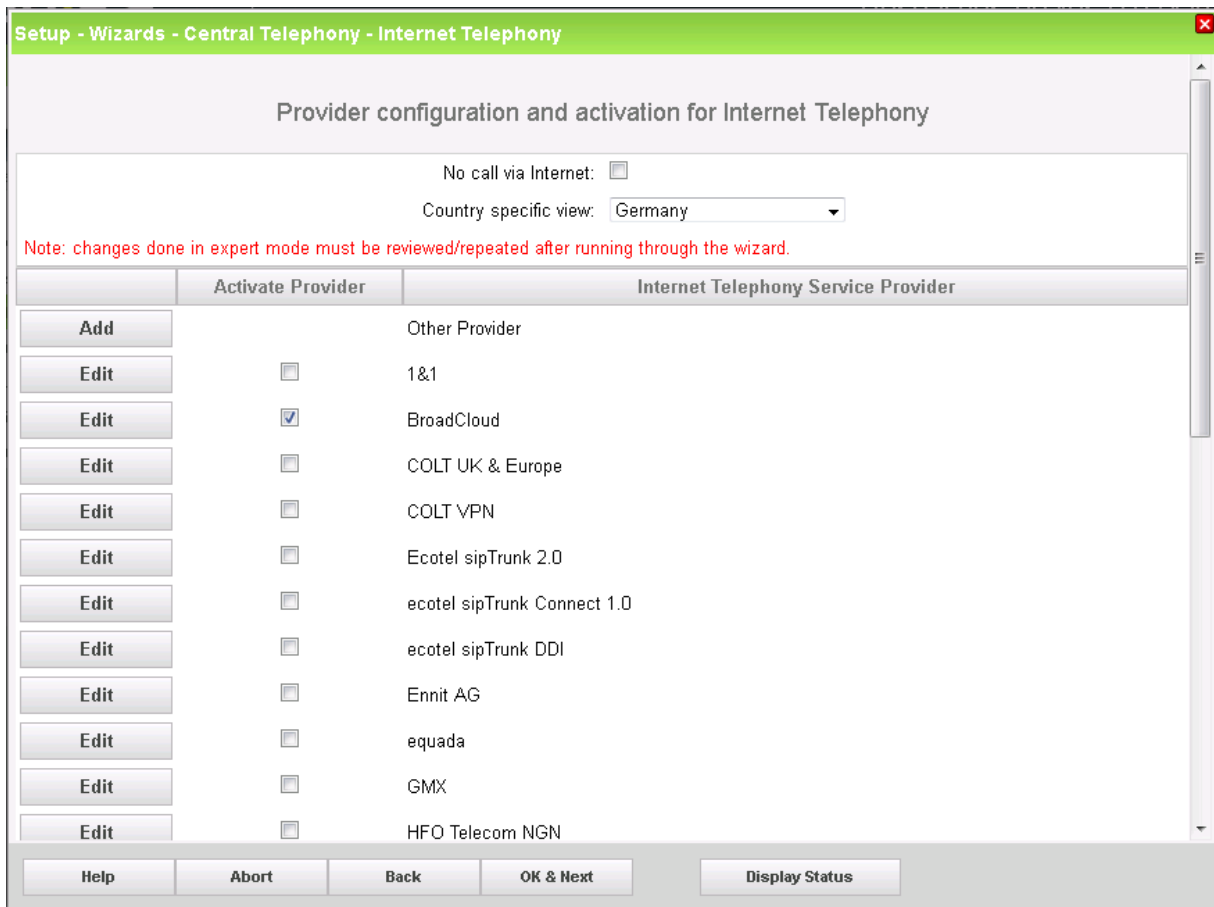
	Name of Internet Telephony Station
Edit	+4922116534624

Help Abort Back **OK & Next**

Click [OK & Next]



Click [OK & Next] (no input needed)



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 BroadCloud Enterprise Portal.

Capacity

\* **Maximum Active Calls**

**Max Incoming**

**Max Outgoing**

**More Options**

 Bursting

Setup - Wizards - Central Telephony - Internet Telephony

Settings for Internet Telephony

**Simultaneous Internet Calls**

Available Lines for ITSP: 170

Under 'Setup - Wizards - Network / Internet - Internet Access', you have entered the value **Upstream up to (Kbps) = 10000**

In the 'Change Feature --> Internet Telephony' Assistant. This upstream allows you to conduct up to **60** 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.

Number of Simultaneous Internet Calls:

**Line assignment**

Internet Telephony Service Provider	Configured Lines	Assigned Lines
BroadCloud	0	<input type="text" value="10"/>

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	0C112	BroadCloud
2	0C110	BroadCloud
3	0C0137Z	BroadCloud
4	0C0138Z	BroadCloud
5	0C0900Z	BroadCloud
6	0C118Z	BroadCloud
7	0C116Z	BroadCloud
8	0C115	BroadCloud
9	0C010Z	BroadCloud
10		ISDN
11		ISDN
12		ISDN
13		ISDN
14		ISDN
15		ISDN

Click [OK & Next]

On next page status of ITSP is displayed.

Provider	Enabled	User	Diagnose
<span style="color: green;">■</span> Restart BroadCloud	Enabled	+4922116534624 registered	Diagnose

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)

<b>Exchange Line Seizure</b>
Trunk Access Code: 855
Dial over Provider: BroadCloud
<b>Area Code</b>
Please enter the local area code.
Local area code: 221

Click [OK & Next]

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

Seizure Code for the 'Outside line Seizure'	
	Seizure code for 'Outside line Seizure'
ISDN	88
BroadCloud	0

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.

All numbers shown in the BroadCloud **Trunk user DDI** can be used as DID and can be found on the BroadCloud Enterprise Portal under the SIP Trunking Page > Trunk Group > **Assigned** in the column **Phone Number**:

Search Available Users

The screenshot shows two side-by-side panels. The left panel, titled 'Available', contains a table with columns 'Name' and 'Phone Number'. It lists several phone numbers with a '+4922116534' prefix. The right panel, titled 'Assigned', contains a table with columns 'Name', 'Phone Number', and 'Station Type'. The 'Station Type' column has radio buttons for 'Basic', 'Standard', and 'Premium'. The 'Phone Number' column shows numbers with a '4' or '5' at the end, indicating they are selected or available for assignment.

The screenshot shows the 'Expert mode - Telephony Server' interface. On the left is a navigation tree with 'System Clients' selected. The main area is titled 'System Clients' and contains a table with columns: Callno, DID, First Name, Last Name, Display, Type, Clip/Lin, Active, Fax Callno, Fax DID, and ITSP Loc-ID. The table has two rows: 114 and 115. The DID for row 114 is 22118534615, which is highlighted with a red box. The 'Active' column for both rows has a green checkmark.

Callno	DID	First Name	Last Name	Display	Type	Clip/Lin	Active	Fax Callno	Fax DID	ITSP Loc-ID
114	22118534615	-	-	-	System Client	-	✓	7799	22116534624	-
115	-	-	-	-	System Client	-	✓	-	-	-

## 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
------	------	------	---------	---------

### Route configuration (optional)

The route configuration will be created automatically. It should look like below.

Best praxis is to enter the default Access Code in the field “Seizure code”, enter the Country code for the PABX number-incoming and select Location number.

Expert mode - Telephony Server

**Trunks/Routing**

- Trunks
  - Route
    - ISDN
    - Trk Grp. 2
    - 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
    - BroadCloud**
    - Trk Grp. 13
    - Trk Grp. 14
    - Trk Grp. 15
  - Networking
  - QSIG-Feature
  - MSN assign
  - ISDN Parameters

**Route**

Change Route | Change Routing Parameters | Special Param

Route Name: BroadCloud  
Seizure code: 0  
CO code (2nd trunk code):

**Gateway Location**

Country code: 49  
Local area code:  
PABX number:

**PABX number-incoming**

Country code: 49  
Local area code:  
PABX number:  
Location number:

**PABX number-outgoing**

Country code:  
Local area code:  
PABX number:  
Suppress station number:

**Overflow route**

Overflow route: None

**Digit transmission**

Digit transmission: en-bloc sending

**Mobile Extension Number (MEX)**

MEX Number:

Apply | Undo | Help

The route parameters:

The screenshot shows the 'Expert mode - Telephony Server' interface. On the left, a tree view under 'Trunks/Routing' shows 'Route' expanded to 'BroadCloud'. The main pane is titled 'Route' and contains two tabs: 'Change Route' and 'Change Routing Parameters'. The 'Change Routing Parameters' tab is active, showing the following settings:

- 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:
  - deactivate UUS per route:
  - Always use DSP:
- Seizure parameters:**
  - Analog trunk seizure:
  - Trunk call pause:
  - Type of seizure:
  - Route type:
  - No. and type, outgoing:
  - Call number type:
- Rerouting:**
  - Change route allowed:
  - Route optimize active:

At the bottom of the main pane are three buttons: 'Apply', 'Undo', and 'Help'.

## LCR changes ( optional)

In V2R2 all necessary LCR rule will be created automatically. It should look like below.

In expert mode, Telephony Server, LCR , - change the “Routing Table” in the way that **local calls will be routed to Routing Table 5 – dial rule “local”, national calls will be routed to Routing Table 28 – dial rule “national” and international calls will be routed to Routing Table 38 dial rule “international”**

The dial rule manipulates the number so that the called party number is always in the international format.



Expert mode - Telephony Server							
Dial Plan							
Change Dial Plan				Display Dial Plan			
Dial Plan	Name	Dialed digits	Routing Table	Acc. code	Classes of service	Emergency	
1	Notruf	0C112	4				
2	Notruf	0C110	4				
3	Televoing	0C0137Z	4				
4	Televoing	0C0138Z	4				
5	Premium Dienste	0C0900Z	4				
6	Auskunftsdiens	0C118Z	4				
7	Sonderrufnummer	0C116Z	4				
8	Sonderrufnummer	0C115	4				
9	Preselection	0C010Z	4				
10	Sonderrufnummer		1				
11	Sonderrufnummer		1				
12	Sonderrufnummer		1				
13	Sonderrufnummer		1				
14	Sonderrufnummer		1				
15	Sonderrufnummer		1				
16	Services	855CZ	4				
17	National	855C0-Z	28				
18	Local	855C1Z	5				
19	Local	855CNZ	5				
20	International	855C00-Z	38				
21	BroadCloud	0CZ	4				
22	BroadCloud	0C0-Z	28				
23	BroadCloud	0C1Z	5				
24	BroadCloud	0CNZ	5				
25	BroadCloud	0C00-Z	38				
26	Standard	856CZ	6				

### Routing table 5:

Index	Dedicated Route	Route	Dial Rule	min. COS	Warning	Dedicated Gateway	GW Node ID
1	<input type="checkbox"/>	Broadcloud	SIP lokal_Canoni	15	None	No	
2	<input type="checkbox"/>	None	None	15	None	No	

### Routing table 28:

Index	Dedicated Route	Route	Dial Rule	min. COS	Warning	Dedicated Gateway	GW Node ID
1	<input type="checkbox"/>	Broadcloud	National_to_Canc	15	None	No	
2	<input type="checkbox"/>	None	None	15	None	No	

### Routing table 38:

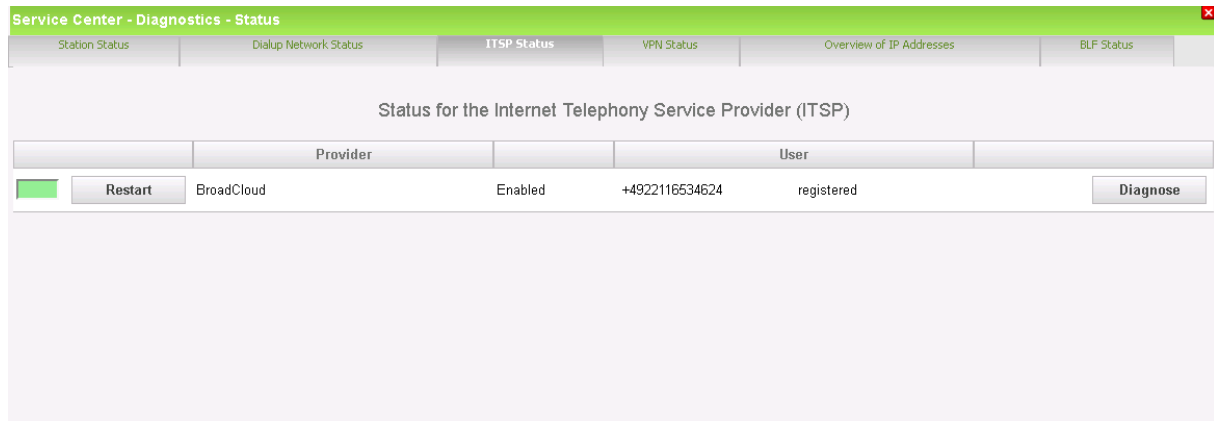
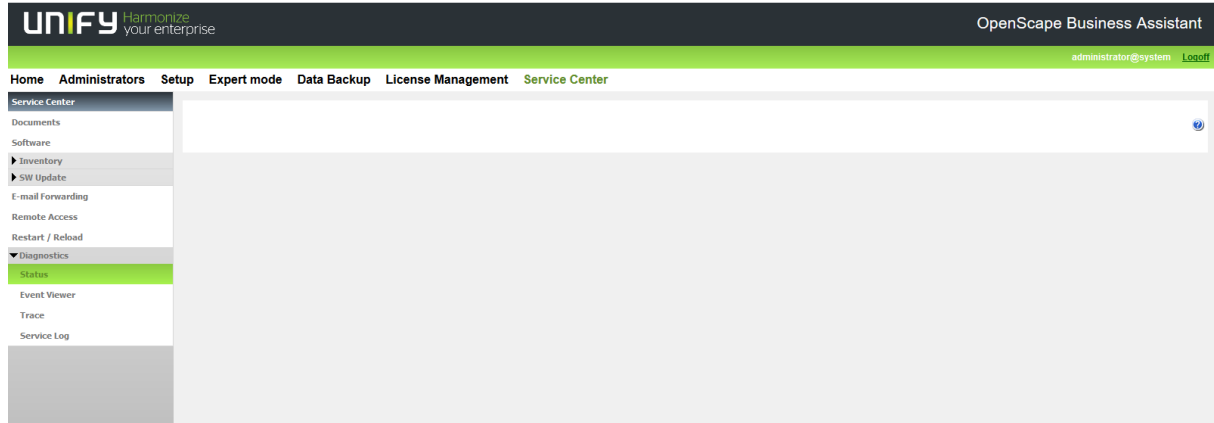
Index	Dedicated Route	Route	Dial Rule	min. COS	Warning	Dedicated Gateway	GW Node ID
1	<input type="checkbox"/>	Broadcloud	Internat_to_Can	15	None	No	
2	<input type="checkbox"/>	None	None	15	None	No	

### Dial rules:

Expert mode - Telephony Server				
Dial Rule				
Change Dial Rule				
Rule Name	Dial rule format	Network access	Type	
1	ISDN	A	Main network supplier	Unknown
2	SIP	A	Main network supplier	Unknown
3	SIP lokal	HE2A	Main network supplier	Unknown
4	MEB	E1A	Corporate Network	PABX number
5	IP-Network	A	Corporate Network	Unknown
6	Multi-Location	BA	Corporate Network	Unknown
7	Gateway call	E1A	Corporate Network	Unknown
8	COInternat	D0E4A	Main network supplier	Unknown
9	Add_cc_to_Canoni	D49E2A	Main network supplier	Country code
10	National_to_Cano	D49E3A	Main network supplier	Country code
11	Internat_to_Can	E3A	Main network supplier	Country code
12	SIP lokal_Canoni	HE2A	Main network supplier	Country code
13			Unknown	Unknown

## How to check the status of SIP connection with BroadCloud

“Status” provides information about the registration status of the ITSP. The ITSP registration can also be restarted here.



### Known restrictions:

1. CLIP No Screening is not supported for outgoing calls. A phone cannot present a number which is not owned by the provider trunk.
2. COLP: Provider doesn't support Connected Line Identification Presentation
3. Special scenario in case of non-DID phone and forwarded attendant phone.  
Description in detail: A non-DID Phone usually present the attendant DID for external calls. In case the attendant activates call-forwarding to an external destination and the non-DID phone is calling the attendant, the call will be rejected by the provider. Reason: The provider does not accept calls with the same FROM and DIVERSION number.

## Appendix

### Supported Features

1. The Provider use dynamic Registration
2. The Provider support codec G.711, G.729 and G.722. But it is not allowed to use G.722 only
3. Fax: T.38 is supported by the provider.
4. Diverted calls present the number of the caller:  
In a transit call forwarding scenario the provider provides the number of the caller.  
e.g. external A calls internal B. B is forwarded to external C. C get the number information of A
5. The MultiSite Scenario is supported: The Provider is able to provided numbers in different Areas in the same country at the same sip-trunk.
6. DTMF: RFC2833 out-of-band is supported

### Supported Numbering Formats

#### Outgoing call

**Called Party (REQUEST, TO):**

**GNF: +498944234199905@<SP FQDN>**

**Calling Party (FROM, PAI, Diversion):**

**GNF: +4922116534615@<SP FQDN>**

#### Incoming call

**Called Party (REQUEST, TO):**

**GNF: +4922116534615@<SP FQDN>**

**Calling Party (FROM):**

**GNF: +498944234199905@<SP FQDN>**