

OpenScape Business V2

How to Configure SIP Trunk for BT Wholesale Hosted Communications

UK

BT wholesale

Table of Contents

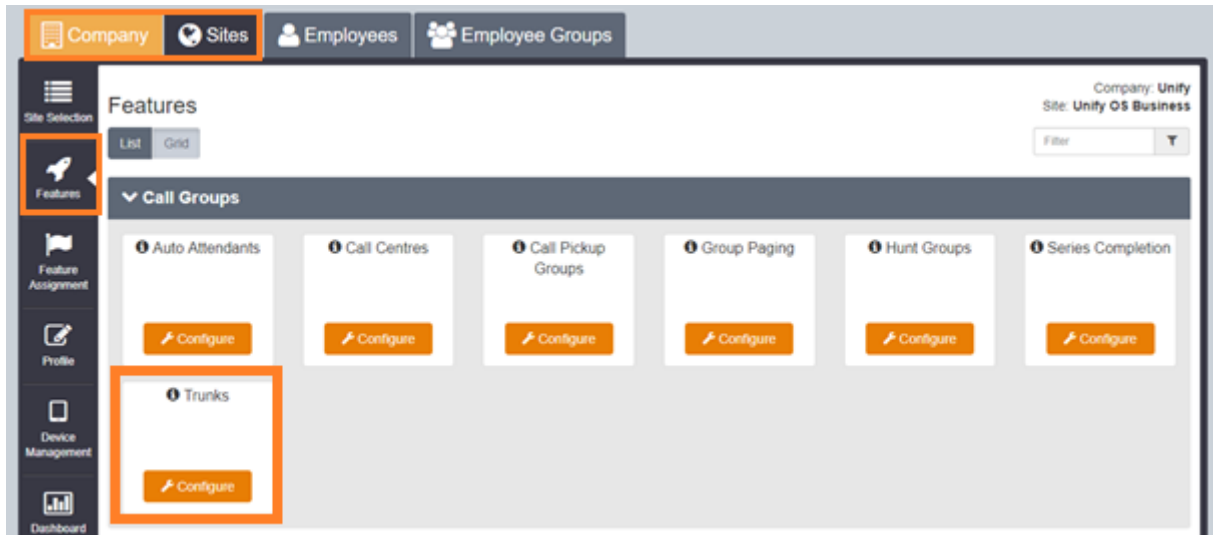
Trunk Configuration Data provided by BT Wholesale	4
Configuration Wizard	6
Internet Telephony.....	6
Define bandwidth (# Trunks).....	12
Special phone numbers.....	13
DID configuration	15
Additional Configuration	16
License	16
Route configuration (optional).....	16
LCR changes (optional)	17
How to check the status of SIP connection with BT Wholesale Hosted Centrex	18
Known restrictions	18
Trunk Features:	19
Site level features	19
User level features.....	20

Table of History

Date	Version	Changes
15.11.2017	0.1	First version
18.12.2017	0.3	Additional Changes to reflect ITSP features

Trunk Configuration Data provided by BT Wholesale

The configuration data needed to setup the SIP trunk can be found on the BT Wholesale Business Portal under Company > Site > Features> Trunks



It is possible to configure trunk level features from this screen, please view the section at the end of this guide to confirm compatibility with Openscape Business.

Take note of the domain name of the trunk, located under “Trunk ID”

For this example, “siptunify.com” is being used. This is for trial purposes and live trunks will have a unique customer domain

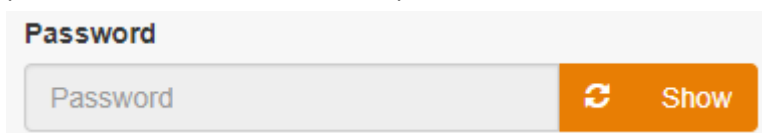


Click the link under “Trunk Name” and take note of the following information:

Directory Number

Authentication username

Authentication Password – Current password cannot be viewed, First use arrows to generate a new password, then “Show” to show password



OpenScape Business V2 – How To:
Configure SIP Trunk BT Wholesale Hosted Communications

Trunk Settings

[? Assistance](#)

General Settings

*** Trunk ID**

*** Name**

Feature Package

*** Caller ID First Name**

Directory Number

[Change](#)

*** Caller ID Last Name**

Extension

Language

Call Settings

Max Channels Per Trunk On This Site

Channels Available For Bursting To This Site

*** Total Number of Channels**

(Max 10 Calls)

Number Of Channels For Bursting To This Trunk

(Max 10 Calls)

Max Active Incoming Calls

Max Active Incoming Bursting Calls

Max Active Outgoing Calls

Max Active Outgoing Bursting Calls

☒ **Authentication Enabled**

*** Username**

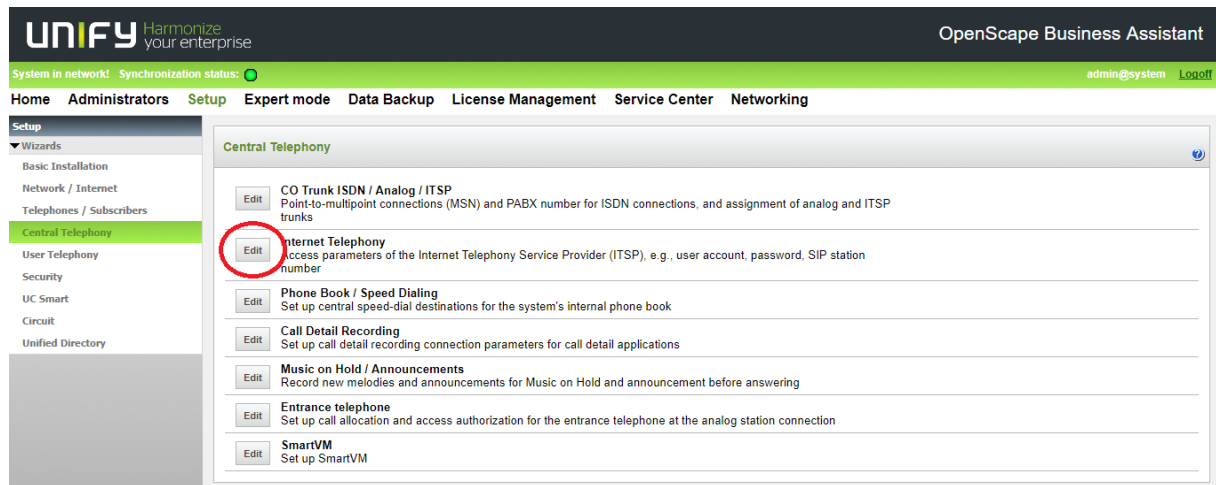
Password

[Show](#)

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.

Setup - Wizards - Central Telephony - Internet Telephony

Overview

Note: changes done in expert mode must be reviewed/repeated after running through the wizard.
Note: At least the configuration of the 'Country code' is needed for features such as 'Internet telephony' and 'MeetMe conference'.

PABX number

Country code: 00	44	(mandatory)
Local area code: 0		(optional)
PABX number:		(optional)

Click [OK & Next].

Provider configuration and activation for Internet Telephony -> No call via Internet -> uncheck
Use County specific view: United Kingdom and select "BT Wholesale Hosted Communications".

Setup - Wizards - Central Telephony - Internet Telephony

Provider configuration and activation for Internet Telephony

No call via Internet: ☐

Country specific view: United Kingdom ▼

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"/>	A1 SIP Trunk
Edit	<input type="checkbox"/>	Broadcloud
Edit	<input type="checkbox"/>	BT IPVS
Edit	<input checked="" type="checkbox"/>	BT Wholesale Hosted Communications
Edit	<input type="checkbox"/>	BT Wholesale SIP Trunking (WSIPT)
Edit	<input type="checkbox"/>	COLT UK & Europe
Edit	<input type="checkbox"/>	COLT VPN
Edit	<input type="checkbox"/>	Gamma StaticIP
Edit	<input type="checkbox"/>	Gamma with Register

Help Abort Back OK & Next Display Status

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 WHC Business Portal, under Company > Site > Features > Trunks. The part required is found on the section called Trunk ID.

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

Trunk Name	Trunk ID	Device ID	Device Category
Unify OS Business	unifyosbusiness@siptunify.com	Unify OS Business	Group

- Please enter the domain (without @). All other fields on this page are predefined and must not be changed

Internet Telephony Service Provider

Provider Name: BT Wholesale Hosted Communications

Enable Provider: ☒

Secure Trunk: ☐

Domain Name: please enter domain

Provider Registrar

Use Registrar: ☒

IP Address / Host name: sip-dynamic-bslnws09.yourv

Port: 0

Reregistration Interval at Provider (sec): 600

Provider Proxy

IP Address / Host name: sip-dynamic-bslnws09.yourv

Port: 0

Provider Outbound Proxy

Use Outbound Proxy: ☐

IP Address / Host name: 0.0.0.0

Port: 0

Buttons: 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 BT Wholesale Hosted Communications

Name of Internet Telephony Station
New Internet Telephony Station

Buttons: Add

Click on [Add].

Data provided on the BT Wholesale Business Portal under Company > Site > Features> Trunks > Link under “Trunk Name”

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

Internet telephony station: **Directory Number** is inserted here (In implicit International format e.g. 441234567890)

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

Password: **Password**

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: 441234567890). Usually the **Lead Number** is entered here. This must be entered in Implicit International format and the number **must** be present on the SIP account. (e.g. 441234567890)

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

Setup - Wizards - Central Telephony - Internet Telephony

Internet Telephony Stations for BT Wholesale Hosted Communications

	Name of Internet Telephony Station
Edit	445600653801

Help Abort Back OK & Next

Click [OK & Next]

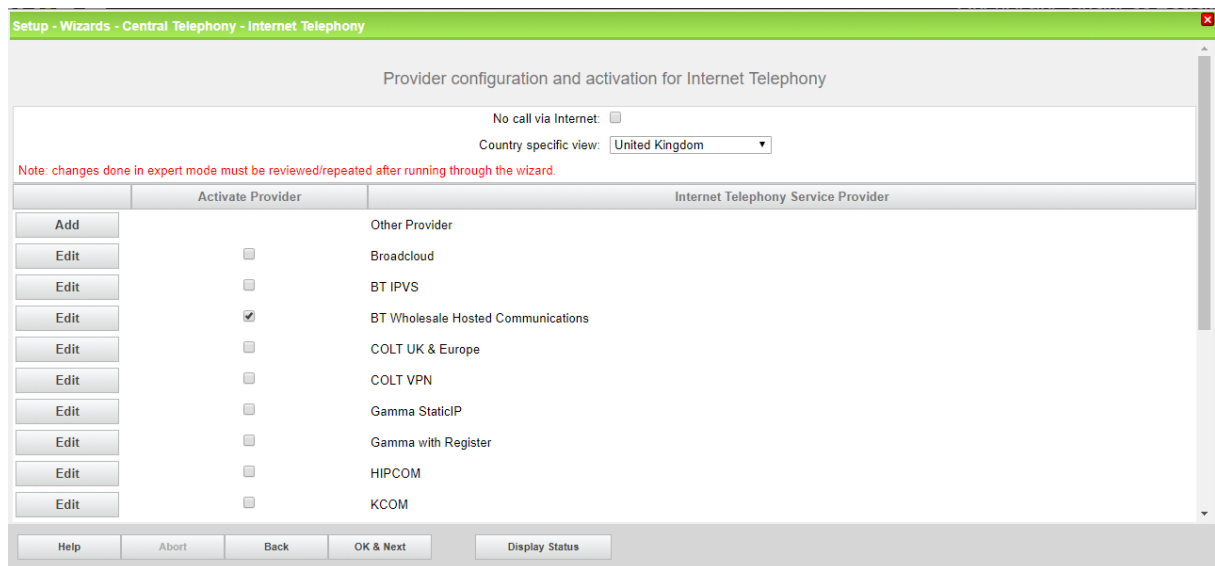
Setup - Wizards - Central Telephony - Internet Telephony

Call Number Assignment for BT Wholesale Hosted Communications

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

Help Abort Back 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 **Max Channels Per Trunk** assigned to the Trunk Group on the BT Wholesale Business Portal

Please note, depending on customer configuration, this value may be read only on the business portal. For restricted companies any changes must be actioned by the provider on the “Business Zone” portal

Trunking Capacities

Max Channels Per Trunk: 10

Channels Available for Bursting to Company: Unlimited

Channels Available for Bursting to this Site:

Unlimited

Limited to:

10

Setup - Wizards - Central Telephony - Internet Telephony

Settings for Internet Telephony

Simultaneous Internet Calls

Available Lines for ITSP: 230

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) = 300

In the 'Change Feature --> Internet Telephony' Assistant. This upstream allows you to conduct up to 2 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): 300

Number of Simultaneous Internet Calls: 10

Distribute Lines

Line assignment

Internet Telephony Service Provider	Configured Lines	Assigned Lines
BT Wholesale Hosted Communications	0	10

Help

Abort

Back

OK & Next

Click [OK & Next]

Special phone numbers

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

The dialog box is titled "Special phone numbers" and contains a note: "Note: Emergency calls should always be built up with ISDN or Analog Trunk for safety reasons. Please make sure that all special call numbers are supported by the selected provider without fail." Below the note is a table with three columns: "Special phone number", "Dialed digits", and "Dial over Provider". The table has 12 rows, numbered 1 to 12. The first two rows have "9C112" and "9C999" in the "Dialed digits" column. The "Dial over Provider" column has dropdown menus for each row, with "BT Wholesale Hosted Communications" selected for the first two rows and "ISDN" selected for the remaining rows. At the bottom of the dialog are buttons for "Help", "Abort", "Back", and "OK & Next".

Special phone number	Dialed digits	Dial over Provider
1	9C112	BT Wholesale Hosted Communications
2	9C999	BT Wholesale Hosted Communications
3		ISDN
4		ISDN
5		ISDN
6		ISDN
7		ISDN
8		ISDN
9		ISDN
10		ISDN
11		ISDN
12		ISDN

Click [OK & Next]

On next page status of ITSP is displayed.

The dialog box is titled "Status for the Internet Telephony Service Provider (ITSP)". It contains a table with the following data:

	Provider		User	
	BT Wholesale Hosted Communications	Enabled	445600653801	registered

At the bottom of the table are buttons for "Restart" and "Diagnose".

Click [Next]

„Exchange Line Seizure“:

Select which trunk will get access code 9. Enter the local area code without prefix digits (needed only when local area code was not entered in first step PBX number)

The dialog box is titled "Exchange Line Seizure". It contains the following fields:

- Exchange Line Seizure**: A section header.
- Trunk Access Code**: A dropdown menu with the value "9" selected.
- Dial over Provider**: A dropdown menu with the value "BT Wholesale Hosted Communications" selected.
- Area Code**: A section header.
- Please enter the local area code.**: A text label.
- Local area code**: A text input field with the value "560" entered.

Click [OK & Next]

Overview with all configured Seizure codes for „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	
BT Wholesale Hosted Communications	851	

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.

Each DDI is assigned against a “User” and can be found on the BTW Business Portal under Company > Sites > Employees

	Username	Status	First Name	Surname	Phone Number	Extension	Site Name	
	05600653802	Active	UnifyOSBusiness	UserA	+44 56 00653802	3802	Unify OS Business	Select
	05600653803	Active	UnifyOSBusiness	UserB	+44 56 00653803	3803	Unify OS Business	Select
	05600653804	Active	UnifyOSBusiness	UserC	+44 56 00653804	3804	Unify OS Business	Select
	05600653805	Active	UnifyOSBusiness	UserD	+44 56 00653805	3805	Unify OS Business	Select
	05600653806	Active	UnifyOSBusiness	UserE	+44 56 00653806	3806	Unify OS Business	Select
	05600653807	Active	UnifyOSBusiness	OfficeUC	+44 56 00653807	3807	Unify OS Business	Select
	05600653808	Active	Unify OS Business	UC User 2	+44 56 00653808	3808	Unify OS Business	Select
	Unifyadmin	Active	Unify	Admin	+44 56 00653800	3800	Unify OS Business	Select

If users do not wish to display their DDI and instead display a Department or Site number, this can be entered under “CLIP/Lin” in the same format

Expert mode - Telephony Server							
IP Clients							
Edit Subscriber				Device Info			
Callno	DID	First Name	Last Name	Display	Type	Clip/Lin	Ac
Search:							
431	5600653802	User	1	User 1	System Client	5600653801	
432	5600653803	User	2	User 2	System Client	-	
N/A Port							

Additional Configuration

License

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

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: 0				
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)				
<table><thead><tr><th>Type Slot</th><th>Port</th><th>Feature</th><th>Demands</th></tr></thead></table>	Type Slot	Port	Feature	Demands
Type Slot	Port	Feature	Demands	

Route configuration (optional)

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

Best practice 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.

The screenshot shows the 'Expert mode - Telephony Server' window. On the left is a tree view with 'Trunks/Routing' expanded, showing 'Route' selected. The main area is titled 'Route' and contains several sections for configuration:

- Change Route**: Route Name: BT Wholesale, Seizure code: 9, CO code (2nd trunk code):
- Gateway Location**: Country code: 44, Local area code:, PABX number:
- PABX number-incoming**: Country code: 44, Local area code:, PABX number:, Location number: ☒
- PABX number-outgoing**: Country code: 44, 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:

At the bottom are buttons for 'Apply', 'Undo', and 'Help'.

The route parameters:

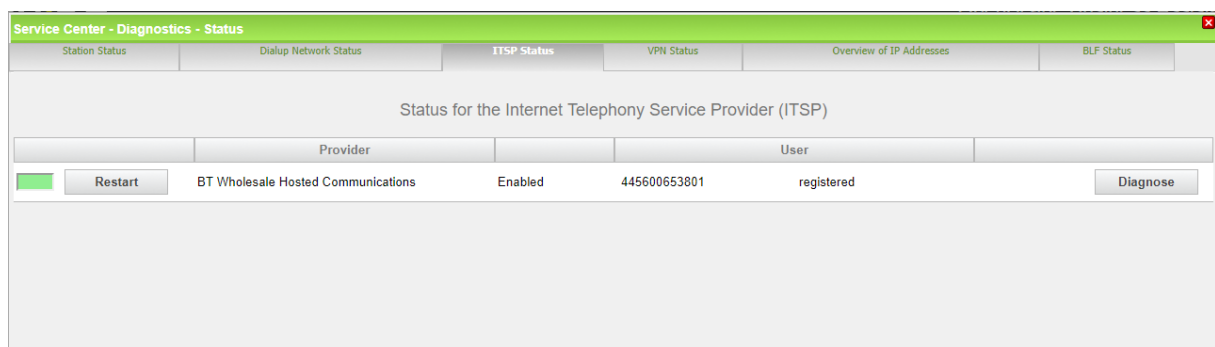
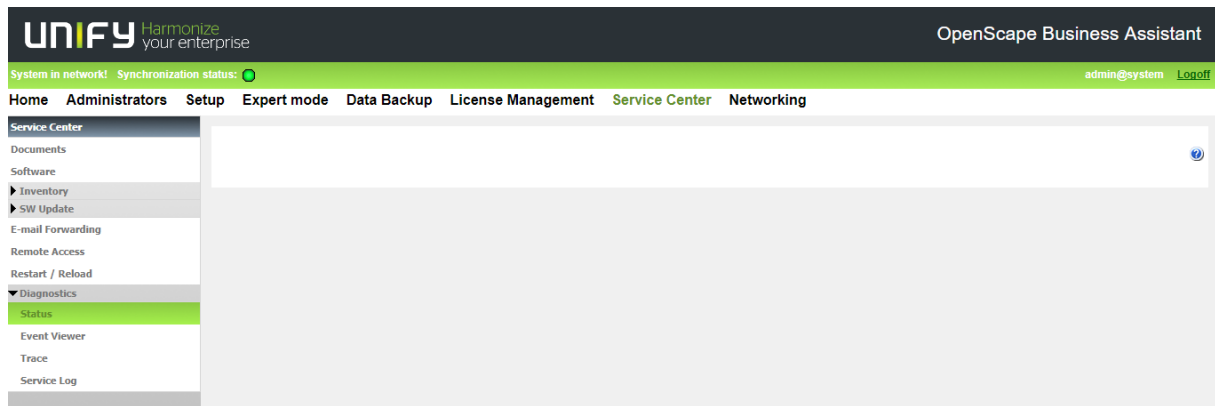
The screenshot displays the 'Expert mode - Telephony Server' window. On the left, a tree view shows the hierarchy: 'Trunks/Routing' (expanded), 'Trunks', 'Route' (expanded), 'ISDN', 'Trk Grp. 2' through 'Trk Grp. 11', 'BT Wholesale' (highlighted), 'Trk Grp. 13' through 'Trk Grp. 15', 'Networking', 'QSIG-Feature', 'MSN assign', and 'ISDN Parameters'. The main area is titled 'Route' and contains three tabs: 'Change Route', 'Change Routing Parameters' (selected), and 'Special Parameter change'. The 'Change Routing Parameters' tab is divided into three sections: 'Routing flags', 'Rerouting', and 'Always use DSP'. The 'Routing flags' section includes checkboxes for 'Digit repetition on:', 'Analysis of second dial tone / Trunk monitoring:', 'Intercept per direction:', 'Over. service 3.1 kHz audio:', 'Add direction prefix incoming:' (checked), 'Add direction prefix outgoing:' (checked), 'Call No. with international / national prefix:', 'Ringback tone to CO:', 'Name in CO:', 'Segmentation:' (set to 'yes'), 'deactivate UUS per route:', and 'Always use DSP:'. The 'Rerouting' section includes 'Analog trunk seizure:' (set to 'no pause'), 'Trunk call pause:' (set to 'Pause 2 s'), 'Type of seizure:' (set to 'linear'), 'Route type:' (set to 'CO'), 'No. and type, outgoing:' (set to 'Country code'), and 'Call number type:' (set to 'Direct inward dialing'). The 'Always use DSP' section includes 'Change route allowed:' (unchecked) and 'Route optimize active:' (set to 'No'). At the bottom, there are 'Apply', 'Undo', and 'Help' buttons.

LCR changes (optional)

In V2R3 all necessary LCR rule will be created automatically.

How to check the status of SIP connection with BT Wholesale Hosted Centrex

“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

Trunk Features:

The main purpose of this document is to give guidance on configuring the SIP trunk between the ITSP and OpenScape Business. There are a suite of features provided at a trunk level which can be used to introduce additional functionality to the ITSP, however, there are limitations on which features are and are not supported with OpenScape Business.

The below tables aim to give an overview of supported and unsupported features. For full information on configuring these features please refer to documentation provided by BT Wholesale as part of their platform.

Where DDIs are configured with appropriate licensing features can be configured at a per DDI level. Where this licensing is not in place limited features (such as diverts etc.) can be configured at a trunk level for all DDIs assigned to that trunk.

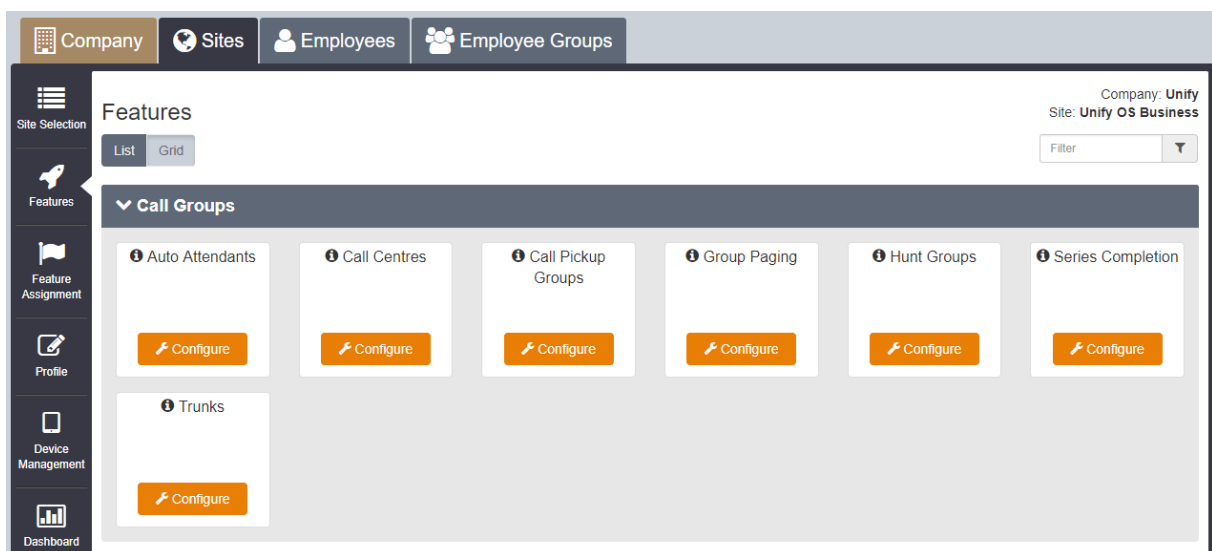
Openscape Business can only support external numbers in certain formats, due to this it is not possible to support multi-site dialling via BT Wholesale Communications. Where multi-site dialling is required it is recommend to look at alternative methods such as Openscape Business Networking or Device@Home

Site level features

Features situated at a site level aim to introduce additional functionality to call routing before reaching the PBX and in most cases, are used to route calls to multiple DDIs.

Configuration for these features is completed via:

Company > Select Company > Sites > Select Site > Features

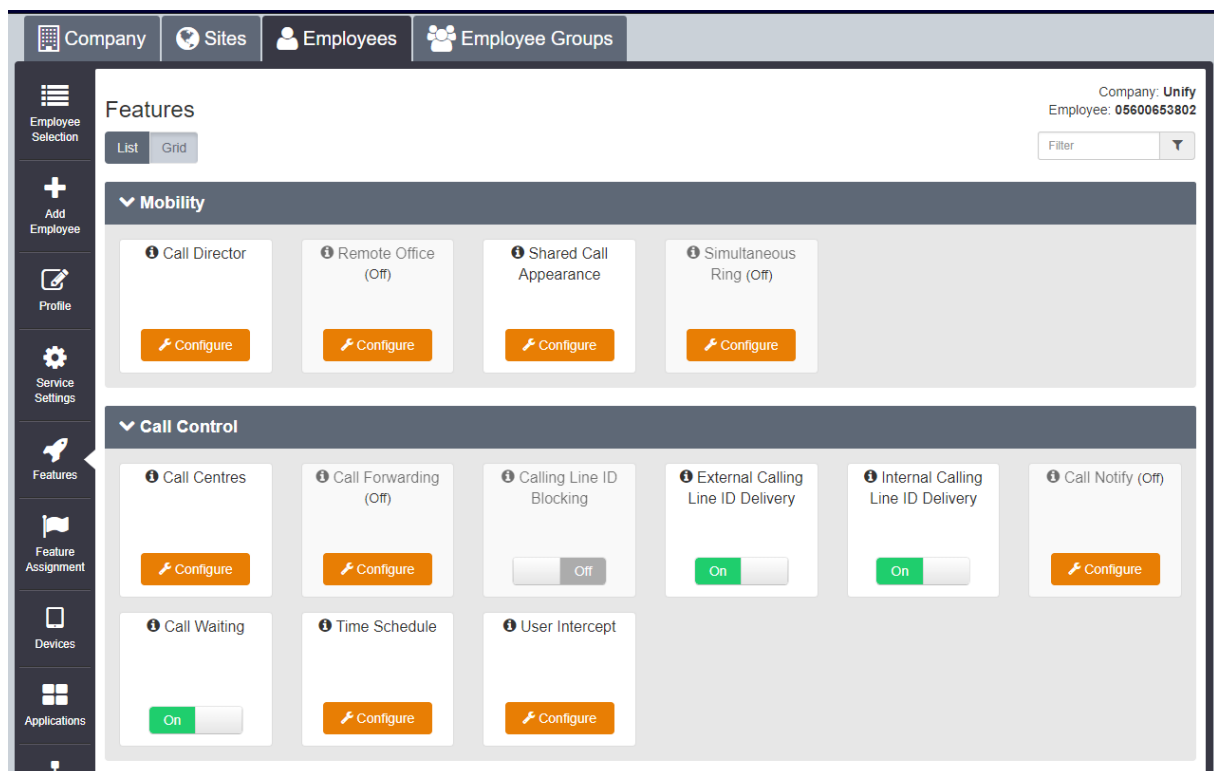


Feature	Usage example	Support in OpenScape Business
Auto Attendant	Cloud based Auto Attendant able to divert to Multiple Sites where a WAN or VPN isn't available for native Openscape Business networking	Supported

Feature	Usage example	Support in OpenScape Business
Call Centre	Cloud based queueing allowing a limited number of SIP trunks to be fitted and Queue further calls in the cloud	Supported
Call Pickup Groups	-	Not supported
Group Paging	-	Not supported
Hunt Group	Hunt group functionality across multiple sites	Supported
Series Completion	Hunt Group functionality – used in conjunction with other features as an intercept when lines are busy.	
Trunks	The primary use case for configuring the SIP trunk connection to OpenScape Business as well as defining overflow / trunk level diverts to alternate destinations	Supported

User level features

Features situated at a user level interact on a per DDI basis (where a DDI is configured to have this additional functionality)



Feature	Usage example	Support in OpenScape Business	Minimum SIPT User License required
Call Director	Allows calls to be signalled to multiple destinations (PBX Deskphone, mobile,	Supported	Fixed User

Feature	Usage example	Support in OpenScape Business	Minimum SIPT User License required
	etc.) and for calls to be moved between these devices		
Remote Office	Allows a remote destination to receive incoming calls for the DDI	Supported	Fixed User
Shared Call Appearance	Allows additional devices to be added to the DDI user to both ring simultaneously and to make outbound calls as the user. This feature also allows for calls to be moved between these devices	Supported	Fixed User
Simultaneous Ring	Allows calls to be signalled to multiple destinations	Supported	Fixed User
Call Centres	Allows users to sign in / out of a call centre queue and change their agent status * User must be added to a call centre for this option to be available	Supported	Trunking User*
Call Forwarding	Trunking User license allows for Forward when not reachable (e.g. SIP not registered) * Higher licenses allow for Call Forward Always, Busy and No Answer	CF Always & Not Reachable – Supported CF Busy & No Answer – Recommend to handle on PBX Call Management	Trunking User*
Calling Line ID Blocking	Blocks Outbound CLI Display	Supported but recommend to leave disable and handle via PBX	Trunking User
External Calling Line ID Delivery	Allows for display / hiding of external caller information	Supported	Trunking User
Internal Calling Line ID Delivery	Allows for display / hiding of on-platform caller information. This only functions when calls route via the ITSP platform	Supported	Trunking User
Call Notify	Email notification when a user receives a call	Supported	Fixed User
Call Waiting		Not Supported	Trunking User
Time Schedule	Used in conjunction with other features to define activation at specific times	n/a	Trunking User
User Intercept	Allows calls to be intercepted with an announcement and callers given either	Supported	Functional User

Feature	Usage example	Support in OpenScape Business	Minimum SIPT User License required
	an alternate number or “Transfer on 0” option. Used when a number needs to be taken out of service		