

# OpenScape Business V2

## BT Wholesale SIP Trunking (WSIPT) UK ITSP SIP Trunk Configuration

### BT Wholesale SIP Trunking (WSIPT) UK ITSP SIP Trunk Configuration

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## 1 Introduction

The purpose of this document is to provide an aide memoir for the configuration of SIP trunks for the BT Wholesale SIP Trunking (WSIPT) ITSP in the UK.

## 2 Configuration

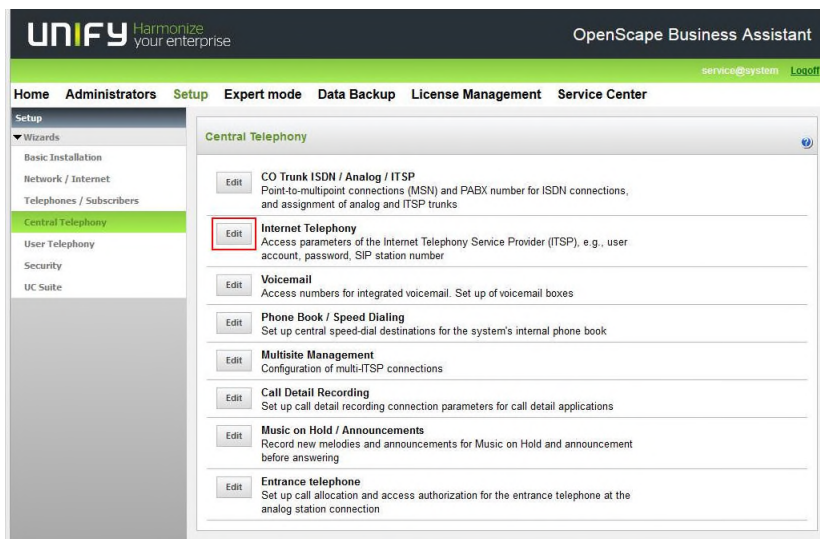
Most of the configuration should be carried-out using the built-in configuration wizards within OpenScape Business Assistant. Launch OpenScape Business Assistant and log-in.

### 2.1 Internet Telephony Configuration Wizard

Launch the **Internet Telephony** wizard, navigate to:

**Setup > Wizards > Central Telephony > Internet Telephony**

1. Click on the **Edit** button.



2. The **Overview** page appears for entering location data. The most flexible configuration method is to enter only the **Country code** on this page (e.g. 44 for the UK) and then enter the remaining digits as the **DID** number (minus the leading 0) against the station / group.

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## BT Wholesale SIP Trunking (WSIPT) UK ITSP SIP Trunk Configuration

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)

Help Abort Back OK & Next

Click on the **OK & Next** button.

- At the next page disable the **No call via Internet** flag and select 'United Kingdom' using the **Country specific view** drop-down list. Next to 'BT Wholesale SIP Trunking (WSIPT)' enable the **Activate Provider** flag and then click on the **Edit** button.

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"/>	Broadcloud
Edit	<input type="checkbox"/>	BT IPVS
Edit	<input checked="" 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
Edit	<input type="checkbox"/>	HIPCOM
Edit	<input type="checkbox"/>	KCOM
Edit	<input type="checkbox"/>	OPAL
Edit	<input type="checkbox"/>	Skype Connect
Edit	<input type="checkbox"/>	Skype for Business
Edit	<input type="checkbox"/>	TalkTalk
Edit	<input type="checkbox"/>	Tipicall
Edit	<input type="checkbox"/>	Verizon
Edit	<input type="checkbox"/>	Vodafone Anlagenanschluss R3

Help Abort Back OK & Next Display Status

- The **Provider Proxy IP Address / Host name** will contain a dummy value (e.g. enter.ip.address).

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## BT Wholesale SIP Trunking (WSIPT) UK ITSP SIP Trunk Configuration

Setup - Wizards - Central Telephony - Internet Telephony

Internet Telephony Service Provider

Provider Name: BT Wholesale SIP Trunking (WSIPT)  
 Enable Provider: ☒  
 Secure Trunk: ☐  
 Domain Name: sipbt.bt.com

**Provider Registrar**

Use Registrar: ☐  
 IP Address / Host name:   
 Port: 5060  
 Reregistration Interval at Provider (sec): 300

**Provider Proxy**

IP Address / Host name: enter ip address  
 Port: 5060

**Provider Outbound Proxy**

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

Help Abort Back OK & Next Delete Data

Please enter the IP address or host name provided by BT into this field (e.g. 62.239.32.253).

Setup - Wizards - Central Telephony - Internet Telephony

Internet Telephony Service Provider

Provider Name: BT Wholesale SIP Trunking (WSIPT)  
 Enable Provider: ☒  
 Secure Trunk: ☐  
 Domain Name: sipbt.bt.com

**Provider Registrar**

Use Registrar: ☐  
 IP Address / Host name:   
 Port: 5060  
 Reregistration Interval at Provider (sec): 300

**Provider Proxy**

IP Address / Host name: 62.239.32.253  
 Port: 5060

**Provider Outbound Proxy**

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

Help Abort Back OK & Next Delete Data

Click on the **OK & Next** button.

- At the next page click on the **Add** button.

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## BT Wholesale SIP Trunking (WSIPT) UK ITSP SIP Trunk Configuration

- Enter the lowest DDI number in the range provided by BT into the **Internet telephony station** box. This number should be entered in canonical format for BT WSIPT as shown in the screenshot (e.g. +442380170422).

The **Authorization name**, **Password** and **Confirm Password** boxes are greyed-out because BT WSIPT does not support registration, only static IP authentication is supported.

Enter the main number in the DDI range as the **Default Number**; this number will be presented as the CLI on outgoing calls from stations with no DDI number assigned. This number should be entered in canonical format for BT WSIPT as shown in the screenshot (e.g. +442380170422).

Click on the **OK & Next** button.

- At the next page click on the **OK & Next** button.

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## BT Wholesale SIP Trunking (WSIPT) UK ITSP SIP Trunk Configuration

Name of Internet Telephony Station
+442380170422

8. At the next page click on the **OK & Next** button as we are routing via the **DID** assigned directly to the station / group.

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)

9. At the next page click on the **OK & Next** button.

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## BT Wholesale SIP Trunking (WSIPT) UK ITSP SIP Trunk Configuration

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	Broadcloud
Edit	BT IPVS
Edit	<input checked="" 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
Edit	<input type="checkbox"/> HIPCOM
Edit	<input type="checkbox"/> KCOM
Edit	<input type="checkbox"/> OPAL
Edit	<input type="checkbox"/> Skype Connect
Edit	<input type="checkbox"/> Skype for Business
Edit	<input type="checkbox"/> TalkTalk
Edit	<input type="checkbox"/> Tipical
Edit	<input type="checkbox"/> Verizon
Edit	<input type="checkbox"/> Vodafone Anlagenanschluss R3

Help Abort Back OK & Next Display Status

10. At the next page enter the upstream speed of your Internet connection in the **Upstream up to (Kbps)** box, the wizard will then automatically calculate the maximum **Number of simultaneous Internet Calls** possible. Click on the **Distribute Lines** button to automatically configure the correct number of SIP trunks.

Setup - Wizards - Central Telephony - Internet Telephony

Settings for Internet Telephony

**Simultaneous Internet Calls**

Available Lines for ITSP: 171

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) = 512

In the 'Change Feature -> Internet Telephony' Assistant. This upstream allows you to conduct up to 4 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): 512

Number of Simultaneous Internet Calls: 4 **Distribute Lines**

Internet Telephony Service Provider	Configured Lines	Assigned Lines
BT Wholesale SIP Trunking (WSIPT)	0	0

Help Abort Back OK & Next Display Status

Click on the **OK & Next** button.

11. On the next page emergency and special numbers that cannot be routed via the ITSP must be configured. Usually emergency calls are routed via ISDN or analogue trunks if possible. However, if the customer does not have ISDN or analogue trunks then emergency calls can be routed over the ITSP trunks. If this is the case change the **Dial over Provider** to 'BT Wholesale SIP Trunking (WSIPT)' using the drop-down list for these numbers.

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## BT Wholesale SIP Trunking (WSIPT) UK ITSP SIP Trunk Configuration

Special phone numbers

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.

Special phone number	Dialed digits	Dial over Provider
1	9C112	ISDN ▼
2	9C999	ISDN ▼
3		ISDN ▼
4		ISDN ▼
5		ISDN ▼
6		ISDN ▼
7		ISDN ▼
8		ISDN ▼
9		ISDN ▼
10		ISDN ▼
11		ISDN ▼
12		ISDN ▼
13		ISDN ▼
14		ISDN ▼
15		ISDN ▼

Help Abort Back OK & Next

Make any required changes and then click on the **OK & Next** button.

- At the next screen 'BT Wholesale SIP Trunking (WSIPT)' should be shown with a green indicator, if this is not the case click on the **Diagnose** button for additional diagnostic information.

Status for the Internet Telephony Service Provider (ITSP)

Provider	User
BT Wholesale SIP Trunking (WSIPT)	Enabled +442380170422 registered

Restart Diagnose

Help Abort Back Next

Click on the **Next** button.

- At the next screen assign the **Trunk Access Code** to the 'BT Wholesale SIP Trunking (WSIPT)' route and enter the **Local area code** for this Internet telephony station minus the leading 0 (e.g. 23).

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## BT Wholesale SIP Trunking (WSIPT) UK ITSP SIP Trunk Configuration

Setup - Wizards - Central Telephony - Internet Telephony

Exchange Line Seizure

Exchange Line Seizure

Trunk Access Code: 88

Dial over Provider: BT Wholesale SIP Trunking (WSIPT)

Area Code

Please enter the local area code.

Local area code: 0 23

Help Abort Back OK & Next

Click on the **OK & Next** button.

14. At the next screen the seizure codes for external calls are displayed.

Setup - Wizards - Central Telephony - Internet Telephony

Seizure Code for the 'Outside line Seizure'

ISDN	Seizure code for 'Outside line Seizure'
88	
BT Wholesale SIP Trunking (WSIPT)	9

Help Abort Back OK & Next

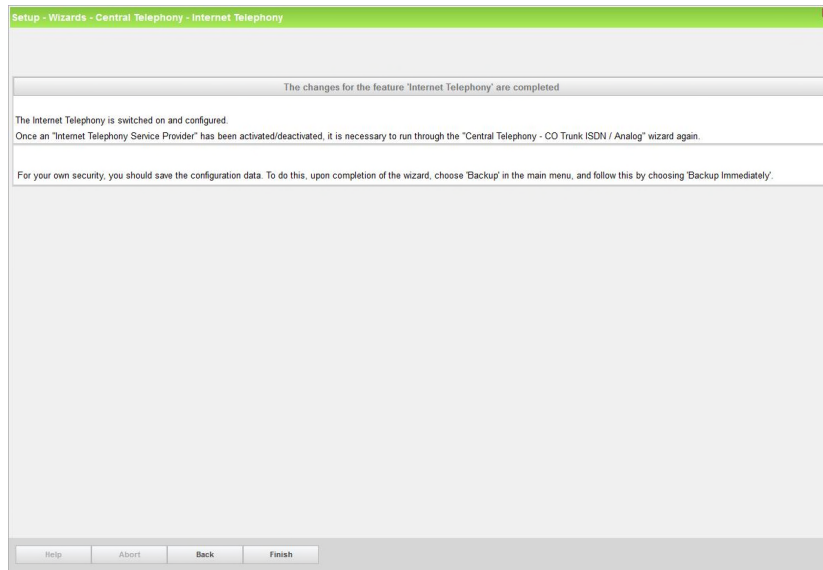
Click on the **OK & Next** button.

15. Configuration is complete.



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## BT Wholesale SIP Trunking (WSIPT) UK ITSP SIP Trunk Configuration



Click on the **Finish** button.

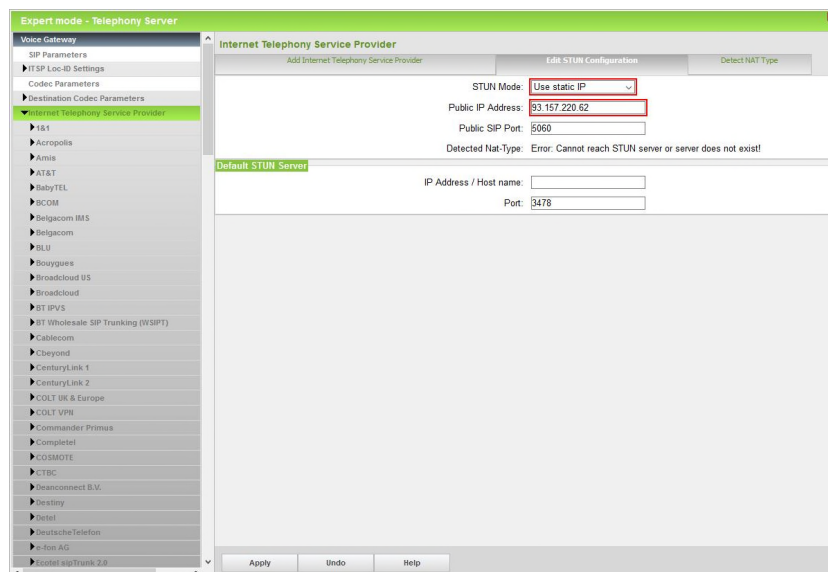
## 2.2 STUN Configuration

BT WSIPT only support a static public IP address and do not provide a STUN server.

In the OpenScape Business STUN must be disabled and the static public IP address must be configured, navigate to:

**Expert mode > Telephony Server > Voice Gateway > Internet Telephony Service Provider > Edit STUN Configuration**

Change **STUN Mode** to 'Use static IP' using the drop-down list and enter the static **Public IP Address** in the field underneath.



Click on the **Apply** button.

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## BT Wholesale SIP Trunking (WSIPT) UK ITSP SIP Trunk Configuration

**NOTE #1** In order to disable STUN for a particular ITSP on OpenScape Business the ITSP profile has to be configured with the **Use STUN** flag enabled and a dummy STUN server has to be configured in the **IP address / Host name** field (e.g. use.static.ip) as this field cannot be empty. This is preconfigured for the BT Wholesale SIP Trunking (WSIPT) profile and can be seen in **Expert mode**.

## 2.3 Route Configuration

The BT Wholesale SIP Trunking (WSIPT) SIP trunk route configuration will be automatically configured by the BT Wholesale SIP Trunking (WSIPT) profile. However, it is worth checking that the **No. and type, outgoing** parameter is set correctly for the 'BT Wholesale SIP Trunking (WSIPT)' trunk route. This parameter can be checked in **Expert mode**.

Navigate to:

**Expert mode > Telephony Server > Trunks/Routing > Route**

Select the 'BT Wholesale SIP Trunking (WSIPT)' route in the left-hand pane and select the **Change Routing Parameters** tab in the right-hand pane.

For BT WSIPT the **No. and type, outgoing** parameter should be set to 'Country code' using the drop-down list.

Click on the **Apply** button if any changes were made.

## 2.4 Station / Group DDI Assignment

### 2.4.1 Station DDI Assignment

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## BT Wholesale SIP Trunking (WSIPT) UK ITSP SIP Trunk Configuration

The DDI numbers provided by BT should now be assigned to stations' using the appropriate wizard.

Navigate to:

### Setup > Wizards > Telephones / Subscribers

Select the appropriate wizard (e.g. **UP0 Telephones**) depending on the installed telephone type.

If only the **Country code** was configured in section 2.1 step 2 (recommended) then the DDI numbers provided by BT are entered directly at the station in the **DID** column (minus the leading 0), e.g. 02380170422 would be entered as 2380170422.

Box	Slot	UP0 Port	Callno	First Name	Last Name	Display	DID	Fax Callno	Fax DID	Class of service
1	1	1 M	100	-	-	-	1191234567	-	-	International
1	1	2 M	101	-	-	-	2380170422	-	-	International
1	1	3 M	102	-	-	-	-	-	-	International
1	1	4 M	103	-	-	-	-	-	-	International
1	1	5 M	104	-	-	-	-	-	-	International
1	1	6 M	105	-	-	-	-	-	-	International
1	1	7 M	106	-	-	-	-	-	-	International
1	1	8 M	107	-	-	-	-	-	-	International
1	27	1	749	-	-	-	-	-	-	International

Click on the **Save Data** button after assigning all the required BT DDI numbers. Either click on the **OK & Next** button to continue with the wizard or close the window.

Repeat the procedure with the other wizards in this area if the customer has other telephone types and DDI numbers need to be assigned.

### 2.4.2 Group Call / Hunt Group DDI Assignment

DDI numbers can be assigned to group call / hunt groups using the **Group Call / Hunt Group** wizard.

Navigate to:

### Setup > Wizards > User Telephony > Group Call / Hunt Group

Enter any required DDI numbers into the **DID** column of the required group call / hunt group.

Click on the **OK & Next** button followed by the **Finish** button to complete the wizard.

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## BT Wholesale SIP Trunking (WSIPT) UK ITSP SIP Trunk Configuration

### 2.5 Multi-Site Configuration

If ITSPs are configured with different area codes (e.g. area code 023 and 0119) either from the same ITSP or different ITSPs the system should be configured for multi-site. This allows each area code / location to be tied to a particular station and ITSP trunk route.

This has the advantage of allowing a station to dial a local number without the area code and the OpenScape Business system can then automatically insert the correct area code to enable the call to route successfully and also seize the correct ITSP trunk route.

Proceed as follows to configure multi-site working.

Navigate to:

**Setup > Wizards > Central Telephony > Multisite Management**

1. Define each **Area Code** provided by all configured ITSPs. The **Area Code** at the top of the table (default value 0) is the default area code that will be applied to all stations (e.g. 023). Enter additional area codes below the default entry (e.g. 0119). For each area code enter the location in the **Area** field (e.g. Southampton, Newtown). Also define the **Dedicated Route** to be used for each area code (e.g. 'BT Wholesale SIP Trunking (WSIPT)').

	Delete	Area Code	Area	Dedicated Route
1	<input type="checkbox"/>	023	Shampton	BT Wholesa
2	<input type="checkbox"/>	0119	Newtown	-
3	<input type="checkbox"/>			-
4	<input type="checkbox"/>			-
5	<input type="checkbox"/>			-
6	<input type="checkbox"/>			-
7	<input type="checkbox"/>			-
8	<input type="checkbox"/>			-

Click on the **OK & Next** button.

2. On the next screen all stations will be set to the default **Area** (e.g. Southampton). Next, using the **Selection** flag select all stations that share one of the other area codes (e.g. Newtown). Select 'Newtown' from the **to area** drop-down list and click on the **Save** button.

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## BT Wholesale SIP Trunking (WSIPT) UK ITSP SIP Trunk Configuration

Setup - Wizards - Network / Internet - Multisite Management

Assign stations and groups to the corresponding area

Move from area: all to area: Newtown

Selection	Callno	DID	Display	Type	Area
<input checked="" type="checkbox"/>	100	1191234567	-	UP0 Station	Shampton
<input type="checkbox"/>	101	2380170422	-	UP0 Station	Shampton
<input type="checkbox"/>	102	-	-	UP0 Station	Shampton
<input type="checkbox"/>	103	-	-	UP0 Station	Shampton
<input type="checkbox"/>	104	-	-	UP0 Station	Shampton
<input type="checkbox"/>	105	-	-	UP0 Station	Shampton
<input type="checkbox"/>	106	-	-	UP0 Station	Shampton
<input type="checkbox"/>	107	-	-	UP0 Station	Shampton
<input type="checkbox"/>	108	-	AA	Virtual Stn	Shampton
<input type="checkbox"/>	109	-	IVM SDD	Virtual Stn	Shampton
<input type="checkbox"/>	110	-	-	ISDN station	Shampton
<input type="checkbox"/>	111	-	-	ISDN station	Shampton
<input type="checkbox"/>	112	-	-	ISDN station	Shampton
<input type="checkbox"/>	113	-	-	ISDN station	Shampton
<input type="checkbox"/>	114	-	-	ISDN station	Shampton
<input type="checkbox"/>	115	-	-	System Client	Shampton
<input type="checkbox"/>	124	-	-	System Client	Shampton
<input type="checkbox"/>	125	2380170423	-	System Client	Shampton
<input type="checkbox"/>	126	-	-	P.O.T.	Shampton
<input type="checkbox"/>	127	2380170425	-	P.O.T.	Shampton
<input type="checkbox"/>	128	-	-	P.O.T.	Shampton
<input type="checkbox"/>	129	-	-	P.O.T.	Shampton

☐ Select all

Help Abort Back OK & Next Save

The **Area** for the selected stations will now change to the selected location (e.g. Newtown).

Setup - Wizards - Network / Internet - Multisite Management

Assign stations and groups to the corresponding area

Move from area: all to area: Newtown

Selection	Callno	DID	Display	Type	Area
<input type="checkbox"/>	100	1191234567	-	UP0 Station	Newtown
<input type="checkbox"/>	101	2380170422	-	UP0 Station	Shampton
<input type="checkbox"/>	102	-	-	UP0 Station	Shampton
<input type="checkbox"/>	103	-	-	UP0 Station	Shampton
<input type="checkbox"/>	104	-	-	UP0 Station	Shampton
<input type="checkbox"/>	105	-	-	UP0 Station	Shampton
<input type="checkbox"/>	106	-	-	UP0 Station	Shampton
<input type="checkbox"/>	107	-	-	UP0 Station	Shampton
<input type="checkbox"/>	108	-	AA	Virtual Stn	Shampton
<input type="checkbox"/>	109	-	IVM SDD	Virtual Stn	Shampton
<input type="checkbox"/>	110	-	-	ISDN station	Shampton
<input type="checkbox"/>	111	-	-	ISDN station	Shampton
<input type="checkbox"/>	112	-	-	ISDN station	Shampton
<input type="checkbox"/>	113	-	-	ISDN station	Shampton
<input type="checkbox"/>	114	-	-	ISDN station	Shampton
<input type="checkbox"/>	115	-	-	System Client	Shampton
<input type="checkbox"/>	124	-	-	System Client	Shampton
<input type="checkbox"/>	125	2380170423	-	System Client	Shampton
<input type="checkbox"/>	126	-	-	P.O.T.	Shampton
<input type="checkbox"/>	127	2380170425	-	P.O.T.	Shampton
<input type="checkbox"/>	128	-	-	P.O.T.	Shampton
<input type="checkbox"/>	129	-	-	P.O.T.	Shampton

☐ Select all

Help Abort Back OK & Next Save

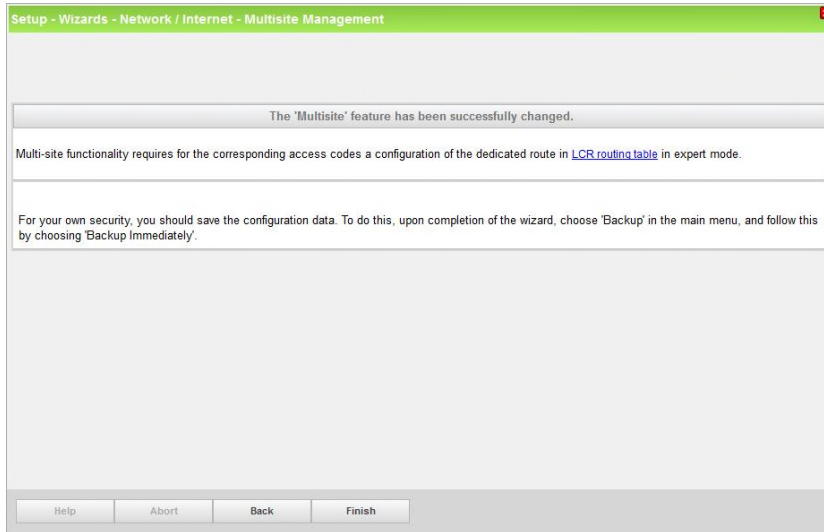
Repeat the procedure for other stations and areas.

Click on the **OK & Next** button.

- Multi-site configuration is complete, click on the **Finish** button.

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## BT Wholesale SIP Trunking (WSIPT) UK ITSP SIP Trunk Configuration



As stated on the final screen, LCR must be configured to route all configured area codes to their respective dedicated route.