

OpenScape Business V2

Vodafone 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 Vodafone ITSP in the UK.

2 Configuration

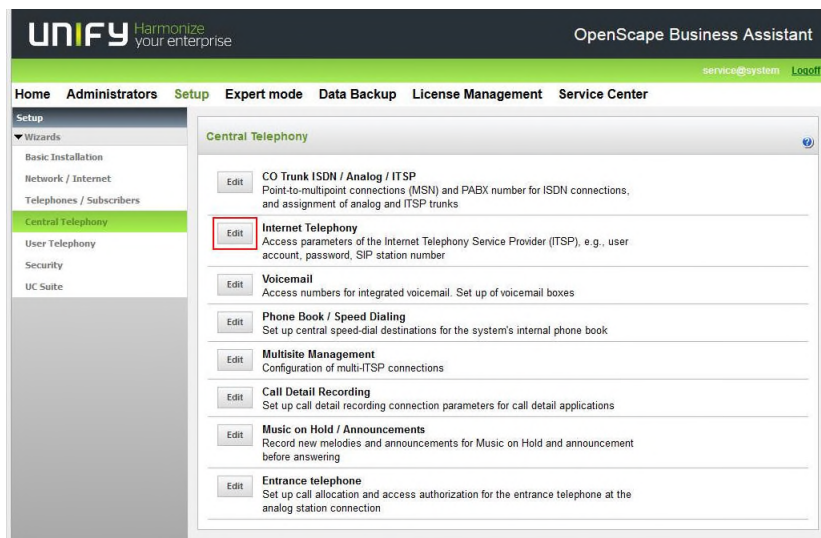
Most of the configuration should be carried-out using the built-in configuration wizards within OpenScape Business Assistant. Launch OpenScape Business Assistant and log-in.

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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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 'Vodafone UK' 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	BT IPVS
Edit	COLT UK & Europe
Edit	COLT VPN
Edit	Gamma StaticIP
Edit	Gamma with Register
Edit	HIPCOM
Edit	KCOM
Edit	OPAL
Edit	Skype Connect
Edit	TalkTalk
Edit	Tipicall
Edit	Verizon
Edit	Vodafone Anlagenanschluss R3
Edit	Vodafone UK
Edit	Voiceflex
Edit	VoIP Ltd i-Line

Help Abort Back OK & Next Display Status

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

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Setup - Wizards - Central Telephony - Internet Telephony

Internet Telephony Service Provider

Provider Name: Vodafone UK

Enable Provider: ☒

Secure Trunk: ☐

Domain Name: enter ip.address

Provider Registrar

Use Registrar: ☐

IP Address / Host name:

Port: 5060

Reregistration Interval at Provider (sec): 600

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 Vodafone into each field (e.g. 192.168.71.197). The IP address or host name will be communicated via an e-mail from the Vodafone Solution Consultant.

Setup - Wizards - Central Telephony - Internet Telephony

Internet Telephony Service Provider

Provider Name: Vodafone UK

Enable Provider: ☒

Secure Trunk: ☐

Domain Name: 192.168.71.197

Provider Registrar

Use Registrar: ☐

IP Address / Host name:

Port: 5060

Reregistration Interval at Provider (sec): 600

Provider Proxy

IP Address / Host name: 192.168.71.197

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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Setup - Wizards - Central Telephony - Internet Telephony

Internet Telephony Stations for Vodafone UK

Name of Internet Telephony Station
New Internet Telephony Station

Buttons: Help, Abort, Back, OK & Next

6. Enter the lowest DDI number in the range provided by Vodafone UK into the **Internet telephony station** box. This number should be entered in canonical format for Vodafone UK as shown in the screenshot (e.g. +441491601160).

The **Authorization name**, **Password** and **Confirm Password** boxes are greyed-out because Vodafone UK do 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 Vodafone UK as shown in the screenshot (e.g. +441491601160).

Setup - Wizards - Central Telephony - Internet Telephony

Internet Telephony Station for Vodafone UK

Internet telephony station: +441491601160

Authorization name: (greyed-out)

Password: (greyed-out)

Confirm Password: (greyed-out)

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!

ITSP-multiple route: ☐

Default Number: +441491601160

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.

Buttons: Help, Abort, Back, OK & Next, Delete Data

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

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

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Vodafone UK ITSP SIP Trunk Configuration

Setup - Wizards - Central Telephony - Internet Telephony

Internet Telephony Stations for Vodafone UK

Name of Internet Telephony Station	
Edit	+441491601160

Help Abort Back OK & Next

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

Setup - Wizards - Central Telephony - Internet Telephony

Call Number Assignment for Vodafone UK

Name of Internet Telephony Station	Internet Telephony Phone Number	Direct inward dialing	Use as PABX number for outgoing calls
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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

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

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Activate Provider	Internet Telephony Service Provider
<input type="checkbox"/>	Other Provider
<input type="checkbox"/>	BT IPVS
<input type="checkbox"/>	COLT UK & Europe
<input type="checkbox"/>	COLT VPN
<input type="checkbox"/>	Gamma StaticIP
<input type="checkbox"/>	Gamma with Register
<input type="checkbox"/>	HIPCOM
<input type="checkbox"/>	KCOM
<input type="checkbox"/>	OPAL
<input type="checkbox"/>	Skype Connect
<input type="checkbox"/>	TalkTalk
<input type="checkbox"/>	Tipcall
<input type="checkbox"/>	Verizon
<input type="checkbox"/>	Vodafone Anlagenanschluss R3
<input checked="" type="checkbox"/>	Vodafone UK
<input type="checkbox"/>	Voicellex
<input type="checkbox"/>	VoIP Ltd i-Line

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.

Internet Telephony Service Provider	Configured Lines	Assigned Lines
Vodafone UK	0	4

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 'Vodafone UK' using the drop-down list for these numbers.

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Vodafone UK ITSP SIP Trunk Configuration

Setup - Wizards - Central Telephony - Internet Telephony

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.

12. At the next screen 'Vodafone UK' should be shown with a green indicator, if this is not the case click on the **Diagnose** button for additional diagnostic information.

Setup - Wizards - Central Telephony - Internet Telephony

Status for the Internet Telephony Service Provider (ITSP)

	Provider	Enabled	User	
	Vodafone UK	Enabled	+441491601160	registered

Restart Diagnose

Help Abort Back Next

Click on the **Next** button.

13. At the next screen assign the **Trunk Access Code** to the 'Vodafone UK' route and enter the **Local area code** for this Internet telephony station minus the leading 0 (e.g. 1491).

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Vodafone UK ITSP SIP Trunk Configuration

The screenshot shows the 'Exchange Line Seizure' window in the 'Setup - Wizards - Central Telephony - Internet Telephony' wizard. The window has a title bar with a close button. The main content area is divided into sections. The 'Exchange Line Seizure' section contains a 'Trunk Access Code' field with the value '88'. Below it is a 'Dial over Provider' dropdown menu with 'Vodafone UK' selected. The 'Area Code' section contains a 'Please enter the local area code.' label and a 'Local area code' field with the value '1491'. At the bottom of the window are four buttons: 'Help', 'Abort', 'Back', and 'OK & Next'.

Exchange Line Seizure	
Trunk Access Code	88
Dial over Provider	Vodafone UK
Area Code	
Please enter the local area code.	Local area code: 0 1491

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

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

The screenshot shows the 'Seizure Code for the Outside line Seizure' window in the 'Setup - Wizards - Central Telephony - Internet Telephony' wizard. The window has a title bar with a close button. The main content area contains a table with the following data:

Seizure code for 'Outside line Seizure'	
ISDN	88
Vodafone UK	9

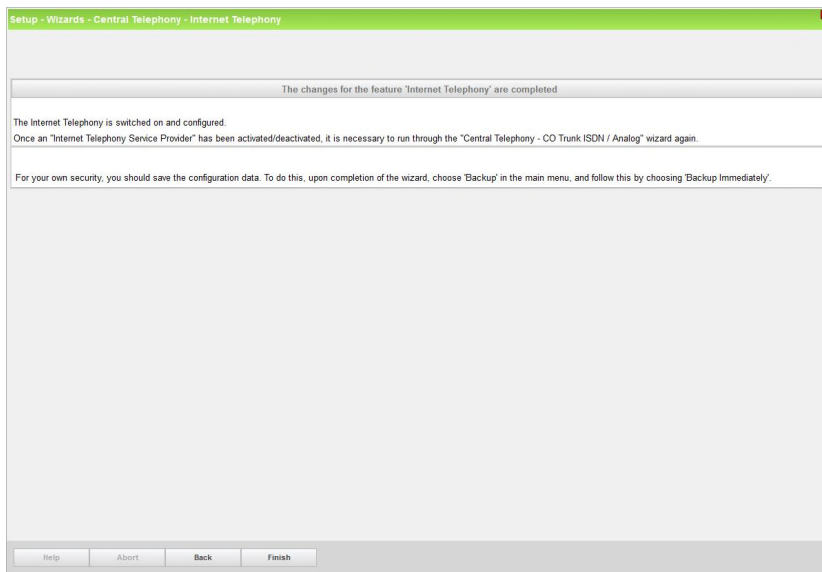
At the bottom of the window are four buttons: 'Help', 'Abort', 'Back', and 'OK & Next'.

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

15. Configuration is complete.

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Vodafone UK ITSP SIP Trunk Configuration



Click on the **Finish** button.

2.2 Route Configuration

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

Navigate to:

Expert mode > Telephony Server > Trunks/Routing > Route

Select the 'Vodafone UK' route in the left-hand pane and select the **Change Routing Parameters** tab in the right-hand pane.

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

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Vodafone UK ITSP SIP Trunk Configuration

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

2.3 Station / Group DDI Assignment

2.3.1 Station DDI Assignment

The DDI numbers provided by Vodafone UK 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 Vodafone UK are entered directly at the station in the **DID** column (minus the leading 0), e.g. 01491601160 would be entered as 1491601160.

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Vodafone UK ITSP SIP Trunk Configuration

Setup - Wizards - Telephones / Subscribers - UP0 Telephones

Select a station -UP0 Phones

☒ Take DID from changed call number

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	-	-	-	1491601160	-	-	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

Page 1 of 1

Items per page 10 25 50 100

Help Abort Back OK & Next Save Data

Click on the **Save Data** button after assigning all the required Vodafone UK 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.

2.3.2 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.

2.4 Multi-Site Configuration

If ITSPs are configured with different area codes (e.g. area code 01491 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

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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. 01491). Enter additional area codes below the default entry (e.g. 0119). For each area code enter the location in the **Area** field (e.g. Henley, Newtown). Also define the **Dedicated Route** to be used for each area code (e.g. 'Vodafone UK').

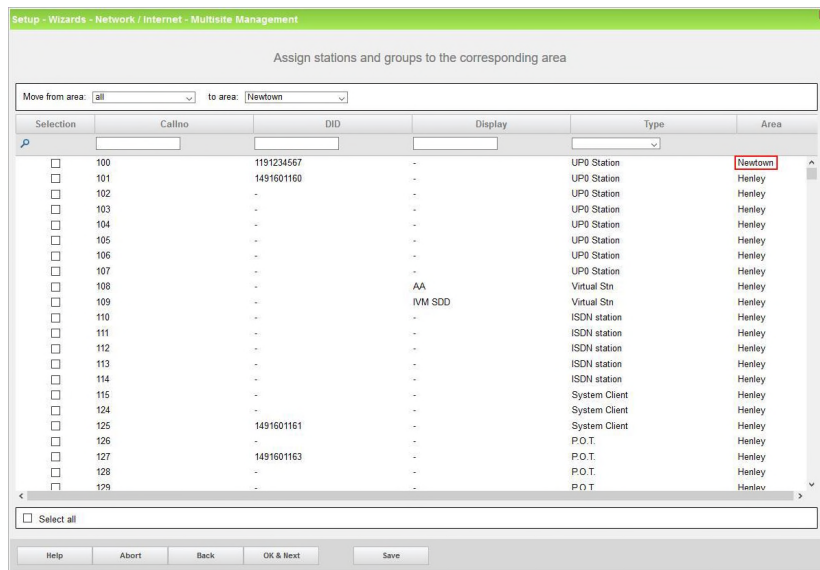
Click on the **OK & Next** button.

2. On the next screen all stations will be set to the default **Area** (e.g. Henley). 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.

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

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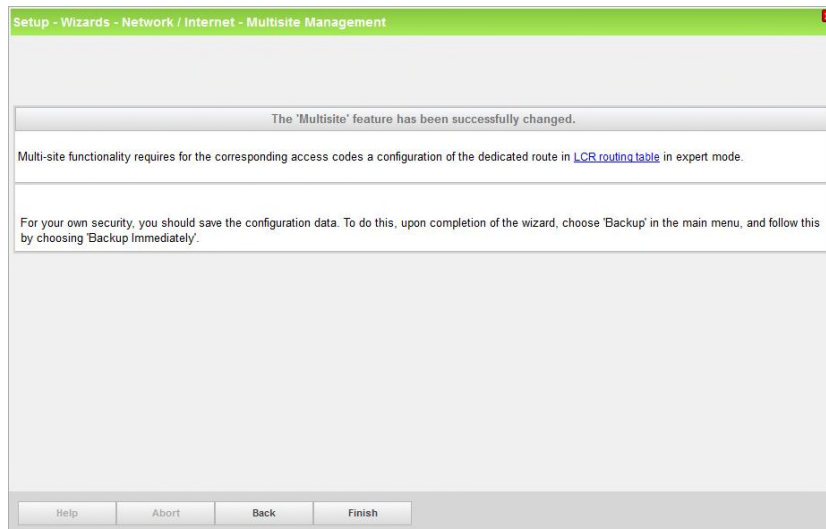
Vodafone UK ITSP SIP Trunk Configuration



Repeat the procedure for other stations and areas.

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

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



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