

# OpenScape Business V3

## How to Configure SIP Trunk for: Spark Voice Connect - New Zealand

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## About this document

This configuration guide describes an example of how to set up the SIP trunk **Spark Voice Connect** as an ITSP connection to the OpenScape Business.

**Note:** The basis for this document is the current OpenScape Business *V3R2.1*. 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.

<b>System</b>	OpenScape Business
<b>Released with Version</b>	<i>V3R2.1</i>
<i>Spark Voice Connect SIP</i>	<b>Features &amp; Capabilities</b>
<b>Account (DID/Client)</b>	<i>DID</i>
<b>Multisite</b>	<i>yes - single trunk</i>
<b>CLIP / CLIR</b>	<i>yes / yes</i>
<b>CLIP no Screening</b>	<i>yes</i>
<b>COLP</b>	<i>no</i>
<b>Call Forwarding (302)</b>	<i>no</i>
<b>DTMF (RFC2833/4733)</b>	<i>yes</i>
<b>Codecs G711/G729</b>	<i>yes / yes</i>
<b>T.38 Fax</b>	<i>yes</i>
<b>Secure trunk</b>	<i>no</i>

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## Table of History

Date	Version	Changes
2022-12-01	1.0	profile released with OpenScape Business V3R2.1

## Information

The Spark Voice Connect SIP-Trunk will be released for the first time with OpenScope Business V3R2 FR1.

## Trunk Configuration Data provided by Spark Voice Connect

The configuration data required to setup the SIP trunk is provided via email from your Spark account manager. The password is provided in a separate email. See example below –

Your Voice Connect SIP configuration details - [REDACTED]

VC\_Call\_Testing.pdf  
Voice\_Connect\_PBX\_Interface\_Guide\_v3\_02.pdf

<b>NTP server IP addresses:</b>	122.56.252.129 and 122.56.252.137												
<b>SIP Outbound proxy address (choose one):</b>	<table border="1"> <thead> <tr> <th>Preference</th> <th>PROXY ADDRESS - A RR</th> <th>PROXY ADDRESS - IP</th> </tr> </thead> <tbody> <tr> <td>First</td> <td>pak0102-p01.spark.co.nz</td> <td>122.56.253.231</td> </tr> <tr> <td>Second</td> <td>pro0102-p01.spark.co.nz</td> <td>122.56.254.167</td> </tr> <tr> <td>Third</td> <td>ric0102-p01.spark.co.nz</td> <td>122.56.255.167</td> </tr> </tbody> </table>	Preference	PROXY ADDRESS - A RR	PROXY ADDRESS - IP	First	pak0102-p01.spark.co.nz	122.56.253.231	Second	pro0102-p01.spark.co.nz	122.56.254.167	Third	ric0102-p01.spark.co.nz	122.56.255.167
Preference	PROXY ADDRESS - A RR	PROXY ADDRESS - IP											
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Second	pro0102-p01.spark.co.nz	122.56.254.167											
Third	ric0102-p01.spark.co.nz	122.56.255.167											
<b>SIP Realm:</b>	sip-net.spark.co.nz												
<b>Context/Authentication Digest Realm</b>	sip-vc.spark.co.nz												
<b>SIP Username:</b>	75714280												
<b>SIP Password:</b>	To be sent in separate email.												
<b>Channels:</b>	5												
<b>Test Numbers:</b>	75714278 to 75714279												
<b>New DDIs:</b>	75715670 to 75715679												

**Next:**

- Your PABX or IT person can use the above details to configure your PABX.
- Please note:
  - The Voice Connect Lead Number is toll barred for security reasons, and is not intended for use for direct calling.
  - The provided test numbers are live and ready to use for testing now, but will be disconnected after your production numbers are migrated.
  - The new numbers listed are live and ready to use immediately once your PBX is configured.
  - Your PABX system should have a Permit To Connect (PTC). For support in configuring your PABX, please contact the organisation who arranged the PTC.

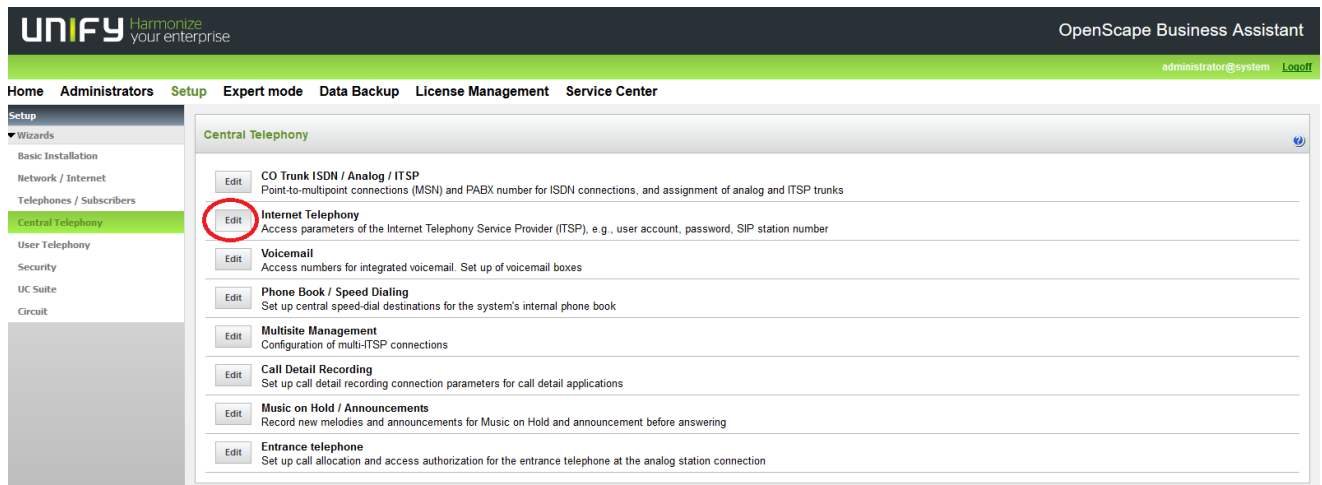
**Any questions? Get in touch**

If you have any questions in the meantime, please don't hesitate to get in touch. Reply to this email or call us on **0800 763 772, option 4**.

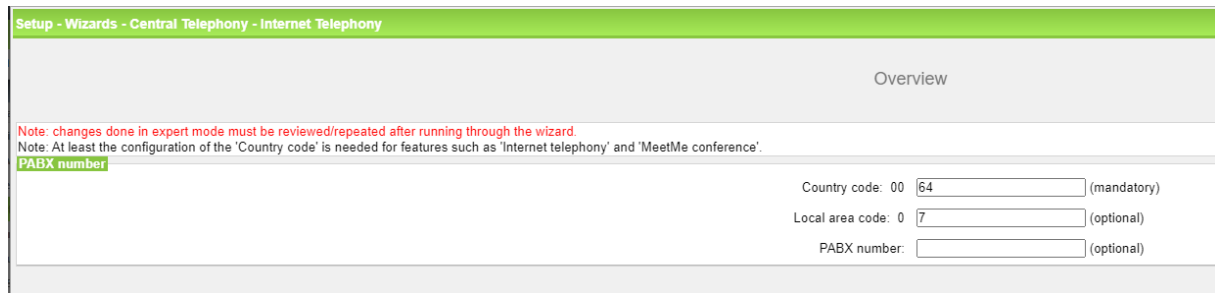
# Configuration Wizard

## 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: New Zealand and select "Spark Voice Connect".

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"/>	AAPT SIP Connect
<input type="button" value="Edit"/>	<input type="checkbox"/>	Broadcloud
<input type="button" value="Edit"/>	<input type="checkbox"/>	COLT UK & Europe
<input type="button" value="Edit"/>	<input type="checkbox"/>	COLT VPN
<input type="button" value="Edit"/>	<input type="checkbox"/>	gnTel
<input type="button" value="Edit"/>	<input type="checkbox"/>	Orcon Ltd
<input type="button" value="Edit"/>	<input type="checkbox"/>	Skype Connect
<input type="button" value="Edit"/>	<input type="checkbox"/>	Skype for Business
<input type="button" value="Edit"/>	<input checked="" type="checkbox"/>	Spark Voice Connect SIP
<input type="button" value="Edit"/>	<input type="checkbox"/>	Telstra Clear WSIP

Activate Provider and click on [Edit].

On the next page enter the following information:

- **Domain Name** the SIP Domain Name can be found in the Spark email – can be found in the section called SIP Realm.
- **Provider Registrar** - can be found under the section Context/Authentication
- **Provider Proxy** is the same as the Domain Name
- **Provider Outbound Proxy** is found on the same email under SIP Outbound proxy address (Choose one).

Setup - Wizards - Central Telephony - Internet Telephony

Internet Telephony Service Provider

Provider Name: Spark Voice Connect SIP

Enable Provider:

Secure Trunk:

Domain Name: sip-net.spark.co.nz

Transport protocol: tcp

**Provider Registrar**

Use Registrar:

IP Address / Host name: sip-vc.spark.co.nz

Port: 5060

Reregistration Interval at Provider (sec): 3600

**Provider Proxy**

IP Address / Host name: sip-net.spark.co.nz

Port: 5060

**Provider Outbound Proxy**

Use Outbound Proxy:

IP Address / Host name: pak0102-p01.spark.co.nz

Port: 5060

**Provider Inbound Proxy**

Use Inbound Proxy:

IP Address / Host name: 0.0.0.0

Port: 0

**Provider STUN**

Use STUN:

IP Address / Host name:

Port: 3478

**Provider Feature**

Route optimize active:

Help Abort Back OK & Next Delete Data

On this page the behaviour of the features call forwarding can be controlled:

- "Rerouting active" deactivated (default) -> a call forwarding establishes a second connection and control of the call remains in the system
- "Rerouting active" activated -> Rerouting is carried out in the office during a call forwarding. The system loses further control over the call

Click [OK & Next].



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

Internet Telephony Stations for Spark Voice Connect SIP	
	Name of Internet Telephony Station
<input type="button" value="Add"/>	New Internet Telephony Station
<input type="button" value="Edit"/>	75714280

Click on [Add].

Data provided on the Spark email under SIP Username: and the separate email containing the SIP Password:

- Internet telephony station:** Username is inserted here (e.g: 75714280)
- Authorization name:** Username is inserted here (e.g: 75714280)
- Password:** Password provided in a separate Spark email
- Default number:** Main number of connection. The default number is used as the outgoing number when no DDI number is assigned to a station. (e.g: 75714280). Usually the **Main Number** is entered here.

Internet Telephony Station for Spark Voice Connect SIP

Internet telephony station:

Authorization name:

Password:

Confirm Password:

ITSP-multiple route:

Default Number:

**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 (DDI field) primary CO access.

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

Internet Telephony Stations for Spark Voice Connect SIP	
	Name of Internet Telephony Station
<input type="button" value="Add"/>	New Internet Telephony Station
<input type="button" value="Edit"/>	75714280

Click [OK & Next] (no input needed)

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"/>	AAPT SIP Connect
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<input type="button" value="Edit"/>	<input checked="" type="checkbox"/>	Spark Voice Connect SIP
<input type="button" value="Edit"/>	<input type="checkbox"/>	Telstra Clear WSIP
<input type="button" value="Edit"/>	<input type="checkbox"/>	Verizon
<input type="button" value="Edit"/>	<input type="checkbox"/>	VoIPXS
<input type="button" value="Edit"/>	<input type="checkbox"/>	Voyager

Help   Abort   Back   **OK & Next**   Display Status

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 which is defined in the Spark configuration email under Channels:

<b>SIP Realm:</b>	sip-net.spark.co.nz
<b>Context/Authentication Digest Realm</b>	sip-vc.spark.co.nz
<b>SIP Username:</b>	75714280
<b>SIP Password:</b>	To be sent in separate email.
<b>Channels:</b>	5
<b>Test Numbers:</b>	75714278 to 75714279
<b>New DDIs:</b>	75715670 to 75715679

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) = 10000  
 In the 'Change Feature --> Internet Telephony' Assistant. This upstream allows you to conduct up to 78 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
Spark Voice Connect SIP	5	<input type="text" value="5"/>

Click [OK & Next]

## Special phone numbers

In this dialog it is possible to route special phone numbers. In New Zealand **111 is the emergency number for Police, Fire and Ambulance.**

Setup - Wizards - Central Telephony - Internet Telephony

Special phone numbers

Note:  
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	1C111	Spark Voice Connect SIP ▼
2		Spark Voice Connect SIP ▼
3		Spark Voice Connect SIP ▼
4		Spark Voice Connect SIP ▼
5		Spark Voice Connect SIP ▼
6		Spark Voice Connect SIP ▼
7		Spark Voice Connect SIP ▼
8		Spark Voice Connect SIP ▼
9		Spark Voice Connect SIP ▼
10		Spark Voice Connect SIP ▼
11		Spark Voice Connect SIP ▼
12		Spark Voice Connect SIP ▼
13		Spark Voice Connect SIP ▼
14		Spark Voice Connect SIP ▼
15		Spark Voice Connect SIP ▼

Help Abort Back OK & Next

Click [OK & Next]

On next page status of ITSP is displayed.

Setup - Wizards - Central Telephony - Internet Telephony

Status for the Internet Telephony Service Provider (ITSP)

Provider	Enabled	Trunk Access Code	User
Spark Voice Connect SIP	Enabled	75714280	registered

Restart Diagnose

Click [Next]

“Exchange Line Seizure“:

Select which trunk will access code 1.

Setup - Wizards - Central Telephony - Internet Telephony

Exchange Line Seizure

Exchange Line Seizure

Trunk Access Code 1

Dial over Provider Spark Voice Connect SIP ▼

Click [OK & Next]

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

Setup - Wizards - Central Telephony - Internet Telephony

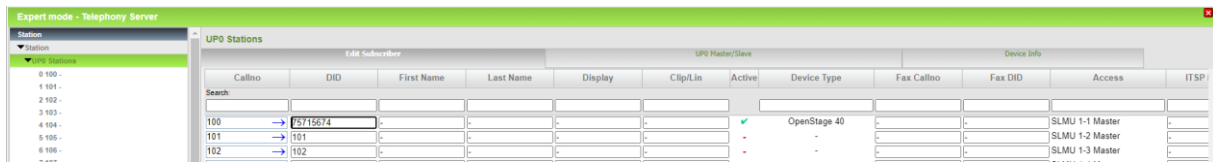
Seizure Code for the 'Outside line Seizure'

Provider	Seizure code for 'Outside line Seizure'
Spark Voice Connect SIP	1

Click [OK & Next] and on the next page [Finish]

## DID configuration

Enter the DID number including the area code in the Edit subscriber configuration. The CLIP/Lin field can also be modified if a different CLI is required.



## Additional Configuration

### License

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

The screenshot shows the UNIFY License Management interface. The left sidebar contains a navigation menu with options like License Management, License information, Additional Products, Local User licenses, CO Trunks, System Licenses, License Profiles, Registration, and Activate License Online. The main content area is titled 'CO Trunks' and displays the following information:

- 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: 245
- SIP trunks: The configured number of simultaneous Internet calls for each Internet Telephony Service Provider is: 5. License number of simultaneous Internet calls in this node: 5. License demand for number of simultaneous Internet calls in this node: 5 (highlighted with a red box).
- PRI (S2M/T1) table with columns: Type Slot, Port, Feature, Demands.

### Trunks/Routing Configuration

Number and type outgoing should be set to Unknown and Call number type set to Direct Inward dialing.

The screenshot shows the UNIFY Route configuration interface. The 'Routing flags' section includes the following options:

- 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: yes (dropdown)
- deactivate UUS per route:
- Always use DSP:

The 'Special Parameter change' section includes the following options:

- Analog trunk seizure: no pause (dropdown)
- Trunk call pause: Pause 6 s (dropdown)
- Type of seizure: linear (dropdown)
- Route type: CO (dropdown)
- No. and type, outgoing: Unknown (dropdown, highlighted with a red box)
- Call number type: Direct inward dialing (dropdown, highlighted with a red box)

### Known limitations and restrictions:

Restrictions about certain use cases observed during certification should be listed

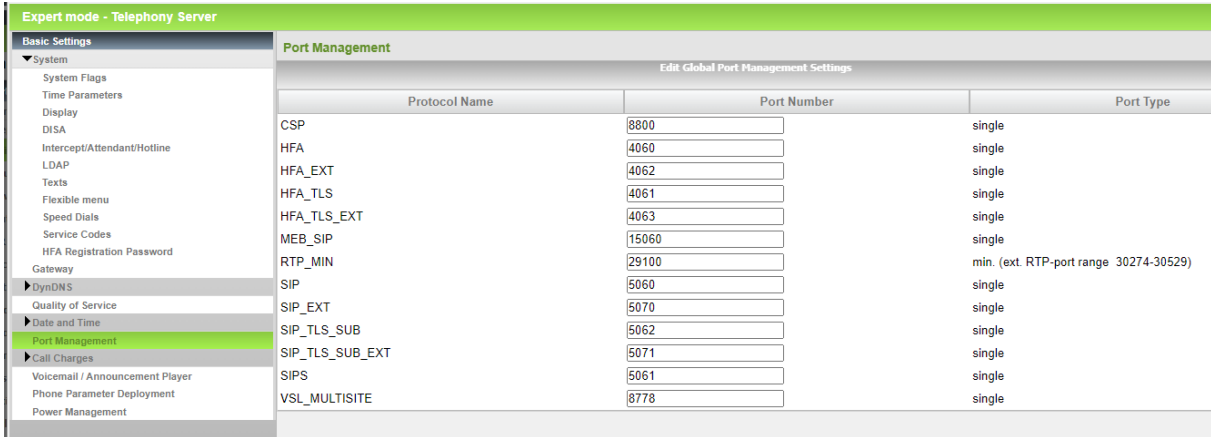
Number presentation for external transferred calls or calls via the Auto Attendant, the A party number is not displayed at the C party, the Default number is displayed instead.

# Mandatory configuration in Expert Mode

## Port management

Go to Expert Mode → Telephony Server → Port Management

Port management remains default no changes are required.



## Codec Parameters

Go to Expert Mode → Telephony Server → Voice Gateway → Codec Parameters

To comply with the requirements of Spark Voice Connect the following codec parameters **MUST** be changed:

1. RFC 2833 payload type **MUST** be 101.
2. T.38 Fax is supported and can be left activated.
3. G.729AB and G.729A are **NOT** supported and **SHOULD** be disabled.

