

OpenScape Business

How to Configure SIP Trunk for HGC Hong Kong

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Table of History

Date	Version	Changes
12.02.2018	1.0	First version
15.03.2018	1.1	Minor update
10.09.2024	1.2	editorial changes

Note: The basis for this document is the current OpenScape Business at the time of certification. 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.

Information

The HGC provider is available and released for the countries: Hong Kong.

Trunk Configuration Data provided by HGC

The configuration data needed to setup the SIP trunk can be found on the HGC service order and SIP router acceptance form.

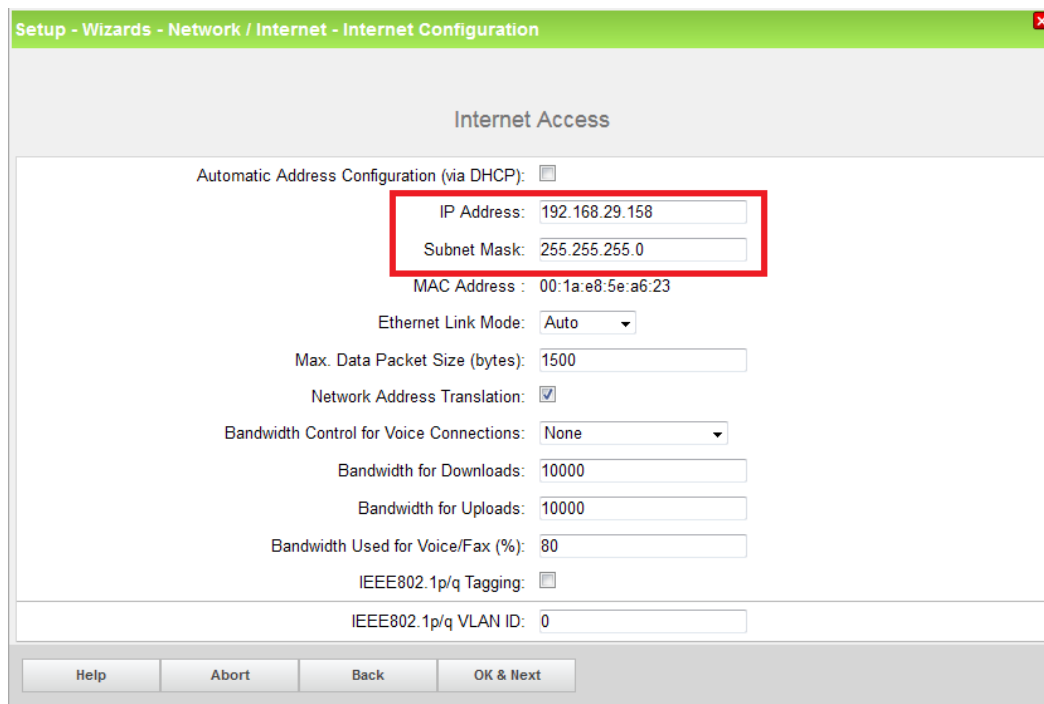
	Hutchison Global Communications Limited 9/F, Hutchison Telecom Tower 99 Cheung Fai Road, Tsing Yi, New Territories Hong Kong Tel: 2128 5452 Fax: 21231234
SIP Router Acceptance Form	
Circuit No. : _____ A / B / Z	Order No : _____
Type of Job : <input checked="" type="checkbox"/> New Installation <input type="checkbox"/> Re-configuration <input type="checkbox"/> Relocation	
Customer Name : _____	Unify Limited
Contact Person : _____	Installation Date : _____
Installation Address : _____	
(A / B / Z - End) : _____	
Circuit Type : <input checked="" type="checkbox"/> FTTO <input type="checkbox"/> _____	Interface <input checked="" type="checkbox"/> Ethernet <input type="checkbox"/> _____
Switch SIP from NP: _____	No. Range : 3906 20xx (3 digits) **
FTTO Circuit Specifications:	
FTTO IP : _____	
Subnet Mask : _____	
Gateway : _____	**SIP Proxy: 10.100.221.232:5061 **2
SIP Router Installed:	
Brand <input checked="" type="checkbox"/> Huawei <input type="checkbox"/> _____	Router IP Address : 192.168.29.159 / 24 *3
Model No. <input type="checkbox"/> AR161 <input type="checkbox"/> AR1220 <input type="checkbox"/> _____	
Serial No. : _____	
* The equipment above shall remain Hutchison Global Communications Limited's property at all time and is used for provision of the above data services at customer premise.	
* The customer shall be liable to Hutchison Global Communications Limited for any loss or damage to the equipment above.	
SIP test information:	
Date : _____	Return <input checked="" type="checkbox"/> 200 <input type="checkbox"/> _____
Time : _____	Result <input checked="" type="checkbox"/> PASS <input type="checkbox"/> FAIL
Simulated IP PABX IP : 192.168.29.158 / 24 *4	

Configuration Wizard

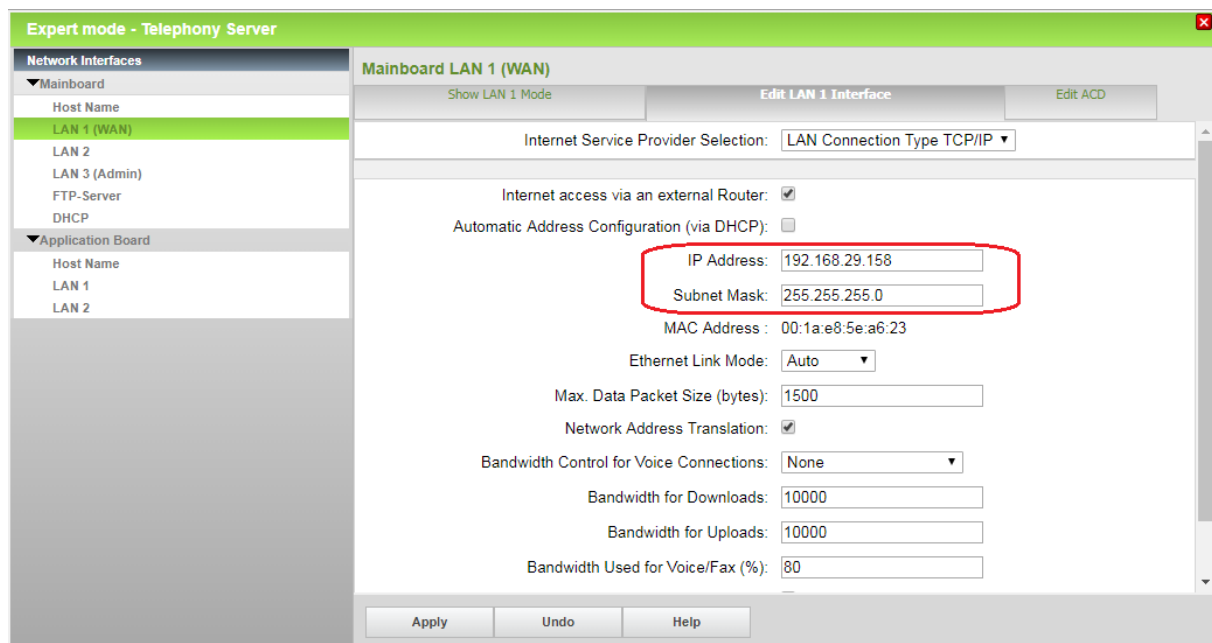
Internet Configuration

With reference to SIP trunk configuration data from ITSP, it is assigned with dedicated IP address (field #4 in SIP Router Acceptance Form) with default gateway that connecting to ITSP network router or switch.

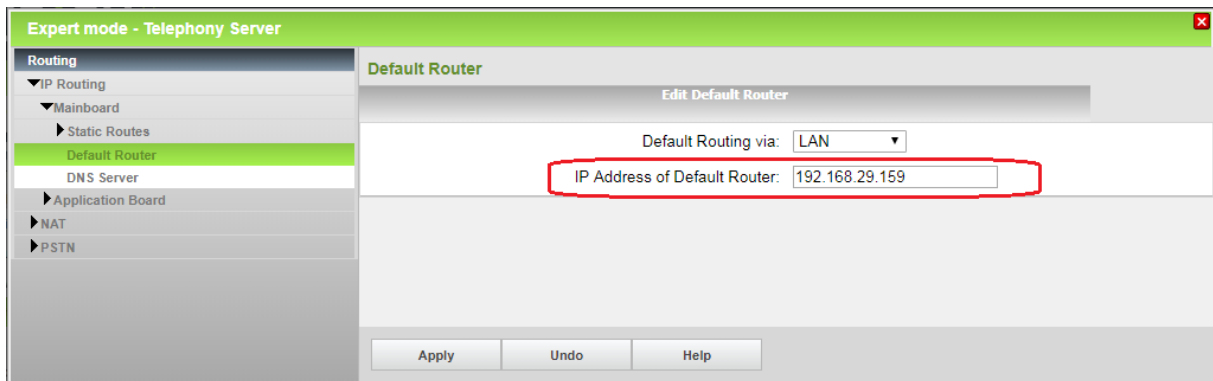
It can be setup through Setup Wizards > “Network / Internet” > “Internet Configuration”



Depending on system model, the IP address of WAN interface for OpenScape Business X8 system can be checked or modified in Expert mode > “Telephony Server” > “Network Interface”:

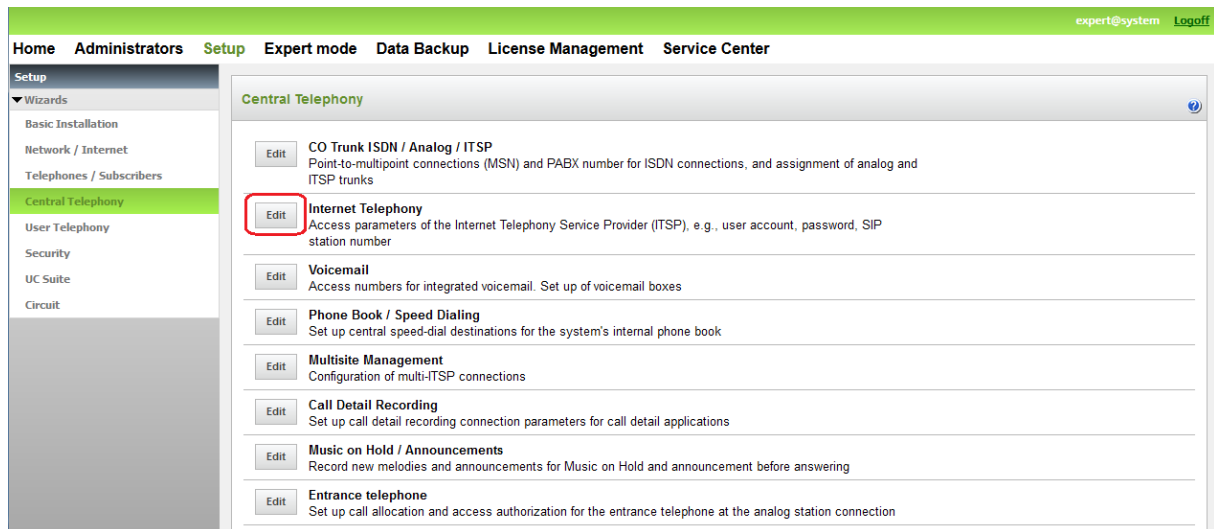


The IP address of default gateway (field #3 in SIP Router Acceptance Form) can be reviewed in Expert mode > “Telephony Server” > “Routing”:



Internet Telephony

Go to Setup Wizards > “Central Telephony” > “Internet Telephony”

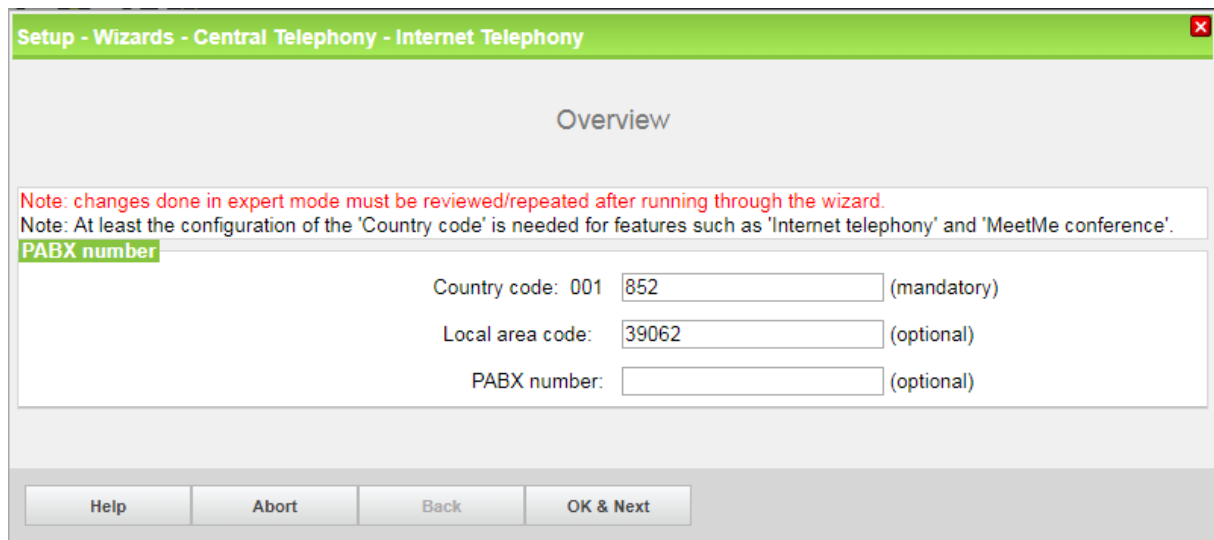


The overview page appears for entering the location data.

Please enter country code (i.e. “852” for Hong Kong region) with optional local area code, which is depending on number of digits on ITSP incoming calls.

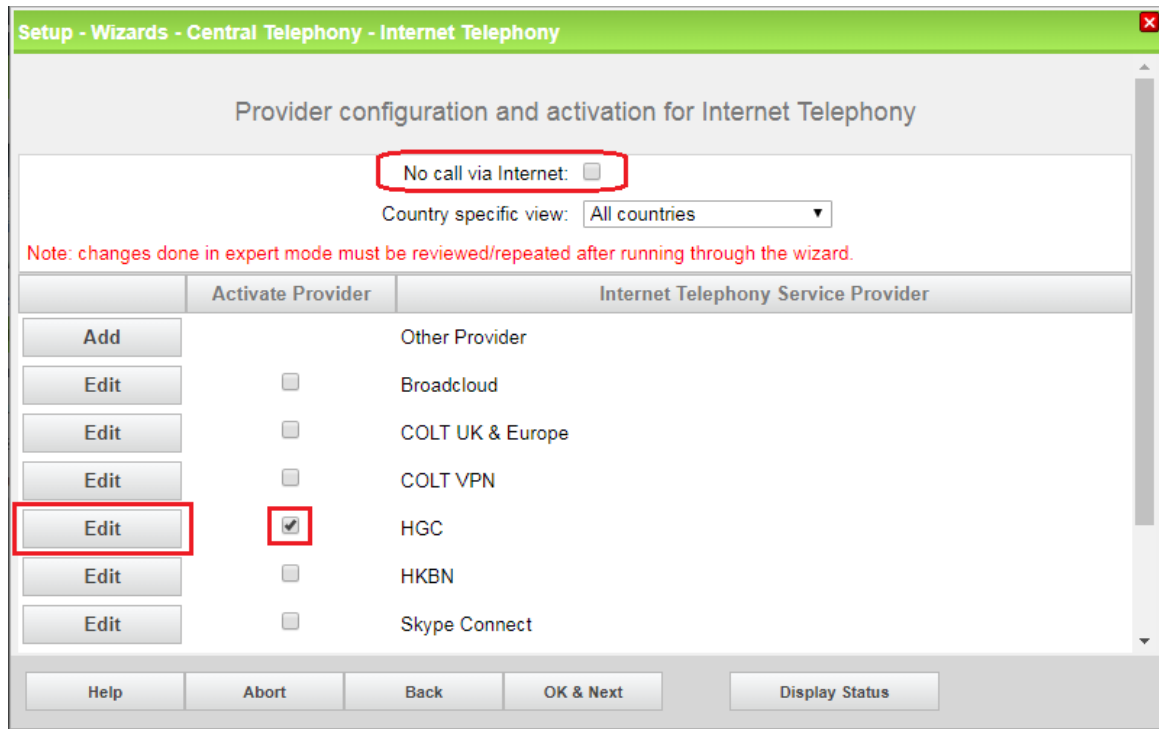
The number of digit length and range of DID number can be negotiated with HGC on application

The local area code will be combined with subscriber DID number as CLIP for outgoing call.

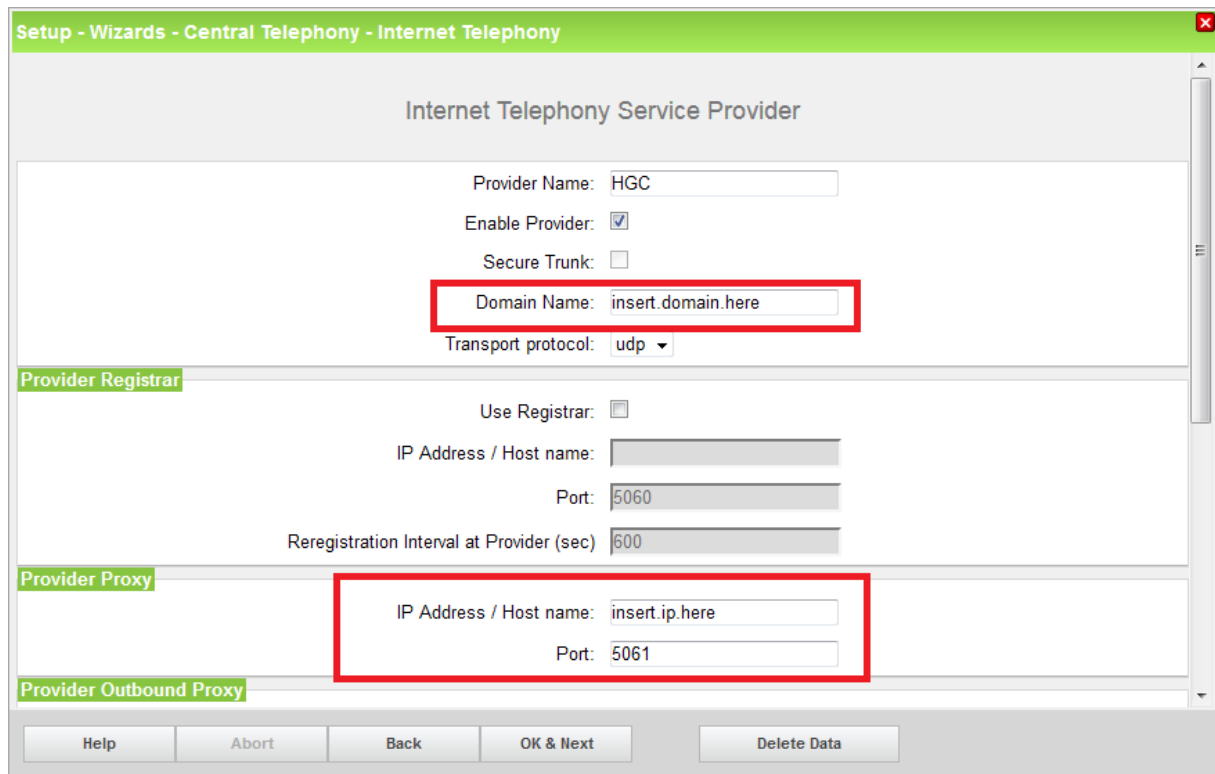


Click [OK & Next]

Provider configuration and activation for Internet Telephony -> uncheck “No call via Internet”, use “County specific view” to select “All countries” and select “HGC” as “Activate Provider”.



Click on [Edit]



With reference to trunk configuration data that provided by HGC to fill in “Domain Name” and “IP Address / Host name” of Provider Proxy. Please ensure that the port number of Provider Proxy must be set as 5061.

Setup - Wizards - Central Telephony - Internet Telephony

Internet Telephony Service Provider

Provider Name: HGC

Enable Provider:

Secure Trunk:

Domain Name: 10.100.221.232

Transport protocol: udp

Provider Registrar

Use Registrar:

IP Address / Host name:

Port: 5060

Reregistration Interval at Provider (sec) 600

Provider Proxy

IP Address / Host name: 10.100.221.232

Port: 5061

Help Abort Back OK & Next Delete Data

Enter the data (field #2 in SIP Router Acceptance Form) with reference to ITSP SIP trunk information. Then click [OK & Next]

Setup - Wizards - Central Telephony - Internet Telephony

Internet Telephony Stations for HGC

	Name of Internet Telephony Station
Add	New Internet Telephony Station

Click on [Add] to create new Internet Telephony Station

Setup - Wizards - Central Telephony - Internet Telephony

Internet Telephony Station for HGC

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 (DID field) primary CO access.

Help Abort Back OK & Next Delete Data

Enter the data of "Internet telephony station" and "Default Number" with reference to prime number of SIP trunk (field #1 in SIP Router Acceptance Form) and then click [OK & Next].

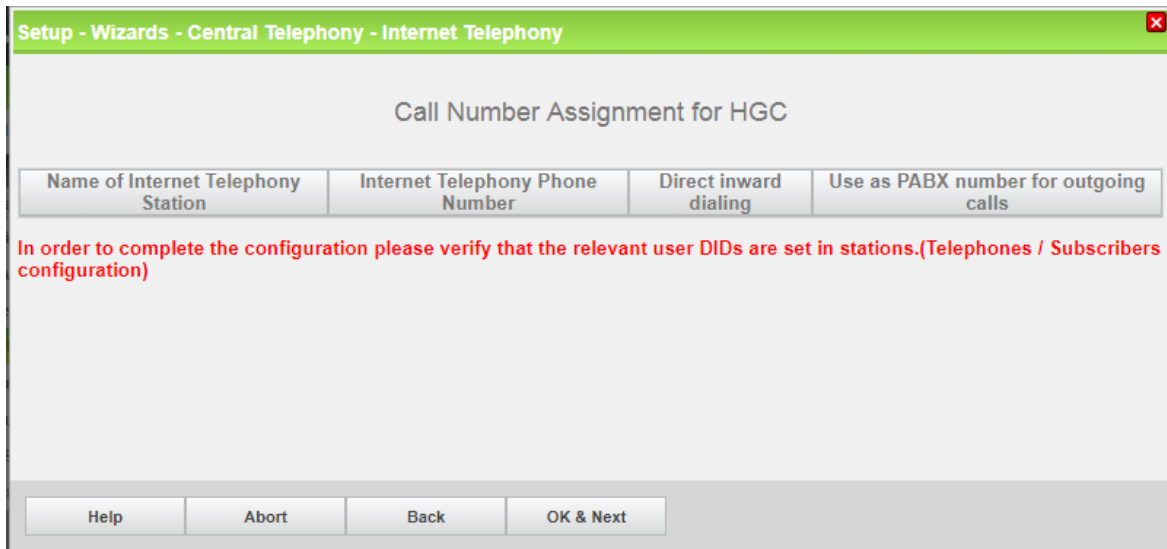
Setup - Wizards - Central Telephony - Internet Telephony

Internet Telephony Stations for HGC

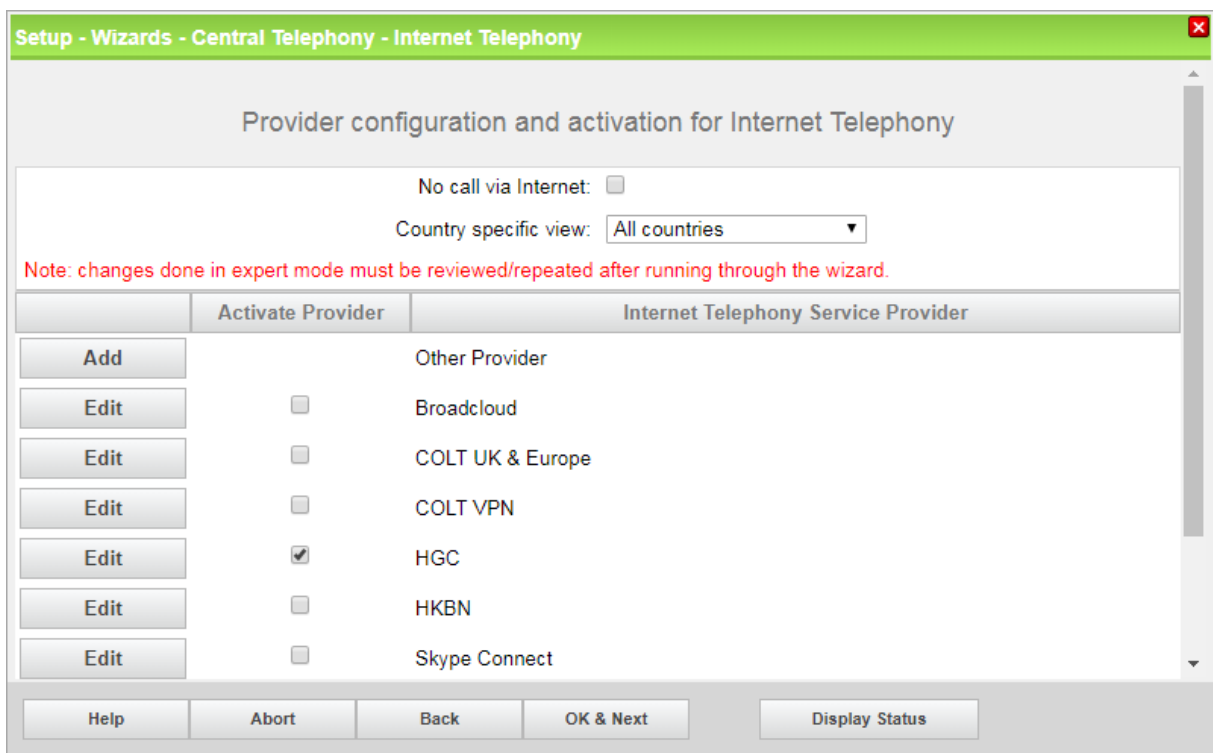
	Name of Internet Telephony Station
Edit	39062000

Help Abort Back OK & Next

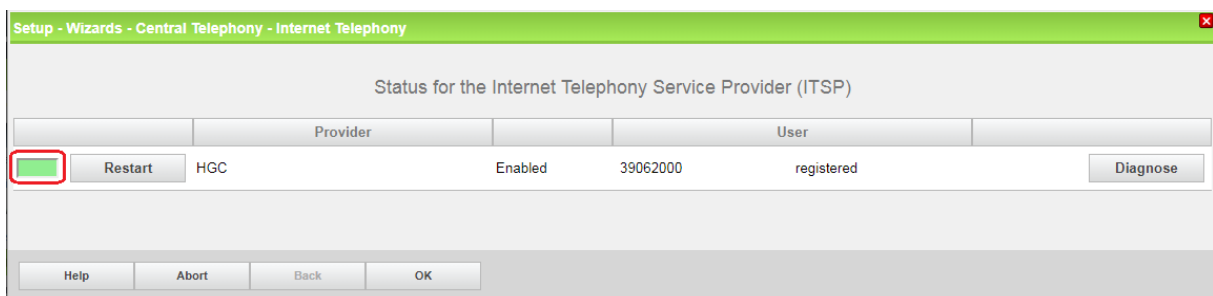
Click [OK & Next]



Click [OK & Next]

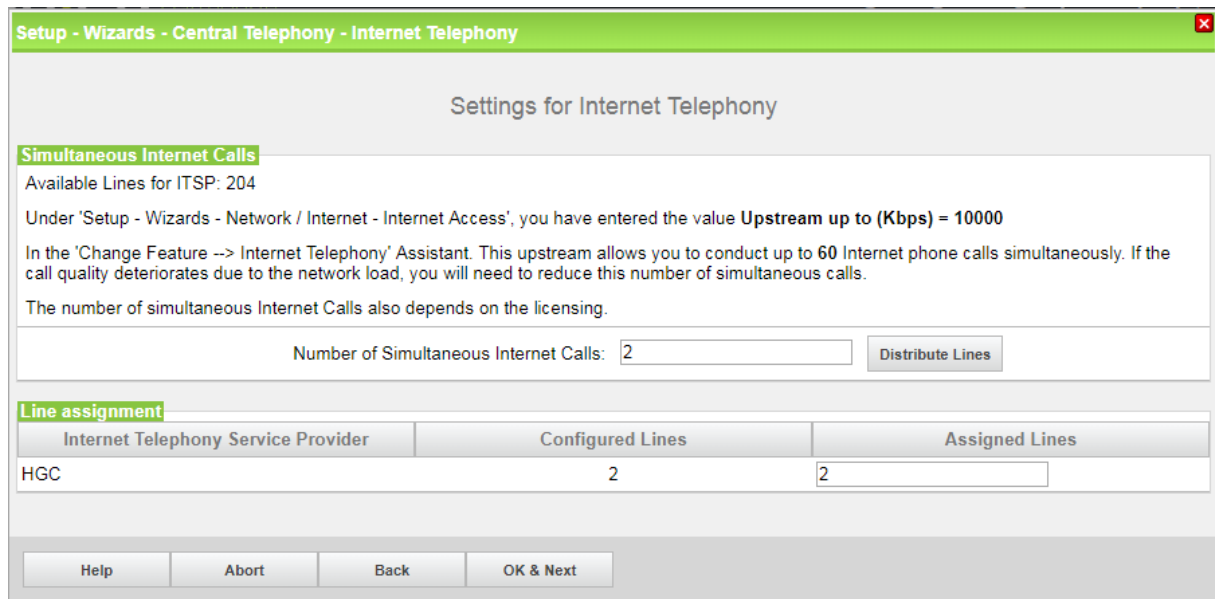


Click [Display Status] to verify SIP trunk for “HGC” is activated

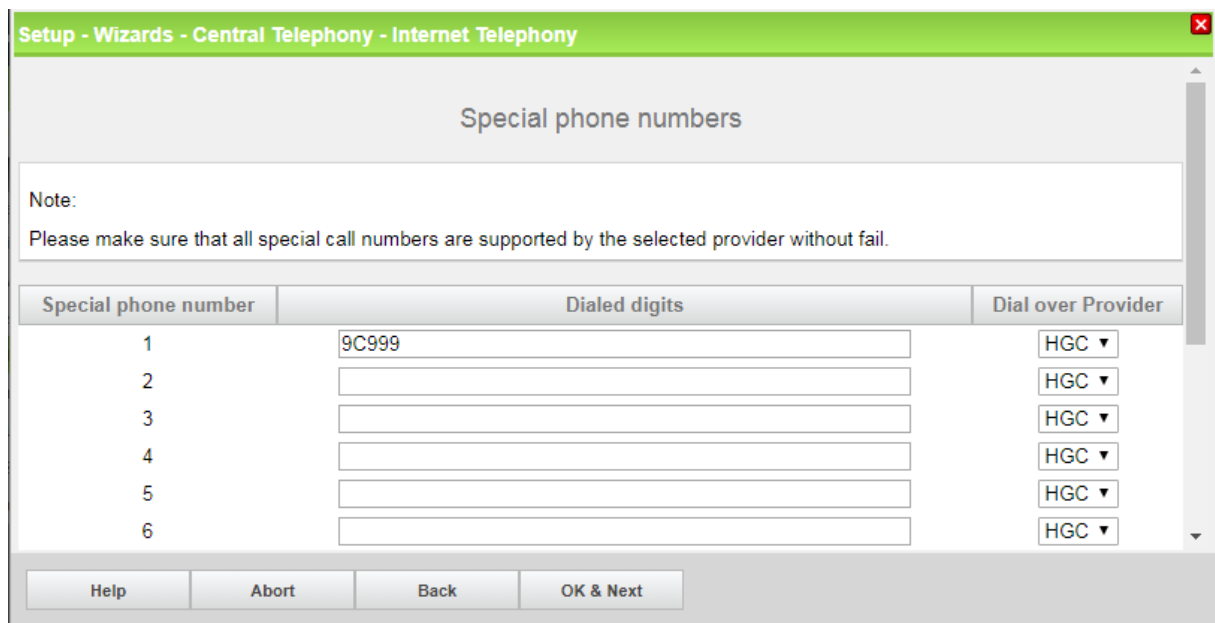


Green color box means the ITSP provider is activated, click [OK] to return, then click [OK & Next] with no further input

Enter number of simultaneous Internet calls with reference to number of channels by ITSP SIP trunk and available license for SIP trunk in License Management, then click “Distribute Lines”.



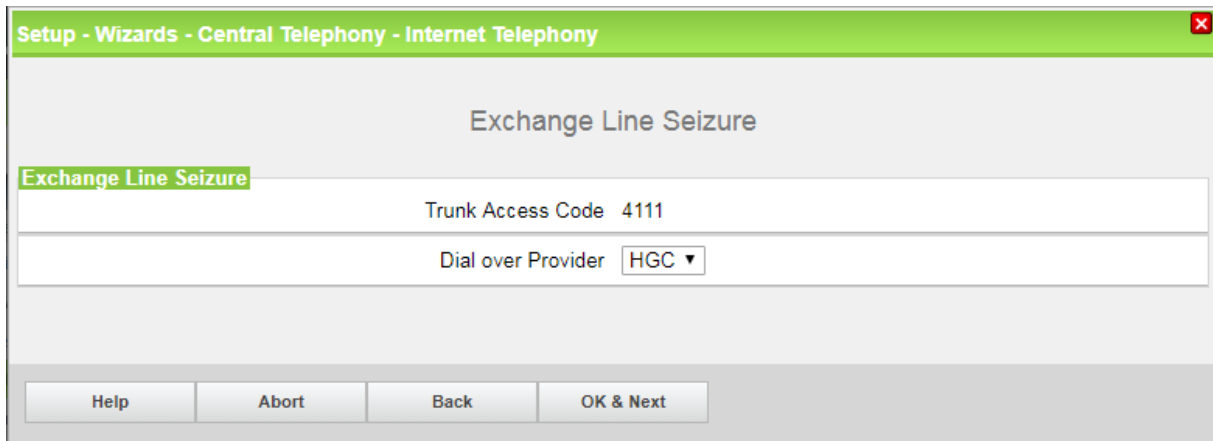
Click [OK & Next]



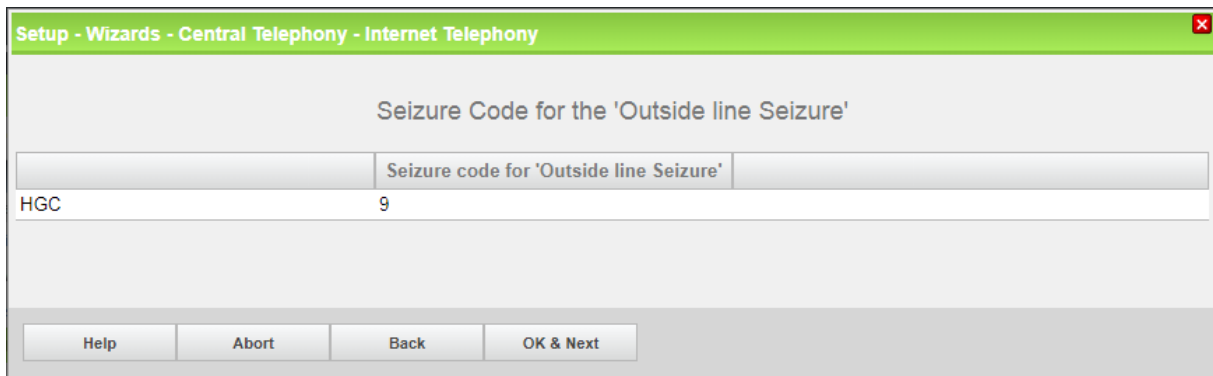
Enter special phone numbers; such as emergency telephone number (e.g. “999”), leading with access code for SIP trunk (e.g. “9”), then click [OK & Next] and [Next] with no further input.

Remarks:

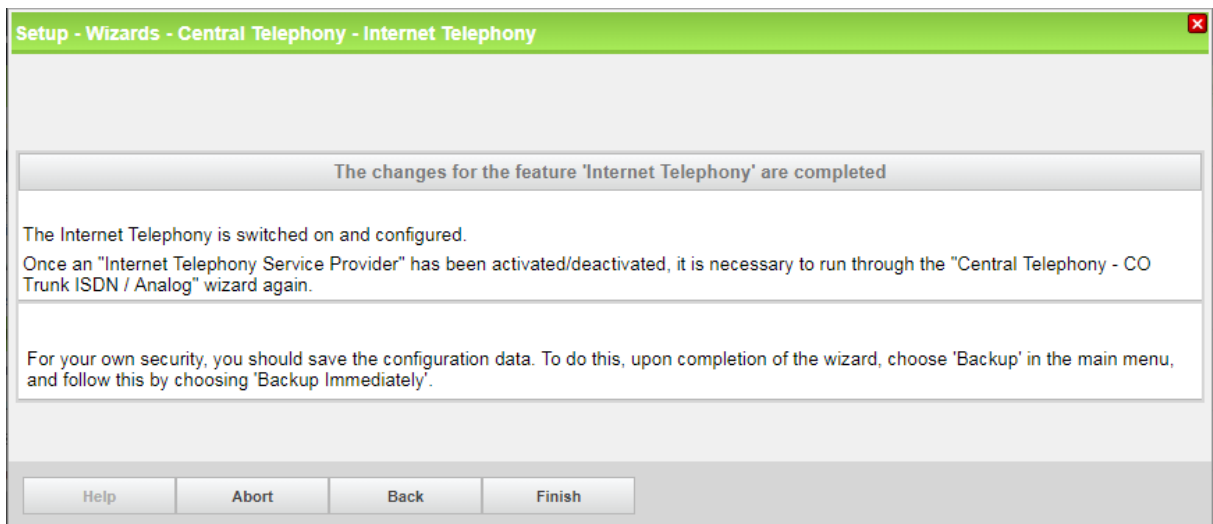
- It is strongly recommended to select TDM trunk for emergency call out if available.
- Dial plan can be modified on LCR in Expert mode afterwards



Click [OK & Next] with no further input (“Trunk Access Code” was assigned on Setup Wizards)



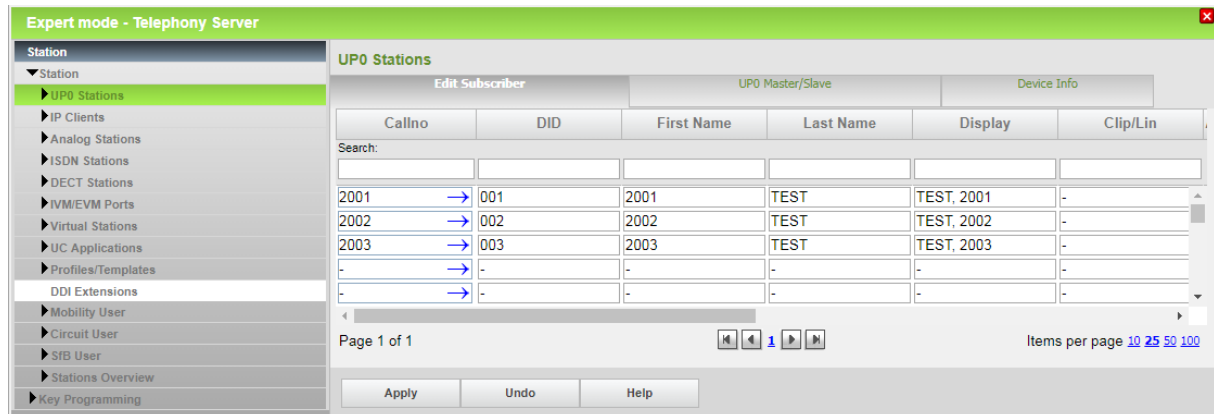
Click [OK & Next] with no further input (Seizure code for “Outside line Seizure” was assigned on Setup Wizards)



Click [Finish] to complete setup wizard

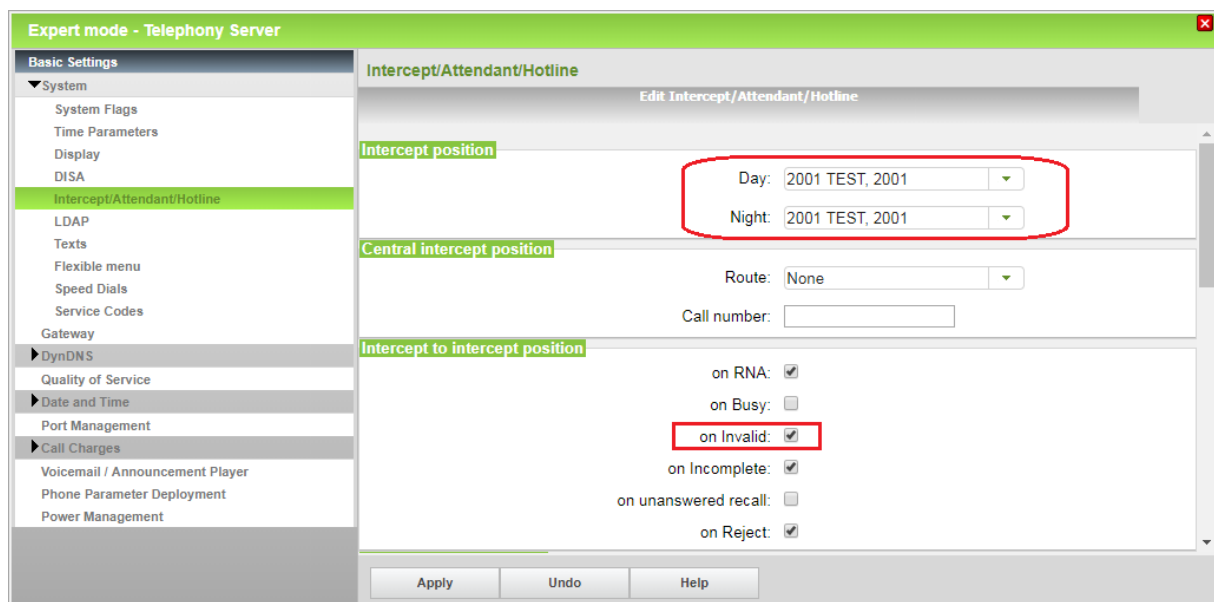
DID configuration

The DID number range should be reference to ITSP SIP trunk information. It may assign “Callno” and “DID” with same number for easy management.



The Local area code (which is set on “Internet Telephony” setup wizard) will be used to combine with “DID” number as caller display on outbound call. It is possible to change CLIP for station subscriber individually as request.

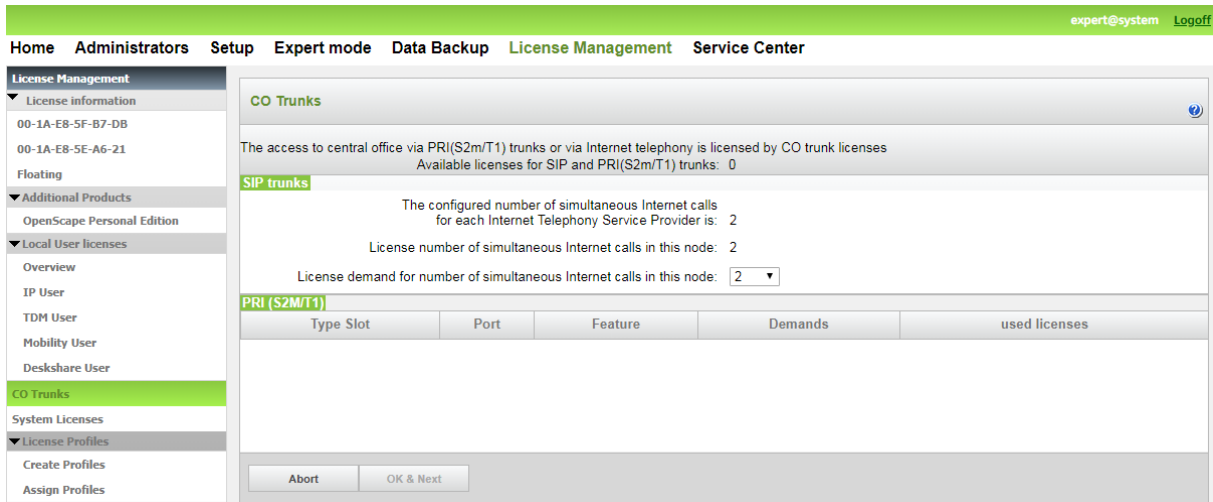
Station can be set and activated as intercept position for those spare (i.e. not in use) DID number as need.



Additional Configuration

License

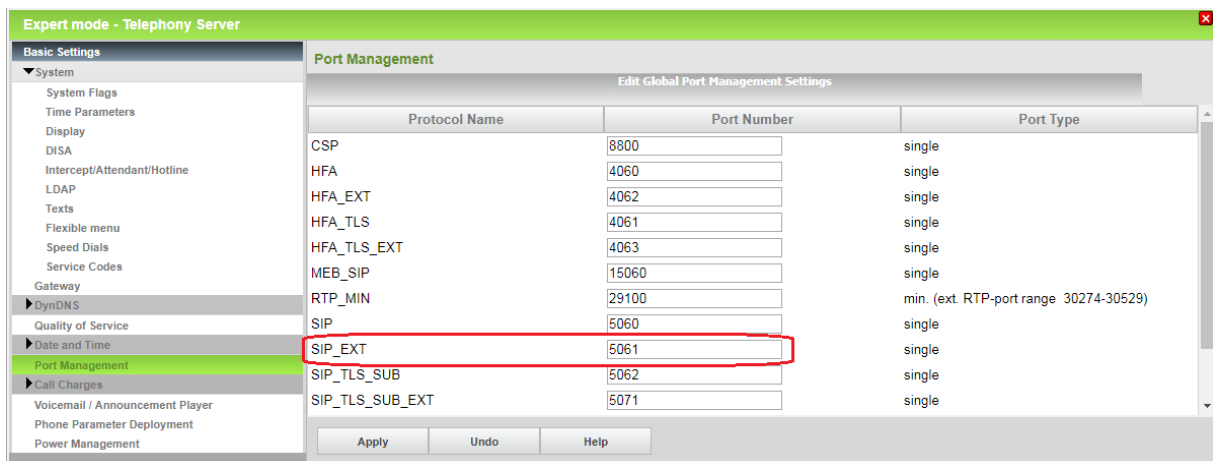
Add the “S2M/SIP Trunk” license to the SIP-Trunk



Port management

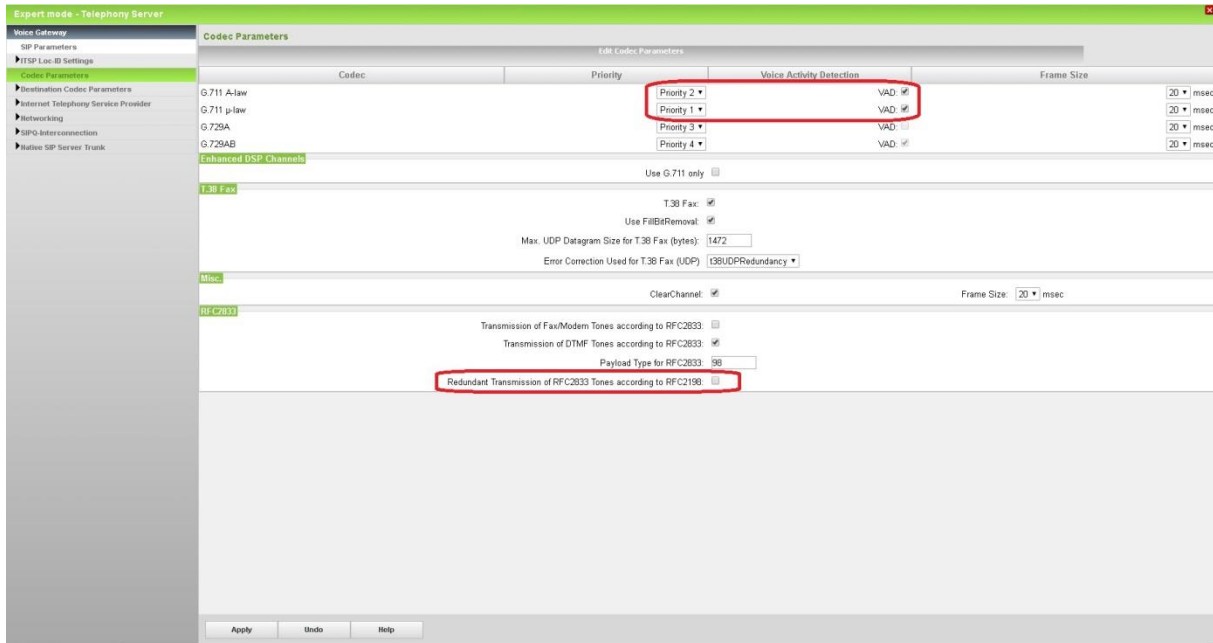
According to ITSP requirement, it has to assign **port 5061** for SIP signaling.

Go through Expert Mode – Telephony Server – Basic Settings – Port Management and set SIP_EXT to 5061. Please consider that a restart of system is required after applying this adjustment.

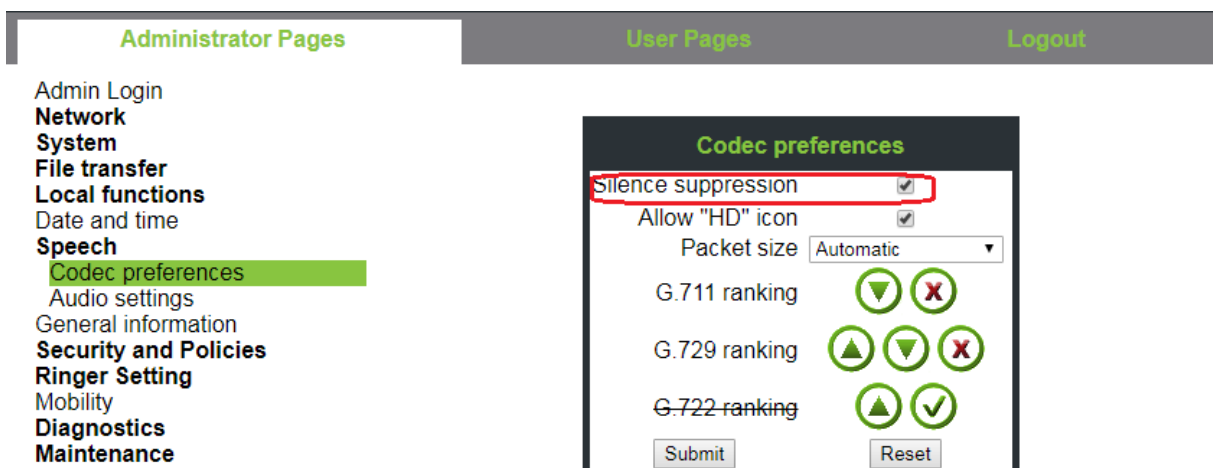


Voice activity detection (VAD)

According to ITSP requirement, voice activity detection (VAD) must be activated for G711 codecs. In addition Redundant Transmission for RFC2833 must be disabled.



Moreover, silence suppression for all IP phones (HFA & SIP) must be activated.



Route configuration (optional)

There are some dial strings are generated automatically in Dial Plan after setup wizard. With reference to numbering plan for telecommunications services in Hong Kong, please update dial plan setting as need.

Dial Plan	Name	Dialed digits	Routing Table	Acc. code	Classes of service	Emergency
1	Emergency call	9C999	4		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
2			4		<input checked="" type="checkbox"/>	<input type="checkbox"/>
3			4		<input checked="" type="checkbox"/>	<input type="checkbox"/>
4			4		<input checked="" type="checkbox"/>	<input type="checkbox"/>
5			4		<input checked="" type="checkbox"/>	<input type="checkbox"/>
6			4		<input checked="" type="checkbox"/>	<input type="checkbox"/>
7			4		<input checked="" type="checkbox"/>	<input type="checkbox"/>
8			4		<input checked="" type="checkbox"/>	<input type="checkbox"/>
9			4		<input checked="" type="checkbox"/>	<input type="checkbox"/>
10			4		<input checked="" type="checkbox"/>	<input type="checkbox"/>
11			4		<input checked="" type="checkbox"/>	<input type="checkbox"/>
12			4		<input checked="" type="checkbox"/>	<input type="checkbox"/>
13			4		<input checked="" type="checkbox"/>	<input type="checkbox"/>
14			4		<input checked="" type="checkbox"/>	<input type="checkbox"/>
15			4		<input checked="" type="checkbox"/>	<input type="checkbox"/>
16	Service call	9C185XX	4		<input checked="" type="checkbox"/>	<input type="checkbox"/>
17					<input checked="" type="checkbox"/>	<input type="checkbox"/>

It may assign different routing table on designated dialed digits that assign different Class of Service (COS) as toll control.

Dial Plan	Name	Dialed digits	Routing Table	Acc. code	Classes of service	Emergency
28	Local	9C92XXXXXX	4		<input checked="" type="checkbox"/>	<input type="checkbox"/>
29	Local	9C93XXXXXX	4		<input checked="" type="checkbox"/>	<input type="checkbox"/>
30	Local	9C94XXXXXX	4		<input checked="" type="checkbox"/>	<input type="checkbox"/>
31	Local	9C95XXXXXX	4		<input checked="" type="checkbox"/>	<input type="checkbox"/>
32	Local	9C96XXXXXX	4		<input checked="" type="checkbox"/>	<input type="checkbox"/>
33	Local	9C97XXXXXX	4		<input checked="" type="checkbox"/>	<input type="checkbox"/>
34	Local	9C98XXXXXX	4		<input checked="" type="checkbox"/>	<input type="checkbox"/>
35			-		<input checked="" type="checkbox"/>	<input type="checkbox"/>
36	Appl-Suite	-099	12		<input checked="" type="checkbox"/>	<input type="checkbox"/>
37	Ann-Player		12		<input checked="" type="checkbox"/>	<input type="checkbox"/>
38	IP-Network	-Z	13		<input checked="" type="checkbox"/>	<input type="checkbox"/>
39			-		<input checked="" type="checkbox"/>	<input type="checkbox"/>
40			-		<input checked="" type="checkbox"/>	<input type="checkbox"/>
41	Toll-Call	9C00Z	6		<input checked="" type="checkbox"/>	<input type="checkbox"/>
42	Toll-Call	9C17Z	6		<input checked="" type="checkbox"/>	<input type="checkbox"/>
43			-		<input checked="" type="checkbox"/>	<input type="checkbox"/>

Expert mode - Telephony Server

LCR

- LCR Flags
- Classes Of Service
- Dial Plan
- Routing table
 - 1 - Table
 - 2 - Table
 - 3 - Table
 - 4 - Table
 - 5 - Table
 - 6 - Table
 - 7 - Table
 - 8 - Table
 - 9 - Table
 - 10 - Table
 - 11 - Table
 - 12 - Table
 - 13 - Table
 - 14 - Table
 - 15 - Table
 - 16 - Table
 - 17 - Table
 - 18 - Table

Routing Table

Change Routing Table

en-bloc sending

Routing Table: 4

Index	Dedicated Route	Route	Dial Rule	min. COS	Warning	Dedicated Gateway	GW Node ID
1	<input type="checkbox"/>	HGC	SIP	15	None	No	
2	<input type="checkbox"/>	None	None	15	None	No	
3	<input type="checkbox"/>	None	None	15	None	No	
4	<input type="checkbox"/>	None	None	15	None	No	
5	<input type="checkbox"/>	None	None	15	None	No	
6	<input type="checkbox"/>	None	None	15	None	No	
7	<input type="checkbox"/>	None	None	15	None	No	
8	<input type="checkbox"/>	None	None	15	None	No	
9	<input type="checkbox"/>	None	None	15	None	No	
10	<input type="checkbox"/>	None	None	15	None	No	

Apply Undo Help

Expert mode - Telephony Server

LCR

- LCR Flags
- Classes Of Service
- Dial Plan
- Routing table
 - Dial rule
 - Multisite

Dial Rule

Change Dial Rule

	Rule Name	Dial rule format	Network access	Type
1	CO	A	Main network supplie	Unknown
2	SIP	A	Main network supplie	Unknown
3	SIP local	HE2A	Main network supplie	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	E4A	Main network supplie	Unknown
9	Add_cc_to_Canoni	D852E2A	Main network supplie	Country code
10	National_to_Cano	D852E3A	Main network supplie	Country code
11	Internat_to_Can	E3A	Main network supplie	Country code
12	SIP local_Canoni	HE2A	Main network supplie	Country code
13			Unknown	Unknown

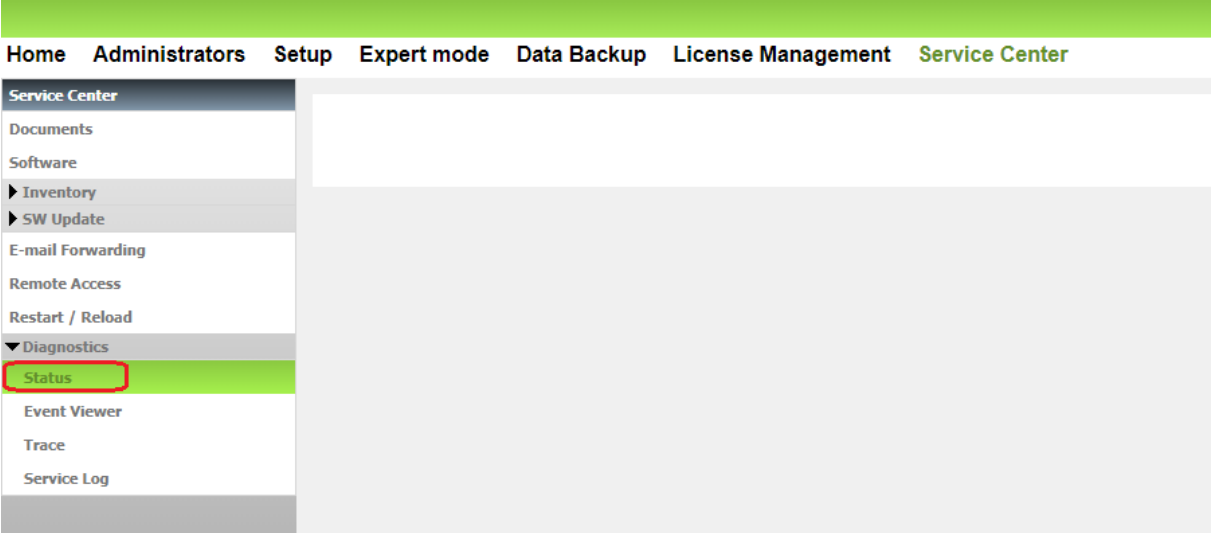
Page 1 of 11

Items per page 10 25 50 100

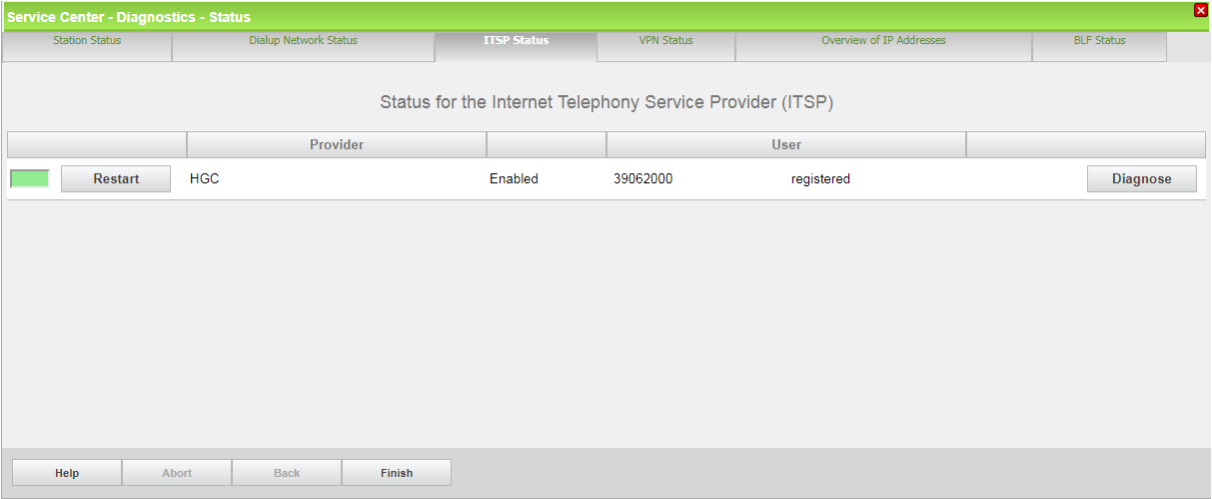
Apply Undo Help

How to check the status of SIP connection with HGC

It is supported to check with Service Center > "Diagnostics" > "Status" for ITSP registration status or restart as need.



Select "ITSP Status" tag to check status of SIP trunk, green color means in ready state.



Known restrictions:

- “CLIR” is not supported by ITSP; user may dial with prefix “133” to mask caller display instead
- “CLIP no screening” is not supported by ITSP
- “COLP” is not supported by ITSP