



A MITEL
PRODUCT
GUIDE

OpenScape Business V3

Unify Phone

Connect Unify Phone to OpenScape Business

12/2024

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History of Changes

Date	Issue	Summary
28.06.2022	1.0	Unify Phone for Unify Video initial version for OpenScape Business V3R2
14.09.2022	1.1	JWT update
18.04.2023	1.2	Unify Phone for OpenScape
12.09.2023	1.3	update on <ul style="list-style-type: none"> OpenScape Business V3R3 UP user w/o DID FAQ
16.02.2024	1.4	update on <ul style="list-style-type: none"> OpenScape Business V3R3.1 numbering schema for UP users wizard for UP user w/o DID directory/journal interconnection
11.03.2024	1.4.1	update on V3R3.1 <ul style="list-style-type: none"> sizing, firewall rules
16.09.2024	1.4.2	update on V3R3.2 <ul style="list-style-type: none"> control Unify Phone from OpenScape Business UC clients editorial changes
26.11.2024	1.5	update on OpenScape Business V3R4 <ul style="list-style-type: none"> UMC secure and direct media control Unify Phone from UC clients: myAgent, myPortal for Teams
17.12.2024	1.5.1	update on OpenScape Business V3R4 <ul style="list-style-type: none"> remove Unify Video update on Firewall for secure and direct media

Comments and corrections are welcome, please contact: osbiz-certification@mitel.com

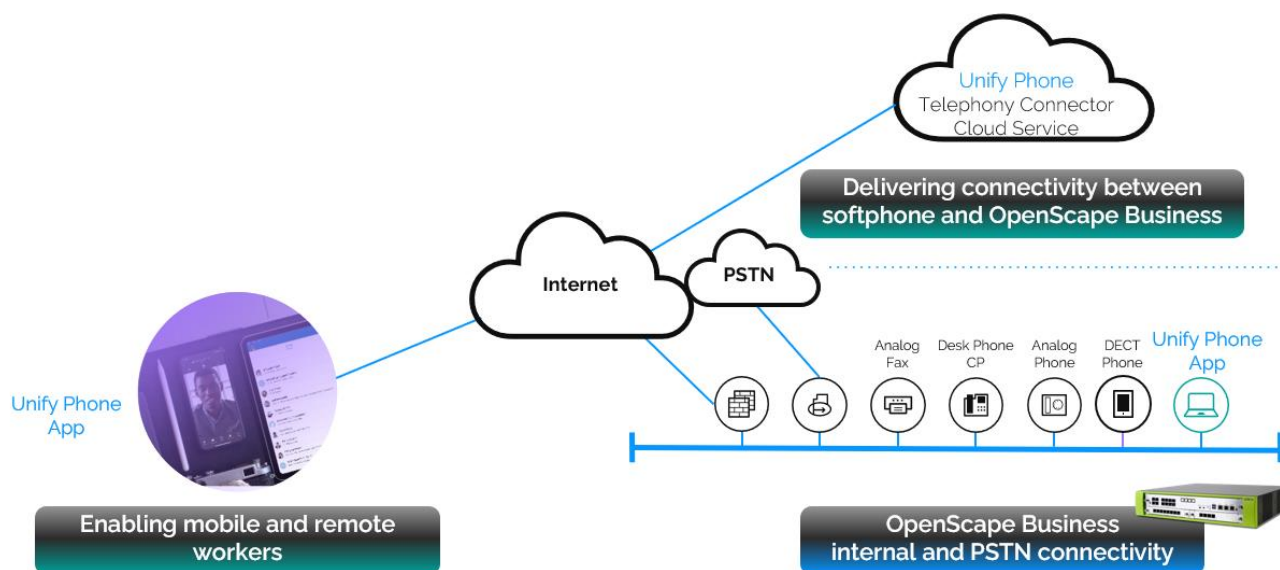
1 Introduction

To provide the Unify Phone solution with OpenScape Business several components are used and need to be configured. The solution consists of the Unify Phone telephony connector acting as the bridge between the OpenScape Business communication system and Unify Phone, enabling users to make and receive phone calls on their business phone number using the Unify Phone app.

The Unify Phone telephony connector is in the cloud. The connection between the Unify Phone telephony connector and the OpenScape Business system is a native SIP trunk connected through the public internet.

Unify Phone for OpenScape

Unify Phone is used as a stand-alone OpenScape communication system telephony client.



Multiple OpenScape Business systems can be connected to one Unify Phone telephony connector Tenant by using the same API key for each OpenScape Business system. Each OpenScape Business system will get automatically configured an own trunk after running the wizard.

For the Unify Phone solution, two configuration steps are necessary:

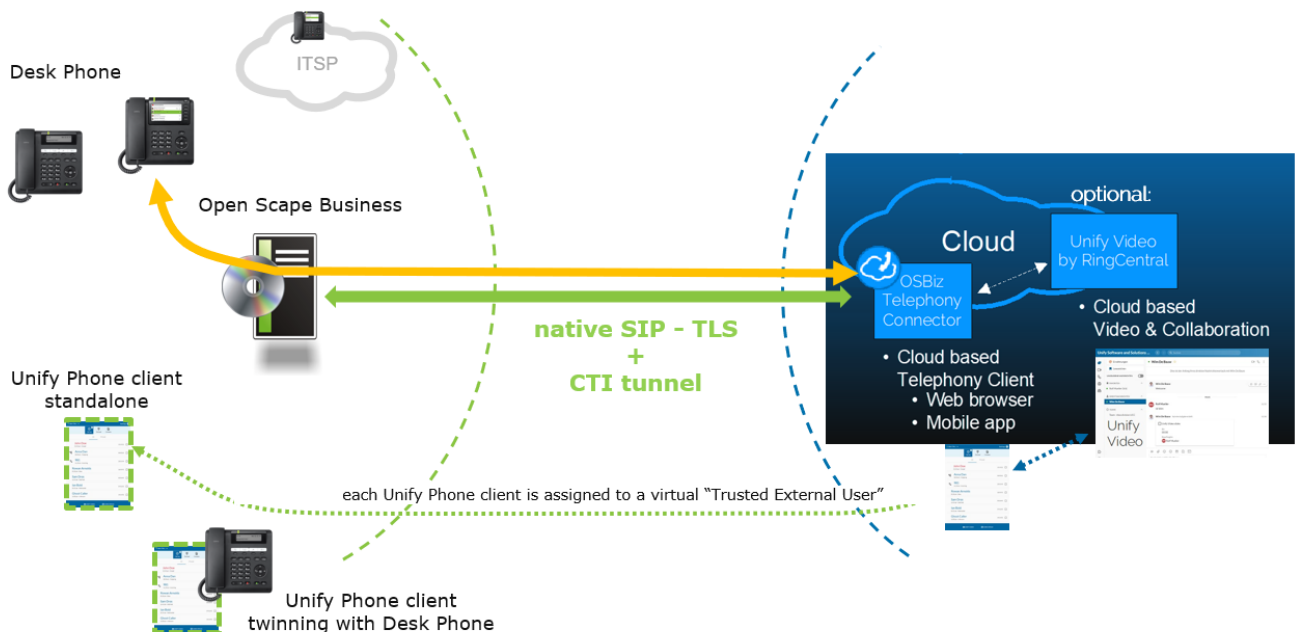
1. configuration of the Unify Phone environment
2. configuration of the OpenScape Business system

1.1 General Setup

Unify Phone telephony connector: our bridge on the client side between OpenScape Business and Unify Phone as WebRTC softphone for desktop and mobile devices:

- cloud-based operated by Unify DevOps
- Headset integration
- cross-launch between Unify Video and Unify Phone app (optional)
- access to OpenScape Business capabilities
 - Basic Call, Hold/Retrieve, Call Transfer, DTMF, ...
 - parallel ringing (MULAP) – One Number Service
 - Alternative number (ONS)
 - Call forwarding
 - Voicemail integration via OpenScape Business Call Management

by **Virtual Stations** of type: **Trusted External User** - each Unify Phone client is assigned to a User within OpenScape Business



- **Unify Phone:** Call Control capabilities for Unify Phone calls (standalone)
- **Desk Phone:** Unify Phone CTI Control of the connected Desk Phone (optional scenario)

From OpenScape Business point of view Unify Phone requires the following licenses:

- valid OpenScape Business Software Support
- OpenScape Business IP User (Mobility User) licenses
- OpenScape Business Unify Phone licenses
- Twinning with Desk Phone: IP User license per Desk Phone (optional)
- OpenScape Business Voicemail licenses (optional)

2 Configuration of Unify Phone



This Product Guide highlights the most important configuration steps for Unify Phone. For detailed instruction please refer to Unify Phone Administration, Administrator Documentation [5].

2.1 Request the Unify Phone Tenant

To connect OpenScape Business with Unify Phone you need an active Unify Phone Tenant.

If you are an administrator of your company's Unify Video account, you can register your company for Unify Phone via the Unify Phone administration app:

<https://phoneapp.unify.com/tenant/>

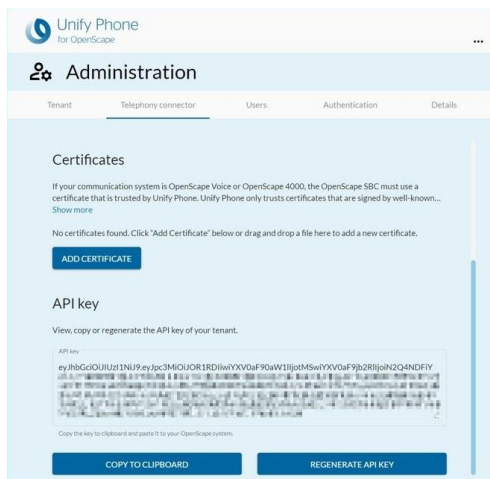
Please enter the requested data. At the end sign up in Unify Phone and login as administrator.

Herby an **API key** is generated to be entered in your OpenScape Business system.

2.2 API key

The API key of your tenant can be accessed and regenerated via the **API key** section within the **Telephony connector** tab.

Click **Copy to keyboard** for further OpenScape Business configuration.



Unify Phone for OpenScape



Multiple OpenScape Business systems can be connected to one Unify Phone telephony connector Tenant by using the same **API key** for each OpenScape Business system.

2.3 Telephony Connector

Under the section **Telephony status** you can view the name, the type and the status of the telephony connector. The status of the telephony connector should be **Available**.

gtc-012	OSBIZ	● Available
---------	-------	-------------

An active connection requires the configuration of the SIP Trunk within OpenScape Business by using the customer's individual **API key** – please refer to chapter 3.

2.4 Unify Phone for OpenScape

The access to the tenant is available via the administrator portal.

The screenshot displays the 'Unify Phone for OpenScape' administration interface. The top navigation bar includes the logo and a menu icon. Below it, the 'Administration' section is active, with sub-tabs for 'Tenant', 'Telephony connector', 'Users', 'Authentication', and 'Details'. The 'Tenant' tab is selected, showing details for a tenant with ID '1e953265-e20e-4140-8000-000000000000'. It lists the main contact as 'Main contact : 123456789' and the number of users as '1'. A 'Call data export' section allows users to export call data for all users in the tenant, with a date range selector set to '3/27/2021 - 3/27/2023' and a checkbox for 'Anonymize data' which is checked. A 'DOWNLOAD' button is at the bottom.



User provisioning requires:

- an available Telephony Connector
- a CSV import or OpenScape Business wizard (see chapt. 3.3)

The screenshot shows the 'Administration' page for 'Unify Phone for OpenScape'. The 'Users' tab is selected. Under 'Import users', there is a section for 'OSBIZ trunk*' with a dropdown menu showing 'gtc-001' and an 'IMPORT CSV' button. Below this, there is a section for 'IMPORT JSON' with a button. At the bottom, there is a 'Users' table with columns: Name, Role, Trunk, and Phone number. The table shows one user: 'Administrator'.

You must use camel case notation for the entries in the Excel Header. In Excel, go to **File > Save as**. Change the file type to **CSV UTF-8 (Comma delimited) (*.csv)** and click **Save**.

	A	B	C	D
1	emailAddress	firstName	lastName	locale
2	albert.admin@aptg.info	Albert	Admin	de-DE
3	maria.may@aptg.info	Maria	May	en-US
4	max.maxxis@aptg.info	Max	Maxxis	fr-FR
5	robert.rodman@aptg.info	Robert	Rodman	it-IT
6				

New in OpenScape Business V3R3 FR1: create Unify Phone User via OpenScape Business wizard (see chapt. 3.3).

2.5 Unify Management Center (UMC)

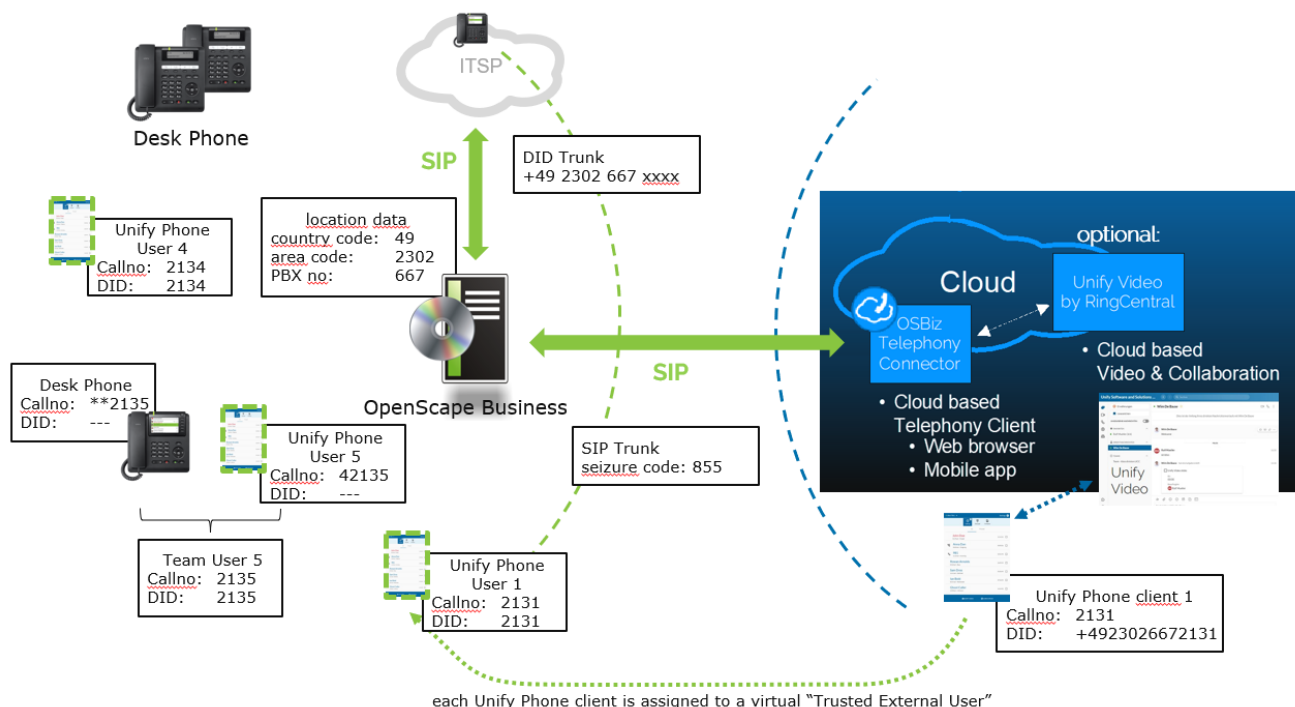


Only the **OpenScape Business Unify Phone user instance wizard** allows to edit the Unify Phone Clients configuration including the deletion of a Unify Phone User instance.

Changes via the **UMC** will either not be handled, must be reconfigured in the OpenScape Business, or corrupt the OpenScape Business database.

3 Configuration of OpenScape Business

The following picture gives an overview of the example topology.



3.1 Basic Installation

As Unify Phone is connected via the internet, you must configure the internet connection of the OpenScape Business. Enter the correct upstream value, this is used later to calculate the max amount of concurrent internet calls.

The Connectivity to Unify Phone is permitted only via an external Router.

The screenshot shows the 'Setup - Wizards - Basic Installation - Basic Installation' window. The wizard has 10 steps: 1. System Overview, 2. Central Functions for ISDN Configuration, 3. Configure Internet Access, 4. Provider configuration and activation for Internet Telephony, 5. Select a station, 6. Configured Stations, 7. Automatic Configuration of Application Suite, 8. Configure MeetMe Conference, 9. Configure E-Mail Forwarding, and 10. Configure E-Mail Forwarding. The current step is 'Configure Internet Access'. The 'Internet Access' section has a checkbox for 'No Internet Access' which is unchecked. Below it, there are three radio buttons: 'DSL at WAN Port directly' (unchecked), 'TCP/IP at WAN Port via an external Router' (unchecked), and 'TCP/IP at LAN Port via an external Router' (checked). The 'Upstream of your internet connection' section has a text box for 'Upstream up to (Kbps):' with the value '2048' entered. At the bottom, there are buttons for 'Help', 'Abort', 'Back', and 'OK & Next'.

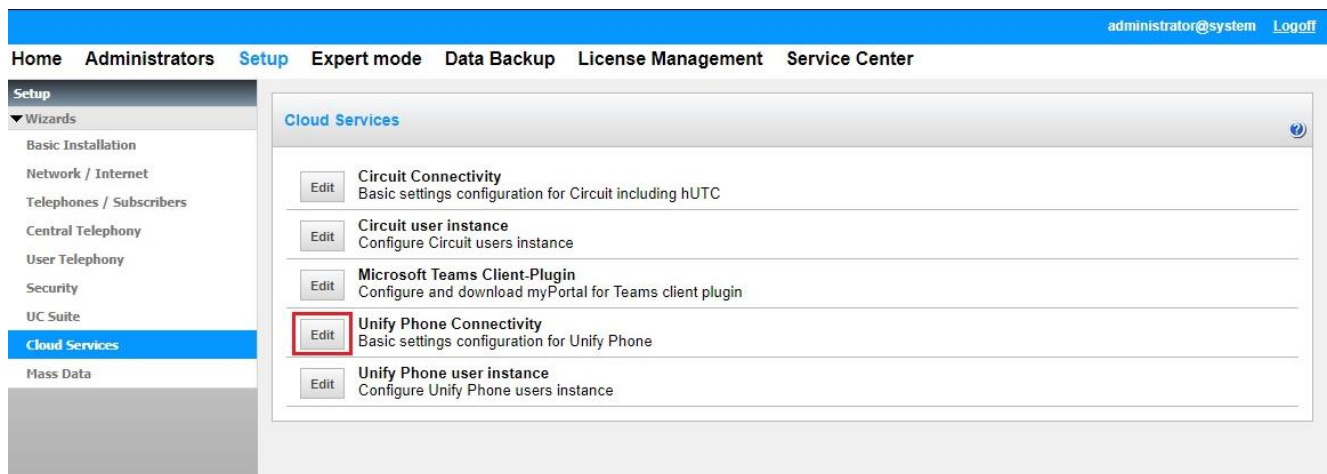
Connecting Unify Phone via WAN interface is possible as well [6].

3.2 Unify Phone Connectivity wizard



Only the **Unify Phone Connectivity** wizard configures and establishes the connection to the Unify Phone Tenant. Changes via the Expert Mode will either not be handled or must be reconfigured after the wizard has been executed.

Go to Cloud Services – **Unify Phone Connectivity**



Click [Edit].

Actions:

- check “Enable Unify Phone”
- select Domain phoneapp.unify.com
- insert the API Key via copy and paste
(get the API Key from Unify Phone tenant Administrator)
- select Number of simultaneous circuit calls.

The “upstream up to (Kbps)” value defines the overall bandwidth, which can be used for voice calls to the internet. This includes Unify Phone calls as well as ITSP and/or Device@Home calls.

Setup - Wizards - Cloud Services - Unify Phone Connectivity

Unify Phone Domain Login

Enable Unify Phone ☒

Unify Phone Domain Credentials

Domain Selection:

Hidden Unify Phone API-Key

Unify Phone API-Key:

Simultaneous Unify Phone Calls

Available Lines for Unify Phone: 60

Under "Setup - Wizards - Network / Internet - Internet Access", you have entered the value **Upstream up to (Kbps) = 2048**

This upstream allows you to conduct up to 16 Unify Phone calls simultaneously. If the call quality deteriorates due to the network load, you will need to reduce this number of simultaneous calls.


Number of Simultaneous Unify Phone Calls:

Help Abort Back OK & Next

Click [OK & Next].

New in OpenScape Business V3R3 FR1 - on next page select the numbering schema of the Unify Phone user call number:

- international numbering (default): E.164 format
- internal numbering: short format



For international numbering it is mandatory to fill in the **Unify Phone route location number incoming** which **can be different from the Gateway location number** (usage of Country Code is mandatory).

Setup - Wizards - Cloud Services - Unify Phone Connectivity

Unify Phone Location Number

For RingCentral tenants, the Use International Numbering flag should always be set to true.

Use International Numbering ☒

Please fill the following fields as they are mandatory for the Unify Phone Configuration.

Unify Phone Location Number Incoming

Country Code:

Local Area Code:

PABX Number:

Help Abort Back OK & Next

Click [OK & Next].

Setup - Wizards - Cloud Services - Unify Phone Connectivity

Unify Phone Automatic Configuration

Press "Execute function" to proceed with the automatic Unify Phone configuration or press "Ok & Next" for skipping this page.

Add 4 trunks to Unify Phone:
 Unify Phone Configuration:
 Check Connectivity:

Provider State	Name	Status	User Name	Status
 Restart	Unify Phone (Cloud)	Disabled		Offline

Help Abort Back OK & Next Execute function

Click [Execute Function].

The wizard automatically configures the trunks, the according route and establishes the connection to Unify Phone.

Setup - Wizards - Cloud Services - Unify Phone Connectivity

Unify Phone Automatic Configuration

Press "Execute function" to proceed with the automatic Unify Phone configuration or press "Ok & Next" for skipping this page.

Add 4 trunks to Unify Phone: Done
 Unify Phone Configuration: Done
 Check Connectivity: Done

Provider State	Name	Status	User Name	Status
 Restart	Unify Phone (Cloud)	Enabled		Online

Help Abort Back OK & Next Execute function

Click [OK & Next].



If you want to connect multiple OpenScape Business Systems to one tenant, you must run on each system the wizard and use the same API key for each system. Each System will create an own trunk to Unify Phone.

New in OpenScape Business V3R4: support of secure Media (DTLS-SRTP) and direct Media between the Unify Phone Client and the OpenScape Business is available by default in new deployments. Existing installations must be updated to new functionality via Expert Mode by activating "DTLS-SRTP" manually and restart the trunk.

Expert mode - Telephony Server

Voice Gateway

SIP Parameters

ITSP Loc-ID Settings

Codec Parameters

Destination Codec Parameters

Internet Telephony Service Provider

Networking

SIPQ-Interconnection

Native SIP Server Trunk

Circuit UTC (Cloud)

Native SIP trunk

Trusted SBC

Unify Phone (Cloud)

3919209257

Native SIP Server Trunk

Edit Native SIP Server Trunk

Delete Native SIP Server Trunk

Add Native SIP Server Trunk User

Trunk Name: Unify Phone (Cloud)

Enable Trunk: ☒

Trunk Identifier in System: ITSP/NS 2

Remote Domain Name: 35.246.178.13

Transport protocol: tcp

Transport security: secure (tls)

Media security: DTLS-SRTP

SIP Server

IP Address / Host name: 35.246.178.13

Port: 65061

SIP Registrar

Use Registrar: ☒

IP Address / Host name: 35.246.178.13

Port: 65061

Reregistration Interval (sec): 600

STUN Server

Use STUN: ☒

Apply

Undo

Refresh

Reset Default Values

Help

Close the window and restart the ITSP.



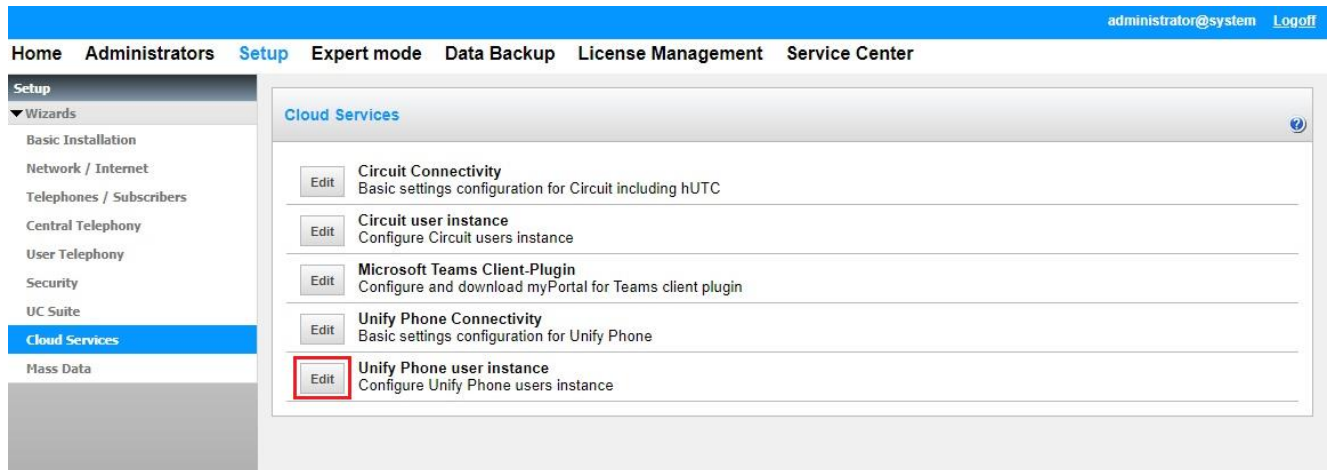
Restrictive firewall settings may cause sporadic or permanent voice payload issues.
In that case, disable the "DTLS-SRTP" option (change back to "RTP only").

3.3 Unify Phone User instance wizard



Only the **Unify Phone user instance** wizard creates (**new in OpenScape Business V3R3 FR1**), configures, and assigns existing Unify Phone Clients to the OpenScape Business Users.

Go to Cloud Services – **Unify Phone user instance**



Click [Edit].

Note: for each Unify Phone User Instance you need a free internal call number to address the virtual station, which represents the Unify Phone User in the OpenScape Business system.

- OpenScape Business V3 mainboard family systems
 - X1W/R, X3, X5 and X8 up to 150/500 User - model dependent (basic/advanced)
- OpenScape Business V2 mainboard family systems
 - X1 up to 30 User
 - X3, X5 and X8 up to 50 User
- OpenScape Business S
 - model dependent up to 500 User (basic/standard/advanced)

3.3.1 Create new Unify Phone User

Action: Create new Unify Phone User (**new in OpenScape Business V3R3 FR1**)

Setup - Wizards - Cloud Services - Unify Phone user instance

Unify Phone User Instance

Add Unify Phone User

Add Existing User To Unify Phone

Create a New User For Unify Phone

Unify Phone User callno	Unify Phone User DID	Name	Trunk access code + Unify Phone User Call number
-------------------------	----------------------	------	--

Help Abort Back OK & Next Validate Numbers

Click [Create].

a) International number schema

Actions – standalone User:

- add the internal call number (callno)
- add the User's DID (optional)
- Unify Phone User call number is created automatically
 - using selected numbering schema and location information
 - this example requires:

Unify Phone Location Number Incoming

Country Code: 49

Local Area Code: 2302

PABX Number: 667

- configure the First Name and Last Name
- Name is created automatically
- assign the E-mail address

Setup - Wizards - Cloud Services - Unify Phone user instance

Unify Phone User Creation

Unify Phone User

Trunk access code + Unify Phone User Call number (856) 004923026672131

Unify Phone User callno: 2131

Unify Phone User DID: 2131

First Name: User1

Last Name: Abc

Name: Abc, User1

Email Address: user1.abc@osbiz.com

Help Abort Back OK & Next

Click [OK & Next].

b) Internal number schema

Actions as for International number schema.

Setup - Wizards - Cloud Services - Unify Phone user instance

Unify Phone User Creation

Unify Phone User

Trunk access code + Unify Phone User Call number (856)

Unify Phone User callno:

Unify Phone User DID:

First Name:

Last Name:

Name:

Email Address:

Click [OK & Next].

3.3.2 Add Unify Phone User

Action: Add new Unify Phone User

Setup - Wizards - Cloud Services - Unify Phone user instance

Unify Phone User Instance

Add Unify Phone User

Add

Add Existing User To Unify Phone

Create

Create a New User For Unify Phone

	Unify Phone User callNo	Unify Phone User DID	Name	Trunk access code + Unify Phone User Call number
--	-------------------------	----------------------	------	--

Help

Abort

Back

OK & Next

Validate Numbers

Click [Add].

Actions – standalone User:

- search for available Unify phone User by Name or E-mail
- select an available Unify phone User – already assigned user are marked by a red frame
- add the internal call number (callno)
- add the User's DID (optional)
 - Unify Phone User call number is created automatically by selected numbering schema
 - example requires:

Unify Phone Location Number Incoming

Country Code:	49
Local Area Code:	2302
PABX Number:	667

- configure the First Name and Last Name
- Name is created automatically

Setup - Wizards - Cloud Services - Unify Phone user instance

Unify Phone User Allocation

Unify Phone User

Trunk access code + Unify Phone User Call number (855) 004923026672131

Unify Phone User callno: 2131

Unify Phone User DID: 2131









First Name: User1

Last Name: Abc

Name: Abc, User1

Search by: Name ☐ E-mail ☒ osbiz.com


Select Unify Phone User:

 Admin	 User1	 User2	 User3
 User4	 User5	 User6	 User7

Help Abort Back OK & Next

Click [OK & Next].

3.3.3 Edit configured Unify Phone User

	<p>Only the Unify Phone user instance wizard allows to edit the Unify Phone Clients configuration. Changes via the Expert Mode will either not be handled or must be reconfigured after the wizard has been executed.</p> <p>For updating and validation of entire Unify Phone User Call number(s) including network view to the selected numbering schema click [Validate Numbers].</p> <p>Hint: if an existing number schema does not fit into the E.164 format length restriction, please update the Unify Phone route location number and update the numbering schema by click [Validate Numbers].</p> <div><div>Unify Phone User Instance</div><div>Software update detected. Please run the Unify Phone Connectivity wizard without changing the configuration.</div></div>
---	---

Action: Edit configured Unify Phone User

Setup - Wizards - Cloud Services - Unify Phone user instance

Unify Phone User Instance

Add Unify Phone User

New Unify Phone User

Create a New User For Unify Phone

	Unify Phone User callno	Unify Phone User DID	Name	Trunk access code + Unify Phone User Call number
<input type="button" value="Edit"/>	2131	2131	User1	855004923026672131
<input type="button" value="Edit"/>	2134	2134	User4	855004923026672134
<input type="button" value="Edit"/>	2135	2135	User5	855004923026672135

Select user and click [Edit].

Setup - Wizards - Cloud Services - Unify Phone user instance

Unify Phone User Allocation

Unify Phone User

Trunk access code + Unify Phone User Call number (855)

Unify Phone User callno:

Unify Phone User DID:

First Name:

Last Name:

Name:

Select Unify Phone User: user1.abc@osbiz.com

Remove/Delete

Remove the user from the communication system

Delete user from the communication system and cloud

Change needed parameter(s). Click [OK & Next].

Expert mode - Telephony Server

Station

- Station
- IP Clients
- Virtual Stations
- UC Applications
- Profiles/Templates
- DDI Extensions
- Mobility User
- Circuit User
- SIP User
- Trusted External User**
 - 3500 2131 User1
 - 3501 2134 User4
 - 3502 42135 User5
- Stations Overview
- Key Programming
- IP Clients

Trusted external User

Edit Subscriber

CallNo	DID	First Name	Last Name	Display	Type	Trusted external s number
Search:						
2131 →	2131	User1	User1	User1	Trusted external station	85500492302667213
2134 →	2134	User4	User4	User4	Trusted external station	85500492302667213
42135 →	-	User5	User5	User5	Trusted external station	85500492302667213

Page 1 of 1

Items per page 10 25 50 100

Apply Undo Help

A configuration of the **Trusted External User** via Expert Mode is not possible and would not update the Unify Phone Telephony Connector at all.

3.4 Twinning with Desk Phone

For the twinning with Desk Phone a Team configuration (MULAP) consisting out of a Unify Phone user and a Desk Phone is required within OpenScope Business. When integrating the Unify Phone user into a Team, please note:

- Only one IP or TDM desk phone can be included in the Team configuration with the Unify Phone User. The routing function in Unify Phone is used to determine which end device should be used to signal an incoming call.
- The desk phone in the team with Unify Phone can still be controlled by external applications via TAPI, WSI or CSTA.
- Cordless subscribers are not approved in connection with Unify Phone.



The Team wizard will update the Unify Phone User call number fitting to the Team internal Call Number (callno).

Please log off the Unify Phone client before integrating the client into a Team or MULAP.

Actions – Team (MULAP) User:

- Create, Add or Edit Unify Phone User as described in chapt. 3.3
- leave DID empty
- configure the Name (optional)

Expert mode - Telephony Server

Unify Phone User Allocation

Unify Phone User

Trunk access co Trunk access code + Unify Phone User Call number (855) 0049230266742135

Unify Phone User callno: 42135

Unify Phone User DID:

First Name: User5

Last Name: Xyz

Name: Xyz, User5

Select Unify Phone User: user5.xyz@osbiz.com

Remove/Delete

Remove Remove the user from the communication system

Delete Delete user from the communication system and cloud

Help Abort Back OK & Next

Go to User Telephony – Team Configuration

The screenshot shows a window titled "Setup - Wizards - User Telephony - Team Configuration". The main heading is "Select Team Configuration". Below this is a table with two columns: "Team-Name" and "New Team Configuration". There is an "Add" button to the left of the table. At the bottom of the window are four buttons: "Help", "Abort", "Back", and "OK & Next".

Click [Add].

Select the first telephone (IP or TDM Desk Phone).

The screenshot shows a window titled "Setup - Wizards - User Telephony - Team Configuration". The main heading is "Add Team Configuration". Below this is a form with a label "First Telephone:" followed by a dropdown menu showing "2135 User 5". At the bottom of the window are four buttons: "Help", "Abort", "Back", and "OK & Next".

Click [OK & Next].

Add the Unify Phone mobility User as second telephone

- add the internal call number
- add the DID
- configure the names

The screenshot shows a window titled "Setup - Wizards - User Telephony - Team Configuration". The main heading is "Change Team Configuration". Below this is a form with two columns: "Team" and "Fax". The "Team" column has fields for "First Name:" (Team), "Last Name:" (User 5), "Display:" (User 5), "Internal Call Number:" (2135), "Direct inward dialing number:" (2135), and "Team as group member:" (checkbox). The "Fax" column has two empty fields. Below the "Team" section is a section titled "Telephones" with three columns: "First Telephone", "Second Telephone", and "Third Telephone". The "First Telephone" column has a text field with "**2135". The "Second Telephone" column has a dropdown menu showing "42135 User5". The "Third Telephone" column has a dropdown menu. At the bottom of the window are five buttons: "Help", "Abort", "Back", "OK & Next", and "Delete Data".

Click [OK & Next].

3.5 3rd-pty CTI control

From OpenScape Business V3R3 FR2 on 3rd-pty CTI control for Unify Phone is available for the following onboard UC Clients:

- UC Smart mode: myPortal @work
- UC Suite mode: myPortal @work, myPortal for Desktop, myPortal for Outlook, myAttendant
new in OpenScape Business V3R4: myAgent and myPortal for Teams

and requires OpenScape Business UC User license.

Functional Requirements

- activating DND on UC client is not visible at Unify Phone
the DND is activated but Presence states sync between OpenScape Business and Unify Phone is part of the roadmap and not yet available
- for MULAP the initial CTI control (MakeCall, AnswerCall) is handled via the Deskphone, the call can afterwards be moved to the Unify Phone client
- 3rd-pty CTI control shall not be used for the mobile App and Alternative number

3.6 Licenses

Unify Phone requires the following OpenScape Business licenses:

- valid OpenScape Business Software Support
- OpenScape Business IP User (Mobility User) licenses
- OpenScape Business Unify Phone licenses
- Twinning with Desk Phone: IP User license for Desk Phone (optional)
- OpenScape Business Voicemail licenses (optional)
- OpenScape Business UC User licenses (optional)

Go to License Management – Local User licenses – **Mobility User**

Actions – standalone User example:

- activate needed IP User (Mobility User) licenses
- activate needed Unify Phone licenses
- Twinning with Desk Phone: IP User license for Desk Phone (optional)
- activate needed Voicemail licenses (optional)
- activate needed UC User licenses (optional)

The screenshot shows the 'License Management' interface for 'Mobility User'. The top navigation bar includes 'Home', 'Administrators', 'Setup', 'Expert mode', 'Data Backup', 'License Management' (selected), and 'Service Center'. The left sidebar lists various license management options, with 'Mobility User' selected. The main content area displays '25 Unify Phone licenses' and '25 will expire on Dec 31 2024'. Below this is a search bar and a table of licenses. The table has columns for 'Access', 'Call number', 'Display', and various license types represented by icons. The 'Remaining licenses' row shows counts for each type. The table lists three users: User1, User4, and User5. Below the table is a pagination bar showing 'Page 1 of 1' and 'Items per page 10 25 50 100'. At the bottom, there are checkboxes for 'Successfully licensed', 'Not licensed', 'Unsaved license release', 'Unsaved license demand release', 'License demand configurable', 'License demand not configurable', and 'Unsaved license demand'. 'Apply' and 'Abort' buttons are at the bottom.

Access	Call number	Display	IP User	Unify Phone	Voicemail	UC User	Desk Phone	Other					
Remaining licenses			1997 *	1500	1500	3250 *	1500	1500	20	192	500	22	500
-	2131	User1	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
-	2134	User4	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
-	2135	User5	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Click [Apply].

3.7 Configuration in Expert Mode

3.7.1 LCR

In general, no additional manual configuration in LCR is required to reformat the dial string to E.164 format. Everything is prepared by the wizard and looks like this:

Dial Plan						
Change Dial Plan				Display Dial Plan		
Dial Plan	Name	Dialed digits	Routing Table	Acc. code	Classes of service	Emergency
26	Standard	855CZ	6 →	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
27	Standard	855C0-Z	29 →	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
28	Standard	855C1Z	6 →	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
29	Standard	855CNZ	6 →	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
30	Standard	855C00-Z	39 →	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Unify Phone User without DID are included in this mechanism as well.

3.7.2 Trunks/Routing

The wizard activates automatically the **Trusted External Users** mode for the Unify Phone route

Expert mode - Telephony Server

Trunks/Routing

Trunks

Route

ISUN

Trk Grp. 2

Trk Grp. 3

Trk Grp. 4

Trk Grp. 5

Trk Grp. 6

Trk Grp. 7

App. Suite

Trk Grp. 9

Trk Grp. 10

Trk Grp. 11

UnifyPhone

myITSP

Trk Grp. 14

Trk Grp. 15

Networking

Route

Change Route

Change Routing Parameters

Special Parameter change

Route Name: UnifyPhone

Seizure code: 855

CO code (2nd trunk code):

Gateway Location

Country code: 49

Local area code: 2302

PABX number: 667

PABX number-incoming

Country code: 49

Local area code: 2302

PABX number: 667

Location number:

PABX number-outgoing

Country code:

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:

Trusted External Users

Trusted External Users: ☒

Apply

Undo

Help



The Gateway location and the Unify Phone route PABX number incoming can be different (e.g. users without DID).

and other parameters like “route type”.

Expert mode - Telephony Server

Trunks/Routing

- Trunks
- Route
- ISDN
- Trk Grp. 2
- Trk Grp. 3
- Trk Grp. 4
- Trk Grp. 5
- Trk Grp. 6
- Trk Grp. 7
- App. Suite
- Trk Grp. 9
- Trk Grp. 10
- Trk Grp. 11
- UnifyPhone
- myIT SP
- Trk Grp. 14
- Trk Grp. 15
- Networking

Route

Change Route Change Routing Parameters Special Parameter change

Routing flags

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

deactivate UUS per route: ☐

Always use DSP: ☒

Analog trunk seizure: no pause

Trunk call pause: Pause 2 s

Type of seizure: linear

Route type: PABX

No. and type, outgoing: Country code

Call number type: Direct inward dialing

Rerouting

Change route allowed: ☐

Route optimize active: No

Apply Undo Help

Selection of the parameters reflect to the selected numbering schema (here: International format).

3.7.3 Mailbox

Unify Phone user can use the Open Scape Business **Voicemail**. For this purpose, an appropriate call destination list is needed. The following example shows the usage of the UC Suite voicemail system.

Expert mode - Telephony Server

Incoming calls

- Groups/Hunt groups
- Team/top
- Call pickup
- UCD
- Call Forwarding**

Call Forwarding

Call dest. list - Definition | Call dest. list - Assignment | Members of dest. list | Copy call dest lists

Call dest. list: 14

Edit Call Forwarding

Target 1: * Called station

Target 2: ** User defined

Target 3: External destination

Route: UC Suite

External destination: 271

Target 4: No entry

Call forwarding starts after: 15 seconds

Call forward on busy mode: ☒

Second ringer

Second ringer Target: No entry

Second ringer Type: immediate

Apply | Undo | Help

Click [Apply].

Hint: for the usage of the Unify Phone feature **Alternative Number** target 2 must be set to "*** User defined".

The User can activate call forwarding to the OpenScape Business **Voicemail** via the Unify Phone Client.

Unify Phone

User1 | 2131

Settings

General | **Telephony** | Audio

Call forwarding ☒

Redirect your incoming calls to a colleague or directly to your voicemail when you are out of office or unavailable.

☐ Number ☒ Voicemail

Alternative number ☐

Specify the phone number of an alternative device, e.g. mobile, that can be used for making and receiving phone calls through your work number. Use the alternative number to control the routing of your calls between your devices.

Phone number

Call routing

☒ Default routing

Incoming calls will ring on all your Unify Phone clients and desk phone. On no answer, they will be routed to your alternative device, if you have specified one. Outgoing calls will be possible via all your

3.7.4 Alternative number

Any external number can be configured in the Unify Phone Client that can be used for making and receiving phone calls through your work number. The usage of the Unify Phone feature **Alternative Number** requires target 2 must be set to “** User defined” in the call destination list.

Expert mode - Telephony Server

Incoming calls

- Groups/Hunt groups
- Team/top
- Call pickup
- UCD
- Call Forwarding**

Call Forwarding

Call dest. list - Definition

Call dest. list - Assignment

Members of dest. list

Copy call dest lists

Call dest. list: 14

Edit Call Forwarding

Target 1: * Called station

Target 2: ** User defined

Target 3: No entry

Target 4: No entry

Call forwarding starts after: 15 seconds

Call forward on busy mode: ☒

Second ringer

Second ringer Target: No entry

Second ringer Type: immediate

Apply Undo Help

Click [Apply].

The availability of the **Call routing** modes depends on the User configuration:

- Default routing - standalone, MULAP
- Desk phone - MULAP
- Unify phone - MULAP
- Alternative number - standalone, MULAP

Unify Phone

User1 | 2131

Alternative number

Specify the phone number of an alternative device, e.g. mobile, that can be used for making and receiving phone calls through your work number. Use the alternative number to control the routing of your calls between your devices.

Phone number

+49897007

Call routing

☒ Default routing

Incoming calls will ring on all your Unify Phone clients and desk phone. On no answer, they will be routed to your alternative device, if you have specified one. Outgoing calls will be possible via all your Unify Phone clients or desk phone. For more information, see our documentation.

☐ Desk phone

Incoming calls will be routed directly to your desk phone. Outgoing calls will be possible via all your Unify Phone clients or desk phone.

☐ Unify Phone

Incoming calls will be routed directly to your Unify Phone. Outgoing calls will be possible via all your Unify Phone clients or desk phone.

☐ Alternative number

Incoming phone calls will be routed directly to your alternative device. Outgoing phone calls will be possible via all your devices.

3.7.5 Unify Phone User without DID

This chapter describes the setup, if customer do not have individual DID's for each Unify Phone User and e.g., configures an auto attendant to reach out to the individual users.



Unify Phone User without DID is supported only with **Unify Phone for OpenScape**.

Please use **OpenScape Business V3R3 FR1** or later by selecting the internal numbering schema (see chapt. 3.2).

If needed, assign the according **Trusted External User** the CLIP/LIN via Expert mode:

The screenshot shows the 'Expert mode - Telephony Server' window. On the left is a navigation tree with 'Station' expanded and 'Trusted External User' selected. The main area is divided into three tabs: 'Station', 'Mobility/Circuit', and 'Parameter'.
- The 'Station' tab shows 'Station - 3500' and 'Type: Trusted External User'. Fields include 'Call number: 2131', 'First Name: User1', 'Last Name: User1', 'Display: User1', 'Direct inward dialing: -', 'Device Type: virtual', and 'Clip/Lin: 23026672000' (highlighted with a red box).
- The 'Mobility/Circuit' tab shows 'Type: Trusted external station', 'Trusted external station call number: 8550049 any number', and 'Web Feature ID: None'.
- The 'Parameter' tab shows 'Extension Type: Standard', 'Language: German', 'Call signaling internal: Ring type 1', 'Call signaling external: Ring type 1', 'Class of service (LCR): 15', 'Hotline Mode: Off', and 'Hotline: None'.
At the bottom are 'Apply', 'Undo', and 'Help' buttons.

Click [Apply].

The wizard updates the according LCR Dial Plan entries and Route parameters like "No and Type outgoing" and "Call Number Type" of the Unify Phone route automatically.

3.7.6 Directory/Journal interconnection

Starting with **OpenScape Business V3R3 FR1** directory and journal info of OpenScape Business is available at the Unify Phone clients.

In first drop, unwanted directory results such as MULAP members or Fax numbers can be switched off by disabling the station flag: "Entry in telephone directory".

The screenshot shows the 'Station flags' configuration window. The window has a title bar 'Station' and four tabs: 'Edit station parameters', 'Edit station flags' (selected), 'Edit workpoint client data', and 'Edit Group/CFW'. Below the tabs, the 'Station flags' section is active. It contains a list of flags with checkboxes:

- Override class of service on: ☐
- Override Do Not Disturb: ☐
- FWD external permitted: ☒
- Prevention of voice calling off: ☒
- Disa Class of service: ☐
- Transit allowed via Hook-on: ☐
- System telephone lock reset: ☐
- MCID access: ☐
- Entry in telephone directory: ☐**
- Edit tel. number: ☐

At the bottom of the window, there are buttons for 'Apply', 'Undo', and 'Help', along with navigation arrows.

4 Firewall Rules

Unify Phone is a cloud-based Software-as-a-Service. Your organization's network must satisfy some connectivity requirements to allow Unify Phone to work properly.

	source IP	source port	destination IP	destination port	comment
TURN for clients	Client IP	any (1024-65535)	34.159.228.55 turn.phoneapp.unify.com	3478 (TCP/UDP)	Web/Mobile/Desktop Clients need to connect to TURN server thus the firewall should allow connection towards the TURN server.
HTTPS for clients	Client IP	any (1024-65535)	34.117.105.255 phoneapp.unify.com	443 (TCP)	If your organization's network uses a proxy server, the browser will establish the connection via the proxy.

Table 1: Client Egress Firewall Rule Table

4.1 Stateful Firewall Configuration and NAT

	destination IP	destination port	source IP	source port	comment
Unify Phone client REST API (HTTPS)	34.117.105.255	443	OpenScape Business public IP	any (1024-65535)	Unify Phone client connection to provision Unify Phone users in the OpenScape Business. Hostname is phoneapp.unify.com
Unify Phone Connector SIP over TLS	35.246.178.13	65061	OpenScape Business public IP	any (1024-65535)	Needed for SIP connectivity over TLS with Unify Phone. (allow Established Connection)
Media RTP	GCP IP source range for Europe-west3	Media RTP (UDP ports) to GCP nodes (destination): Ports 10000-49999	OpenScape Business public IP	OpenScape Business media ports	Media Path/RTP configuration to establish media stream.
TURN/STUN	34.159.228.55	3478 (TCP/UDP)	OpenScape Business public IP	any (1024-65535)	OpenScape Business should be able to establish connection to STUN/TURN server.

Table 2: Egress Firewall Rule Table

	source IP	source port	destination IP	destination port	comment
OpenScape Business (SIP/CSTA)	GCP IP source range for Europe-west3	any (1024-65535) (TCP)	OpenScape Business public IP	OpenScape Business ports	Returned SIP client connection that OpenScape Business has established with Unify Phone.
OpenScape Business Media RTP	GCP IP source range for Europe-west3	Media RTP (UDP) from GCP nodes: ports 10000-49999	OpenScape Business public IP	OpenScape Business Media ports	Media Path/RTP configuration to establish media stream.

Table 3: Ingress Firewall Rule Table

4.2 Stateful Firewall Configuration and NAT supporting Direct Media feature

	destination IP	destination port	source IP	source port	comment
Media RTP	OpenScape Business public IP	Media Server WebRTC ports	any	any (1024-65535)	Media Path DTLS/RTP configuration to establish media stream from OpenScape Business to Client.
TURN for PBX	OpenScape Business public IP	Media Server WebRTC ports	34.159.228.55 turn.phoneapp.unify.com	3478 (TCP/UDP)	OpenScape Business should be able to establish connection to STUN/TURN server.


Table 4: Egress Firewall Rule Table

	source IP	source port	destination IP	destination port	comment
OpenScape Business (SIP/CSTA)	GCP IP source range for Europe-west3	any (1024-65535) (TCP)	OpenScape Business public IP	OpenScape Business SIP ports	Returned SIP client connection that OpenScape Business has established with Unify Phone.
TURN to PBX	GCP IP source range for Europe-west3	any (1024-65535) (UDP)	OpenScape Business public IP	Media Server WebRTC Ports (DTLS /UDP)	OSBiz should be able to receive connection from Unify Phone TURN server.
OpenScape Business Media RTP	any IP	Any (1024-65535) Media RTP (UDP ports over DTLS)	OpenScape Business public IP	OpenScape Business Media Server WebRTC Ports (UDP)	Media Path/RTP configuration to establish media stream from Client to OpenScape Business Media Server. *Optional: To allow direct Path from Client to OpenScape Business Media Server

Table 5: Ingress Firewall Rule Table

4.3 General info

Further requirements are defined and detailed in Unify Phone Administration, Administrator Documentation [5].

	Port 443 must not be opened for incoming data traffic to OpenScape Business [4].
---	--

5 OpenScape Business Serviceability

5.1 Required trace settings for error reporting

OpenScape Business Trace Profiles:

- Basic
- Voice Fax Connections
- SIP_Interconnection_Subscriber_ITSP
- SIP_Registration (for registration problems)
- License_problem (for license issues, e.g. client login)

OpenScape Business Trace Components:

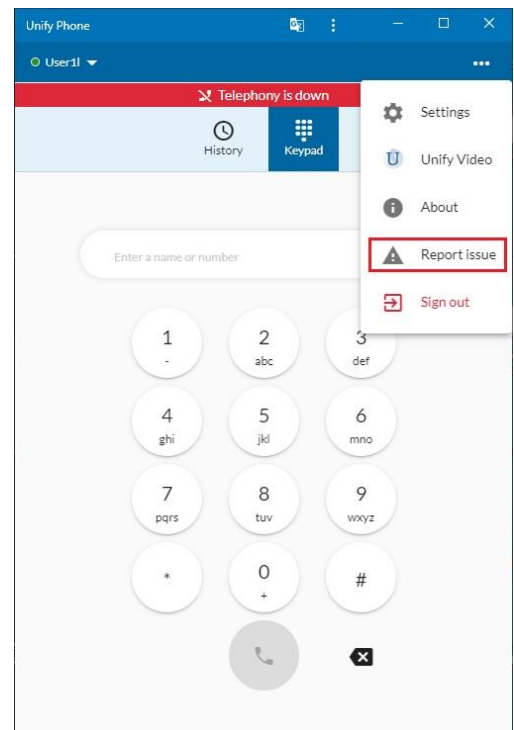
- FP_API-CTI - level 9
- FP_API_IWU - level 9
- PCC - level 9

Additional helpful data and files for error analysis are:


- OpenScape Diagnosis Logs (incl. Application Protocols)
- Wireshark traces
- OpenScape Business TCP Dump
- Diagnostic data Service Center >> Status >> ITSP >> Unify Phone (Cloud) >> Diagnose

5.2 Unify Phone log file

Client logs can be collected via the **Report issue** menu:



5.3 FAQ

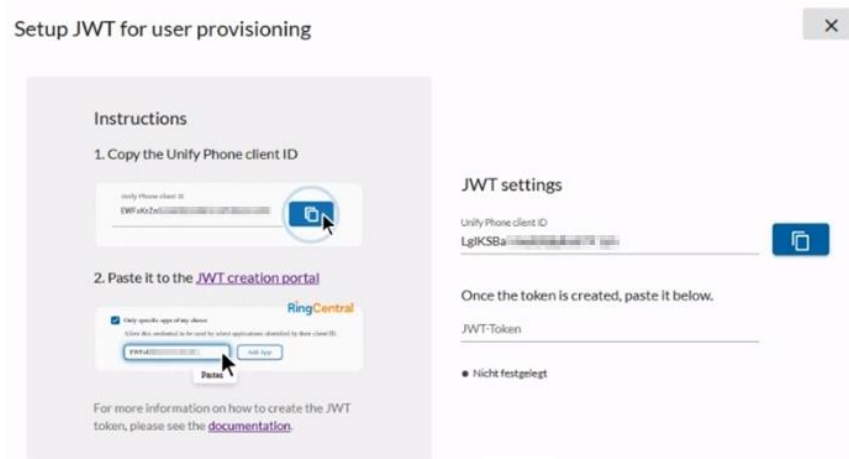
	<p>Hardware replacement / reload with active Unify Phone connector</p> <p>When setting up a new system by</p> <ul style="list-style-type: none">• cloning an existing system with active Unify Phone connector as the base or restoring the configuration data of another existing system (e.g., hardware migration),• replacing hardware (e.g., SSD / SDHC card replacement), or• system reload <p>Please consider the following important hint:</p> <p>If a new system is set up via cloning or via data restore (migration), where the original system had an Unify Phone connector access configured, it must be ensured that the cloned/restored system does not have the same Unify Phone connector configuration active.</p> <p>For this reason, it is important to uninstall the Unify Phone connector before cloning / backing up the original system.</p>
<p>ITSP Status of Unify Phone (Cloud)</p> <ul style="list-style-type: none">• not registered	<ul style="list-style-type: none">• please check for correct firewall settings
<p>no connection to REST API</p>	<ul style="list-style-type: none">• API key invalid or regenerated• Unify Phone JWT is not configured• Unify Phone JWT expired
<p>no calls with Unify Phone-Client possible</p>	<ul style="list-style-type: none">• OpenScape Business is not under Software support• no Unify Phone trunk lines are configured, or all Unify Phone trunk lines resp. shared trunk lines are busy• assigned Mobility User does not have a license or Unify Phone license is expired• Mobility User is not of type "Trusted external User"• Route parameter "Trusted external User" is deactivated• the Mobile call number does not match the Unify Phone numbering plan• configuration changes are applied via Expert Mode and not via the Wizard(s)
<p>provisioning of new users is not possible</p>	<ul style="list-style-type: none">• a JSON Web Token (JWT) is needed for user provisioning in Unify Phone and the former used bot method for authenticating to RingCentral API was replaced

6 Best Practice

Information and useful hints from customer installations.

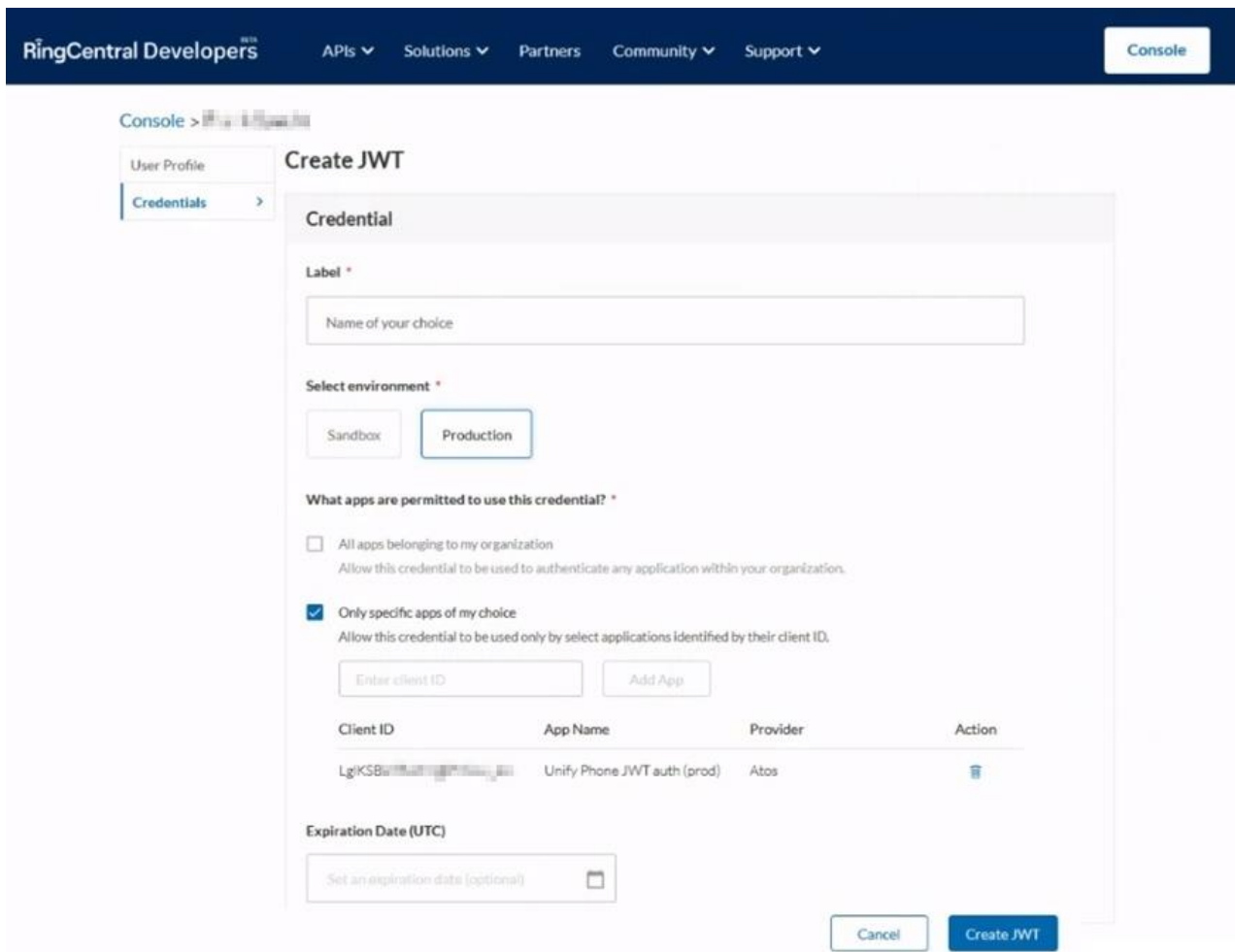
6.1 JWT creation portal

Locate the Unify Phone client ID and copy it to your clipboard.

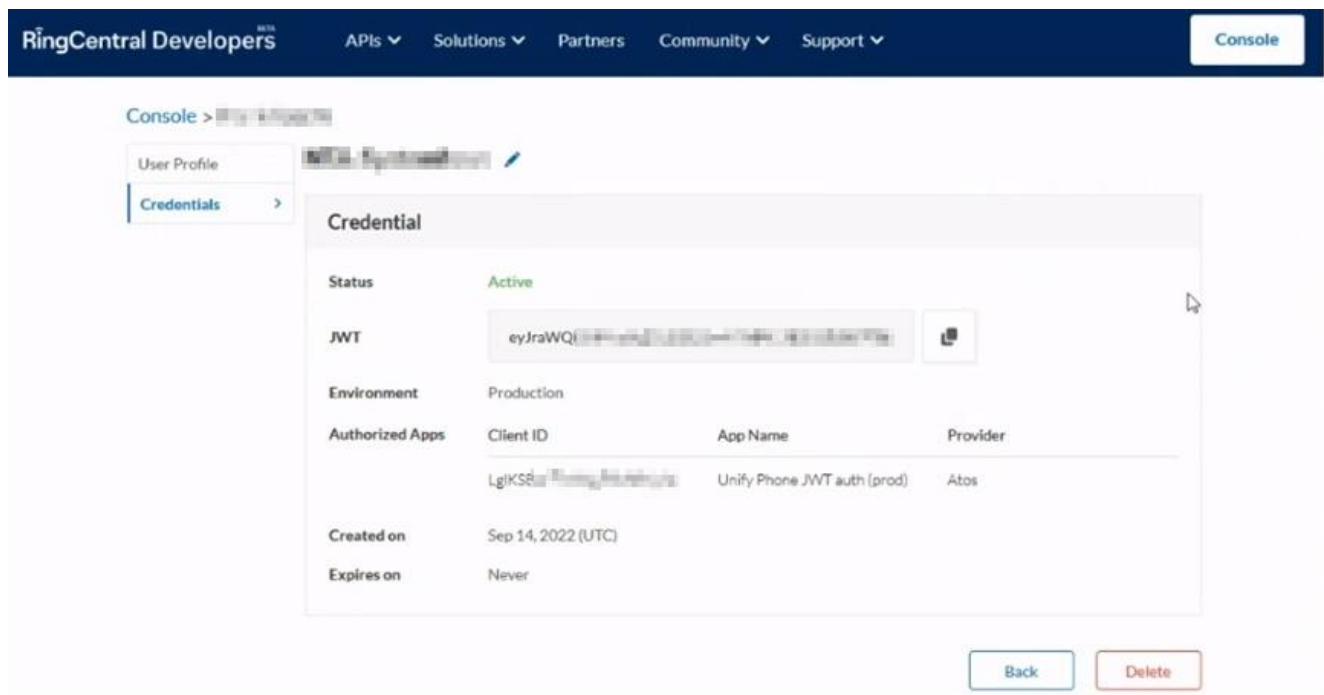


Click the [JWT creation portal](#) link to open the portal and sign in using your Unify Video administration account credentials.

Add a name for your label of the JWT in the **Label** field and fill in the required information and create the JWT [5]:



Copy the successfully created JWT to your clipboard.



Return to [Unify Phone administration](#) app and paste the JWT into the **JWT token** field and Click **Done** after the JWT validation

Setup JWT for user provisioning

Instructions

1. Copy the Unify Phone client ID

Unify Phone client ID

LgIKSBa...

2. Paste it to the [JWT creation portal](#)

☒ Only specific apps of my choice

Allow this credential to be used by select applications identified by their client ID

JWT Token

eyJraWQ...

Paste

For more information on how to create the JWT token, please see the [documentation](#).

JWT settings

Unify Phone client ID

LgIKSBa...

Fügen Sie die Client-ID in das Portal zur JWT-Erstellung ein

Once the token is created, paste it below.

JWT Token

eyJraWQ...

● Active

6.2 Firewall considerations

> Firewall Considerations

Outbound traffic (stateful firewalls*)

- For the media streaming without direct payload, the outbound direction needs to be opened for the DTLS media port range UDP/1024-65.535 towards the internet server turn.phoneapp.unify.com
- For direct payload support, the outbound direction for the DTLS media port range needs to be open towards any destination.

* In case of a stateless firewall, additional configuration is needed according to the document:
Unify Phone V3, Administrator Documentation

Internal firewall (e.g. in case of separated voice vs. data networks)

- For direct payload support, IP routing between the networks must be allowed.
- For direct payload support, the DTLS media port range needs to be opened in both directions.

Signalling goes always via the Unify Phone server in the cloud.

7 References

Further related information can be found under the following links:

Reference	Hyperlink
[1] Administration Documentation	Online Help in OpenScape Business Assistant
[2] Diagnostic hints	Administration Documentation
[3] Experts Wiki	http://wiki.unify.com/wiki/OpenScape_Business
[4] OpenScape Business Security Checklist	https://nuxeo.unify.com/nuxeo/site/proxy/nxdoc/view/raw/b2efab60-4ba8-491c-988d-870077267c4a
[5] Unify Phone Administration	https://nuxeo.unify.com/nuxeo/site/proxy/nxdoc/view/raw/8716b9e0-5db8-44be-a50f-64317b6fe923
[6] Configuration of LAN/WAN interface for VoIP	https://wiki.unify.com/images/8/8c/How_To_Configure_LAN_WAN_Interface_for_VoIP.pdf

Some of the above-mentioned links are only accessible with the right permission to Unify Partner Portal.

