



OpenScape Business V2

How To OpenScape Business Connector (based hUTC with dynamic registration)

Version 1.16

Definitions

HowTo

An OpenScape Business HowTo describes the configuration of an OpenScape Business feature within the OpenScape Business administration. It addresses primarily trained administrators of **OpenScape Business.**

Tutorial

Within the OpenScape Business tutorials procedures for installation, administration and operation of specific devices, applications or systems, which are connected to OpenScape Business, are described. The tutorial addresses primarily trained administrators of OpenScape Business.

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Table of History

Date	Version	Changes
09-03-2016	0.1	Initial Version of configuration hints
10-03-2016	0.2	Screenshots and examples added
23-09-2016	0.3	Screenshot for Route configuration corrected in Expert mode, add LCR example for US
05-10-2016	04	Screenshots examples for Circuit eu and na (Wulf)
02-11-2016	05	Hints for STUN (Wulf)
30.01.2017	09	Update Changes for Circuit release and Special Configuration (Wulf)
28.03.2018	1.0	Update multiple OSbiz and Circuit Screenshots (Wulf)
03.04.2018	1.1	Add Troubleshooting (Wulf)
16.04.2018	1.2	Add Screenshot Troubleshooting an Circuit License (Wulf)
08.05.2018	1.3	Add how many Users and Connectors (Wulf)
19.10.2018	1.4	Add additional IP Address Firewall rules (chapter 8.3) (Wulf)
07.02.2019	1.5	Add Enhanced Feature Interworking (Wulf)

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01.04.2019	1.6	Circuit new IP Addresses and Ports (Wulf)
08.04.2019	1.7	Add Troubleshooting Firewall hints / Certificate Error (Wulf)
04.06.2019	1.8	Add Voicemail configuration / enhance troubleshooting / Certificate import (Wulf)
09.07.2019	1.9	Add V2R7 Features and Circuit Conference (Wulf)
12.07.2019	1.10	Partner Portal Error; Adding Picture for Circuit Conference (Wulf)
07.08.2019	1.11	Problem with Suppressed calling ID Circuit Client, Circuit Conference direction prefix
19.08.2019	1.12	**Numbers not allowed for Circuit User
07.10.2019	1.13	Adding IP Addresses and Port for additional SBC (important for Firewall)
18.10.2019	1.14	Some small text corrections
30.10.2019	1.15	Typo Error Ports
03.06.2020	1.16	OSBiz V3 Features

1. Introduction

To provide the Circuit solution with OpenScape Business several components are used and needs to configure. The solution consists of the Circuit Server, the hUTC (Hosted Universal Telephone Connector) and the OpenScape Business communication system.

The hUTC is located in the Circuit cloud. The connection between the hUTC and the OpenScape Business system is a native SIP trunk connected through the public internet.

You can also connect multiple OpenScape Business to one Circuit Tenant, by using the same API key for each OpenScape Business System. Each OpenScape Business System will get automatically an own trunk after running the wizard.



For the solution, two configuration steps are necessary

- 1. Configuration of the Circuit environment (including hUTC)
- 2. Configuration of OpenScape Business system

2. Configuration of Circuit

2.1. Request Circuit Tenant

To connect OpenScape Business with Circuit you need an active Circuit Tenant. If you have not yet signed up for Circuit, please request a free Circuit Tenant to start the configuration steps. (<u>https://www.circuit.com/home</u>)



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

2.2. Circuit Licenses

For Telephony with hUTC each Circuit User which shall be able to place telephone calls with OpenScape Business need to have the right license. This can be either the UnifyTeam or the UnifyEnterprise or the UnifyProfessional license.

The current licenses shown under Administration->Domain.

If the required licenses are not available, press the button "Manage Packages". This will forwarded you to the unifyportalshop where you can order additional licenses.

Ad Do	dministration smain Users	Telephony Conferences Int	egrations Apps and Plug-ins			×
		Unify Software and S Tenant ID: 095861	olutions GmbH & Co KG		Manage packages	
		Available packages	-			
		UnifyFree	UnifyTeam	UnifyEnterprise		
		Licenses Available: 0 Used: 0 of 0	Licenses Available: 3 Used: 0 of 3	Licenses Available: 2. Used: 1 of 3		
		UnifyProfessional				
		Licenses Available: 0				
		Used: 3 of 3	J			

2.3. Create Circuit User(s)

Login as Circuit Admin User and go to the Administration page: add at least the Circuit Users which should be able to place telephone calls with OpenScape Business.

 O 	Frank-AMS-User1 Wulf 🗸
	My profile
	Settings
	Administration
	Report Issue
	Help
	About
	Sign out

Add at least the Circuit Users, which should be able to place telephone calls with OpenScape Business.

	Name + Q	Role 🛛	Package 🛛	Status 🖓	Data usage	Last login	Phone number	
	Frank Wulf	Administrator	UnifyProfessional	Active	3.00 MB	Sep 29, 2016 Today	Assign number +49 211 7007100	
	Frank-AMS-Us	User	UnifyProfessional	Active	0 Bytes	Sep 26, 2016	+49 211 7007210	
(Invite single user	Invite mul	tiple users					

X

Please assign the required licenses to the Circuit Users:

Administration

Name + 9	Role V	Package V	Status V	Data usage	Last login	Phone number
Frank Wulf	Administrator	UnifyProfessional	Active	3.66 MB	Sep 29, 2016	Assign number
Frank-AMS-Us	Administrator	UnifyEnterprise	Active	1.78 MB	Today	+49 211 700710
Frank-AMS-Us	User	UnifyProfessional	Active	0 Bytes	Sep 26, 2016	+49 211 700721

2.4. Request the Connectivity to OpenScape Business

Administration->Telephony

0	Administ Domain	ration Funktionen	Benutzer	Telefonie	Konferenzen	Statistiken	Rundsendung				×
					Stellen Ermöglicht ts	Sie eine V Telefon en Sie es f lätigen un anmenzu	Verbindung zwisch aanlage Ihres Unter Nutzern, in Ihrer D nd zu empfangen u arbeiten, die nich	nen dem Circuli rnehmens her. Jomain im Circu Jnd mit Person t Circuit verwe	t und der uit Anrufe zu ien inden.	ı	
					C	Es wurde n	noch kein Telephony Con	nnector konfiguriert. nzufugen			

Please add under settings Telephony the telephony connector.

Per Circuit Tenant, max of 150 Connectors possible (Example 100 OSBiz Systems and 50 ATC) Each OSBiz can only have one connector.

Please Generate the API Key



The API key for your OpenScape Business has been successfully generated

API key:

eyJhbGciOiJIUzI1NiJ9.eyJhcGlLZXkiOiJGS1VjejdhY0I5UHR0Wnl5eW9zdUJLZllw b2U0d1FPSUYrckdYUGRnSnNqdHA3bFZ5MWx2NVFBR0gzL0F4ZG1kTU1JUUR rZmlOaHhJN0d4M2dURkFPTzJkL2tqZ1d4Uy9HMnd1MmFSejRCaEhXV1RyRXY

Copy the API key to your OpenScape Business system to connect it with your Circuit domain.

API key copied

Copy to Clipboard

Close

Now you can get the API Key, needed for further OpenScape Business configuration. "*use the same API Key for each OpenScape Business system*".

3. Configuration OpenScape Business

3.1. Basic Installation / Network/Internet Wizard

Circuit is connected via the internet, you have to configure the internet connection of the system. Enter the correct upstream value, this is used later on to calculate the max amount of concurrent internet calls.

Connectivity to Circuit only via external Router permitted.

If OSBiz WAN Interface is active, Internet Access via WAN must be possible, If WAN is active, OSBiz Circuit connector is only possible via WAN. If no Internet access via WAN OSBiz Circuit Connector will not work. Please be aware that STUN is prerequisite in OSBiz and working.

Setup - Wizards - Basic In	stallation - Basic Installatio	n					•
	0	8	- 0				
System Overview	Central Punctions for Stations	ISDN Configuration	Configure Internet Access Provider configuration and activation for Internet Telephony	Select a station	Configured Stations	SmartvM	Configure MeetMe Conference Configure E-Mail Forwarding
Internet Access							
No Internet Access							
			DSL at WAN Port directly				
			TCP/IP at WAN Port via an external Router				
			TCP/IP at LAN Port via an external Router ®				
Upstream of your internet c	onnection		Uniferent up to (Ches): 1000				
			obstates do m (webs). [1000		-		
					,		
Help Ab	ort Back	OK & Next					

3.2. Circuit Connectivity Wizard

Basic configuration settings for Circuit including native SIP trunk to hUTC. Connectivity wizard will configure and establish the connection.

UNIFY Harmonize your enterprise							
Home Administrators Setup Vizards Basic Installation	Setup Expert mode Data Backup License Management Service Center Circuit						
Network / Internet Telephones / Subscribers Central Telephony	Edit Circuit Connectivity Basic settings configuration for Circuit including hUTC Edit Circuit user instance Configure Circuit users instance						
Security UC Smart Circuit							

Actions:

Check "Enable Circuit"; Check "Use Circuit API-Key";

New: Check Enable "Enhanced feature interworking" (Enable CTI features OSBiz-Circuit) (min OSBiz Version V2 R6.1.1_009) **Hint:** If you run the Wizard first Checkbox "Enhanced feature interworking" is greyed out, you have to rerun the wizard. select Domain (Get the Information from Circuit tenant Administrator)

insert the API Key via copy and paste; (Get the API Key from Circuit 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 Circuit calls as well as ITSP and/or Device@Home calls.

Setup - Wizards - Circuit - Circuit Connectivity	•
	Circuit Domain Login
	Enable Circuit 🐼 Enhanced feature interworking 🐼
(Circuit Domain Credentials)	Domain: eu yourcircuit com Hidden Circuit API-Key Circuit API-Key:
Simultaneous Circuit Calls Available Lines for Circuit 173 Under "Setup - Wizards - Basic Installation", you have entered the value Upstream up to () This upstream allows you to conduct up to 7 Circuit calls simultaneously. If the call quality d	Kbps) = 1000 Identificates due to the network load, you will need to reduce this number of simultaneous calls.
	Number of Simultaneous Circuit Calls:
Help Abort Back OK & Next	

Hint:

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 Circuit.

Press OK&Next

Press execute Function

Press "Execute function" to proceed with with the automatic UTC configuration or press "Ok & Next" for skipping this page Add 2 bunks to Circuit: UTC Configuration: Check Connectivity: Provider State Name Status User Name Restant Circuit UTC (Cloud) Disabled Offine	Setup - Witzards - Circuit - Circuit Connectivity											
Press "Execute function" to proceed with with the automatic UTC configuration or press "Ok & Next" for skipping this page. Add 2 trunks to Circuit: UTC Configuration: Check Connectivity: Provider State Name Status User Name Status Offline	UTC Automatic Configuration											
Add 2 trunks to Circuit: UTC Configuration: Check Connectivity: Check Connectivity: Provider State Name Status User Name Status Restart Circuit UTC (Cloud) Disabled Offline	Press "Execute function" to proceed with with the automatic UTC configuration or press "Ok &	& Next" for skipping this page.										
Add 2 trunks to Circuit UTC Configuration Check Connectivity: Provider State Name Status User Name Status Restart Circuit UTC (Cloud) Disabled Offline												
UTC Configuration. Check Connectivity: Provider State Name Status User Name Status Restat Crecut UTC (Cloud) Disabled Offline	Add 2 trunks to Circuit:											
Provider State Name Status User Name Status Restart Circuit UTC (Cloud) Disabled Offline		UTC Configuration:										
Provider State Name Status User Name Status Restart Circuit UTC (Cloud) Disabled Offline		Check Connectivity:										
Restart Circult UTC (Cloud) Disabled Offline	Provider State	Name	Status	User Name	Status							
	Restart	Circuit UTC (Cloud)	Disabled		Offline							
Help Abort Rick OK & Mat Execute function	Hole Abot Back OK & But Execute Burefore											

Wizard configures the trunks and establishes the connection to Circuit:

Setup - Wizards - Circuit - Circuit Connectivity				
	UTC Automatic Configuration			
Press "Execute function" to proceed with with the automatic UTC configuration or press "Ok &	& Next" for skipping this page.			
	Add 2 trunks to Circuit: done UTC Configuration: done Check Connectivity: done			
Provider State	Name	Status	User Name	Status
Restart	Circuit UTC (Cloud)	Enabled		Online
Help Abort Back OK & Next Exacut function				

Press OK&Next

Hint:

If needed IP and Ports hUTC can be verified through Expert Mode/Telephony Server/Voice Gateway/Native SIP Server Trunk/Circuit UTC (Cloud), you can also find the Stun configuration here.

3.3. Circuit User Instance

Configure Circuit User instances

Note: for each Circuit User Instance you need a free internal call number to address the virtual station, which represents the Circuit User in the system and max 150 User for OSBiz X Systems and 250 User for OSBiz S (per OSBiz System)

	nonize enterprise
Home Administrators	Setup Expert mode Data Backup License Management Service Center
Witzards Basic Installation Network / Internet Telephones / Subscribers Central Telephony User Telephony	Circuit Connectivity Edit Circuit Connectivity Basic settings configuration for Circuit including hUTC Edit Circuit user instance Configure Circuit users instance
Security UC Smart Circuit	

Actions: Add new Circuit User; Edit configured Circuit User

Setup - Wizards - Circi				
			Circuit User Instance	
Add Circuit User Add	New Circuit User			
	Circuit User callno	Circuit User DID	Name	Trunk access code + Circuit User Call number
Help	Abort Back OK 8	Next Update CT	If you have existing you have enabled t "Enhanced <u>feature</u> You have to press t Button	u Users and the Checkbox Interworking" the "Update CTI"

3.4. OSBiz Circuit CTI Features V2R6 FR2

Feature	Client Mode	Desk Phone Mode
Make call	1	1
Answer call	1	1
Clear call / Reject call	1	1
DTMF support	1	1
Hold / Retrieve call	1	1
Unattended call transfer	1	1
OSBiz Voicemail Handling	1	1
Call Forwarding	1	1
Consultation call	1	1
Attended call transfer	1	1
Swap call (= alternate)	1	1

3.5. OSBiz Circuit CTI Features V2R7

CTI Feature	Client mode	Desk Phone mode
Call Move (Push/Pull)	✓	✓
OSBiz System Conference	1	1
Busy in a conversation (DND) *	1	1

Configuration – Circuit User wizard	
show available users	1
inherit first and last name from Circuit User name	1

3.6. OSBiz Circuit CTI Feature Circuit Conference



Circuit Conference <u>with</u> internal OSBiz Telephony User (Deskphone, Dect,...)



Circuit Conference with OSBiz integration Circuit to OSBiz

If you need an Internal OSBiz User in a Circuit Conference, now you can add the User to the Circuit Conference, using the same way as today with external phone number.

You can simply add the user by pressing the add button and typing in the internal number e.g.: 307

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Circuit Conference with OSBiz integration OSBiz needs only an LCR Entry



Circuit Conference without direction prefix e.g.: 85566 to 66



Circuit Conference with OSBiz integration Circuit Settings

	Q Search			Administ	ration								
4	Conversations	~	410	Domain	Features	Users	Telepho	Conferences	Statistics Bro	adcast			
*	© Communities						V Isr	ael	English (UK)	Toll	+972 8-372-0965		
•	← Call ended (02:29:58)	Tuesday					✓ Jap	pan xembourg	English (UK) English (UK)	Toll	+81 3-4520-9316 +352 20 88 17 86		
	Ralf, Jürgen C. Call ended (28:28)	Apr 26					V No	conference numbe	English (UK)	Toll	+47 21 03 13 40		
	Jürgen C. Schwartze ~ Call ended (00:12)	Apr 26					These an	e the custom dial-in n SBiz-240	umbers for confere Germany	ces in the domain.	✓ Local ✓ +49 211 7007	66 🦿	
	Michael C. Trotz © Call ended (03:55)	Apr 26				l	Ad	d conference numb	er)
	Ralf Neuhaus ~ Call ended (00:08)	Apr 26					Mute or Configure	n join settings e the mute on join se	ttings for conference	s in the domain.		\equiv	Add OSBiz
		Feb 13					Au Au	tomatically mute par	rticipants when join	ing a conterence	~		
	(A) Frank Wulf (External)												

Circuit Conference with OSBiz add Dial out Number for OSbiz



3.7. OSBiz Circuit CTI Feature Circuit Voicemail

0	Settings General	Notifications	Audio/Video	Labels	Voicemail	Telephony	Security	Extensions	Circuit Labs	
		Vo Sw co Se Ac	icemail vitching voicemail nfigured to route Voicemai t the ringing dura tive after: 10 s	on/off will your phon I tion of Circ seconds ~	apply to all Cir e calls to Circu uit calls before	cuit internal au it voicemail, wh e moving to voi	idio and vide nen the call is cemail. This t	o calls. If your c not answered, imer will not aff	ompany's phone sys the setting will affect ect phone calls.	tem has been these calls too.
		Vo •	icemail greeting Default Custom Set your perso	onal greeti	ng					

Disabling the OSBiz Voicemail settings of the specific Users (uncheck the Voicemail license and avoid forwarding to OSBiz Voicemail via CFU and CFNR)

3.8. OSBiz Circuit CTI Feature OSBiz Voicemail

Configuration for Circuit Client (Precondition Voicemail is configured and running in OSBiz)

\odot	Settings General	Notifications	Audio/Video	Labels	Voicemail	Telephony	Security	Extensions	Circuit Labs
		Tel You • Ph Wa	ephony connecto J are configured fo Service is runnin one calls ork number	or or the Ope g normall +49	enScape Busir y. 2302 100	ness Connector	. For more in	formation, see d	our FAQs.
		Cai En: cai	I forwarding able the call forwa I to a colleague or Call forwa Number/Nam Voicemail	rding for y directly to rding e	your incoming your voicema	calls when you ill.	are out of of	fice or unavailab	ole. Select if you want to forward your

3.9. OSBiz V3 Features

3.9.1. OSBiz Circuit V3 Feature overview

new Features V3 OSBiz-Circuit Interworking

CTI Feature	Client mode	Desk Phone mode
Snooze interworking	1	✓
Camp On	1	✓
Alternative Number	1	<
Call Routing	1	✓
Circuit-Teams support	1	1

Configuration – Circuit User wizard							
Custom Conference number (as local dial in service)	V2R7						
Circuit Voicemail in Call Management	1						

3.9.2. OSBiz Circuit V3 Custom Conference Number



OpenScape Business V2 - How To: Circuit Interconnection

)		Ø
Admin	istration			OpenScape Busines
Domain	Features Users Telephony Conferences Statis	ics Compliance Bro	adcast	can be used as a loc
				dial in gateway for
	Overview			Circuit Conferences
	Configure the dial-in numbers that will appear in	conference invites.		
	Preview invitation			Save telephony costs
	System conference numbers			(local dial in) and
	These are the default dial-in numbers for confer	nces in the domain.		increase conference
	United States English (UK)	Toll	+1 561-923-1666	capabilities by using
	Germany German	Toll	+49 89 700731903	Circit Cloud
	France English	Toll	+1 561-923-1777	Conference Services
	United States English	Toll	+1 561-923-1555	
	Greece English	Toll	+30 21 0818 7955	Additional Users can
				be added for e.g.
	Custom conference numbers	seror is the domain		internal OSBiz Users
	TEST OFDIT DUE 122	sices in the domain.	40 200 667 660	(via OSBiz to Circuit
		 English 	* LOCAI * 149 2302 007 000	

3.9.3. OSBiz V3 Circuit Voicemail in Call Management

		cema	II In Call M	anag	gement	(1)	G
Setup - Wizard	s - Circuit - Circuit user instanc	e				8	
			Circuit Voicemail Allocation				
Press "Execute	function" to proceed with the autor il Allocation Trunk access of	natic UTC Voicemail Allocatic	on or press "Ok & Next" for skipping this page. number: 85600492302667 - 171		must be par	t of " <i>Cir</i>	cuit User Alloca
			Circuit User Instance		might	number be limited	ring plan on 2 digits for FT
Add Circuit Us	er New Circuit Liser				Call Forwarding		
Huu	Circuit User callno	Circuit User DID	Name	Trunk	Call dest. list - Definition Cal	dest. list - Assignment	Members of dest. list Copy call dest lists
Edit	200		Neuss, Frank	856004923	Call dest. list Edit Call Forwarding	1 •	
Edit	202	202	Bochum, Claus	856004923	Target 1:	* Called station	•
Edit	351	351	Nürnberg, Michae	856004923	Target 2:	** User defined	•
					Route:	Circuit •	optional
					External destination:	85500492302667171	optional
					Call forwarding starts after	No entry	
Help	Abort Back	OK & Next	Update CTI Execute function		Call forward on busy mode:	2	matches LCR
					Second ringer Second ringer Target:	No entry	of the Circuit I
					Second ringer Type:	immediate *	

Circuit Voicemail in Call Management (2)





\$ Settings General Notifications Audio/Video Telephony Voicemail Teams Labels Security Extensions Circuit Labs
Telephony connector You are configured for the OpenScape Business Connector. For more information, see our FAQs. • Service is running normally. Phone calls Work number 100
Call forwarding Enable the call forwarding for your incoming calls when you are out of office or unavailable. Select if you want to forward your call to a colleague or directly to your volcemail. Call forwarding Number/Name Volcemail
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.



3.9.5. OSBiz V3 Camp on







3.9.7. OSBiz V3 Call Routing

\$ Settings General Notifications Audio/Video Telephony Voicemail Teams Labels Security Extensions Circuit Labs	
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.	call Ferma replaces "Call forwarding after time of service code *495
Call routing Default routing Incoming phone calls will on and of your Circuit clients and desk phone. On no answer, they will be routed to your alternative device, if you have specified one. Outgoing phone calls will be possible via all your Circuit clients or your desk, phone. Deak phone Incoming phone calls will be routed directly to your desk phone. Outgoing phone calls will be possible via all your Circuit clients and your desk phone. Circuit client Incoming phone calls will be routed directly to your Circuit clients. Outgoing phone calls will be possible via all your Circuit clients and your desk phone. Incoming phone calls will be routed directly to your Circuit clients. Outgoing phone calls will be possible via all your Circuit clients and your desk phone. Incoming phone calls will be routed directly to your alternative device. Outgoing phone calls will be possible via all your Circuit clients and your desk phone. Incoming phone calls will be routed directly to your alternative device. Outgoing phone calls will be possible via all your Circuit clients and your desk phone.	Target 1 Called station Target 2 "User obliced Target 3 External destination + Rote Coult External destination + Rote Coult Target 4 fixe entry + Call forwarding starts after Call forwarding starts after Second right Target Second right Target Second right Target No entry + Second right Target
devices.	









circ	CUIT for mediators2 tc		Turn on notifications	📕 🧐 ? 🥵 LABDus C	laus 102 ~
¥8	Q Search	Call history			
-	Call history				
I		All Missed Dialed Received Redirected			
*	Voicemails				1
12	LC	Today			
,	My phone number: 102	Neuss, Frank	Incoming	9 sec 8:35	AM
	Name or phone number	Neurs Frank			
	1 2 3 ABC DEF	+49 2302 667100	Missed	8:34	AM
	4 5 6				
	7 9 9				with binding
	without	binding			Call Routing: Alternative numb
Call	Routing: Default routing	, Desk phone, Circuit Client			like UC Suite "Callvie

3.9.8. Circuit teams

Circuit-Teams (1)	Team calls Now you can create teams where team members are notified about incoming calls. Team members have the ability to answer the call based on a call pickup model
Circuit-Teams is a newly introduced Circuit feature which is released to incorporate with OSBiz V3 only.	
Term groups Members Timer Name Members Timer myTeam 351 2 5 seconds Team Lab 3 5 seconds Create a leam 1 1 User's members	own <u>teams</u> and ship in <u>other teams</u>
Note: <u>no impact</u> on <u>OSBiz</u> Call Management – <u>no indication</u> in <u>OSBiz if</u> Teams <u>active</u> Copyright © Unity Software and Solutions GmbH & Co. KG 2020. All rights reserved.	20

Circuit-Teams (2)



Genera	il Notifications Audio/Video Telephony	Voicemail Teams	Labels Security Exten	sions Circuit Labs	Q Search Notifications	Secular	Settings General Notifications Audio/	idea Telephany Voicemail	Teams Labels Security Extensio	eres Grouit Labo
\odot	$\begin{pmatrix} 1 \\ j \end{pmatrix}$ Team Lab				LASDen Frank 100 winked you to per the grind	e feerilat teen	(Team Lab			
	Add team members			Add	,	\mathbf{i}	Notification delay timer 3 second Members LABDue Claux 192	ds = Rote Manifest =	Status Active	
	LABDus Michael 351	Role	Status			\mathbf{i}	LABDus Frank 100		Active	
	LABDus Claus 102	Member ¥	Active				LABDus Michael 331		invited	
	LABDus Frank 100		Active				You have been invited to you the teal Accept Decline	n group "Team Lab."		

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Circuit-	Teams (3)	©
CITCUIT for mediators2 to CITCUIT for mediators2 to Call biscory Call biscory	© ⑦ ℝ LABbus Michael 351 ~ Phone calls HGA 104 (+49 2302 104) ℓ Pick up call for LABbus Frank 100 •••• ♣ •••	
CITCUIT for mediators2 tc	⑦ ⑦ № LABDus Michael 351 ~	
Q Search O Phone calls	Phone calls HA 104 (104) If P Pokeuto pail for LABDus Frank 100	
♥ HFA 104	· · · · · · · · · · · · · · · · · · ·	
Call history		
) Voicemails	0	
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3.10. OSBiz Scenario Configuration

3.10.1. Scenario 1: Basic MULAP with system phone and Circuit User



- 1. Select the Circuit User for which this configuration applies
- 2. Enter the MULAP DID (all needed prefixes are added automatically by the wizard)
- 3. Enter the associated internal call number (callno) of the virtual user
- 4. Enter the associated DID number of the virtual user

Circuit User Allocation
tirtutere Turki access code + Circuit User Calling Circuit User Calling Circuit User Calling Name Frank C. Wull Search by: Name @ E-mail Circuit User Name
Hale About Back Of the
neip Abori Dack UK & Nexi

Press OK & Next

Hint:

Same Rules as Mobility, each User needs "DSP Resources" (important for X Systems).

To Pull the Circuit Call to the desk phone, please add DSS Key on Desk phone with Circuit Phone Number (virtual Circuit User)

The next page gives an overview of all configured Circuit Users

Setu	Setup - Wizards - Circuit - Circuit user instance							
Add	Circuit User Instance							
	Add	New Circuit User						
		Circuit User callno	Circuit User DID	Name	Trunk access code + Circuit User Call number			
	Edit	341	341	Uli Abel	8560049228422785945			
	Edit	340	340	Günter DIf	8560049228422785940			
	Help	Abort Back	OK & Next					

Press OK&Next

Leave the "Circuit" wizard and Create a MULAP by entering the "Team Configuration" wizard

		administrator@system Logoff			
Home Administrators Se	etup Expert mode Data Backup License Management Service Center				
Setup					
▼ Wizards	User Telephony				
Basic Installation					
Telephones / Subscribers	Frie Class of service				
Central Telephony	Set up classes of service with external call numbers that can be assigned to subscribers, e.g., emergency numbers, allowed numbers, denied numbers and assignment of class of service for night service				
User Telephony	station name and release				
UC Suite	Edit station and group names and reset lock code for individual stations				
Circuit	Edit Group Call / Hunt Group Set up incoming calls for station group (parallel, linear or cyclical call order)				
	Edit Call Forwarding Set up central system-wide station number assignments, and forwarding "after timeout" and "on busy"				
	Eat Call Pickup Configure stations in a pickup group with the option of answering each other's calls				
	Edit Team Configuration Set up stations in a team where incoming calls are simultaneously signaled at all stations in parallel with the main station, and outgoing calls can be sense the dward are man when number				
	Lett Mobile Phone Integration Set up a link between a mobile phone and an internal station with the goal of enabling incoming and outgoing availability under one station number (One Number Service)				
	Lett Executive / Secretary Set up a link between one or more Executive phones and one or more Secretary phones with the goal of enabling simplified call transfers and ring transfers				
	Edit UCD Set up an automatic intelligent call distribution to a group with selected stations				
	ttatt Attendant Console Set up stations as attendant console numbers and station behavior for "on busy, incorrect dialing and no answer"				
	Edit Station Profiles Assign stations to a profile and import/export profile data				

Press, "Add" to create a new MULAP

	Setup - Wizards - User Tele	etup - Wizards - User Telephony - Team Configuration					
		Select Team Configuration					
		Team-Name					
\square	Add	New Team Configuration					

Select the associated Deskphone

	_
Add Team Configuration	
First Telephone 800 Wulf	

Assign Name to MULAP and select the associated Circuit User callno

Change Team Configuration	
	-
	Fax
Frank	
Wulf	
: Wulf, Frank	
300	
300	
: 🗆	
Second Telephone	Third Telephone
200 Frank C. Wulf	
Delete Data	
	Change Team Configuration

Press OK&Next

MULAP configuration is finished

3.10.2. Scenario 2: standalone Circuit User



- 1. Select the Circuit User for which this configuration applies
- 2. Enter the DID (all needed prefixes are added automatically by the wizard)
- 3. Enter the internal call number (callno) of the virtual user
- 4. Enter the same DID as in step 2

			Ci	rcuit User Allocation	
rcuit User		~			
Trunk access code + Circuit User Call numbe	er (856-0049-228-422785-	942			
	Circuit User callno	(342)			
	Circuit User DID	942			
	Name	Labor DIf	5		
	Select Circuit User				
		6c 556c 42- 5f81-42b2-	Labor Dif	Roland Dif	
		Uli3 Dif	Frank Dif	GTC 001 GTC	

Press OK&Next

The next page gives an overview of all configured Circuit Users

Setu	Setup - Wizards - Circuit - Circuit user instance												
	Circuit User Instance												
Add	Add	New Circuit User											
		Circuit User callno	Circuit User DID	Name	Trunk access code + Circuit User Call number								
	Edit	341	341	Uli Abel	8560049228422785945								
	Edit	340	340	Günter DIf	8560049228422785940								
	Edit	342	942	Labor DIf	8560049228422785942								
	Help	Abort Back	OK & Next										

Press OK & Next

Leave the "Circuit" wizard, standalone user configuration is finished.

4. Configuration in Expert Mode

4.1. OpenScape Business LCR Configuration (ROW)

Additional manual configuration in LCR is required in order to reformat the dial string to E.164 format.

- 1. Changes in Dial plan
- 2. Create dial rule
- 3. Configure Route table

Expert mode - Telephony Server								E	
LCR	Dial Plan								
LCR Flags Classes Of Service		Cha	nge Dial Plan	Display Dial Plan					
Dial Plan	Dial Plan	Name	Dialed digits	Routing Table	Acc. code	Classes of service	Emergency		
Routing table	20	International	UC00-2	$ 38 \lor \rightarrow$		V		_	
Dial rule	21	Telekom IP-As mi	855CZ	$4 \checkmark \rightarrow$				^	
Multisite	22	Telekom IP-As mi	855C0-Z			\checkmark			
	23	Telekom IP-As mi	855C1Z	$5 \lor \rightarrow$		V			
	24	Telekom IP-As mi	855CNZ	$5 \lor \rightarrow$		\checkmark			
	25	Telekom IP-As mi	855C00-Z	38 🗸 →		V			
	26	Circuit	856CZ	$6 \checkmark \rightarrow$				- 10	
	27	Circuit	856C0-Z	29 🔽 →					
	28	Circuit	856C1Z	$7 \checkmark \rightarrow$		V			
	29	Circuit	856CNZ	$\overline{7}$ V \rightarrow					

Delete the existing default entries for the Circuit route

Expert mode - Telephony Server								×		
LCR	Dial Plan									
LCR Flags Classes Of Service		Chan	nge Dial Plan		Display Dial Plan					
Dial Plan	Dial Plan	Name	Dialed digits	Routing Table	Acc. code	Classes of service	Emergency			
Routing table	20	International	J0C00-Z	38 🗸 →		M		_		
Dial rule	21	Telekom IP-As mi	855CZ	$4 \lor \rightarrow$				^		
Multisite	22	Telekom IP-As mi	855C0-Z	28 🗸 →						
	23	Telekom IP-As mi	855C1Z	$5 \checkmark \rightarrow$						
	24	Telekom IP-As mi	855CNZ	$5 \checkmark \rightarrow$		V				
	25	Telekom IP-As mi	855C00-Z	38 ✔ →		\checkmark				
	26			6 ∨ →		2		- 10		
	27			29 ✓ →		V				
	28			$7 \checkmark \rightarrow$		\checkmark				
	29			$7 \checkmark \rightarrow$		V				

Add a Dial plan entry: <seizure code Circuit route>C<international prefix>-Z e.g. 856C00-Z

Expert mode - Telephony Serve								
LCR	Dial Plan							
LCR Flags		Chi	ange Dial Plan					
Classes Of Service							_	
Diar Plan	Dial Plan	Name	Dialed digits	Routing Table	Acc. code	Classes of service	Emergency	
Routing table	20	International	0000-2	38 ⊻ →		×		
Diai rule	21	Telekom IP-As mi	855CZ	$4 \checkmark \rightarrow$		\checkmark		^
Multisite	22	Telekom IP-As mi	855C0-Z	$28 \checkmark \rightarrow$				
	23	Telekom IP-As mi	855C1Z	5 V →				
	24	Telekom IP-As mi	855CNZ	$5 \checkmark \rightarrow$				
	25	Telekom IP-As mi	855C00-Z	38 V →				
	26			6 ∨ →		\checkmark		- 11
	27			29 ✓ →		\checkmark		
	28			$7 \checkmark \rightarrow$		\checkmark		
	29			$7 \checkmark \rightarrow$				
	30	Circuit	856C00-Z	39 ✓ →		\checkmark		
	24							

Dial

Create dial rule E3A, Network access = corporate network, type =country code

Expert mode - Telephony Server						×
LCR		Dial Rule				
LCR Flags Classes Of Service	î		Change Dial Rule			
Dial Plan		Rule Name	Dial rule format	Network access	Туре	
 Routing table 		13 Circuit	E34	Comercia Naturale	Caustry and	-
1 - Table			LUN		Codinay code	
2 - Table						
3 - Table						
4 - Table						
5 - Table						

Configure Route table: select Circuit route and assign the Circuit Dial Rule

Expert mode - Telephony Server													
LCR	A Ro	Routing Table											
LCR Flags		Change Routing Table											
Classes Of Service		Change Roboting Laure											
Dial Plan						Deuties Table		an bloc a	a dia a				
 Routing table 						Routing Table		en-bloc se	mang				
1 - Table	In	ndex Dedicated Route		Route		Dial Rule	min. COS	Warning	Dedicated Gateway	GW Node ID			
2 - Table			0.000		[0]		Act and		N				
3 - Table	1		Circuit		Circuit	\checkmark \rightarrow	15	None	No				
4 - Table	2		None		None		15 🗸	None 🔽	No				
5 - Table	3		None	~	None	V	15 -	None	No				
6 - Table		_											

4.2. OpenScape Business LCR Configuration (US)

Additional manual configuration in LCR is required in order to reformat the dial string to E.164 format.

- 1. Changes in Dial plan
- 2. Create dial rule
- 3. Configure Route table

Expert mode - Telephony Server									×
LCR	Dial Plan								
LCR Flags		Ch	ange Dial Plan	Display Dial Plan					
Dial Plan									
Routing table	Dial Plan	Name		Dialed digits	3	Routing Table	Acc. code	Classes of service	E
Dial rule	12					8 ▼ →		*	-
Multisite	13					8 • →			
	14					8 🔻 →			
	15					8 ▼ →		•	- 118
	16	Standard		9CNXX-NXX-XXXX		1 ▼ →		•	- 88
	17	Standard		9C1-NXX-NXX-XXXX		1 ▼ →		4	- 24
	18	Standard		9C011Z	_	· • →		•	
	19	Circuit	\square	855CNXX-NXX-XXXX	_\	$4 \rightarrow$		•	
	20	Circuit		855C1-NXX-NXX-XXXX)	5 ▼ →		•	
	21	Circuit		855C011Z		5 ▼ →		×	
	22	Standard		856CNXX-NXX-XXXX		6 ▼ →			
	23	Standard		856C1-NXX-NXX-XXXX		6 ▼ →			
	24	Standard		856C011Z		6 ▼ →			
	25	test		857CNXX-NXX-XXXX		8 •		•	
	26	toet		857C1 NYY NYY YYYY					

Delete the existing default entries for the Circuit route

Expert mode - Telephony Server									E
LCR	Dial Plan								
LCR Flags Classes Of Service		Chang	e Dial Plan		Display Dial Plan				
Dial Plan	Dial Plan	Name		Dialed digits		Routing Table	Acc. code	Classes of service	E
Routing table	12							2	
Dial rule	12					8 ▼ →			
Multisite	13					8 ▼ →		•	
	14					8 T ->		•	- 10
	15					8 v $ ightarrow$		*	- 8
	16	Standard		9CNXX-NXX-XXXX		1 ▼ →			- 8
	17	Standard		9C1-NXX-NXX-XXXX		1 ▼ →		*	
	18	Standard		9C011Z		· ▼ →			
	19	Circuit			\mathbf{i}	4 ▼ →			
	20	Circuit	($5 \bullet \rightarrow$		•	
	21	Circuit				$5 \bullet \rightarrow$		•	
	22	Standard		856CNXX-NXX-XXXX		6 ▼ →		•	
	23	Standard		856C1-NXX-NXX-XXXX		6 ▼ →			
	24	Standard		856C011Z		6 ▼ →			
	25	test		857CNXX-NXX-XXXX		8 🔹 →			
	26	test		857C1-NXX-NXX-XXXX		9 ▼ →		*	
	27	test		857C011Z		9 ▼ →		*	

 $\label{eq:constraint} Add \ a \ Dial \ plan \ entry: <\!\!seizure \ code \ Circuit \ route > \!\!C\!\!<\!\!international \ prefix \!\!>\!\!-\!\!Z \ e.g. \ 855C011\!-\!Z$

Expert mode - Telephony Server									
LCR LCR Flags	Dial Plan								
Classes Of Service			nge Dial Plan			Display Dia	l Plan		
Dial Plan	Dial Plan	I Plan Name		Dialed digit	Dialed digits		Acc. code	Classes of service	
Routing table	12			3					
Dial rule	12					8 • →		•	
Multisite	13					8 • →			
	14					8 v $ ightarrow$		1	
	15					8 • →		\$	
	16	Standard		9CNXX-NXX-XXXX		1 ▼ →			
	17	Standard		9C1-NXX-NXX-XXXX		1 ▼ →		•	
	18	Standard		sconz		· • •		•	
	19	Circuit		855C011-Z		4 ▼ →			
	20	Circuit				5 ▼ →		•	
	21	Circuit				5 ▼ →			
	22	Standard		856CNXX-NXX-XXXX		6 ▼ →		*	
	23	Standard		856C1-NXX-NXX-XXXX		6 ▼ →		•	
	24	Standard		856C011Z		6 ▼ →		•	
	25	test		857CNXX-NXX-XXXX		8 ▼ →		•	
	26	test		857C1-NXX-NXX-XXXX		9 ▼ →		*	
	27	test		857C011Z		9 ▼ →		×	
	28	Standard		858CNXX-NXX-XXXX		10 ▼ →		v	
	29	Standard		858C1-NXX-NXX-XXXX				v	

Create dial rule: E3A, Network access = corporate network, type =country code

Expert mode - Telephony Server								×
LCR	Dial Rule							
Classes Of Service			Chang	e Dial Rule				
Dial Plan	Rule N	ame	Dial rule for	mat	Network access		Туре	
Dial rule	1 CO		A		Main network supplier 🔻	Unknown	•	A
Multisite	2 SIP		A]	Main network supplier *	Unknown	•	- 11
	3 SIP local		HE2A]	Main network supplier *	Unknown	•	
	4 MEB		E1A]	Corporate Network	PABX number	•	- 84
	5 IP-Network		A]	Corporate Network	Unknown	•	- 84
	6 Multi-Location		BA]	Corporate Network	Unknown	•	- 84
	7 Gateway call		E1A		Corporate Network	Unknown	•	- 84
	8 COInternat		E1A		Corporate Network	Unknown	•	- 84
	A]	Unknown	Unknown		
	10 Circuit](E3A	C	Corporate Network 🔹 💙	Country code	•)	
					Unknown	Unknown		- 84
	12]	Unknown 🔻	Unknown	•	
	13]	Unknown •	Unknown	•	

Configure Route table: select Circuit route and assign the Circuit Dial Rule

		×
LCR	A Routing Table	
LCR Flags	(hanne Paution Table	
Classes Of Service	Change Rooting Flow	
Dial Plan		
▼Routing table	Routing lable: 4 en-bloc sending	
1 - Table	Index Dedicated Paulo Power Dial Pula min COS Marning Dedicated Cateway GWA	
2 - Table	index Deulcade Route Route Dial Rule Inin, Cos Maining Deulcated Gateway OW P	Toue ID
3 - Table	1 Circuit \bullet Circuit \bullet 15 None \bullet No \bullet	
4 - Table	2 None V None V No V	1
5 - Table	3 None Y None Y None Y No	i I
6 - Table		-
7 - Table	4 None V None V None V No	
8 - Table	5 None None	
9 - Table	6 None Y None Y No Y	1
10 - Table		i
11 - Table		1
12 - Table	8 None None	
13 - Table	9 None v None v No v	1

4.3. Route Configuration

Select Circuit Route

Disable Call No. with international / national prefix:

Set No. and type, outgoing: to Country Code

Expert mode - Telephony Server				
Trunks/Routing	Bauta			
Trunks	Chance Davids	Change Douting Darameter		Caustial December decem
▼Route	Change Koute			Special Parameter change
ISDN	Routing flags			
Trk Grp. 2		Digit repetition on:		
Trk Grp. 3		Analysis of second dial tone / Trunk monitoring:		
Trk Grp. 4		, Intersection:		
Trk Grp. 6		intercept per direction.		
Trk Grp. 6		Over. service 3.1 kHz audio:	Y	
App. Suite		Add direction prefix incoming:	V	
Trk Grp. 9		Add direction prefix outgoing:	2	
Trk Grp. 10		Call No. with international / national prefix:		
Trk Grp. 11		call No. with international 7 habitian pretix.	-	
Telekom ID	÷	Ringback tone to CO:		
Circuit		Name in CO:		
Trk Grp. 15	T	Segmentation:	ves	1
Networking			<u>.</u>	
		deactivate UUS per route:		
		Always use DSP:	Y	
		Analog trunk seizure:	no pause 🔽	
		Touck call pause:	Pauso 2 a	
		from can pause.	Fause 2 5	
		Type of seizure:	linear 🔽	
		Route type:	PABX V	
			·····	•
		No. and type, outgoing:	Country code 🔽	J
		Call number type:	Direct inward dialing	~
	Rerouting			
		Change route allowed:		
		Route optimize active:	No	
	Apply Undo	Help		

5. Special Configuration no DID

This Chapter should give some hints, if Customer have no DID for each Circuit User and should configured only by experts.

Outgoing call via Circuit Client (ONS) without DID Attendant Number should shown

- Circuit User (MULAP with OSBiz User) calls external User
- Circuit User sent MULAP Calling Number (ONS)
- Internal Number for ONS → 100
- External DID for Attentant +49 2302 983874 also used for outgoing calls from Team Member 100

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External Call via OSBiz Auto Attendant – forwarding to Circuit Client (User)

- External Call to OpenScape Business Auto Attendant
- Target User Circuit Client (User)
- Customer call can be transferred to a Circuit or OpenScape Business User



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Setup - Wizards - Circuit - Circuit user instance	0
	Circuit User Allocation
Gircuit User Trunk access code + Circuit User Call number (855-0449-) Circuit User calino Circuit User DID: Name:	2117007100 200 200 Frank-AMS-User1
	Valid Number Shown in circuit client
Help Abort Back OK & Next Delete	

Circuit User Wizard

Use Expert Mode to configure external Number, which should show for external calls and delete DID

					8
Station	Station				
▼Station	Edd station parameters		Edit station flam	FAR Grand/FW	
▶ UP0 Stations			Cart station mage	East of opportunity	
PIP Clients	Station - 1010				
Analog Stations		Type:	Circuit User		
150N Stations		Call number:	200 *		
DECT Stations					
NMEVM Ports		First Name:	* K		
Virtual Stations		Last Name:	- K		
UC Applications		Distant	Freed, AMA Hand		
Profiles/Templates		Listress	Prevention (sector)		
DOI Extensions	D	irect inward dialing:	· *		
Circuit User		Desire lyne	Victorial		
AND THE EVERY AND THEFT					
Stations Overview		Clip/Lin:	23029839874 *		
Key Programming		Access:			
	Mobility/Circuit				
		Type	Circuit station *		
			AFF 44 103 11 70 170 170 1		
		Sircuit Gall number :	8550049211/00/100 *		
		Web Feature ID	None		
	Parameter				
		Extension Type:	Standard *		
		Language	German •		
	Cr.	I signaling internal	Bing type 1 *		
	Ca	I signaling external:	Ring type 1 •		
	Clar	is of service (LCR):	15 *		
		Hotline Mode:	Off •		
		Hotline	None •		
	Analy Bada Hala				1.
	ubbit outro ueb				

Configure Team

Setup - Wizards - User Telephony - Team Configuration		0
	Change Team Configuration	
Team		Fax
First Name:	•	
Last Name:	*	
Display:	Wulf, Team	
Internal Call Number:	100	
Direct inward dialing number:		
Volcemail		
UC Smart Mailbox type:	MailBox •	
Recording	2	
Greeting	Greeting 1 *	
Password Reset:	0	
Telephones		
First Telephone	Second Telephone	Third Telephone
100	200 Frank-AWS-Osen *	•
Help Abort Back OK & Next	Delete Data	

Configure Call Number Type Configure No and Type outgoing



6. Firewall Rules

6.1. Outbound connection for https

Protocol:	TCP
Source IP:	OpenScape Business host IP
Source Port:	TCP ephemeral port
Destination IP:	Circuit Domain (eu.yourcircuit.com / na.yourcircuit.com)
Destination Port:	443

6.2. Outbound connection for SIP signaling*

Protocol:	TCP
Source IP:	OpenScape Business host IP
Source Port:	TCP ephemeral port
Destination IP:	Circuit hUTC IP ¹) EU Loadbalancer (35.246.135.106)
Destination Port:	65060/65061 ¹)
SBC IP and Port:	EU 34.76.3.39:10000-20000 and 35.246.129.43:10000-20000
New since October	2019, Additional media udp ports must be open:
35.233.23.114 port	10000-20000
35.198.129.132 port	10000-20000
34.77.77.239 port	10000-20000
35.246.191.177 port	10000-20000

¹) hUTC IP/Port can be verified through Expert Mode/Telephony Server/Voice Gateway/Native SIP Server Trunk/Circuit UTC (Cloud), you can also find the Stun configuration here.

For more details, see also Chapter Firewall hints

6.3. Outbound RTP Ports OSBiz

Used RTP Ports OpenScape Business: 29274:30529 OSBiz S > Server 30528:30887 OSBiz X > Embedded

Circuit RTP port range is 10000 - 20000

7. OpenScape Business Serviceability

7.1. Required trace configuration options for error reporting

OpenScape Business Trace Profiles:

- Basic
 Voice Fax Connections
 SIP_Interconnection_Subscriber_ITSP
- 4. SIP_Registration (for registration only problems)

OpenScape Business Trace Components:

- 1. FP_Circuit: lvl 9
- 2. FP_DH_ SIP: lvl 9 (only for OpenScape Business X variant)
- 3. FP_DH_CARD: lv19

7.2. Additional helpful data and files for error analysis:

OpenScape Diagnosis Logs

Wireshark traces

OSBiz TCP Dump

Diagnostic data Service Center >> Status >> ITSP >> Circuit Trunk >> Diagnose

8. Troubleshooting hints:

8.1. General Troubleshooting checklist and hints

Before you start some diagnostic you should activate the OSBiz Traces:

OpenScape Business Trace Profiles:

- 5. Basic
- 6. Voice Fax Connections
- 7. SIP_Interconnection_Subscriber_ITSP
- 8. SIP_Registration (for registration only problems)

OpenScape Business Trace Components (set level in Expert Mode):

- 4. FP_Circuit: lvl 9
- 5. FP_DH_ SIP: lvl 9 (only for OpenScape Business X variant)
- 6. FP_DH_CARD: lvl9

In some cases, it can be necessary to start OSBiz TCP Dump and collect data.

For further diagnostic please provide diagnostic for the connector: OSBiz Service Center >> Status >> ITSP >> Status Circuit connector

If you have general Problems with the connector:

- 1. Check if you have OSBiz Software OSBiz V2R5.1.1_030 or higher, only Basic Call
- 2. Check if you have OSBiz Software OSBiz V2R6 FR2 (>V2 R6.2.0_029! recommend HF10), first release with Circuit CTI
- 3. Check if you have only OSBiz LAN Interface active.
- 4. If you have OSBiz also WAN active, you must have full Internet access via WAN possible.
- 5. If OSBiz WAN interface have full access to Internet and Gateway is set to LAN, Routing entry in OSBiz necessary.
- 6. If you have activated OSBiz LAN and OSBiz WAN and only Internet access via LAN, no Circuit connector possible.

If you have checked this points and V2R6 FR 2 please proceed:

- 1. Test without Enhanced Feature Flag in Circuit connectivity wizard. (execute function)
- 2. Check Status via OSBiz Service Center >> Status >> ITSP Status Circuit connector should registered
- If not, view diagnostic and collect diagnostic data for further service. If OSBiz Connector is registered:
- 1. Restart the Circuit Client (Refresh or Logon/Logoff)
- 2. Check Telephony Button in the Circuit Client is red or black?
- 3. Please try a phone call from and to Circuit Client

Enable Enhanced Feature set again

- 1. Run Connectivity Wizard and enable enhanced feature interworking (execute function)
- 2. Check Status via OSBiz Service Center >> Status >> ITSP Status Circuit connector should registered
- 3. Check if min Key-length is set to 1024 (expert mode >> security >> SPE)
- 4. Restart the Circuit connector
- 5. Check Status via OSBiz Service Center >> Status >> ITSP Status Circuit connector should registered?
- 6. Check if SPE Support and have a valid Certificate is installed, if not disable SPE Support (expert mode >> basic settings >> System Flags

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OpenScape Business V2 - How To: Circuit Interconnection

- 7. Check Status via OSBiz Service Center >> Status >> ITSP Status Circuit connector should registered?
- 8. If Connector is registered please try a phone call from and to the Circuit Client
- 9. If calls from OSBiz to Circuit not possible, please check LCR

Further general hints:

Restart OSBiz X System via Service Center

Restart OSBiz S Systems via Linux >> reboot via CMD or GUI

Check Firewall Settings:

For EU

- we need outgoing connections from OSBiz to TCP eu.yourcircuit.com:443
- Outgoing connections to TCP 35.246.135.106, Port 65060 and 65061
- media UDP open from/to 34.76.3.39:10000-20000 and 35.246.129.43:10000-20000
- incoming TCP connections open from 35.246.135.106 to OSBiz signaling IP:port.

New since October 2019, Additional media UDP ports must be open:

35.233.23.114port 10000-2000035.198.129.132port 10000-2000034.77.77.239port 10000-2000035.246.191.177port 10000-20000

For US

- outgoing connections from OSBiz to TCP na.yourcircuit.com:443
- Outgoing connections to TCP 35.222.85.63:65060, 35.222.85.63:65061 (TLS)
- media UDP open from/to 35.231.244.59:10000-49999, and 35.232.51.243:10000-49999
- incoming TCP connections open from 35.222.85.63 to OSBiz signalling IP:port.

8.2. Partner Administration Error, Unable to add OpenScape Business trunk

① Error	×
Unable to add OpenScape Business trunk.	

Please try with the Customer Circuit Client, to generate the API Key via Circuit Client Administration. After you will see the API key in Partner Administration

8.3. ** Numbers for Circuit user

It's not allowed to use e.g.: **1550 Number for Circuit user.

8.4. Incoming Calls not possible

If incoming calls not possible, please check LCR Rules (Chapter 4).

8.5. Direct Call to Circuit User in Team not possible

If Circuit User is in a Team, you can only call the Circuit User from own Team Member. It is not possible since V6R2_FR2 to call a Team Circuit User direct, the Circuit User can only be reached via Team Number.

8.6. Phone Number from Circuit Client not shown for external calls (suppress calling ID)

If Circuit Client Number is not visible for external calls, please check via OSBiz WBM Expert Mode >> Statistic >> Station, if Suppress calling ID is switched on, please switch off via Associated dialing/services by another station *83 "Phone Number Circuit Client" #0.

Please ensure the flag Associated dialing/services is set on for the other station (deskphone).

8.7. Circuit connectivity Wizard Rest API Error

Please check API Key is right, most problem copy and paste Error (Blank at the End of the API Key).

Please check if OSBiz resolves names via DNS

Please check with Circuit Administrator if you have no Free License in Circuit for Users active.

8.8. Circuit connectivity Certificate Error

If you find the following Error in the Service Center - Diagnostic - Status- ITSP Status - Diagnose button

----- Last Diagnostic information for this User ----resFE_MITOSFW_TLS_SOCK_OUTGOINGUNKNOWNCA: unknown_ca TLS alert sent

	•
Security	Senaliss and Environd Encryption (SEE)
Deployment and Licensing Client (DLSC)	and house a second house for all
 Signaling and Payload Encryption (SPE) 	Ette Sectore (Consequent Andre
SPE Certificate	Minimal length of BSA keys: 1022(19)
SPE CA Certificate(s)	
• 3.94	Certificate validation: [on:w
Certificate Generation	Subject name check:
Certificate Management	Ministration D
Web Security	CHL verification:
Sel Security	Enforce Secure Renegotiation (RFC 5746):
	Maximum Re-Keying interval (hours) 24
	Assiy Exals Rep

Please check the Minimal length of RSA keys: must 1024

SPE must disabled, if you have this Error in diagnostic ----- Last Diagnostic information for this User -----



resFE_MITOSFW_TLS_SOCK_OUTGOINGUNKNOWNCA: unknown_ca TLS alert sent

8.9. Circuit connectivity Wizard starts with all fields filled out, but nothing ongoing

Please Disable Checkbox "Enable Circuit" and press OK&Next. End the Circuit connectivity Wizard and start again from scratch (Chapter 3.2).

Setup - Wizards - Circuit - Circuit Connectivity
Circuit Domain Login
Enable Creat M
Center Coman Center Comment Center Comment
Flaten Circuit API Key
Simulanion Creat Cath
Available Lines for Circuit 60
Under "Setup - Wizards - Network / Internet - Internet Access", you have entered the value Upstream up to (Kbpst) = 1600
This upstream allows you to conduct up to 7 Circuit 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 Circuit Calts: 2
Relp Abort Bins OK & Need

8.10. Firewall and General Problems after running Circuit Connector Wizard

Please check via Expert Mode the IP Addresses and ports, you should got from Circuit, by running the Circuit Connectivity Wizard. (Normally empty). Check your Firewall Settings.

For EU we need outgoing connections from OSBiz to TCP eu.yourcircuit.com:443, Outgoing connections to TCP 35.246.135.106, Port 65060 and 65061media UDP open from/to 34.76.3.39:10000-20000 and 35.246.129.43:10000-20000 and incoming TCP connections open from 35.246.135.106 to OSBiz signaling IP:port.

New additional SBC behind loadbalancer (October 2019) 35.233.23.114:10000-20000 35.198.129.132:10000-20000 34.77.77.239:10000-20000 35.246.191.177:10000-20000

For US

- outgoing connections from OSBiz to TCP na.yourcircuit.com:443
- Outgoing connections to TCP 35.222.85.63:65060, 35.222.85.63:65061 (TLS)
- media UDP open from/to 35.231.244.59:10000-49999, and 35.232.51.243:10000-49999
- incoming TCP connections open from 35.222.85.63 to OSBiz signaling IP:port.

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Please use only the Circuit Connectivity Wizard, you can check in Expert Mode:

Expert mode - Telephony Server					
Tababasa P An coll MIN					
▶Telemach	A Native SilP Server Trunk				
▶Teleret	Edd. Ratier SIP Server Trank	Dabela Native 117 have	um Trunk	Add Rollon SIP Server Trunk Claw	
▶ Telesor	· · · · · · · · · · · · · · · · · · ·	Touch Manage	Onu 2000 000-00		
Tulia Downark		THURS PERMIT	CHOROTO (Cloud)		
Tekahonera		Enable Trunk:	×		
▶ Telin		Tourk Identifier in System:	ITSPINS 1		
Totetra Australia					
Telstra Clear W5IP		Remote Domain Name:	395.16.154.41		
Toreall		Transport protocol	100		
▶ toptest	TO T THE OWNER		C.1.100		
Tax Tebrican	BOURSELLES	ID Address (Direct server)	000 OF 100 OF 10		
▶ TWT		IP Address / Host Name.	pro. 10.104.41		
• U.s. 601 A/S		Port	21418		
▶ Verizon	Provider Registrat				
P YEARA		Use Registrar:	2		
Vokstonr Ardagenarschuss 83			(an an and a		
Vodatore Artagenano/Yeas		IP Address / host name:	pet. 10.104.41		
Vodařces ML		Port	21410		
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* voccettics		resolutions tution without (etc.)	pro .		
· vultering and a	STUN Server				
Proceedings		Use STUN:	×		
Privated		IP Address / Host name:	Mun sipgate net		
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► 70gps					
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Circait UTC (on premise)	Apply Units Rebout Reset	EDefault Values Help			
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8.10.1. Sophos XG Firewall

Session Initiation Protocol (SIP) Support must be enabled, in default it's disabled.

Please read Sophos XG Instructions how to enable SIP Module.

How to find out from OSBiz: In OSBiz Service Center, diagnostic – status – ITSP Status, hint can be the message: resFEMITOSFW_NET_SOCK_CONNECTIONLOST: Connection lost



Ping to 35.246.135.106 from OSBiz was possible (Expert Mode) (ICMP allowed by Sophos firewall)

Tracert to 35.246.135 from OSBiz was not possible (blocked by Sophos firewall)

- 1) Enable TCP Dump in OSBiz
- 2) Run the connectivity wizard or restart the Connector
- 3) Stop TCP Dump and download the cap files
- 4) Open with Wireshark, you will find messages sent to 35.246.135, but will get no answer,

8.11. Incoming and Outgoing calls not possible

Please check automatic circuit trunk assignment



8.12. How to generate Server Certificate, not needed for OSBiz Circuit Connector

!Not needed for Circuit configuration! See also Chapter "Circuit connectivity, Certificate Error"

For Secure Networking Trunk Connection in OSBiz (not Circuit connectivity) you need a Server Certificate, or if SPE (Signaling and payload encryption) Checkbox is enabled in OSBiz.

Here you will find the description how to generate a CA Certificate with OSBiz.

Precondition is Name, Serial Number and Applicant to create, also to check Data (valid)

You have to proceed with the following Steps:

Fill out Data

Expert mode - Telephony Server					8
Security Devicement and Licensing Client (DLSC)	Display General Information				
Signaling and Payload Encryption (SPE)			Generate Se	If-Signed Certificate	
SSL ✓ Certificate Convention		Name of the Certificate:	OS8iz-240		
Certificate Management		Serial Number of Certificate:	172164240		
Web Security Sol Security		Type of Signature Algorithm:	sha256RSA *		
		Public Key Length	2048 *		
5	tart Time of Validity Period (GMT)				
		Day	Month	Year	
		4	6	2019	
		Hour	Min.	Sec.	
		0	0	0	
	nd Time of Validity Period (GMT)				
		Day	Month	Year	
		4	6	2029	
		Hour	Min.	Sec.	
		0	0	0	
	ubject Name			_	_
		Country (C):	DE		
		Organization (O):	Unify		
		Organization Unit (OU):	PH		
		Common Name (CN):	OS84:240		
S	ubject Alternative Name				_
		Distinguished Name Format [®]	Other Format®		
	Si	bject Alternative Name Extension:	DNS Name (optio	nal)	
	644	Subject Alternative Name:	(antia	a 20	
	Apply Help				

Generate Certificate PKCS#12

To generate the certificate, following is needed: Passphrase: Same Serial Number as in first Step Subject name, must be different from first step

Security Deployment and Licensing Client (DLSC) Signaling and Payload Encryption (SPE)	Display General Information View Certificate Delete Certificate	Diport Certificate (X.509)	Generale CA-	ligned Server Certificate [PRCS#12]	Update CA-Signed Server Cettificate (X.509)
▼SPE Certificate			and the second second second		
▼SPE CA Certificate(x)		Reen	er Passphrase for encryption:		
Car Car			Serial Number of Certificate:	172164240	
Ein (7			Type of Signature Algorithm:	sha256RSA	
			Public Key Length:	2048 *	
E2B20	Start Time of Validity Period (GMT)				
560z+			Day	Month	Year
[5])2			4	6	2019
a at	_		Hour	Min.	Sec.
Eta) 5350-240			0	0	0
Certificate Management	ad Time of Validity Period (GMT)				
Web Security Sal Security			Day	Month	Year
			4	6	2029
			Hour	Min.	Sec.
			0	0	0
	Subject Name		Country (C):	DE	
			Organization (O):	Unite A	
			Oranaization Linit (OLD:	DHA A	
			organization one (ob).	1000	
			Common Name (CN):	IOSBIZ-A	
	Subject Alternative Name		Distinguished Name Format	Other Formatil	
		Subjec	Alternative Name Extension:	DNS Name	
	Generate Certificate Hel	lp.			

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Export Certifcate X509

Expert mode - Telephony Server				
Presentite	-			
Deployment and Licensing Client (DLSC)	Display General Information			
Substantia and Paynoad Encryption (SEPE)	View Certificate Delete Certificate	Export Certificate (XL509)	Generate CA-Signed Server Certificate [PKCS#12]	Update CA-Signed Server Certificate [X.509]
¥ 6 61				
Certificate Generation				
D 5584-240				
Certificate Management				
Web Security				
Sql Security				
	Land Hala			
	Loss nep			

After press Load, Certificate will be stored on your PC

Certificate import:

first start with SPE CA Certificate import

iecurity	SPE CA Certificate(s)					
Deployment and Licensing Client (DLSC)		Import trusted CA Certificate	(X.509 file) for SPE			
Signating and Payload Encryption (SPE)		· · · · · · · · · · · · · · · · · · ·				
SPE CA Certificate(a)		File with certificate (PEM or binary	y): Datei auswählen Keine ausgev	ahlt		
SSL CHORDING (1)	•		BI DAR			
Certificate Generation		CRL Distribution Point (CDP) Protoco	of: OHTTP			
50 0 \$Biz-240	7	CDR (without a g. Map)	ID:			
Certificate Management		Cor (more e.g. waps	w []			
▼Server Certificates						
Default Server Certificate (active)						
50058iz.240	© Öffnen					×
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iql Security				~ 0		~
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	30-Objekte A Name	Anderungsdatum	Typ Große			^
	Dždar					
	U OSBiz-240.crt	04.06.2019 11:25	Sicherheitszertifikat 2 KB			
	Desktop	04.06.2019 11:22	Privater Informati 3 KB			
	Dokumente HowTo-GenerateServerCert	bficate.docx 04.06.2019 11:06	Office Open XML 697 KB			
	Downloads any (7), cap0	29.05.2019 13:52	CAPO-Datei 7.309 KB			~
		10.00	A REAL		1	
	Datename: OSBiz-240.crt			~	Alle Usteien (*.*)	~
					Öffnen Abbrech	en

Press View Fingerprint to import

Import SPE Certificate

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The with certificate and private Key (PELM of NCCH12 format) The second secon		Keine ausgewählt	M or PKCS#12 format): Datei auswahlen	Eile with certificate and ed-				
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Service Codes	Configurable CLIP:	8
Gateway	Caller list at destination in case of Forward Line:	8
Dyellins	Call forwarding after deflect call / single step transfer:	2
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Port Management	Warning fone during voice recording.	
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		10
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