

OpenScape Business V2

How To Configure SIP Trunk for your ITSP X2COM NL IP

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Date	Version	Changes
19.02.2016	1.0	First version
05.04.2016	1.1	ITSP X2COM
13.09.2024	1.2	editorial changes

Note: The basis for this document is the current OpenScape Business at the time of certification. Since OpenScape Business is constantly developed, input masks and interfaces as well as requirements may change in the future. The settings and entries described here then apply accordingly.

Configuration Data

Information from ITSP X2COM NL provided:

Name	Example
Call Number:	(073) 7200970-974
Number of DID digits:	7
SIP Domain:	sip.x2c.nl
SBC_IP:	37.235.80.80 UDP 0
digest Auth.:	Yes
SIP Username:	31737200970
SIP Passwort:	n/a
Clip no Screening:	yes
Number of voice-channels:	2

Configuration Wizard

Internet Telephony

Go to "Central Telephony – Internet Telephony"

System i	n network!	Synchronization sta	atus: 😈				administrator@system	Logoff
Home	Setup	Expert mode	Data Backup	License Management	Service Center	Networking		
Setup								
▼ Wizard	s		Central Telephor	ıy				0
Basic I	Installation							-
Netwo	rk / Interne	t	Edit CO Tru	nk ISDN / Analog / ITSP		CDN consistions and		
Teleph	iones / Subs	cribers	assignm	ent of analog and ITSP trunks	Ind PABX number for IS	SDN connections, and		
Centra	l Telephony		Internet	Telephony				_
User T	elephony		Edit Access	parameters of the Internet Teler	phony Service Provider	(ITSP), e.g., user account,		
Securi	ty		passwoi					
UC Sm	art	_	Edit Set up c	Book / Speed Dialing entral speed-dial destinations fo	or the system's internal	phone book		
			Edit Call Det Set up c	tail Recording all detail recording connection p	parameters for call deta	il applications		
			Edit Record answerin	n Hold / Announcements new melodies and announceme ng	nts for Music on Hold a	and announcement before		
			Edit Entranc Set up c station c	e telephone all allocation and access author connection	rization for the entrance	e telephone at the analog		
			Edit Set up S	M SmartVM				

The overview page appears for entering the location data. The most flexible type of configuration is to enter the Country code only. For Multisite scenarios and CLIP No Screening this is mandatory.

Setup - wizards -	sentral lelephor	ny - Internet Telep					
				Over	view		
Note: changes done Note: At least the co PABX number	in expert mode monfiguration of the	nust be reviewed/rep 'Country code' is ne	peated after running t eded for features suc	hrough the wizard. ch as 'Internet telephony' an	d 'MeetMe conference'.		
				Country code:	31	(mandatory)	
				Local area code:		(optional)	
				PABX number:		(optional)	
Help	Abort	Back	OK & Next				

As outgoing number only the port assigned phone numbers are used. In this case, remaining digits are filled in DID field. Click [OK & Next] Provider configuration and activation for Internet Telephony -> No call via Internet -> uncheck Use County specific view : Netherlands and select **X2COM**.

Setup - Wizards - Central Te	elephony - Internet Telephony		×				
		Denides and entirely and estimation for laterest Telephone.	Â				
	Provider conliguration and activation for internet releptions						
No call via Internet.							
	Country specific view: (hetherlands						
Note: changes done in expert	Job: changes done in expert mode must be reviewed/repeated after running through the wizard						
bdd	Activate Provider	Internet Telephony Service Provider	-11				
Edit							
Edit							
Edit							
Edit							
Edit		Desironmed B.v.					
Edit		Integration in the second se					
Edit							
Edit		Creation and Cre	E				
Edit		omen					
Edit		Rout					
Edit		Skyre Connect					
Edit		- year					
Edit		- verify ASD					
Edit		Tele2 NL-RT					
Edit		T-Mobile (NL)					
Edit		Verson					
Edit		Vodafone Anlagenanschluss R3					
Edit		Vodafone NL					
Edit		Viceworks					
Edit		X2COM					
Edit		Zigpo	-				
Help Abort	Back OK & Next Disp	ay status					

Activate Provider and click on [Edit].

Internet Telephony configuration

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

Setup - Wizards								×
				Internet Telep	hony Stations for X2	2COM		
					Name of Internet Teleph	ony Station		
Add	>				New Internet Telephony	/ Station		
Help	Abort	Back	OK & Next					

Click on [Add].

Data provided by ITSP X2COM is inserted here.

Account Wijzigen			Blokkades		ar rerug
Gebruikersnaam:	31737200970		STAS block	✓ toevoegen	
Wachtwoord:	and the second sec		Basabriking	Dishting	
Klant Nummer:	46511	Aannassen	No Results	Richung	
Caller ID Override:		, and a second			
Tariefplan:		~	Klanten & Partners		
Tariefplan Mobile:		~	Gekoppelde Klant		
Tariefplan Airtime:		~	Gekoppelde Partner		
Tariefplan Kickback:		~	IP Authorisatie		IP Adres Toevoegen
Tariefplan Message:		~	2 to the second s		
Tariefplan Data:		~	P Agres Geen IP adressen gevonden		
Tariefplan Roaming:	10100	~			
Krediet (€):	100.000	SIP Data Provider	info:		
Maandelijks Krediet (€):		Oli Data Hovider	inio.		
Call Limit		Username			
Anoniem:		Password			
CLI Transparant:					
Туре:	1 million	~			
Uitgaande Route:	terms				
Prepaid:					
Status:	Tradition .				
Opslaan					
Internet telep	hony station:	SIP Username is	inserted here (gebruik	ersnaam)	
Authorization	name:	SIP Username is	inserted here (gebruik	ersnaam)	
Password:		Password provid	ed by ITSP BCom provi	der. (wachtwo	oord)
Defende ander			· · · · · · · · · · · · · · · · · · ·		
Default numb	er:	iviain number of	connection. The defau	it number is u	sed as outgoing

Main number of connection. The default number is used as outgoing number when no DDI number is assigned to a station,.

Setup - Wizards - Central Telephony - Internet Telephony					
Internet Telephony	Station for X2COM				
Internet telephony station:	31737200970				
Authorization name:	31737200970				
Password:					
Confirm Password:	•••••				
Call number assignment Use public number (DID)	٥				
Use internal number (Callno) / Single entries	0				
Use internal number (Callno) / Range entry	0				
If using 'configurable clip' you have to change the configuration to 'Use public number (DID)' here! Changing trunk parameters in case of internal subscriber no. is not allowed!					
Default Number:	31737200970				
MEX Number:					
Default Number ITSP as primary CO access Enter one of the call numbers supplied by your network provider here. This will be used in outgoing calls as the callin All call numbers supplied by your network provider are to be entered within the trunk and telephones configuration (C	ng party number in case no other number is available for the respective call. ID field) primary CO access.				
MEX Number To use the feature Mobile Extension (MEX) you have to enter a MEX number here. An entered MEX number will only For use of MEX it is also necessary to configure a DISA number.	be stored if the ITSP is marked as 'active'.				
Help Abort Back OK & Next Delete Data					

Click [OK & Next].

Setup - Wizards - C	entral Telephony - Internet Telephony
	Internet Telephony Stations for X2COM
	Name of Internet Telephony Station
Edit	31737200970
Help	Abort Back OK & Next

Click [OK & Next].

Setup - Wizards - Central Telephony - Internet Teleph	ony		8			
Call Number Assignment for X2COM						
Name of Internet Telephony Station	Internet Telephony Phone Number	Direct inward dialing	Use as PABX number for outgoing calls			
n order to complete the configuration please verify that the relevant user DIDs are set in stations.(Telephones / Subscribers configuration)						
Help Abort Back (K & Next					

Click [OK & Next] (no input needed)

Next page status of ITSP is displayed. In case of a wrong SBC Address in Expert mode status of ITSP is "not registered"

Setup - Wizards - Central Te	lephony - Internet Telephony				×
	BCOM	Disabled			^
	Circuit UTC (Cloud)	Disabled			
	COLT UK & Europe	Disabled			
	COLT VPN	Disabled			
	Deanconnect B.V.	Disabled			
	Infopact	Disabled			
	Motto Communications	Disabled			
	oneCentral	Disabled			
	OneXS	Disabled			
	Priority Telecom	Disabled			
	RoutIT	Disabled			
	Skype Connect	Disabled			
	SpeakUp	Disabled			E
	Tele2 NL-ASD	Disabled			
	Tele2 NL-RT	Disabled			
	T-Mobile (NL)	Disabled			
	Verizon	Disabled			
	Vodafone Anlagenanschluss R3	Disabled			
	Vodafone NL	Disabled			
	Voiceworks	Disabled			
Restart	X2COM	Enabled	31737200970	registered	
	Ziggo	Disabled			-
Help Abort	Back OK				

Define bandwidth (# Trunks)

In the next part the number of simultaneous calls via the SIP trunk will be defined. The calculation of the number of trunks is done by the wizard automatically depending on the bandwidth. For each 128K, one trunk is created.

Setup - Wizards - Central Telephony - Internet Telephony					
Settings for Internet Telephony					
Available Lines for ITSP: 246					
Please enter in field 'Upstream up to (Kbit/sec)' the Upstream of your Internet Upstream up to (Kbps) = 256	t connection communicated by your Prov	ider. You have typed in			
in the 'Change Feature> Internet Telephony' Assistant. This upstream allow simultaneous calls.	vs you to conduct up to 2 Internet phone	calls simultaneously. If the call qu	ality deteriorates due to the net	work load, you will need to reduce this number of	
The number of simultaneous Internet Calls also depends on the licensing.					
	Upstream up to (Kbps):	256			
Ν	Number of Simultaneous Internet Calls:	2 D	istribute Lines		
Line assignment					
Internet Telephony Service Provider	Configure	d Lines		Assigned Lines	
X2COM	2		2		
Help Abort Back OK & Next					

Click [OK & Next]

Special phone numbers

In this dialog it is possible to route special phone numbers. When special phone numbers are not supported over the ITSP route it is possible to change this here.

Setup - Wizards - Central Telephony - Intern	et Telephony	2
	Special phone numbers	
Note:		
Emergency calls should always be built up with ISD	IN or Analog Trunk for safety reasons.	
Please make sure that all special call numbers are	supported by the selected provider without fail.	
Special phone number	Dialed digits	Dial over Provider
1	0C112	X2COM -
2		ISDN -
3		ISDN -
4		ISDN 🔹
5		ISDN -
6		ISDN 👻
7		ISDN -
8		ISDN -
9		ISDN -
10		ISDN -
11		ISDN -
12		ISDN -
13		ISDN -
14		ISDN -
15		ISDN 👻
Help Abort Back	OK & Next	

After this status page two more dialogs with "Exchange Line Seizure" and an overview with all configured "Outside line Seizure" are displayed.

Multisite configuration

Multi-site refers to the integration of several ITSP numbers from currently up to 8 different local area codes in a single system. (For example, numbers from Veghel 0413 xxx, Roermond 0475xxx, etc.). All up to 8 area codes must be within one country. Additional configuration notes:

DID configuration

In general the DID has to be configured in long format. E.g. Mike Miller,413411005 for a user in Veghel, Tobi Foster 475123456 for user in Roermond.

The country code 31 has to be configured as described as before.

Calino 998 999	First Name Mike	Last Name	Name	DID	Туре	Fax Callno
1 899 1 999 1 999	Mike					
998 1 999 T	Mike				•	
999		Miller	Miller, Mike	413411005	System Client -	
	Tobi	Foster	Foster, Tobi	475123456	System Client -	
	-	-]-	-	No Port 🔹	
	-			-	No Port 🔹	
	-	-	-	-	No Port 🔹	-
	-	-	-	-	No Port 🔹	-
	-	-	-	-	No Port 🔹	-
	-	-	-	-	No Port 🔹	-
	-	-]-	-	No Port 🔹	-
	-	-	-	-	No Port 🔹	-
	-	-]-	-	No Port 🔻	-
	-	-]-	-	No Port 🔹	
	-	-]	-	No Port 🔹	
	-	-	-	-	No Port 🔹	
e 1 of 81						

Multisite Table

The Multisite wizard is available when at least one ITSP is active. In expert mode Multisite can be found in the LCR configuration.

Expert mode - Telephony Server				
LCR	Multisite			
LCR Flags		Edit Areas	Edit Stations/G	roups
Classes Of Service				
Dial Plan	Delete	e Area Code	Area	Dedicated Route
Dial rule	1	0		- +
Multisite	2 🔳	0413	Veghel	X2COM 👻
	3 🔳	0475	Roermond	X2COM -
	4			
	5 🔳			- •
	6			- 🔻
	7 📼			- •
	8			- •
	Apply	Undo Help		

Edit Stations/Groups

LR	Multisite						
LCR Flags	1	Edit Areas		Edit Sta	ations/Groups		
Classes Of Service							
Dial Plan	Callno	DID	Name	Туре	Are	a	Dedicated Route
Dial rule	Search:						
						<u></u>	-
uuusite				and here a			
				and the second			
				and the second			
				and the second		- 2	_
				and the second			
				and the second			
	(121	412411005	Miles Milles	Pustern Olient	Markal		VICON
	(131	413411005	Tabi Casta	System Client	Vegnel	•	X2COM
	134	4/5123456	Tobl Poster	System Client	Roermond	*	X2COM
				and the second second			
				and the second			
				and there are	and a	-	
				Contraction of the second			- •
				Contraction of the local distance of the loc	Anna I		· · · · · · · · · · · · · · · · · · ·
				Charles and and			
				and makes			
				Carlo Distance	And a		
				Out the second	Anna 1		
	14.00			and the second s	Anna -		-
				Contraction (Contraction)	Anna 1		- •
	Page 1 of 16			~ ^			

Important "Dial rule" for local calls

Expert mode - Telephony Server							×
LCR	Dial Rule						
LCR Flags		Change Dial Rule					
Classes Of Service							
Dial Plan	Rule Name	Dial r	ule format	Network access	1	уре	
Routing table	1 CO	A		Main network supplier 👻	Unknown	•	*
Di <mark>al</mark> rule	2 SIP	A		Main network supplier 👻	Unknown	•	
Multisite	3 SIP local	HE2A		Main network supplier 👻	Unknown	•	
	4 MEB	E1A		Corporate Network -	PABX number	-	
	5 IP-Network	A		Corporate Network	Unknown	•	
	6 Multi-Location	BA		Corporate Network -	Unknown	•	
	7 Gateway call	E1A		Corporate Network -	Unknown	-	
	8 COInternat	D0E3A		Main network supplier 👻	Unknown	•	
	9			Unknown 👻	Unknown	-	
	10			Unknown -	Unknown	•	=
	11			Unknown -	Unknown	•	
	12			Unknown -	Unknown	-	
	13			Unknown -	Unknown	•	
	14			Unknown -	Unknown	•	
	15			Unknown -	Unknown	-	
	16			Unknown -	Unknown	•	
	17			Unknown -	Unknown	•	
	18			Unknown 👻	Unknown	-	
	19			Unknown -	Unknown	•	
	20			Unknown -	Unknown	•	
	21			Unknown 👻	Unknown	-	
	22			Unknown -	Unknown	•	-
	Page 1 of 11		1 2 3 4 5	6121819	lter	ns per page 1	0 25 50 100
	Apply U	ndo Help					

Clip No Screening to be disabled

Expert mode - Telephony Server	Let a set
▶ TDC	A Internet Telephony Service Provider
Telco Pack SA	Filt Thermet Telenhony Service Provider Delete Internet Telenhony Service Provider Add Internet Telenhony Station
Tele2 NL-ASD	
Tele2 NL-RT	CLIR outgoing in From neader - alspiay part. Omit
Tele2 Sweden	CLIR outgoing in From header - user part: fully anonymous -
Telekom IP-As mit MSN	CLIR outgoing Privacy header
Telemach	
Telenet	COLP / TIP supported for outgoing calls: COLP supported •
Telenor	Call number formatting
Telfree SA	Incoming call - Called party number: request line
TeliaSonera	Incoming call - Calling party number: From header user part
Telia	Incoming call Type of number (calling): automatic
Telstra Australia	incoming can - type of number (caning). automate
Telstra Clear WSIP	Incoming call - Type of number (called): automatic •
▶ Tipicall	Outgoing call - Type of number (calling): automatic -
▶ toplink	
Tus Telekom	Mapping of provider number: off
▶ TWT	CLIP no Screening support: CLIP in From / trusted number in PAI 💌
Uni-tel A/S	Call No. with interactional (regional profile
Verizon	Call No. with international preix. CLIP in From / trusted number in PAI
Viatek	Registration
▼Vodafone Anlagenanschluss R3	Register Contact contains IP-Address: localIPAddr
Vodafone Anlagenanschluss	ContactUriWithProtocol:
Vodafone Berlin Kreuzb	DNC Desiglation (CD express), respective a
Vodafone Berlin Spand	
Vodafone Dortmund	ReRegistration interval after failure (sec): 120
Vodafone Düsseldorf	Apply Undo Restart ITSP Reset Default Values Help
Vodafone Frankfurt	

"Clip No Screening" has to be diasabled in combination with Multisite configuration. It results in signaling of CLIP in both, From- und PAI-Headers. Important for emergency calls.

Route configuration

Trunks/Routing	Pouto			
Trunks	Channe Banka	Change Davider Deservices		Constal Deservation shares
Route	Change Route	Change Routing Parameters		Special Parameter change
ISDN		Route Name:	X2COM	
Trk Grp. 2				
Trk Grp. 3		Seizure code:	0	
Trk Grp. 4		CO code (2nd trunk code):		
Trk Grp. 5				
Trk Grp. 6	Gateway Location			
Trk Grp. 7		Country code:	31	
UC Suite		Local area code:		
Trk Grp. 9		DARY sumbar		
Trk Grp. 10		PADA humber.		
Trk Grp. 11	PABX number-incoming			
X2C <mark>O</mark> M		Country code:	31	
Trk Grp. 13		l ocal area code:		
Trk Grp. 14		Local alea code.		
Trk Grp. 15		PABX number:		
Networking		Location number		
QSIG-Feature	DADY sumbas subscience	Loodion number.		
MSN assign	PABA number-outgoing			
ISDN Parameters		Country code:		
		Local area code:		
		PABX number:		
		Suppress station number:		
	Overflow route			
		Quarflaw rauta	None	
		Overliow route :	None •	

Only one ITSP (one Route) for all local areas needed.

Expert mode - Telephony Serve					×
Trunks/Routing	Route				
Trunks	Change Poute	Change Pourting Parameters		Special Darameter change	
▼Route				apedar forancer charge	
ISDN	Routing flags				
Trk Grp. 2		Digit repetition on:			
Trk Grp. 3		Analysis of second dial tone / Trunk monitoring:			
Trk Grp. 4		, laters at any direction.	-		
Trk Grp. 5		intercept per direction:			
Trk Grp. 6		Over. service 3.1 kHz audio:			
Trk Grp. 7		Add direction prefix incoming:	\checkmark		
UC Suite		Add direction prefix outgoing:			
Trk Grp. 9		Add direction preix outgoing.			
Trk Grp. 10		Call No. with international / national prefix:	\checkmark		
Trk Grp. 11		Ringback tone to CO:			
X2COM		Sometation:	1400		
Trk Grp. 13		Segmentation.	yes •		
Trk Grp. 14		deactivate UUS per route:			
Trk Grp. 15		Always use DSP:			
Networking		· · · · · · · · · · · · · · · · · · ·			
QSIG-Feature					_
MSN assign	_	Analog trunk seizure:	no pause 🔻		
ISDN Parameters		Trunk call pause:	Pause 6 s 👻		
		Type of seizure:	linear 👻		
		Route type:	CO •		
		No. and type, outgoing:	Country code 💌		
		Call number tune	Unknown		
		Call number type:	PABX number		
			Local area code		
	Apply Undo	Help	Internal		

Check type of number for outgoing calls.

Configuration in Expert mode

System in			atus: 🔵					<u>Logo</u>
Home	Setup	Expert mode	Data Backup	License Management	Service Center	Networking		
Expert m	ode							
▶ Mainte	nance		Expert mode					2
▼ Teleph	ony Server							•
Basic S	ettings		Expert Mode is inte	nded for advanced configuration	by trained technicians	of your Service Provider. If you use E	xpert Mode to make cha	nges,
Securit	у		and then require the	e support of your Service Provid	er, you may be charge	d for this support.		
Netwo	rk Interface	s						
Routing	9							
LCR								
Voice G	iateway							
Station	1							
Cordles	is							
Incomi	ng Calls							
Trunks	/Routing							
Classes	of Service							
Auxilia	ry Equipmen	t						
Payloa	d							
Statist	ics							
Applica	tions							

Choose [Voice Gateway] and "Internet Telephony Service Provider"

Expert mode - Telephony Server			×
Voice Gateway	Internet Telephony Service Provider		
SIP Parameters Codec Parameters	Add Internet Telephony Service Provider	Edit STUN Configuration	Detect NAT Type
Destination Codec Parameters			
Internet Telephony Service Provider			
Networking			
SIPQ-Interconnection			
Native SIP Server Trunk			•
	Apply Undo Help		

Select "BCom".

The "Domain Name" and "Provider Proxy " are defined with the SIP Domain provided from ITSP. Transport protocol and UDP Port are set by default. ITSP X2COM supports DNS SRV, so in our case port number is set to "0".

SIP Domain:	sip.x2com.nl
SBC_IP:	37.235.80.80 UDP 0

Telfree SA	Internet Telephony Service Provider			
TeliaSonera	Themet relepinony service Provider	Dalata tat	terret Telephone Can des Des des	Add Tokeney & Tokeney Cheller
Telia	East Internet Leiephony Service Provider	Delete In	ternet Telephony Service Provider	Add Internet Telephony Station
Telstra Australia		Provider Name:	X2COM	
Telstra Clear WSIP				
Tipicall		Enable Provider:	V	
toplink	P	Provider Identifier in System:	Trunk Group 12 -	
Tus Telekom		Domain Name:	sin x2c nl	
TWT		Domain Hame.	olp.aze.ni	
Uni-tel A/S		Transport protocol:	udp 👻	
Verizon		Transport security:	traditional (upd or tcp) -	
Viatek	Provider Registrar			
Vodafone Anlagenanschluss R3	3	Lise Registrar		
Vodafone Anlagenanschluss		ose registrar.		
Vodafone NL		IP Address / Host name:	sip.x2c.nl	
Voiceflex		Port:	0	
Voiceworks				
VoIP Ltd i-Line	Reregistrati	ion Interval at Provider (sec)	600	
Voitel	Provider Proxy			
Vozelia		IP Address / Host name:	sip.x2c.nl	
VTX		Port:	0	
Windstream		Fuit.	0	
WIN	Provider Outbound Proxy			
X2COM		Use Outbound Proxy:		
31737200970		IP Address / Host name:	0.0.0.0	
хо	=			
Xtratelecom		Port:	U	
Ziggo	Provider Inbound Proxy			
stworking		Hee Inhound Drover		

Extended SIP parameters have been checked within the certification procedure. There is no need for any modification unless the provider (in this example x2com) changes any parameters in his SIP Stack. So these parameters are for information only.

Expert mode - Telephony Server				
Telekom DeutschlandLAN SIP-Trunk Static N	Internet Telephony Service Provider			
Telekom IP-As mit MSN	Edit Internet Telephony Service Provider	Delete Inter	rnet Telephony Service Provider	Add Internet Telephony Station
Telemach				
Telenet	CLIP outgoing in P-Asserted-	ld header - user part:	call number -	^ ^
Telenor	CLIP outgoing in P-Preferred-Id	neader - display part:	omit 👻	
Telfree SA	CLIP outgoing in P-Preferred	ld haader - user part:	omit -	
TeliaSonera		iu neauer - user part.		
Telia	CLIP outgoing in Diversion	neader - display part:	omit 👻	
Telstra Australia	CLIP outgoing in Diversio	n header - user part:	call number 👻	
Telstra Clear WSIP	CLIP outgoing in From	ander display part:		
Tipicall		reader - display part.	anonymous +	
▶ toplink	CLIR outgoing in Fro	m header - user part:	fully anonymous 🔻	
Tus Telekom	CLIR outo	ioing Privacy header:	id 👻	
TWT	001.0.(70		OOL D amount of	
Uni-tel A/S	COLP / TIP support	ed for outgoing calls:	COLP supported •	
Verizon	Call number formatting			
Viatek	Incoming call -	Called party number:	request line -	
Vodafone Anlagenanschluss R3	Incoming call - (Calling party number:	From header user part -	
Vodafone Anlagenanschluss				=
Vodafone NL	incoming call - Typ	e of number (calling):	automatic +	
Voiceflex	Incoming call - Typ	e of number (called):	international 👻	
Voiceworks	Outaoing call - Typ	e of number (calling);	international 👻	
VoIP Ltd i-Line				
Voitei	wappin	g of provider number:	• • •	
	CLIP n	o Screening support:	CLIP in From / trusted number in PAI 🔻	
VIX Windeferences	Call No. with interna	tional/national prefix:	ves 👻	
Windstream	Pogistration			
- YZCOM	Neglistration			-
24727200070	Apply Undo Restart ITSP He	lp		
4 III >>				

Expert mode - Telephony Server					×
Telekom DeutschlandLAN SIP-Trunk Static N	Internet Telephony Service Provider				
Telekom IP-As mit MSN	Edit Internet Telephony Service Provider	Delete Int	ernet Telephony Service Provider	Add Internet Telephony Station	
Telemach	Registration				
Telenet	Register Contact	containe ID Addroce:			1
Telenor	Register Contact	contains in-Address.	localiFAddi 🔹		
Telfree SA	Cor	ntactUriWithProtocol:			
TeliaSonera	BNC Regis	tration (SIPconnect):	normal registration -		
Telia	BeBegistration inte	and offer failure (eee):	120		
Telstra Australia	ReRegistration inter	vai alter failure (sec).	120		
Telstra Clear WSIP	F	ReRegistration mode:	continuous 👻		
Tipicall	ReRegistra	ation after call failure:	CallFailureIsNoRegFailure -		
toplink	Security		,		
Tus Telekom	Jocutty .	UDD mode:	overmetric LIDB		
▶ TWT		ODF mode.	symmetric ODF		
Uni-tel A/S	App	roved Peer selection:	trust configured Servers only	•	
Verizon	Miscellaneous				
Viatek		Direct Payload:			
Vodafone Anlagenanschluss R3	Media Pen	adotistion Avoidance:			
Vodafone Anlagenanschluss		systiation Avoidance.			
Vodafone NL	UseRou	teURIAuthentication:	V		
Voiceflex		Ignore 100 Rel:			
Voiceworks	1	UseViaRPort:			
VoIP Ltd i-Line		UDDATE Supported:			
Voitel		OPDAIL Supported.			
Vozelia	= Se	ession Timer support:	not active 👻		=
VTX	Send automatic 183	esponse timer (sec):	0		
Windstream			Lidel/and Albus ON		
► WIN		ODH-Reep Allve:			ŀ
VX2COM	Apply lindo Destart ITSD He	In			
 ✓ 31/3/2009/0 ✓ III 	Apply ondo Restart 13P ne	41			

In Expert mode – Telephony Server – Trunks/Routing

					×
Trunks/Routing	Route				
Trunks	Change Route	Change Routing Parameters		Special Parameter channe	
▼Route		change rooding rarameters		opedan arange	
ISDN		Route Name:	X2COM		_
Trk Grp. 2			-		
Trk Grp. 3		Seizure code:	0		
Trk Grp. 4		CO code (2nd trunk code):			
Trk Grp. 5	Catoway Location				
Trk Grp. 6	Galeway Location				
Trk Grp. 7		Country code:	31		
UC Suite		Local area code:			
Trk Grp. 9		PABX number:			
Trk Grp. 10		TADA humber.			
Trk Grp. 11	PABX number-incoming				
X2C <mark>O</mark> M		Country code:	31		1
Trk Grp. 13		Local area code:			
Trk Grp. 14		2008 8108 0080.			
Trk Grp. 15		PABX number:			
Networking		Location number:			
QSIG-Feature					
MSN assign	PABA number-outgoing				
ISDN Parameters		Country code:			
		Local area code:			
		PABX number:			_
		Suppress station number:			
	Overflow route				
		Overflow route :	None -		
	Apply Undo	Help			

Expert mode - Telephony Server						×
Trunks/Routing	Route					
Trunks	Change Poute		Change Pouting Parameters		Special Darameter channe	
▼Route	chunge route				apcourr araneter change	
ISDN	Routing flags					-
Trk Grp. 2			Digit repetition on:			
Trk Grp. 3		Analysis of second	d dial tone / Trunk monitoring:			
Trk Grp. 4			Intercent per direction:	m		
Trk Grp. 5			intercept per direction.			
Trk Grp. 6			Over. service 3.1 kHz audio:	\checkmark		
Trk Grp. 7			Add direction prefix incoming:	\checkmark		
UC Suite			Add direction prefix outgoing:			
Trk Grp. 9			raa areenen prenx oargoing.			
Trk Grp. 10		Call No. with	international / national prefix:			
Trk Grp. 11			Ringback tone to CO:			E
Tel: Car. 42			Segmentation	VAS		
Trk Grp. 13			oognonation	,		
Trk Grp. 14			deactivate UUS per route:			
Networking			Always use DSP:			
QSIG-Feature						
MSN assign			Analog trunk seizure:	no pause 👻		
ISDN Parameters	1					
	(Trunk call pause:	Pause 6 s ▼		
			Type of seizure:	linear 👻		
			Route type:	CO •		
			No. and type, outgoing:	Country code 🛛 👻		
			Call number type:	Direct inward dialing -		
	Apply Undo	Help				

Troubleshooting/Maintenance

Status from ITSP perspective

After successful registration, X2COM provides some information on their Internet portal.

Ingelogd							
Contact	Call D	User Agent	Last Modified	Verlooptijd	Flags	CFlags	Cseq
sip:31737200970@192.168.5.2:5060	b0c8ccbc96cd354e	OpenScape Business M5T SIP Stack/4.2	2016-04-06 09:06:55	2016-04-06 09:16:55	NoDB	NAT	919
sip:31737200970@192.168.5.2:5060	b0c8ccbc96cd354e	OpenScape Business M5T SIP Stack/4.2	2016-04-06 09:06:55	2016-04-06 09:16:55	NoDB	NAT	919.

Status OpenScape Business

In the service center there are some informations to check the status of the provider.

Home	Administrators	Setup	Expert mode	Data Backup	License Management	Service Center
Service C	enter					
Documen	its					
Software						
Invento	ory					
SW Upd	late					
E-mail Fo	rwarding					
Remote A	locess					
Restart /	Reload					
Diagnos	stics					
Status						
Event V	liewer					
Trace						
Service	Log					

The Event Viewer shows important information about the ITSP.

Service Center -									E	
Dis	play		Load via Hī	ПР			Delete Event Viewer Log			
	Events									
06 Apr 2016 08:17:5 regist SIP u	59:18 SIP :2: tration status: unreg ser name 31737200	istered, SIP provider 0970, SIP binding 19	X2COM, 2.168.5.2:5060							
06 Apr 2016 08:18: regist SIP u:	11:46 SIP :2: ration status: regist ser name 3173720(ered, SIP provider X2 0970, SIP binding 19	2COM, 2.168.5.2:5060							
									.d	
				a	uto refresh 🗵					
				Seconds until next automat	ic refresh: 7					
Help	Abort	Back	Finish	Clear Display	Refresh					

"Status" provides information about the registration status of the ITSP. The ITSP registration can also be restarted here.

SI	ation Status	Dialup Network Status	ITSP Status	VPN Status	Overview of I	IP Addresses	BLF Status
Callno	Name	Device Type	IP Address	MAC Address	Current SW Version	HW Version	Status
00	TDM 100	optiPoint 500 Basic	-	-	VM.PR2.02	-	Disabled
01	-	OpenStage 40	-	-			Disabled
02	-	optiPoint 500 Standard	-	-	P20		Disabled
03	-	-	-	-			Disabled
04	-	-	-	-			Disabled
)5	-	optiPoint 500 Standard	-	-	P20		Disabled
06	-	Basestation	-	-			Disabled
07	-	Basestation	-	-	P20		Disabled
50	-	analog	-	-	-	-	Enabled
51	FAX 151	analog	-	-	-	-	Enabled
52	-	analog	-	-	-	-	Enabled
53	-	analog	-	-	-	-	Enabled
131	OS60 131	OpenStage 60/80	<u>192.168.5.70</u>	00:1a:e8:58:3f:f9	V3R0.28.0 HFA C01	-	Enabled
32	-	OpenStage 80	<u>192.168.5.50</u>	00:1a:e8:03:02:99	V3R0.28.0 HFA C01	-	Enabled
33	OS15 133	OpenStage 15				387S41D0-0	Enabled
34	DP35 132	OpenScape Desk Phone IP 35G Eco	<u>192.168.5.68</u>	00:1a:e8:74:f1:1a	V3R0.25.0 HFA C01	S30817-S7710-A307-06	Enabled
35	OS60 135	OpenStage 60/80	192.168.5.57	00:1a:e8:4f:8a:ea	V3 R0.28.0	387S43B0-1	Enabled
36	-	OpenStage 40	-	-		387S42B0-1	Disabled
age 1 of	1			4 4 <u>1</u>) /		Iter	ns per page <u>10</u> 25 50
Hal	_						

rice Center - Diagnostio	cs - Status				
Station Status	Dialup Network Status	ITSP Status	VPN Status	Overview of IP Addresses	BLF Status
	Circuit UTC (Cloud)	Disabled			
[COLT UK & Europe	Disabled			
ſ	COLT VPN	Disabled			
[Deanconnect B.V.	Disabled			
l l	Infopact	Disabled			
[Motto Communications	Disabled			
[oneCentral	Disabled			
	OneXS	Disabled			
l l	Priority Telecom	Disabled			
l i i i i i i i i i i i i i i i i i i i	RoutIT	Disabled			
[Skype Connect	Disabled			
l i i i i i i i i i i i i i i i i i i i	SpeakUp	Disabled			
	Tele2 NL-ASD	Disabled			
l i i i i i i i i i i i i i i i i i i i	Tele2 NL-RT	Disabled			
	T-Mobile (NL)	Disabled			
	Verizon	Disabled			
l l	Vodafone Anlagenanschluss R3	Disabled			
l i i i i i i i i i i i i i i i i i i i	Vodafone NL	Disabled			
	Voiceworks	Disabled			
Restart	хасом	Enabled	31737200970	registered	
	2	Disabled			

Traces

Wireshark traces

A Wireshark trace helps you to analyse SIP issues very easily. It is possible to start traces on the system which can be analysed via Wireshark.

Expert mode / maintenance / traces

TCP Dump: Create max. 5 files with PCAP which can be downloaded afterwards and opened in Wireshark.

Rpcap Daemon: Will start the rpcap daemon and open a server port which allows direct remote access from protocol analysers like Wireshark.

Expert mode - Maintenance		
Traces	TCP Dump	
Trace Format Configuration	TCD Dump State	
Trace Output Interfaces	rer bump state	
Trace Log		Start TCD Duma
Digital Loopback	TCP Dump Status: undefined / no capture (0)	
Customer Trace Log		Stop TCP Dump
M5T Trace Components	Tor Bump States, and anica into capture (s)	
Secure Trace		Cleanup TCP Dump
Call Monitoring		
License Component		
Trace Profiles	Currently no TCP Dump capture file available.	
Trace Components	Blasse create one via "Start TCB Dump"	
TCP Dump	Flease create one via Start TCF Dump.	
rpcap Daemon		
	Zauto refresh	Seconds until next automatic refresh: 59

Internal traces

For a better analyses of problems internal system traces will be needed. Trace profiles are already pre-configured to make it easier to capture internal traces.

When issues with ITSP's occurs, the following trace profiles should be activated:

- Basic
- Voice_Fax_Connection
- SIP_Interconnection_Subscriber_ITSP

In case there are issues with the registration of an ITSP the following trace profile should also be activated.

• SIP_Registration

Expert mode - Maintenance		×	3
Traces	Trace Profile		
Trace Format Configuration	Start/Stan Trace Profile		
Trace Output Interfaces	Salty Fight Processing		
Trace Log	Profile Name: SIP Interconnection Subscriber ITSP		
Digital Loopback		~	1
Customer Trace Log	I his trace profile is read-only: Yes		
M5T Trace Components	Profile Started: Yes		
Secure Trace			
Call Monitoring	Additional Information		
License Component	Shall be combined with the voice_fax_connection profile for detailed analysis of issues with SIP phones, access points	s, ITSP interfaces or SIP	
▼Trace Profiles	interconnections, e.g. calls to or from ITSP/SIP are not signaled at phones, DTMF or fax cannot be sent or received via	ITSP/SIP interconnections.	
♦Basic			
Voice_Fax_connection			
Ressources_MOH_Conferencing	This trace prome has been started.		
Calls_with_System_Device_Upn			
Calls_with_System_Device_HFA	Trace Component	Level	
SIP_Interconnection_Subscriber_ITSP	CAR	6	
Calls_with_Analog_Subscriber_Trunks	CNO	6	
Calls_with_ISDN_Subscriber_Trunks		3	
● CMI		5	
● Smart_VM		9	
Actors_Sensors_Door-Opener	IPNC	6	
Peripheral_cards	IPSTACK_NAT	9	
Xpression_Compact	LLC_CALL	6	L
Gateway_Stream_overview	MSH	6	1
Gateway_Stream_detailed			
CDR_Charging_data	Stop Help		
Display_problems			1

After proceeding the test the traces can be downloaded via trace log.

		×
Traces	Trace Log	
Trace Format Configuration Trace Output Interfaces	Load via HTTP Clear Trace Log	
Trace Log Digital Loopback	Own Selection ▼ From 19 Feb 2016 10:15:00 ▼ To Now ▼	
Customer Trace Log		
M5T Trace Components		
Secure Trace		