

OpenScape 4000



How to Configure SIP Trunk for enviaTEL Germany

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Table of History

Date	Version	Changes
17.11.2021	1.0	Initial Creation
29.02.2024	2.0	New Platform SIP-connect 2023

Information

The enviaTEL SIP-Trunk will be released for the first time with OpenScape 4000 V8R2 / V10R0.

OS4K version: V10 R1.42.11
Certified LW version: A9.234
Certified SBC version: V10 R3.04.09

Release of Profile: A9.109

Certification

Tested Scenarios:

Provider <=> OpenScape 4000
Provider <=> OpenScape SBC <=> OpenScape 4000

Provider Topology: Registered Trunk

Trunk Configuration Data provided by envia-TEL

Trunk Name: enviaTEL enVoice IP-range (ab 2023)

Used platform:

Access SBC (PCSCF): 7.2 mit Patchlevel 167
pcscf- 7.2.167-73450.e17

IMS Core: 4.0 (was vorher Multinode B hieß)

Trunk connection: Registered Trunk

Transport Protocol: UDP

Signaling IP: 193.98.115.6 (ngn-pbx.enviatel.net); **Signaling Port:** 5060

Media IP: 193.98.115.240/28; **Media Ports:** 30000 – 38192

Supported Connectivity: SBC with public IP, SBC with private IP behind NAT (static public internet IP is required)

Documentation: Technische Richtlinie IP-Anlagenanschluss

The trunk data will be provided via email similar like this:

Details für die Einrichtung des Telefoniedienstes (SIP)²:

Benutzername:	0342-0955850
Passwort:	[REDACTED]
Registrar:	ngn-pbx.enviatel.net
Ortskennzahl:	034298

Note:

The document describes the setup for SIP connections from 2023.

important change

The called party information (B phone number) can be found in the user part of the request URI.

The calling party number (A phone number) can be found in the From header

OpenScape 4000 Configuration

See Service Documentation OpenScape 4000 – Document: IP Solutions for details.

AMOs (Certification Example)

Note: Certification specific example – for general description see Service-Dokumentation.

```
M2 1 EINR-BUEND:211,"SIP AMT",30,0,*1,ON,0,0,NEUTRAL;
M2 1 EINRICHTEN-COP:201,IMEX,FBKW,FBKW;
M2 1 AENDERN-COP:201,COPZU,,,UNAB,"SIP AMT ÜBER SBC";
EINRICHTEN-COT:210,MVLT&UELM&SAAO&BLOC&LOKN&OLCR&TSCS&VKNN&
NOFT&SECO&SUPN&NOCI&RMVN&KTON;
AENDERN-COT:210,COTZU,,UNAB,
"210 - SIP AMT TEST";M2 1 EINR-COSSU:,300,,,,,;
M2 1 AEND-COSSU:CO,300,FBKW&QVKW&GESP&GEZ&AULEXT&MSN;
M2 1 AEND-COSSU:CO,300,AULERU;
M2 1 AEND-COSSU:CO,300,,FBKW&QVKW&GRUBE&MSN&MULTRA;
M2 1 AEND-COSSU:CO,300,,,FBKW&QVKW&GRUBE&MSN&MULTRA;
M2 1 AENDERN-COT:210,COTZU,,UNAB,"210 - SIP AMT TEST";
M2 2 EINR-TDCSU:NEU,1-90-001-0,210,201,1,0,300,9,9,"
",0,ECMAV2,8,,KEINE,,,GDTR,N,AMT,KEINE,N,0,,00,0,,,10,VIELE,1-1-
211,2,1,1,LEER,210,10,N,,,,,16,8,1,10,2,EC&G711&G729AOPT,,211,AB,J,TRADITIO,0,60,60,HG3550CO
,1&&30,N,1,,0,0,0,0,N,1-1-130,KEINE;
M2 1 EINR-RICHT:LRTGNEU,2100,ALLE,"IP NOTRUF ",211,1-1-
210,NEIN,NEIN,FIX,,,PP300,,,,,JA,JA,,1-1-211,NEUTRAL,NEIN,NEIN,NEIN,NEIN,NEIN,NEIN,NEIN,NEIN;
M2 1 EINR-RICHT:LRTGNEU,2101,ALLE,"IP ORT ",211&&213,1-1-
211,NEIN,,FIX,,,PP300,,,,,JA,NEIN,,1-1-211,NEUTRAL,NEIN,NEIN,NEIN,NEIN,NEIN,NEIN,NEIN,NEIN;
M2 1 EINR-RICHT:LRTGNEU,2102,ALLE,"IP NATIONAL ",211&&213,1-1-
211,NEIN,,FIX,,,PP300,,,,,JA,NEIN,,1-1-211,NEUTRAL,NEIN,NEIN,NEIN,NEIN,NEIN,NEIN,NEIN,NEIN;
M2 1 EINR-RICHT:LRTGNEU,2103,ALLE,"IP INTERNAT ",211&&213,1-1-
213,NEIN,,FIX,,,PP300,,,,,JA,NEIN,,1-1-211,NEUTRAL,NEIN,NEIN,NEIN,NEIN,NEIN,NEIN,NEIN,NEIN;
EINRICHTEN-LODR:2100,,,,ECHOFFELD,3;
EINRICHTEN-LODR:2100,,,,ECHOFFELD,4;
EINRICHTEN-LODR:2100,,,,NPI,ISDN,UNKNOWN;
EINRICHTEN-LODR:2100,,,,CPNLIN,22;
EINRICHTEN-LODR:2100,,,,ENDE;
EINRICHTEN-LODR:2100,,,"AMT SBC NOTRUF";
EINRICHTEN-LODR:2101,,,,ZIFFSEND,4934298;
EINRICHTEN-LODR:2101,,,,ECHOFFELD,3;
EINRICHTEN-LODR:2101,,,,ECHOFFELD,4;
EINRICHTEN-LODR:2101,,,,NPI,ISDN,INTERNAT;
EINRICHTEN-LODR:2101,,,,ENDE;
EINRICHTEN-LODR:2101,,,"AMT SBC ORT";
EINRICHTEN-LODR:2102,,,,ZIFFSEND,49;
EINRICHTEN-LODR:2102,,,,ECHOFFELD,4;
EINRICHTEN-LODR:2102,,,,ECHOFFELD,5;
EINRICHTEN-LODR:2102,,,,NPI,ISDN,INTERNAT;
EINRICHTEN-LODR:2102,,,,ENDE;
EINRICHTEN-LODR:2102,,,"AMT SBC NATIONAL";
```

EINRICHTEN-LODR:2103,,,,ECHOFFELD,4;
 EINRICHTEN-LODR:2103,,,,ECHOFFELD,5;
 EINRICHTEN-LODR:2103,,,,NPI,ISDN,INTERNAT;
 EINRICHTEN-LODR:2103,,,,ENDE;
 EINRICHTEN-LODR:2103,,,,"AMT SBC INTERNAT";
 EINRICHTEN-LODR:2201,,,,ZIFFSEND,4934298;
 EINRICHTEN-LODR:2201,,,,ECHOFFELD,3;
 EINRICHTEN-LODR:2201,,,,ECHOFFELD,4;
 EINRICHTEN-LODR:2201,,,,NPI,ISDN,INTERNAT;
 EINRICHTEN-LODR:2201,,,,ENDE;
 EINRICHTEN-LODR:2201,,,,"AMT SBC ORT";
 EINRICHTEN-LODR:2202,,,,ZIFFSEND,49;
 EINRICHTEN-LODR:2202,,,,ECHOFFELD,4;
 EINRICHTEN-LODR:2202,,,,ECHOFFELD,5;
 EINRICHTEN-LODR:2202,,,,NPI,ISDN,INTERNAT;
 EINRICHTEN-LODR:2202,,,,ENDE;
 EINRICHTEN-LODR:2202,,,,"AMT SBC NATIONAL";
 EINRICHTEN-LODR:2203,,,,ECHOFFELD,4;
 EINRICHTEN-LODR:2203,,,,ECHOFFELD,5;
 EINRICHTEN-LODR:2203,,,,NPI,ISDN,INTERNAT;
 EINRICHTEN-LODR:2203,,,,ENDE;
 EINRICHTEN-LODR:2203,,,,"AMT SBC INTERNAT";
 EINRICHTEN-LODR:2301,,,,ZIFFSEND,49341;
 EINRICHTEN-LODR:2301,,,,ECHOFFELD,3;
 EINRICHTEN-LODR:2301,,,,ECHOFFELD,4;
 EINRICHTEN-LODR:2301,,,,NPI,ISDN,INTERNAT;
 EINRICHTEN-LODR:2301,,,,ENDE;
 EINRICHTEN-LODR:2301,,,,"AMT SBC ORT";
 EINRICHTEN-LODR:2302,,,,ZIFFSEND,49;
 EINRICHTEN-LODR:2302,,,,ECHOFFELD,4;
 EINRICHTEN-LODR:2302,,,,ECHOFFELD,5;
 EINRICHTEN-LODR:2302,,,,NPI,ISDN,INTERNAT;
 EINRICHTEN-LODR:2302,,,,ENDE;
 EINRICHTEN-LODR:2302,,,,"AMT SBC NATIONAL";
 EINRICHTEN-LODR:2303,,,,ECHOFFELD,4;
 EINRICHTEN-LODR:2303,,,,ECHOFFELD,5;
 EINRICHTEN-LODR:2303,,,,NPI,ISDN,INTERNAT;
 EINRICHTEN-LODR:2303,,,,ENDE;
 EINRICHTEN-LODR:2303,,,,"AMT SBC INTERNAT";
 M2 1 EINRICHTEN-LODR:2103,,,,ENDE;
 M2 1 EINRICHTEN-LDAT:2100,ALLE,1,,211,2100,1,,1,LEER,,,4,,,,,,,,,,,,;
 M2 1 EINRICHTEN-LDAT:2101,ALLE,1,,211,2101,1,,1,LEER,GEBAKT&PUBNUM,,4,,,,,,,,,,,,;
 M2 1 EINRICHTEN-LDAT:2102,ALLE,1,,211,2102,1,,1,LEER,GEBAKT&PUBNUM,,4,,,,,,,,,,,,;
 M2 1 EINRICHTEN-LDAT:2103,ALLE,1,,211,2103,1,,1,LEER,GEBAKT&PUBNUM,,4,,,,,,,,,,,,;
 M2 1 EINR-LPROF:"NOTRUF",1,2100,100;
 M2 1 EINR-LPROF:"AMT ORT",1,2101,101;
 M2 1 EINR-LPROF:"AMT ISDN NATIONAL",1,2102,102;
 M2 1 EINR-LPROF:"AMT ISDN INTERNAT",1,2103,103;
 M2 1 EINRICHTEN-LDPLN:LCRMUST,0,0-W-00-0-Z,0&1,,103,,7,,,,NEIN;
 M2 1 EINRICHTEN-LDPLN:LCRMUST,0,0-W-00-1-Z,0&1,,103,,7,,,,NEIN;
 M2 1 EINRICHTEN-LDPLN:LCRMUST,0,0-W-00-2-Z,0&1,,103,,7,,,,NEIN;
 M2 1 EINRICHTEN-LDPLN:LCRMUST,0,0-W-00-3-Z,0&1,,103,,7,,,,NEIN;
 M2 1 EINRICHTEN-LDPLN:LCRMUST,0,0-W-00-4-Z,0&1,,103,,7,,,,NEIN;

M2 1 EINRICHTEN-LDPLN:LCRMUST,0,0-W-00-5-Z,0&1,,103,,7,,,,NEIN;
M2 1 EINRICHTEN-LDPLN:LCRMUST,0,0-W-00-6-Z,0&1,,103,,7,,,,NEIN;
M2 1 EINRICHTEN-LDPLN:LCRMUST,0,0-W-00-7-Z,0&1,,103,,7,,,,NEIN;
M2 1 EINRICHTEN-LDPLN:LCRMUST,0,0-W-00-8-Z,0&1,,103,,7,,,,NEIN;
M2 1 EINRICHTEN-LDPLN:LCRMUST,0,0-W-00-9-Z,0&1,,103,,7,,,,NEIN;
M2 1 EINRICHTEN-LDPLN:LCRMUST,0,0-W-0-1-Z,0&1,,102,,4,,,,NEIN;
M2 1 EINRICHTEN-LDPLN:LCRMUST,0,0-W-0-2-Z,0&1,,102,,4,,,,NEIN;
M2 1 EINRICHTEN-LDPLN:LCRMUST,0,0-W-0-3-Z,0&1,,102,,4,,,,NEIN;
M2 1 EINRICHTEN-LDPLN:LCRMUST,0,0-W-0-4-Z,0&1,,102,,4,,,,NEIN;
M2 1 EINRICHTEN-LDPLN:LCRMUST,0,0-W-0-5-Z,0&1,,102,,4,,,,NEIN;
M2 1 EINRICHTEN-LDPLN:LCRMUST,0,0-W-0-6-Z,0&1,,102,,4,,,,NEIN;
M2 1 EINRICHTEN-LDPLN:LCRMUST,0,0-W-0-7-Z,0&1,,102,,4,,,,NEIN;
M2 1 EINRICHTEN-LDPLN:LCRMUST,0,0-W-0-8-Z,0&1,,102,,4,,,,NEIN;
M2 1 EINRICHTEN-LDPLN:LCRMUST,0,0-W-0-9-Z,0&1,,102,,4,,,,NEIN;
M2 1 EINRICHTEN-LDPLN:LCRMUST,0,0-W-1-10,0&1,,100,,1,,,,NEIN;
M2 1 EINRICHTEN-LDPLN:LCRMUST,0,0-W-1-12,0&1,,100,,1,,,,NEIN;
M2 1 EINRICHTEN-LDPLN:LCRMUST,0,0-W-1-Z,0&1,,101,,2,,,,NEIN;
M2 1 EINRICHTEN-LDPLN:LCRMUST,0,0-W-2-Z,0&1,,101,,2,,,,NEIN;
M2 1 EINRICHTEN-LDPLN:LCRMUST,0,0-W-3-Z,0&1,,101,,2,,,,NEIN;
M2 1 EINRICHTEN-LDPLN:LCRMUST,0,0-W-4-Z,0&1,,101,,2,,,,NEIN;
M2 1 EINRICHTEN-LDPLN:LCRMUST,0,0-W-5-Z,0&1,,101,,2,,,,NEIN;
M2 1 EINRICHTEN-LDPLN:LCRMUST,0,0-W-6-Z,0&1,,101,,2,,,,NEIN;
M2 1 EINRICHTEN-LDPLN:LCRMUST,0,0-W-7-Z,0&1,,101,,2,,,,NEIN;
M2 1 EINRICHTEN-LDPLN:LCRMUST,0,0-W-8-Z,0&1,,101,,2,,,,NEIN;
M2 1 EINRICHTEN-LDPLN:LCRMUST,0,0-W-9-Z,0&1,,101,,2,,,,NEIN;

Gateway Configuration

SIP Parameter

SIP Parameters	
SIP User Agent	"SIP User Agent" settings ignored due to usage of SIP trunk profiles
Use SIP Registrar:	No
SIP Registrar IP Address:	0.0.0.0
SIP Registrar TLS Port Number:	5061
SIP Registrar TCP/UDP Port Number:	5060
Alternative SIP Registrar IP Address:	0.0.0.0
Alternative SIP Registrar TLS Port Number:	5061
Alternative SIP Registrar TCP/UDP Port Number:	5060
Period of Registration (sec):	300
SIP Server (Registrar / Redirect)	
SIP Server IP Address:	172.29.93.180
SIP Server TCP/UDP Port Number:	5060
SIP Server TLS Port Number:	5061
Default Registration Period (sec):	<input type="text" value="600"/> (used when no 'Expires' value received)
Range used for Randomized Registration (%):	<input type="text" value="25"/> 0 means: don't use Randomization
RFC 3261 Timer Values	
Transaction Timeout (msec):	<input type="text" value="32000"/> (Should only be changed for DNS failover scenarios)
SIP Transport Protocol	
SIP via TCP:	Yes
SIP via UDP:	<input checked="" type="checkbox"/>
SIP via TLS:	Yes

SIP Session Timer	
RFC 4028 Support:	<input checked="" type="checkbox"/>
Session Expires (sec):	<input type="text" value="1800"/>
Minimal SE (sec):	<input type="text" value="90"/>
DNS-SRV Records / SIP Flooding Defense	
Blocking time for unreachable destination/flood defense (sec):	<input type="text" value="60"/>
Trunking Parameters	
SIP OPTIONS ping interval (sec, 0=deactivate):	<input type="text" value="0"/>
SIP loop call	
SIP loop call From number:	<input type="text"/>
SIP loop call To number:	<input type="text"/>
SIP loop call frequency (sec, 0=deactivate):	<input type="text" value="0"/>
SIP loop call Out of service threshold:	<input type="text" value="1"/>
Call Supervision	
MakeCallReq Timeout (sec):	<input type="text" value="3"/>
SIP Connect Timeout (sec):	<input type="text" value="300"/>
<input type="button" value="Apply"/> <input type="button" value="Undo"/>	

Codec Parameter

Codec Parameters

Codec	Priority	Voice Activity Detection	Frame Size
G.711 A-law	Priority 1 ▾	VAD: <input type="checkbox"/>	20 ▾ msec
G.711 μ-law	not used ▾	VAD: <input type="checkbox"/>	20 ▾ msec
G.729	not used ▾	VAD: <input type="checkbox"/>	20 ▾ msec
G.729A	not used ▾	VAD: <input type="checkbox"/>	20 ▾ msec
G.729B	not used ▾	VAD: <input checked="" type="checkbox"/>	20 ▾ msec
G.729AB	not used ▾	VAD: <input checked="" type="checkbox"/>	20 ▾ msec
G.722	not used ▾	VAD: <input type="checkbox"/>	20 ▾ msec
Opus	not used ▾	VAD: <input type="checkbox"/>	20 ▾ msec

Opus-Parameter

Use Inband Forward Error Correction (FEC):

Use Constant Bitrate:

Low Delay:

Payload Type for Opus:

Max. Playback Sample Rate (Hz):

Complexity:

T.38 Fax

T.38 Fax:

Max. UDP Datagram Size for T.38 Fax (bytes):

Error Correction Used for T.38 Fax (UDP):

Time Range for Immediate Switch to T.38 Fax (s): 0 means: No Immediate Switching

Misc.

ClearMode (ClearChannelData):

Frame Size: msec

RFC2833

Transmission of Fax/Modem Tones according to RFC2833:

Transmission of DTMF Tones according to RFC2833:

Payload Type for ClearChannel:

Payload Type for RFC2833:

Payload Type for RFC2198: (= 'Payload Type for RFC2833' + 1)

Redundant Transmission of RFC2833 Tones according to RFC2198:

Payload Type for RFC4733 WideBand: (= 'Payload Type for RFC2833' + 2)

SIP trunking Profile – direct connectivity

SIP Trunk Profile	
Profile Name: envia TEL 2023	
User Notes: <input type="text"/>	
Activate Trunk Profile: <input type="checkbox"/>	
Account/Authentication Required: <input checked="" type="checkbox"/>	
Remote Domain Name: <input type="text" value="ngn-pbx.enviatel.net"/>	
IP Transport Protocol: <input type="text" value="UDP"/> (used for O/G call establishment)	
Default PAI: <input type="text"/> (for outgoing "Anonymous" and CLIP "default PAI" profiles)	
Security	Released Security Level: No Security
Registrar	Use Registrar: <input checked="" type="checkbox"/> IP Address / Host name: <input type="text" value="ngn-pbx.enviatel.net"/> Specify Port: <input type="checkbox"/> Reregistration Interval (sec): <input type="text" value="480"/>
Proxy	IP Address / Host name: <input type="text" value="ngn-pbx.enviatel.net"/> Specify Port: <input type="checkbox"/>
Outbound Proxy	Use Outbound Proxy: <input type="checkbox"/> IP Address / Host name: <input type="text"/> Specify Port: <input type="checkbox"/>
Inbound Proxy	Use Inbound Proxy: <input type="checkbox"/> IP Address / Host name: <input type="text"/> Specify Port: <input type="checkbox"/>

SIP trunking Profile – connectivity via OS – SBC

Registrar	Use Registrar: <input type="checkbox"/> IP Address / Host name: <input type="text"/> Specify Port: <input type="checkbox"/> Reregistration Interval (sec): <input type="text" value="480"/>
Proxy	IP Address / Host name: <input type="text" value="<SBC ip-address>"/> Specify Port: <input checked="" type="checkbox"/> TCP/UDP Port: <input type="text" value="<SBC core-port>"/> TLS Port: <input type="text" value="0"/>
Outbound Proxy	Use Outbound Proxy: <input type="checkbox"/> IP Address / Host name: <input type="text"/> Specify Port: <input type="checkbox"/>

SIP trunking profile – parameter (both deployments):

Miscellaneous (modified from default, but it is not possible to display which parameters were modified - Profile must be deactivated to modify further or reset defaults)

[Reset Profile Defaults](#)

Outgoing Call

CLIP outgoing in From header - display part:

CLIP outgoing in From header - user part:

CLIP outgoing in P-Asserted-Id header - display part:

CLIP outgoing in P-Asserted-Id header - user part:

CLIP no-screening - Privacy Header:

CLIP outgoing in P-Preferred-Id header - display part:

CLIP outgoing in P-Preferred-Id header - user part:

CLIR outgoing in From header - display part:

CLIR outgoing in From header - user part:

Call Diversion (RFC 5806) and HistoryInfo (RFC 4244):

Incoming Call

Incoming call - Called party number:

Incoming call - Calling party number:

Incoming call - Type of number (calling):

Incoming call - Type of number (called):

Inspect History-Info/Referred-By:

Other

Emergency Call Behavior:

Call Geolocation (RFC 6442):

Hold Mode for SDP outgoing:

Ignore 100rel (RFC 3262):

Allow Alert-Info Header:

ContactUriContains:

Contact URI host part contains:

Contact URI Parameter:

UPDATE Allowed (RFC 3311):

REFER Allowed (RFC 3515):

Direct Blind Transfer using Referred-By header (RFC 3892):

Registration for Multiple Phone Numbers (RFC 6140):

Silence Suppression Support:

Enable P-Early-Media (RFC 5009):

Account-Name

Account Name: Benutzername
 Authorization Name: Benutzername
 Password: Passwort

Account Name

Account Name:

Authorization name:

Provider Name:

New Password:

Confirm Password:

Details für die Einrichtung des Telefoniedienstes (SIP):

Benutzername: 0342...
 Passwort:
 Registrar: ngn-pbx.enviatel.net
 Ortskennzahl: 034298

CLIPNoScreening

If the customer has not ordered the provider feature “CLIPNoScreening”, then the parameter “Call Diversion” needs to be changed via WBM GUI to the following value:

Call Diversion (RFC 5806) and HistoryInfo (RFC 4244):

Call Geolocation (RFC6442)

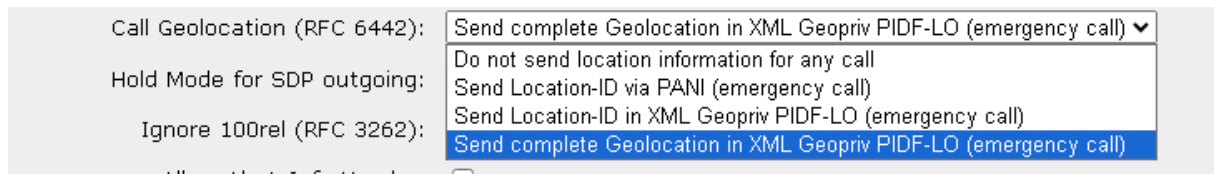
EnviaTel accepts Geo Locations Info

The setup in the OS4K is carried out according to the service documentation (AMO LIN)

```
REG-LIN;  
H500: AMO LIN GESTARTET  
AEND-LIN:LAGE,,90, 4, 0, 004934298558512,  
,04416,FRIED.-EBERT-STR. ,2;  
AEND-LIN:LAGE,,90, 5, 0, 004934298558510, 00493429855850  
,04416,FRIED.-EBERT-STR. ,1;  
AEND-LIN:LAGE,,90, 5, 2, 4934298558530,  
,04417,TESTSTRASSE ,3;  
REG-ZANDE:ADDR;  
H500: AMO ZANDE GESTARTET  
AENDERN-ZANDE:ADDR,04425,LEIPZIGER STR. ,116;  
Change COT add
```

SEND EMERGENCY CALL OUTGOING D-CANNEL INFO SECO

needs to be changed via WBM GUI to the following value:



OpenScape SBC Configuration

Media Profile

- **Media protocol:** RTP only
- **RTP/ RTCP Multiplex in offer:** enable
- **Codec List:** G.711A

Media Profile

Select OK to temporarily store changes. Make your changes permanent by selecting 'Apply Changes' on the General page.

General

Name: RTPonly

Media protocol: RTP only Direct Media Support

Support ICE

Enable TURN Client

RTP/ RTCP Multiplex in offer

SDP Compatibility Mode

Support Mid Attribute

Do not set port to zero on session timer answer SDP

SRTP configuration

SRTP crypto context negotiation MIKEY SDES DTLS SDES Both

Mark SRTP Call-leg as Secure

RTCP configuration

rtcpMode: Bypass

RTCP generation timeout: 4

Codec configuration

Allow unconfigured codecs

Enforce codec priority in profile

Send Telephony Event in Invite without SDP

Use payload type 101 for telephony event/8000

Enforce Packetization Interval

Codec: G711U 8 kHz - 64 kbps

Priority	Codec	Packetization interval
1	G711A 8 kHz - 64 kbps	Auto

SIP Service Provider Profile

- **Default SSP profile:** empty
- **Registration required:** enable
- **Registration interval (sec):** 480
- **Incoming SIP manipulation - Calling Party Number:** From header user and display name part
- **Flag – Remove Silence Suppresion parameter from SDP:** enable
- **Flag – Force direction attribute to sendrcv:** enable
- **Flag –Send dafult Home DN in PAI:** enable
- **Flag – Send user=phone in SIP URI:** enable

The screenshot shows the configuration page for a SIP Service Provider Profile. The page is divided into several sections, with a 'Flags' section on the right. Several settings are highlighted with red boxes:

- Registration:** The 'Registration required' checkbox is checked. The 'Registration interval (sec)' is set to 480.
- Outgoing SIP manipulation:** The 'Manipulation' dropdown is set to 'From header user and disp'.
- Flags:** The following checkboxes are checked:
 - Remove Silence Suppression parameter from SDP
 - Force direction attribute to sendrcv
 - Send default Home DN in PAI
 - Send user=phone in SIP URI

Remote Endpoint Configuration

Fill all red marked fields.

Remote endpoint configuration

Select OK to temporarily store changes. Make your changes permanent by selecting OK.

Remote Endpoint Settings

Name: TestTrunk1_Tauchta Edit

Type: **SSP**

Profile: **EnviaTel**

Access realm profile: Main-Access-Realm - ipv4

Core realm profile: Main-Core-Realm - ipv4

Associated Endpoint:

Enable Call Limits

Maximum Permitted Calls:

Reserved Calls:

Remote Location Information

Support Peer Domains

Support Foreign Peer Domains White list

Enable access control

Signaling address type: **IP address or FQDN**

Remote Location domain list

Row	Remote URL	Remote port	Remote transport
1	ngn-pbx.enviatel.net	5060	UDP

Remote Location Domain

Select OK to temporarily store changes. Make your changes permanent by selecting OK.

General

Remote URL: **ngn-pbx.enviatel.net** Shared domain

Remote port: **5060**

Remote transport: **UDP**

Signaling

INVITE No Answer timeout (msec):

INVITE No Reply timeout (msec):

TLS

TLS mode: Server authentication

Certificate profile: OSV Solution

TLS keep-alive

Keep-alive interval (seconds):

Keep-Alive timeout (sec):

Media Configuration

Media profile: **RTPonly**

Media realm subnet IP address:

Outbound Proxy Configuration

Outbound Proxy:

Outbound Proxy Port:

Registrar Server Configuration

Registrar Server:

Registrar Server Port:

Remote Location Identification/Routing

Core FQDN:

Core realm port: **53180**

Default core realm location domain name:

Default home DN: **034298**

Incoming Routing prefix:

Digest Authentication

Digest authentication supported

Digest authentication realm: NM1-PBX.enviatel.net

Digest authentication user ID: **034298**

Digest authentication password:

Access Side Firewall Settings

Enable Firewall Settings Firewall Settings

Emergency configuration

Emergency numbers:

Emergency call routing

Details für die Einrichtung des Telefoniedienstes (SIP)?:

Benutzername: 034298

Passwort: *********

Registrar: ngn-pbx.enviatel.net

Ortskennzahl: 034298

MSRP Data Configuration

Enable MSRP Relay Support (not licensed)

use IP address in MSRP-path use FQDN in MSRP-path

Authentication required

Access side only

Realms:

Qop: AUTH

Expire time/sec:

Miscellaneous

Open external firewall pinhole

Known limitations and restrictions:

- Provider does not analyze the Diversion header. That means the forwarding-to party gets only the number of the caller and not the forwarders number additionally.
- In rarely cases the provider presents a connected number in PAI for outgoing calls. This number is in national format and is shown on the OS4K phone. This number missed the PNAC (0). OS4K is not able to manipulate this number and add the PNAC in front.
Therefore the Connected Party update must be disabled with the COT Parameter ANZR
- Provider does not support Fax via T.38
- Fax is transparent transmitted via G.711. Fax was not tested in the certification.

Appendix

Supported Numbering Formats

Incoming: Called Party (REQUEST, TO): National prefixed + national number (0...) or E.164 (+49)

Incoming: Calling Party (FROM,CONTACT): International prefixed number (0049...)for international calls
National prefixed number (0...)for national and local calls or E.164 (+49)

Incoming: Account (PAI): Trunk Account number (in national format)

Outgoing: Called Party (REQUEST, TO): International prefixed number (0049...)for international calls
National prefixed number (0...)for national and local calls or E.164 (+49)

Outgoing: Calling Party (FROM,CONTACT): National prefixed number (0...)or E.164 (+49)

Outgoing: Account (PAI): Trunk Account number (in national format)

Outgoing Emergency Call - Called Party (REQUEST, TO): <emergency number>

Outgoing Emergency Call - Calling Party (FROM,CONTACT): National prefixed number (0...) or E.164(+49)

Outgoing Emergency Call - Account (PAI): Trunk Account number (in national format)

Outgoing OPTIONS: Provider doesn't support receiving OPTIONS

Incoming OPTIONS: Provider doesn't monitor the trunk via OPTION

Call examples:

National Incoming Call:

```
Session Initiation Protocol (INVITE)
Request-Line: INVITE sip:+4934298558530@172.18.205.150:5060;transport=udp;user=phone SIP/2.0
Message Header
Call-ID: s0ZuDKJDF8yhu0Te
[Generated Call-ID: s0ZuDKJDF8yhu0Te]
Contact: <sip:193.98.115.6:5060>
Content-Type: application/sdp
CSeq: 31660 INVITE
From: <sip:034298558512@NM1-PBX.enviatel.net:5060;user=phone>;tag=fe667c0901
Max-Forwards: 57
Record-Route: <sip:193.98.115.6:5060;transport=udp;lr>;session=2817
Supported: 100rel,timer
To: <sip:034298558530@ngn-pbx.enviatel.net:5070;user=phone>
Via: SIP/2.0/UDP 193.98.115.6:5060;branch=z9hG4bK-VJTT-205e1644-120af8b9
Min-SE: 90
Session-Expires: 1800
Session-ID: ceb179dd1dec4ea4c115caf263a533fd
User-Agent: OpenScape 4000 - SoftGate
X-Siemens-OSS: OpenScape SBC V10 R3.04.00-2
Allow: INVITE,BYE,REGISTER,ACK,OPTIONS,CANCEL,INFO,PRACK,UPDATE
Content-Length: 266
Message Body
Session Description Protocol
Session Description Protocol Version (v): 0
Owner/Creator, Session Id (o): anonymous 131205 414708619 IN IP4 193.98.115.6
Session Name (s): SIP Call
Connection Information (c): IN IP4 193.98.115.248
Time Description, active time (t): 0 0
Media Description, name and address (m): audio 31984 RTP/AVP 8 100 101
Media Attribute (a): rtpmap:8 PCMA/8000
Media Attribute (a): rtpmap:100 telephone-event/8000
```

National Outgoing Call:

```
Session Initiation Protocol (INVITE)
Request-Line: INVITE sip:+4934298558530@ngn-pbx.enviatel.net:5060;transport=udp;user=phone SIP/2.0
Message Header
Via: SIP/2.0/UDP 172.18.205.150:5060;branch=z9hG4bK1cF1.118bd07cf2dcf3170776f678b52ee032.0;i=1113
Max-Forwards: 69
Contact: <sip:4934298558512@172.18.205.150:5060;transport=udp;user=phone>
To: <sip:4934298558530@ngn-pbx.enviatel.net:5060;transport=udp;user=phone>
From: <sip:4934298558512@ngn-pbx.enviatel.net:5060;transport=udp;user=phone>;tag=fe667c0901
Call-ID: 6f816f4bcf7ee191
[Generated Call-ID: 6f816f4bcf7ee191]
CSeq: 642533916 INVITE
Session-Expires: 1800
Min-SE: 90
Allow: INVITE, ACK, OPTIONS, BYE, CANCEL, REGISTER, REFER, INFO, PRACK, UPDATE
Content-Type: application/sdp
Supported: 100rel,timer
User-Agent: OpenScape 4000 - SoftGate
P-Asserted-Identity: <sip:03429855850@172.18.205.150>
P-Preferred-Identity: <sip:+4934298558512@172.18.205.150;user=phone>
Content-Length: 263
X-Siemens-OSS: OpenScape SBC V10 R3.04.00-2
Message Body
Session Description Protocol
Session Description Protocol Version (v): 0
Owner/Creator, Session Id (o): MxSIP 131205 414708619 IN IP4 172.29.93.180
Session Name (s): SIP Call
Connection Information (c): IN IP4 172.18.205.150
Time Description, active time (t): 0 0
Media Description, name and address (m): audio 14362 RTP/AVP 8 100 101
Media Attribute (a): rtpmap:8 PCMA/8000
Media Attribute (a): rtpmap:100 telephone-event/8000
Media Attribute (a): fmtn:100 0-15 32-36 40
```


Registration:

SBC -> Provider (Register)

```
> Frame 35: 501 bytes on wire (4008 bits), 501 bytes captured (4008 bits) on interface 0
> Ethernet II, Src: 00:00:00:00:00:00 (00:00:00:00:00:00), Dst: 00:00:00:00:00:00 (00:00:00:00:00:00)
> Internet Protocol Version 4, Src: 172.18.205.150, Dst: 193.98.115.6
> User Datagram Protocol, Src Port: 5060, Dst Port: 5060
> Session Initiation Protocol (REGISTER)
  > Request-Line: REGISTER sip:ngn-pbx.enviatel.net:5060;transport=udp SIP/2.0
  Method: REGISTER
  > Request-URI: sip:ngn-pbx.enviatel.net:5060;transport=udp
  [Resent Packet: False]
  > Message Header
  > Via: SIP/2.0/UDP 172.18.205.150:5060;branch=z9hG4bK7e6c.efc5b8aac7a2e64b99ce501cc3c408a9.0;i=4
  Expires: 480
  Call-ID: e2bac448
  [Generated Call-ID: e2bac448]
  > From: <sip:03429855850@ngn-pbx.enviatel.net>;tag=2059cbea
  > SIP from address: sip:03429855850@ngn-pbx.enviatel.net
  SIP from address User Part: 03429855850
  SIP from address Host Part: ngn-pbx.enviatel.net
  SIP from tag: 2059cbea
  > CSeq: 1 REGISTER
  Max-Forwards: 70
  > To: <sip:03429855850@ngn-pbx.enviatel.net>
  > SIP to address: sip:03429855850@ngn-pbx.enviatel.net
  SIP to address User Part: 03429855850
  SIP to address Host Part: ngn-pbx.enviatel.net
  User-Agent: OpenScape Branch
  > Contact: <sip:03429855850@172.18.205.150:5060;transport=udp>;expires=480
  > Contact URI: sip:03429855850@172.18.205.150:5060;transport=udp
  Contact parameter: expires=480
  Content-Length: 0
```

Provider -> SBC (401 Unauthorized)

```
> Ethernet II, Src: 00:00:00:00:00:00 (00:00:00:00:00:00), Dst: 00:00:00:00:00:00 (00:00:00:00:00:00)
> Internet Protocol Version 4, Src: 193.98.115.6, Dst: 172.18.205.150
> User Datagram Protocol, Src Port: 5060, Dst Port: 5060
> Session Initiation Protocol (401)
  > Status-Line: SIP/2.0 401 unauthorized
  Status-Code: 401
  [Resent Packet: False]
  [Request Frame: 35]
  [Response Time (ms): 198]
  > Message Header
  Call-ID: e2bac448
  [Generated Call-ID: e2bac448]
  > CSeq: 1 REGISTER
  > From: <sip:03429855850@ngn-pbx.enviatel.net>;tag=2059cbea
  > SIP from address: sip:03429855850@ngn-pbx.enviatel.net
  SIP from address User Part: 03429855850
  SIP from address Host Part: ngn-pbx.enviatel.net
  SIP from tag: 2059cbea
  > To: <sip:03429855850@ngn-pbx.enviatel.net>;tag=01-32305-24d46913-6cab4217
  > SIP to address: sip:03429855850@ngn-pbx.enviatel.net
  SIP to address User Part: 03429855850
  SIP to address Host Part: ngn-pbx.enviatel.net
  SIP to tag: 01-32305-24d46913-6cab4217
  > Via: SIP/2.0/UDP 172.18.205.150:5060;received=172.18.205.150;rport=5060;branch=z9hG4bK7e6c.efc5b8aac7a2e64b99ce501cc3c408a9.0;i=4
  > WWW-Authenticate: Digest realm="NM1-PBX.enviatel.net", nonce="273bc2615b8764b", stale=false, algorithm=MD5
  Authentication Scheme: Digest
  Realm: "NM1-PBX.enviatel.net"
  Nonce Value: "273bc2615b8764b"
  Stale Flag: false
  Algorithm: MD5
  Content-Length: 0
```

SBC -> Provider (Register)

```
> Frame 50: 713 bytes on wire (5704 bits), 713 bytes captured (5704 bits) on interface 0
> Ethernet II, Src: 00:00:00:00:00:00 (00:00:00:00:00:00), Dst: 00:00:00:00:00:00 (00:00:00:00:00:00)
> Internet Protocol Version 4, Src: 172.18.205.150, Dst: 193.98.115.6
> User Datagram Protocol, Src Port: 5060, Dst Port: 5060
> Session Initiation Protocol (REGISTER)
  > Request-Line: REGISTER sip:ngn-pbx.enviatel.net:5060;transport=udp SIP/2.0
  > Message Header
  > Via: SIP/2.0/UDP 172.18.205.150:5060;branch=z9hG4bK4e6c.51f695cfa89e1989ed621fdb0f881487.0;i=4
  Expires: 480
  Call-ID: e2bac448
  [Generated Call-ID: e2bac448]
  > From: <sip:03429855850@ngn-pbx.enviatel.net>;tag=7c4e411a
  > CSeq: 2 REGISTER
  Max-Forwards: 70
  > To: <sip:03429855850@ngn-pbx.enviatel.net>
  User-Agent: OpenScape Branch
  > Contact: <sip:03429855850@172.18.205.150:5060;transport=udp>;expires=480
  > Contact URI: sip:03429855850@172.18.205.150:5060;transport=udp
  Contact parameter: expires=480
  Content-Length: 0
  > Authorization: Digest username="03429855850", realm="NM1-PBX.enviatel.net", nonce="273bc2615b8764b", uri="sip:ngn-pbx.enviatel.net:5060;transport=udp", response="965d5f9ae779e83f7e084b0623698225"
  Digest Authentication Response: "965d5f9ae779e83f7e084b0623698225"
  Algorithm: MD5
```

Provider -> SBC (OK)

```
> Frame 59: 546 bytes on wire (4368 bits), 546 bytes captured (4368 bits) on interface 0
> Ethernet II, Src: 00:00:00:00:00:00 (00:00:00:00:00:00), Dst: 00:00:00:00:00:00 (00:00:00:00:00:00)
> Internet Protocol Version 4, Src: 193.98.115.6, Dst: 172.18.205.150
> User Datagram Protocol, Src Port: 5060, Dst Port: 5060
> Session Initiation Protocol (200)
  > Status-Line: SIP/2.0 200 OK
  > Message Header
  Call-ID: e2bac448
  [Generated Call-ID: e2bac448]
  > Contact: <sip:03429855850@172.18.205.150:5060>;expires=480,<sip:03429855850@172.18.216.68:65060>;expires=480,<sip:03429855850@172.18.216.68:65060>;expires=480
  > CSeq: 2 REGISTER
  > From: <sip:03429855850@ngn-pbx.enviatel.net>;tag=7c4e411a
  > To: <sip:03429855850@ngn-pbx.enviatel.net>;tag=01-28994-24d4692d-2638f0083
  > Via: SIP/2.0/UDP 172.18.205.150:5060;received=172.18.205.150;rport=5060;branch=z9hG4bK4e6c.51f695cfa89e1989ed621fdb0f881487.0;i=4
  Content-Length: 0
```