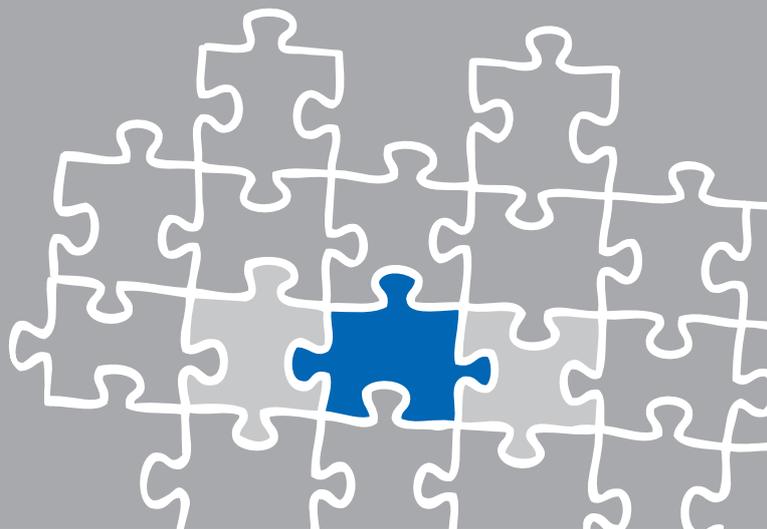
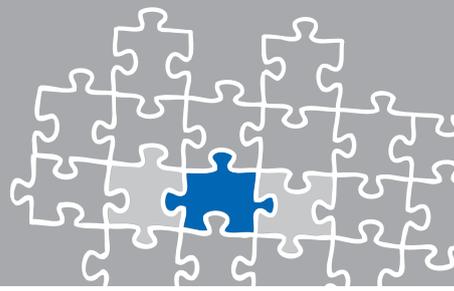


TechNote

Alcatel-Lucent OmniPCX Enterprise R11

September 2, 2014





Introduction

This document is intended to support you with the XC-API integration version 3.4.0 (or above) into an existing environment of the Alcatel-Lucent OmniPCX Enterprise R11. In the case of pre R11 releases, please review the document **XC-API TechNote (en) - Alcatel-Lucent OXE via 4760i - SIP.pdf** From OmniPCX release 10.1 SIP trunking requires a minimum of XC-API version 3.3.271.

In the following sections we describe the essential steps of configuration to allow optimal cooperation of both, XC-API and the Alcatel OmniPCX. At this point we suppose that the Alcatel OmniPCX, the hardware where XC-API is running on and both the XC-API and your CAPI applications are already installed properly.

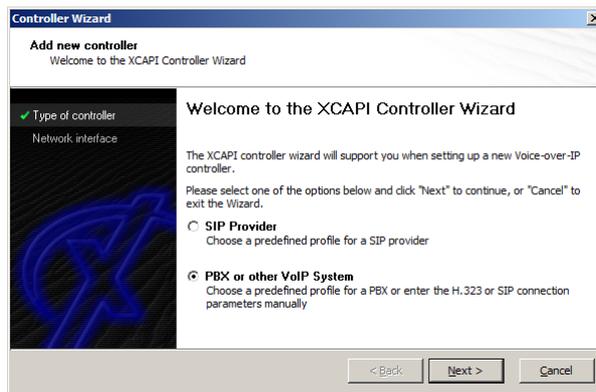
For XC-API basics, the documents **XC-API Product Information.pdf** and **XC-API TechNote (en) - Quick Start Guide** has to be reviewed. XC-API related information and documents, e.g. regarding installation procedures, License on Demand process, facsimile transmission or VMware Virtual Machines, are available at [XC-API Website](#) within our community download section in the XC-API TechNotes area.



XCAPI Configuration

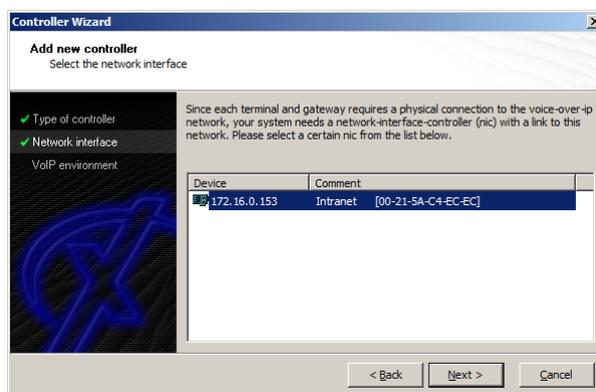
Please start up the XCAPI configuration to create a new controller assigned to the Alcatel-Lucent OmniPCX Enterprise. If you've just installed the XCAPI and start it for the first time, the **XCAPI Controller Wizard** will pop-up automatically. This will also happen if there's no controller configured at all.

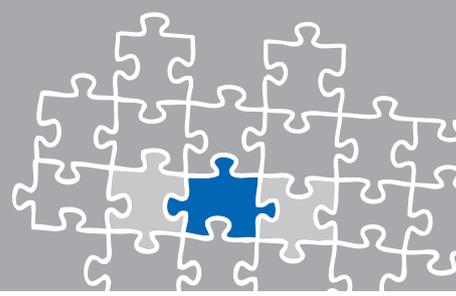
To start up the **XCAPI Controller Wizard** on your own, just click the hyperlink labeled **Click here to add a controller** on the main page of the XCAPI. On the first page of the Controller Wizard please select the **Add Voice-over-IP controller (VoIP)** option and continue by clicking on the **Next**-button.



2.1 Network Interface

On this page of the **XCAPI Controller Wizard** you can select the network adapter you want to bind to the XCAPI controller. Should you have any doubts here, please refer to the XCAPI Quick Start Guide for further details.

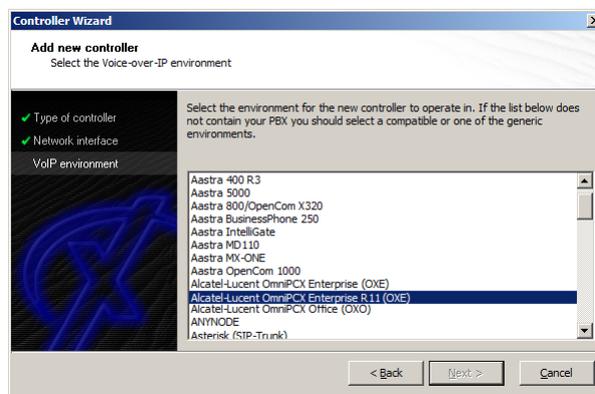




2.2 Voice-over-IP Environment

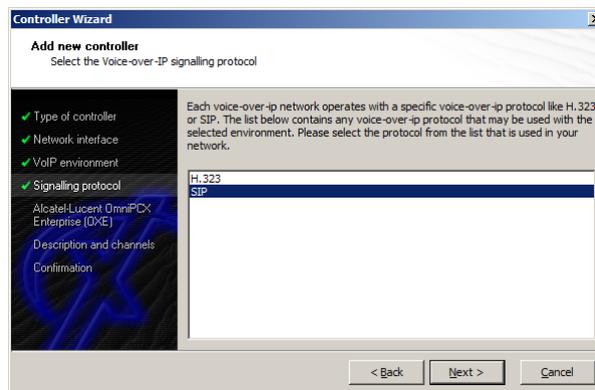
The next dialog of the configuration wizard shows a list of some common Voice-over-IP environments. Selecting one of those will configure the XCAPI with a selection of near-optimal presets for the kind of environment you have, sparing you quite a lot of manual configuration.

In the case of Alcatel-Lucent OmniPCX Enterprise R11 with INTIP3/GD3 couplers please select the according entry which is available from XCAPI version 3.4.18.



2.3 Signaling Protocol

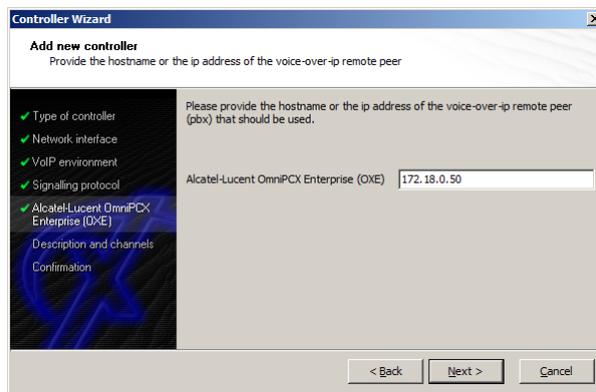
The next dialog shows a list of signaling protocols which are supported for the given Voice-over-IP environment.





2.4 IP Address of the Alcatel OmniPCX

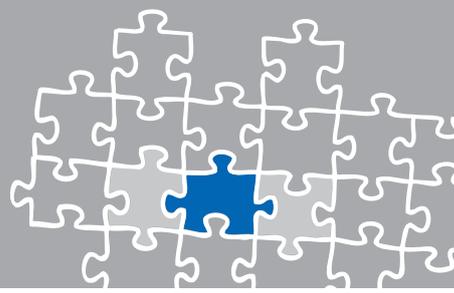
In the dialog **Network Address** you have to provide the IP address of the Alcatel-Lucent OmniPCX Enterprise SIP gateway device.



2.5 Description and Channels

The next-to-final dialog of the **Controller Wizard** allows you to configure a meaningful description for the controller you're going to create. This dialog also allows configuring the number of channels that the new controller will be able to provide. Please enter how many simultaneous connections the XCAPI respectively the bound application should handle when communicating with the Alcatel OmniPCX Gateway.

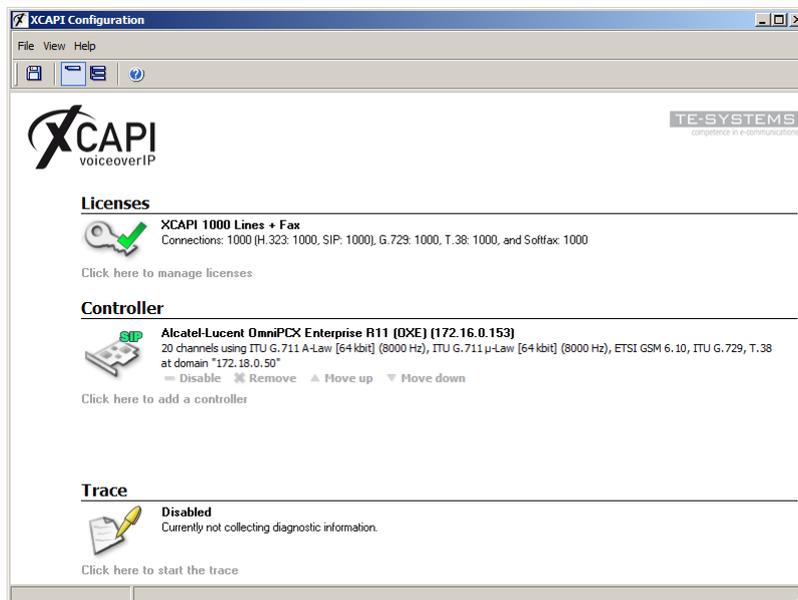




2.6 Confirmation

The final controller wizard dialog performs some checks on the configuration parameters you've made. If everything is correct please use the **Finish** button in order to finally create the new controller.

The controller now will appear on the overview page of the XCAPI configuration tool.



You always need to restart the bound CAPI application, in meaning of its services, for the changes to take effect.



OmniPCX Enterprise Configuration

This examples configurations will be reviewed with the **Alcatel OmniVista 4760i** frontend.

The screenshot shows the configuration interface for 'alcatel-oxe'. The left pane displays a tree view of configuration categories, including Shelf, Media Gateway, PWT/DECT System, System, Translator, Classes of Service, Attendant, Users, Users by profile, Get Profile, Groups, Speed Dialing, Phone Book, Entities, Trunk Groups, External Services, Inter-Node Links, X25, DATA, Applications, Specific Telephone Services, ATM, Events Routing Discriminator, Security and Access Control, IP, SIP, DHCP Configuration, Alcatel-Lucent 8&9 Series, SIP Extension, Encryption, Passive Com. Server, and SNMP Configuration.

The right pane displays a configuration table with the following data:

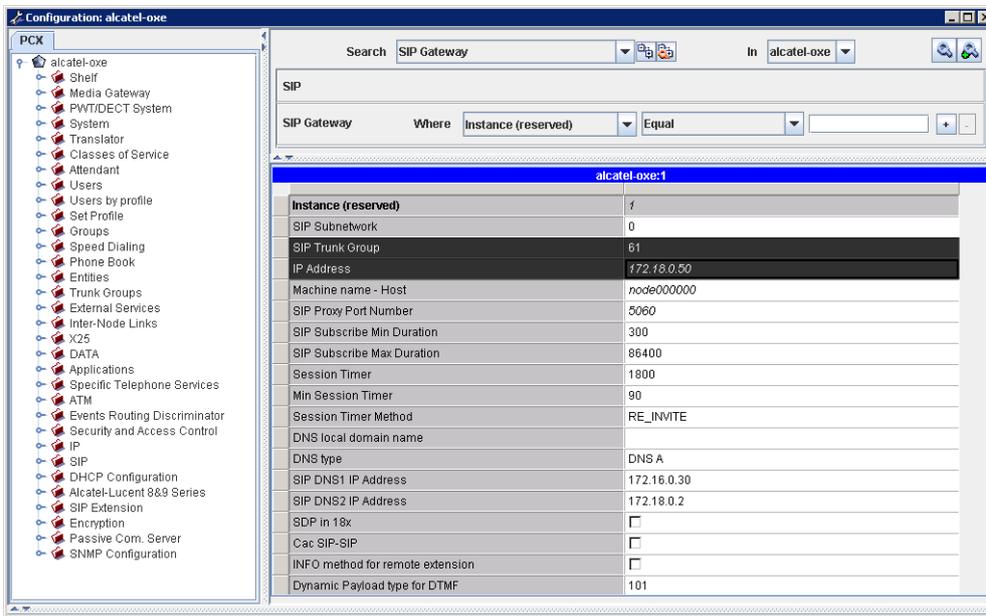
Node Number (reserved)	101
Version name	k1.400
CPU Id	00088755
Patch No.	25
Notes	
Object Identity	
Node Number (reserved)	101
Ethernet Notes	
Netmask	255.255.254.0
Local CPU	
Name	alcatel-oxe
IP Address	172.18.0.50
Twin CPU	
Name	
IP Address	
Main CPU	
Name	alcatel-oxe
IP Address	172.18.0.50
Standby CPU	
Name	alcatel-oxe
IP Address	172.18.0.50
SL Notes []	
SL Notes	
Link Name	
Protocol	
Netmask	
Port	
IPX25 Tunnel Notes	
Netmask	255.255.0.0
Local Node	
Name	x001001_tun
IP Address	172.30.1.1
Max Keys AOMV NOE	72

At the bottom of the interface, there is an 'All Action' button and an 'Apply Grid' button.



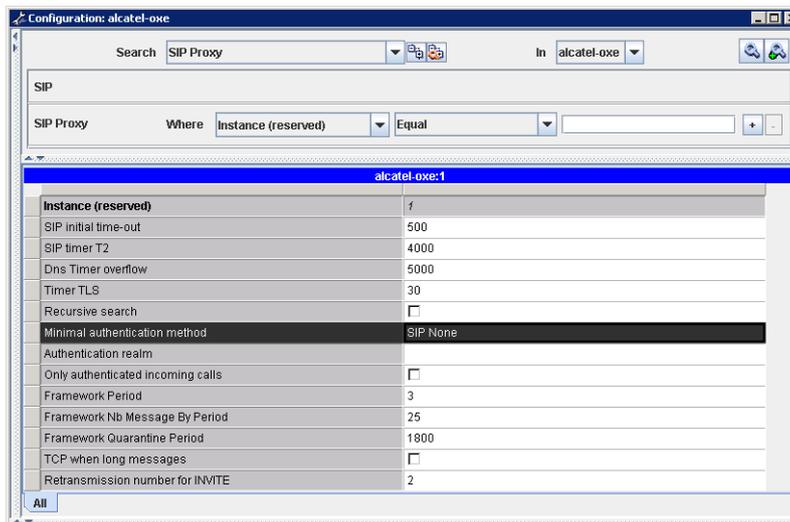
3.1 SIP Gateway

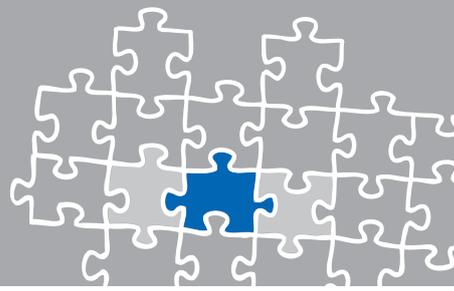
The Alcatel-Lucent OmniPCX Enterprise SIP gateway, here related to IP address 172.18.0.50 and the host name node000000, enables the speech and data services to your VoIP and PSTN network. The SIP Subnetwork and SIP Trunk Group relations must be set up on requirements.



3.2 SIP Proxy

The Alcatel-Lucent OmniPCX Enterprise SIP Proxy is used to locate, route and authenticate SIP users. In accordance to the XCAPI controller defaults the option Minimal authentication method must be set to SIP None.





3.3 SIP External Gateways

The XCAPI has to be assigned as SIP External Gateway which is here done with the default SIP Port Number 5060 and UDP as Transport type. Set the IP address of XCAPIs listening Ethernet interface as SIP Remote domain. The Trunk Group is assigned to number 61 as described in the chapter Trunk Groups starting on [page 13](#).

Please ensure that those trunk group settings are equivalent to settings of the XCAPI SIP controller. The most important settings are marked on the following screenshot.

The screenshot shows the configuration window for 'alcatel-oxe:1' with the following settings:

SIP External Gateway ID	2
Gateway Name	XCAPI
SIP Remote domain	172.16.0.153
PCS IP Address	
SIP Port Number	5060
Transport type	UDP
Belonging Domain	
Registration ID	
Registration ID P_Asserted	<input type="checkbox"/>
Registration timer	0
SIP Outbound Proxy	
Supervision timer	0
Trunk group number	61
Pool Number	-1
Outgoing realm	
Outgoing username	
Outgoing Password	
Incoming username	
Incoming Password	
RFC 3325 supported by the distant	<input type="checkbox"/>
DNS type	DNS A
SIP DNS1 IP Address	
SIP DNS2 IP Address	
SDP in 18x	<input type="checkbox"/>
Minimal authentication method	SIP None
INFO method for remote extension	<input type="checkbox"/>
To EMS	<input type="checkbox"/>
SRTP	RTP only
Routing Application	<input type="checkbox"/>
Ignore inactive/black hole	<input type="checkbox"/>
Contact with IP address	<input checked="" type="checkbox"/>
Dynamic Payload type for DTMF	97
100 REL for Outbound Calls	Not Supported
100 REL for incoming Calls	Not Requested
Gateway type	Standard type
Re-Trans No. for REGISTER/OPTIONS	2
P-Asserted-ID in Calling Number	<input type="checkbox"/>
Trusted P-Asserted-ID header	<input type="checkbox"/>
Trusted From header	<input type="checkbox"/>
Diversion Info to provide via	Diversion
Support Re-invite without SDP	<input type="checkbox"/>
Proxy identification on IP address	<input type="checkbox"/>
Outbound calls only	<input type="checkbox"/>
SDP relay on Ext. Call Fwd	Default
SDP Transparency Override	<input type="checkbox"/>
RFC 5009 supported / Outbound call	Not Supported
Nonce caching activation	NO
FAX Procedure Type	G711 only
Type of codec negotiation	Default

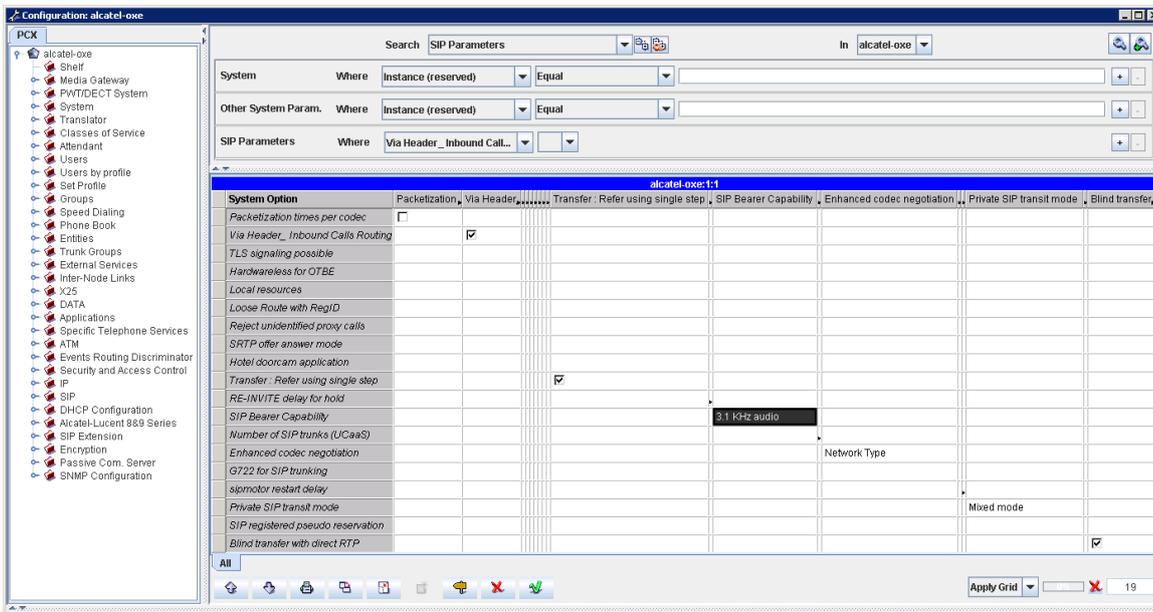


3.4 SIP Parameters

The SIP parameters are used as shown below.

Via Header_Inbound Calls Routing is enabled for determining the origin of incoming calls when other headers do not match with the remote domain of an external SIP gateway.

Reject unidentified proxy calls should be enabled for the VoIP environment. In the case of 403 Forbidden replies from the call server, this parameter should be disabled to exclude any interrelations of this behavior.



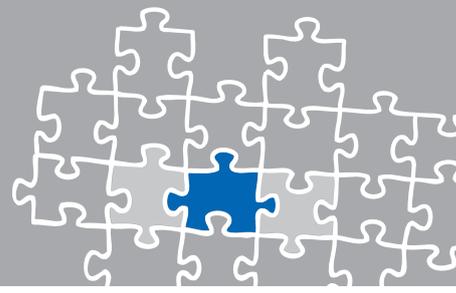
SIP Bearer Capability is set to Speech by default. In the case of facsimile issues with remote devices whose only allow the 3.1 kHz bearer capability, this parameter must be set to 3.1 kHz audio (via MGR SYSTEM -> Other System Param. -> SIP Parameter -> SIP Bearer Capability).

Consult/Modify: SIP Parameters

```

Node Number (reserved) : 101
Instance (reserved) : 1
Instance (reserved) : 1
System_Option + SIP Bearer Capability

SIP Bearer Capability + 3.1 KHz audio
    
```



3.5 IP Parameters

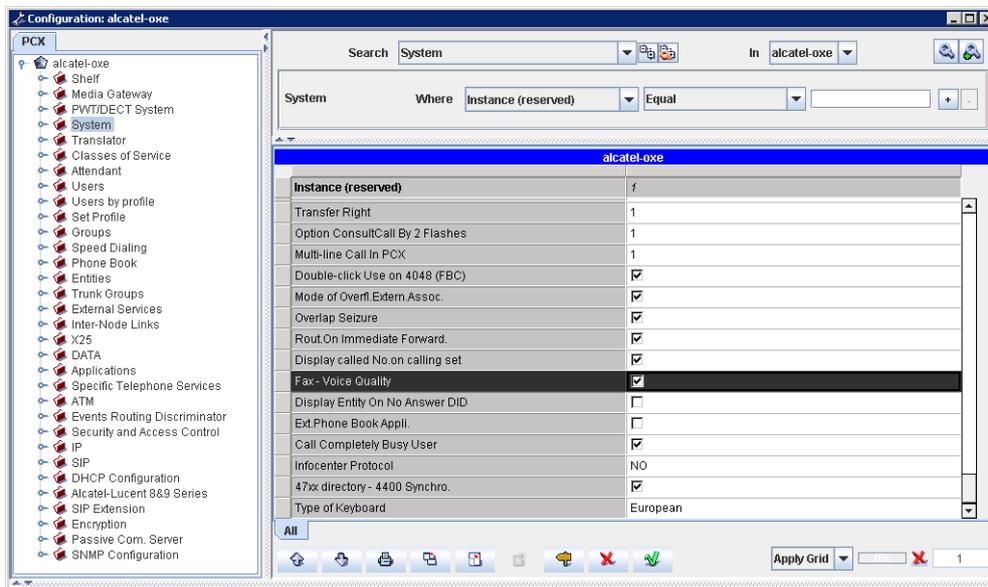
The IP Parameters for this environment are used as shown on the next screenshot. Those codec and facsimile settings depends on the telephony environment and involved gateways and must correspond to the according XCAPI configurations.

```
=====
|                                     C O M P V I S U                               |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Inter-node protocol H323..... yes |
| RTP Direct..... yes |
| RTP Direct for H323 terminals.. no |
| Fast Start..... no |
| VAD (Voice Activity Detection): |
|   - G723/G729..... no |
|   - G711..... no |
| ECE (Echo Canceller)..... yes |
|   - INTIP/GA/GD..... 128 ms |
| Volume for IP Phone ..... 0dB |
| Volume for other device. .... 0dB |
| Law (Except Media Gateway)..... A law |
| Global compression type ..... G723 |
| Multi-algorithm (for H323/SIP) .... yes |
| Compression for INTIP/GD ..... without |
| Compression for IPP ..... without |
| Transit on IP Boards .....yes |
| ticket Stat IP..... yes |
| IP version..... IPv4 |
| Transit compatibility..... yes |
| Voip Framing G711 ..... 20 ms |
| Voip Framing G723 ..... 30 ms |
| Voip Framing G729 ..... 20 ms |
| No RBT For Direct RTP H323..... no |
| T38 FAX..... no |
| Enhanced Codec Nego..... NETWORK |
| G722 for SIP Trunking..... yes |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
=====
```



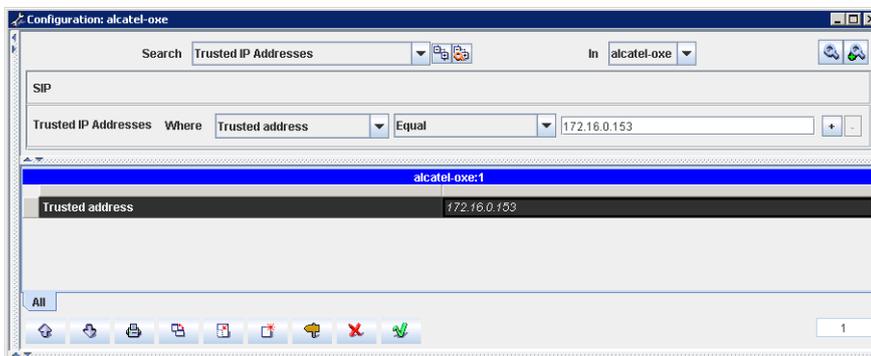
3.6 System Parameter

Please note that the Fax - Voice Quality parameter has to be enabled for ensuring compatibility with some fax devices.

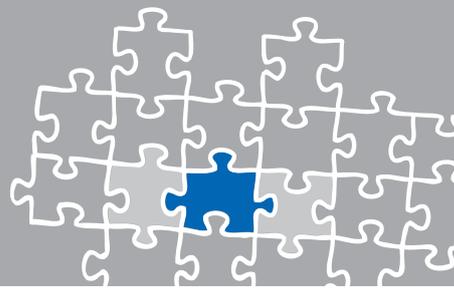


3.7 Trusted IP Addresses

The trusted address (in this example IP address 172.18.0.153) cannot be put under quarantine for any reason, even if the amount of incoming messages of this origin is higher than the threshold values configured out of the SIP-Proxy configuration dialog.



Please ensure that the CLI command `dhs3_init -R SIPMOTOR` will be invoked afterwards for allowing the new Trusted IP Address.



3.8 Trunk Groups

This environment use Trunk Group ID 61 as shown on the next screenshot. Up to the requirements and availability, set the T2 Specification to MINI SIP or SIP. Please ensure that those trunk group settings are properly assigned to your VoIP environment. Ensure the correct Associated Ext. SIP gateway relation.

The screenshot shows the PCX Configuration window for 'alcatel-oxe'. The left sidebar lists various configuration categories, with 'Trunk Groups' selected. The main window displays a search filter for 'Trunk Groups' with 'Where Trunk Group ID Equal 61'. Below this, a table lists the configuration parameters for Trunk Group ID 61.

alcatel-oxe	
Trunk Group ID	61
Trunk Group Type	T2
Trunk Group Name	XCAPI
UTF-8 Trunk Group Name	
Node number	1
Transcom Trunk Group	<input type="checkbox"/>
Auto.reserv.by Attendant	<input type="checkbox"/>
Overflow trunk group No.	-1
Tone on seizure	<input type="checkbox"/>
Private Trunk Group	<input type="checkbox"/>
Q931 Signal variant	ABC-F
SS7 Signal variant	No variant
Number Compatible With	-1
Number Of Digits To Send	30
Channel selection type	Quantified
Remote Network	10
Shared Trunk Group	<input type="checkbox"/>
Auto.DTMF dialing on outgoing call	YES
T2 Specification	MINI SIP
Homogenous network for direct RTP	NO
Public Network COS	31
DID transcoding	<input type="checkbox"/>
Special Services	Nothing
Can support UUS in SETUP	<input checked="" type="checkbox"/>
Associated Ext SIP gateway	2
Implicit Priority	
Activation mode	0
Priority Level	0
Preempter	NO
Incoming calls Restriction COS	10
Outgoing calls Restriction COS	10
Callee number mpt1343	NO
Overlap dialing	NO
Call diversion in ISDN	YES



Please note that the Q931 Signal Variant must be set to ABC-F for enabling services such as Message Waiting Indication, Call Transfer and Redirecting Number.



3.9 Trunk Group

Please ensure that the parameters Quality profile for Voice over IP and IP Compression Type are set to Always VoIP and G.711.

The screenshot shows the configuration window for 'alcatel-oxe' in the PCX system. The search criteria are set to 'Trunk Group' with 'Where' set to 'Trunk Group ID' and 'Equal' to '61'. The configuration table for 'alcatel-oxe:61' is as follows:

alcatel-oxe:61	
Instance (reserved)	1
Trunk Group Type	T2
T2 Specification	MINI SIP
Public Network Ref.	
End-to-end dialing	YES
DTMF end-to-end signal.	YES
Trunk group used in DISA	NO
DISA Secret Code	
VG for non-existent No.	YES
Routing To Manager	NO
Trunk COS	31
Sending of Progress message	YES
No. of digits unused (ISDN)	0
B Channel Choice	YES
Channels: Attendant Control (Rsvd)	0
Redirection For ACD (Dissuasion)	NO
DTO joining	NO
Consultation Call On B Channel	NO
Automated Attendant	NO
Calling party Rights COS	0
Entity Number	0
TS Overflow	YES
Number To Be Added	
Supervised by Routing	NO
VPN Cost Limit for Incom.Calls	0
Immediate Trk Listening if VPNCall	YES
VPN TS %	50
CSTA-Monitored	NO
Max.% of trunks out CCD	0
Charge Calling And ADN Creation	NO
Ratio analog.to ISDN cost	
Logical Channel	1__15 & 17__31
TS Distribution on Accesses	YES
Use Split Access	NO
Heterogeneous Remote Network	NO
COS Restrictions - Barring mode	Not Restricted / Not barred
ARS Class of service	31
Quality profile for voice over IP	Always VoIP
IP Compression Type	G.711
Use of volume in system	YES
External Access Server	NO
CSTA Tracking MCDU Trk	
IE External Forward	None
Announcement for dial tone	NO
Announcement for Ring tone	NO
Reroute Anonymous Calls to Entity	NO



3.10 Trunk Group NPD Selector

The numbering behavior depends on local circumstances. Please ensure an appropriate configuration, see also chapter Numbering Plan Descriptor starting on [page 17](#).

Configuration: alcatel-oxe

PCX

alcatel-oxe

- Shelf
- Media Gateway
- PWT/DECT System
- System
- Translator
- Classes of Service
- Attendant
- Users
- Users by profile
- Set Profile
- Groups
- Speed Dialing
- Phone Book
- Entities
- Trunk Groups
- External Services
- Inter-Node Links
- X25
- DATA
- Applications
- Specific Telephone Services
- ATM
- Events Routing Discriminator
- Security and Access Control
- IP
- SIP
- DHCP Configuration
- Alcatel-Lucent 8&9 Series
- SIP Extension
- Encryption
- Passive Com. Server
- SNMP Configuration

Search: Trunk group NPD selector In alcatel-oxe

Trunk Groups Where Trunk Group ID Equal 61

Trunk group NPD selec Where Instance (reserved) Equal

alcatel-oxe:61

Instance (reserved)	1
Public NPD ID	2
Private NPD ID	0
Management Mode	Automatic
Public DID transcoding	<input type="checkbox"/>

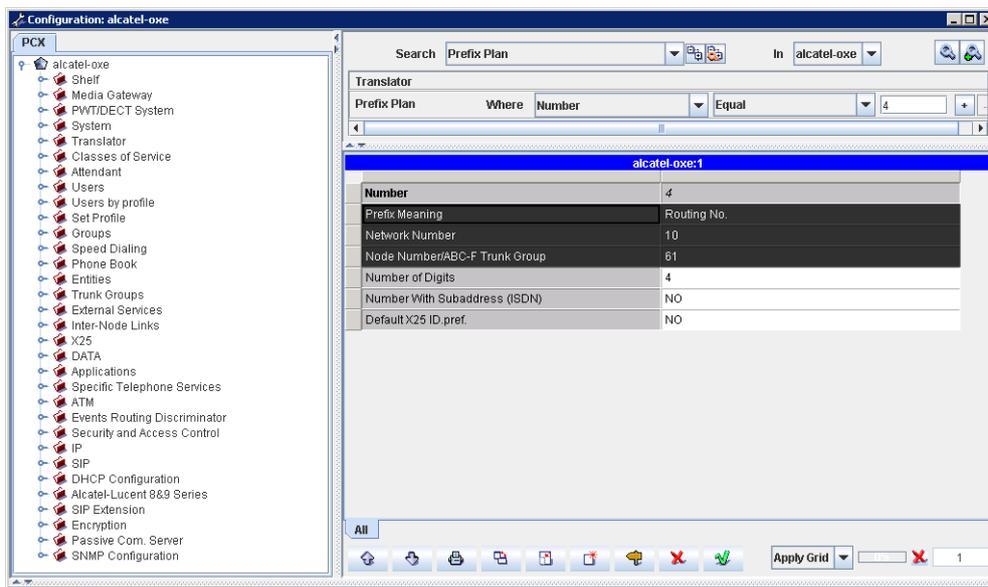
All

Apply Grid 1



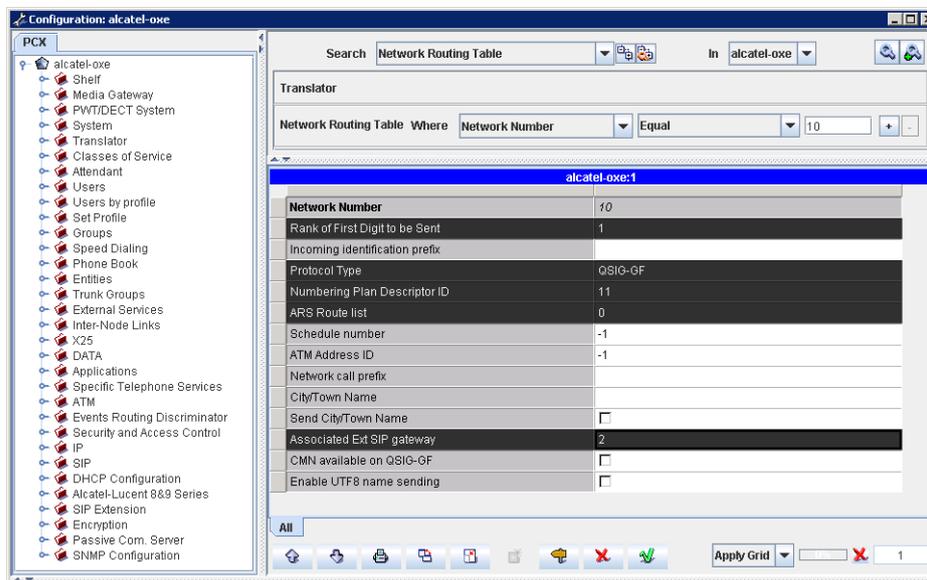
3.11 Translator

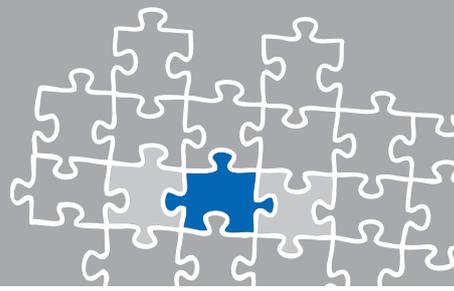
The routing of this configuration example is handled over a Routing No. of the Prefix Plan with its relations to the Network Number and Node Number/ABC-F Trunk Group.



3.12 Network Routing Table

Network Routing Tables, here entry 10, enable the modification of the origin and destination numbers in order to adapt to remote network constraints. If required please review the chapter Redirecting Number on [page 25](#).





3.13 External Numbering Plan

For the External Numbering Plan you may have to review the according Discriminators, Numbering Plan Descriptions (NPD's) and/or other Translator related settings.

The screenshot shows the PCX configuration window for 'alcatel-oxe'. The search criteria is 'Discriminator Rule'. The configuration is for the 'External Numbering Plan' under the translator 'alcatel-oxe:1:10'. A table lists the following data:

Call Number	Area Number	ARS Route List Number	Schedule Number	Number of Digits
0	1	0	-1	255
1	1	0	-1	255
2	1	0	-1	255
3	1	0	-1	255
4	1	0	-1	255
5	1	0	-1	255
6	1	0	-1	255
7	1	0	-1	255
8	1	0	-1	255
9	1	0	-1	255

3.14 Numbering Plan Descriptor

The numbering behavior depends on local circumstances. Please ensure its appropriate configurations.

The screenshot shows the PCX configuration window for 'alcatel-oxe'. The search criteria is 'Numbering Plan Description (NPD)'. The configuration is for the 'Numbering Plan Descriptor' under the translator 'alcatel-oxe:1:1'. The 'Description identifier' is set to '2'. The following table shows the configuration details:

Description identifier	Value
Name	U_U_E_E_NDDI
Calling Numbering plan ident.	Unknown
Called numbering plan ident.	Unknown
Authorize personal calling num use	<input type="checkbox"/>
Install. number source	Entity source
Default number source	Entity source
Called DID identifier	-1
Calling/Connected DID identifier	-1



3.15 Classes of Service

The administration of the dial plan and managing the incoming and outgoing calling numbers is a quite complex task and needs to be configured individually for your VoIP environment. Here we recommend reviewing the Alcatel system documentation. According to this example we only review some of the topics.

First we review the most important settings of the properly configured Network Routing Table and Trunk Groups.

For the Network Routing Table, we already described on [page 16](#) to use the Numbering Plan Description ID number 11.

The Numbering Plan Description ID (NPD) describes the incoming calls from the external network and describes how to create the dial number for outgoing calls. The ARS Route list is used with its default value 0.

Public Network COS, Trunk COS and ARS Class of service is set to # 31. The Incoming and Outgoing calls Restrictions COS is set to # 10 and the Calling party Rights COS and Entity Number is used with # 0.

3.16 Connection COS

The Classes of Service consist of Public Network COS, Connection COS, Transfer COS, Private Calls COS and Phone Features COS. This example doesn't use any restrictions, nevertheless Connection COS number 5 might be set for allowing trunk to trunk connections.

Configuration: alcatel-oxe

Search: Connection COS In: alcatel-oxe

Classes of Service

Connection COS Where: Connection COS Equal

alcatel-oxe:1					
Connection COS	Number of COS	Connection Rights COS 0	Connection Rights COS 1	Connection Rights COS 2	Connection Rights COS 3
0	32	1	1	1	1
1	32	1	1	1	1
2	32	1	1	1	1
3	32	1	1	1	1
4	32	1	1	1	1
5	32	1	1	1	1
6	32	1	1	1	1
7	32	1	1	1	1
8	32	1	1	1	1
9	32	1	1	1	1
10	32	1	1	1	1
11	32	1	1	1	1
12	32	1	1	1	1
13	32	1	1	1	1
14	32	1	1	1	1



3.17 Public Network COS

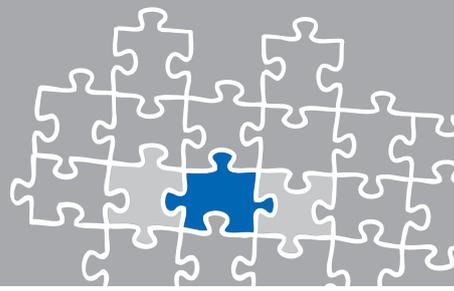
The Public Network COS defines the accessing rights for external calls, which is configured in Entity objects.

Each Public Network COS is divided into the parts Public Access COS, Private Access COS, Business Access COS, Network Access COS and Trunk Group Access COS.

Here you need to configure each COS part with its necessary rights according to you dial plan.

For this TechNote the Public Network COS # 31 is used with the following settings.

alcatel-oxe:1						
Access COS	Area Identifier	Public Access Rights Night	Public Access Rights Day	Public Access Rights Mode 1	Public Access Rights Mode 2	
31	5	1	1	1	1	
31	6	1	1	1	1	
31	7	1	1	1	1	
31	8	1	1	1	1	
31	9	1	1	1	1	
31	10	1	1	1	1	
31	11	1	1	1	1	
31	12	1	1	1	1	
31	13	1	1	1	1	
31	14	1	1	1	1	
31	15	1	1	1	1	
31	16	1	1	1	1	
31	17	1	1	1	1	



3.18 Fax Parameters

The Fax Parameters are used with their defaults.

System Option	V21 Req.	T4 Req.	Local T38 port	Inhibit the T38	Disable timer	Fax Rel.	V21 JitterBuf	T38 only
Inhibit the T38 negotiation				<input type="checkbox"/>				
Disable timer for fax protection					<input checked="" type="checkbox"/>			
V21 Redundancy depth	2							
T4 Redundancy depth		0						
Fax Relay Max Rate						9.6 Kbit/s		
V21 JitterBufferLength							7	
T38 only								<input checked="" type="checkbox"/>
Local T38 port number			RTP port num					
NAT Support for FAX T38								



Please note, after fax parameter modifications you have to reset GD, GA and INT-IPA boards manually.



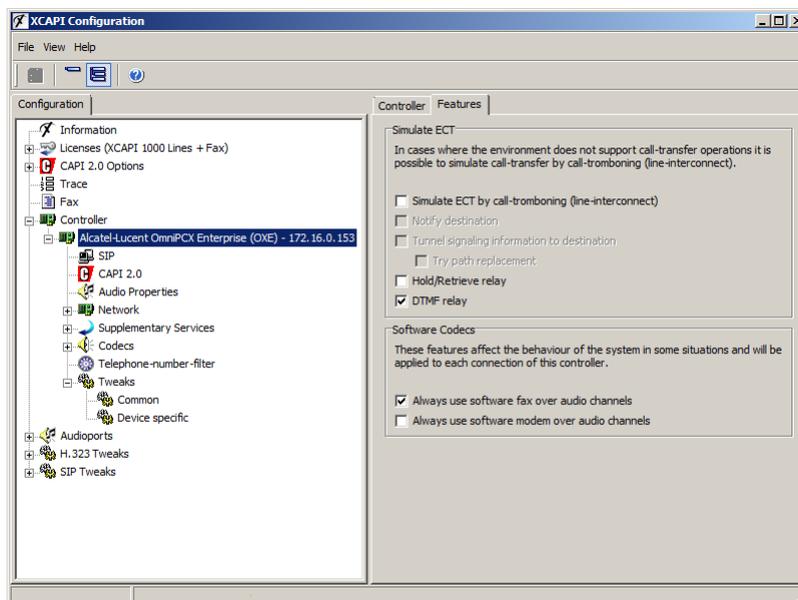
Configuration Notes

In these chapters you'll find some configuration hints about supplementary services such as message waiting indication or call transfer and facsimile transmissions. The supplementary services are enabled by default to the XCAPI controller configuration. Nevertheless they has to be reviewed such as the according gateway parameters.

4.1 Softfax

With the Softfax mode, the XCAPI simulates an analogue Fax device by transmitting modulated Fax-signals modem-like through the established G.711 audio channels. Facsimile via G.711 is supported from OmniPCX release 11 using INTIP3/MG3 couplers only and requires the following configuration adjustments.

Review the XCAPI controller configuration tab labeled **Features**. There, ensure that the parameter **Always use software fax over audio channels** is enabled.





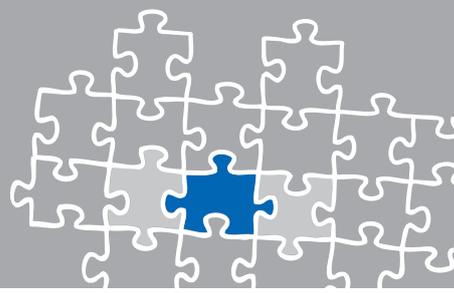
For the Alcatel-Lucent OmniPCX Enterprise please ensure that G711 Only is selected as FAX Procedure Type.

The screenshot shows the configuration window for 'alcatel-oxe'. The left sidebar lists various configuration categories under 'PCX'. The main area is titled 'SIP' and shows a search for 'SIP Ext Gateway' in the 'alcatel-oxe' context. A filter is applied: 'SIP Ext Gateway Where SIP External Gateway ID Equal 2'. Below this, a table displays the configuration for 'alcatel-oxe:1'.

alcatel-oxe:1	
SIP External Gateway ID	2
Contact with IP address	<input checked="" type="checkbox"/>
Dynamic Payload type for DTMF	97
100 REL for Outbound Calls	Not Supported
100 REL for Incoming Calls	Not Requested
Gateway type	Standard type
Re-Trans No. for REGISTER/OPTIONS	2
P-Asserted-ID in Calling Number	<input type="checkbox"/>
Trusted P-Asserted-ID header	<input type="checkbox"/>
Trusted From header	<input type="checkbox"/>
Diversion Info to provide via	Diversion
Support Re-invite without SDP	<input type="checkbox"/>
Proxy identification on IP address	<input type="checkbox"/>
Outbound calls only	<input type="checkbox"/>
SDP relay on Ext. Call Fwd	Default
SDP Transparency Override	<input type="checkbox"/>
RFC 5009 supported / Outbound call	Not Supported
Nonce caching activation	NO
FAX Procedure Type	G711 only
Type of codec negotiation	Default



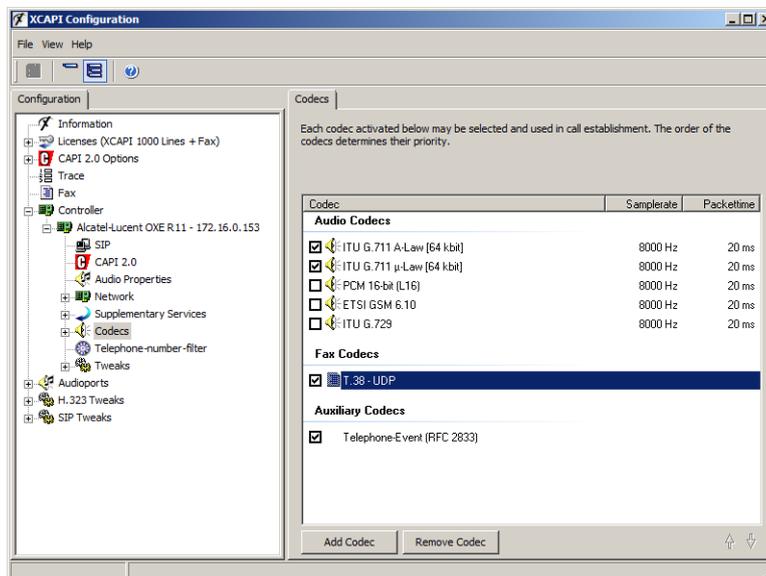
Please note, facsimile via G.711 (Softfax) is supported from OmniPCX release 11 using INTIP3/MG3 couplers.



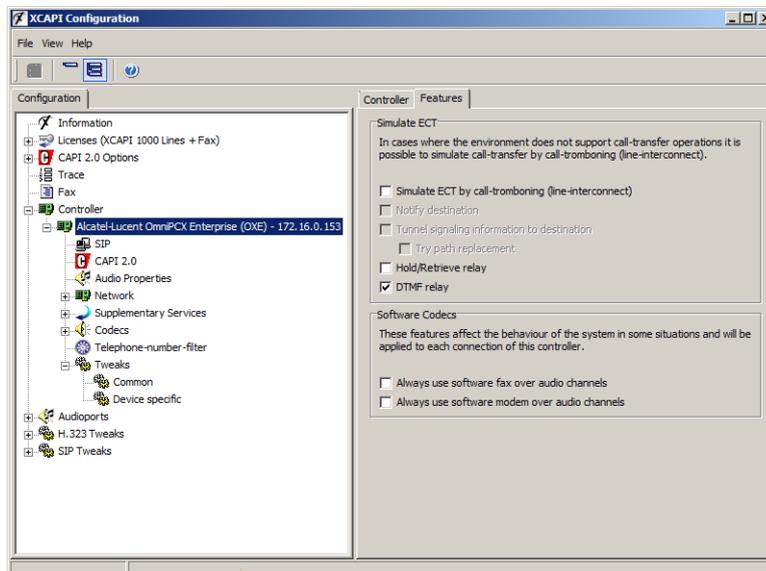
4.2 T.38 Fax

Pre Alcatel-Lucent OmniPCX Enterprise R11 releases only allows facsimile via T.38. Nevertheless for release 11 and INTIP3/MG3 couplers, facsimile via G.711 is recommended as XCAPI allows the advantage of using ECM (Error Correction Mode).

When using **T.38** it is mandatory that **T.38 - UDP** Codec is enabled within the XCAPI controller configuration.

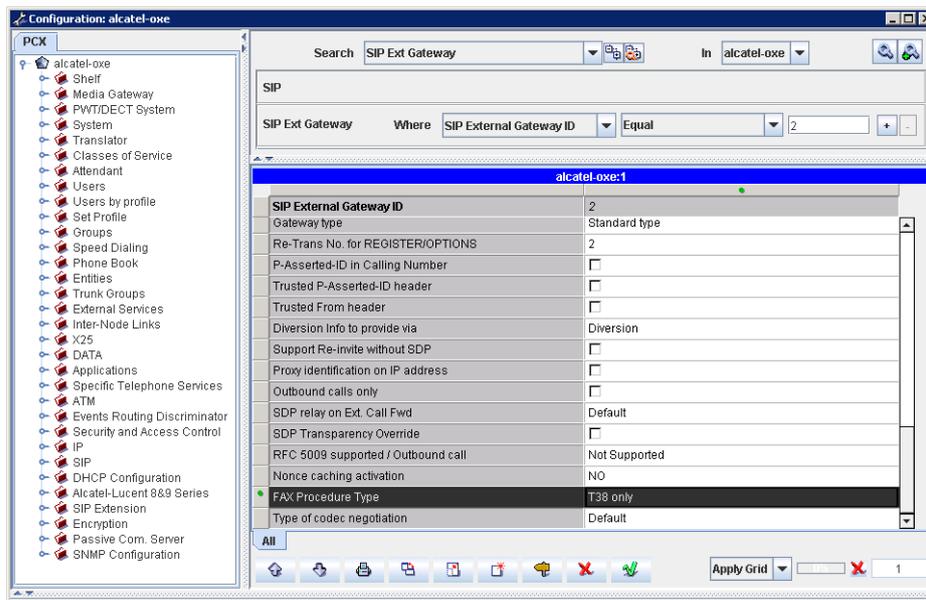


The option **Always use software fax over audio channels** has to be disabled within the XCAPI controller's **Features** tab configuration.



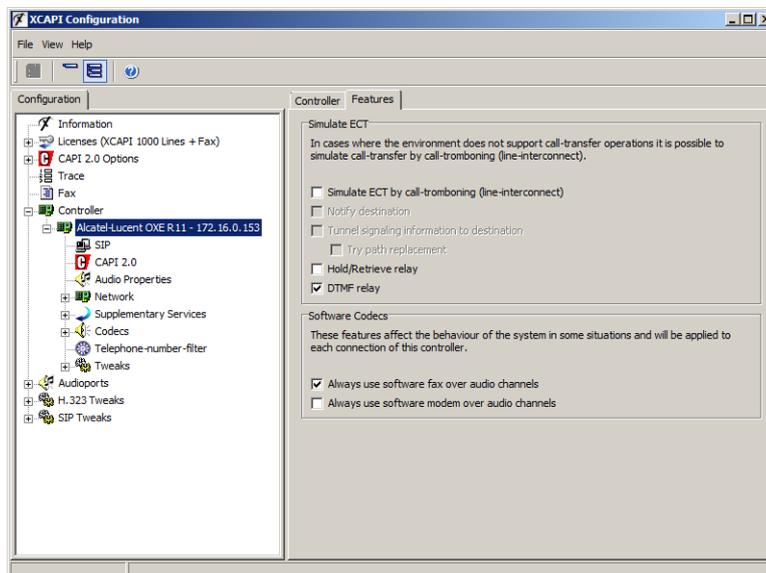


Ensure that T.38 only is selected in the according External SIP Gateway.



4.3 Call Transfer

The **Call Transfer** services are supported by the XCAPI and the Alcatel-Lucent OmniPCX Enterprise SIP gateway. Ensure that the Simulate ECT by call tromboning (line interconnect) is disabled.



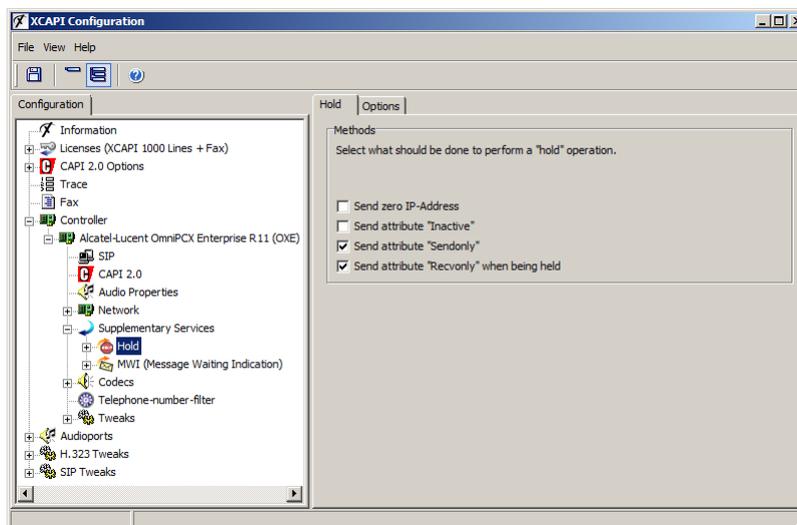


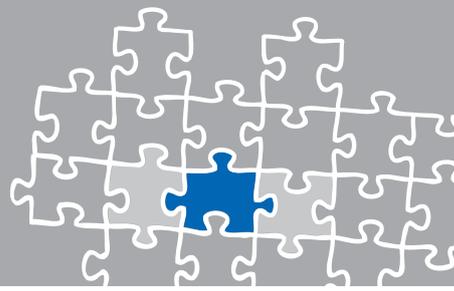
4.4 Redirecting Number

Redirecting Numbers provide delivering beside the origin calling number also the calling number of the device that initiates the call redirection. You may have to use the QSIG-GF protocol type for the SIP trunk related Network Routing Table, as shown in the same named chapter on [page 16](#).

4.5 Hold

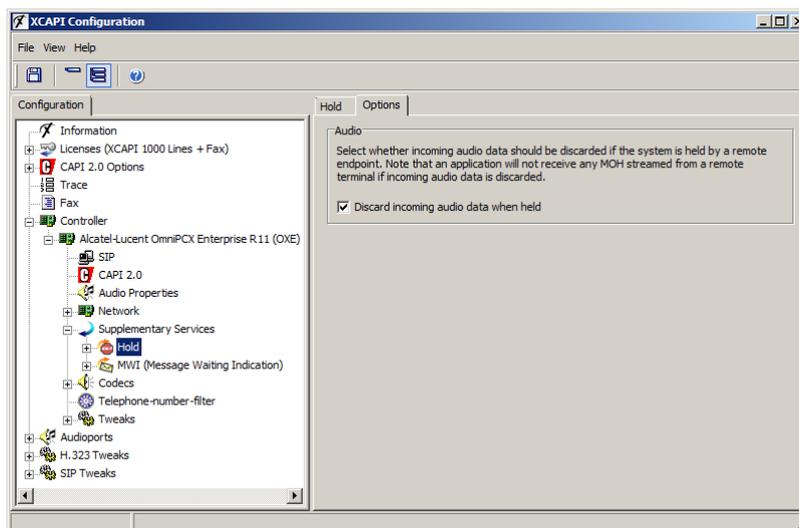
If the supplementary service Hold is enabled, the system temporarily removes a participant from a connection and executes a remote hold. The participants placed on hold will then usually hear Music on Hold while they wait and the participant who pressed the hold button can place a second call. This is activated by default with the attributes Sendonly and Recvonly if creating the Alcatel-Lucent OmniPCX Enterprise controller via the XCAPI controller wizard.

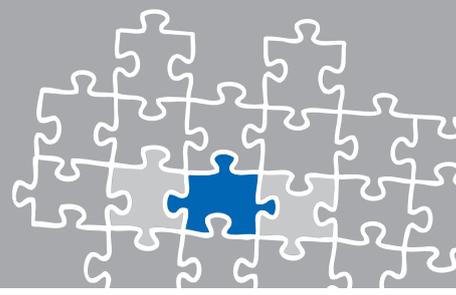




Select whether incoming audio data should be discarded if the system is held by a remote endpoint. Note that an application will not receive any Music on Hold streamed from a remote terminal if incoming audio data is discarded, normally, the caller would like to listen to Music on Hold while being held.

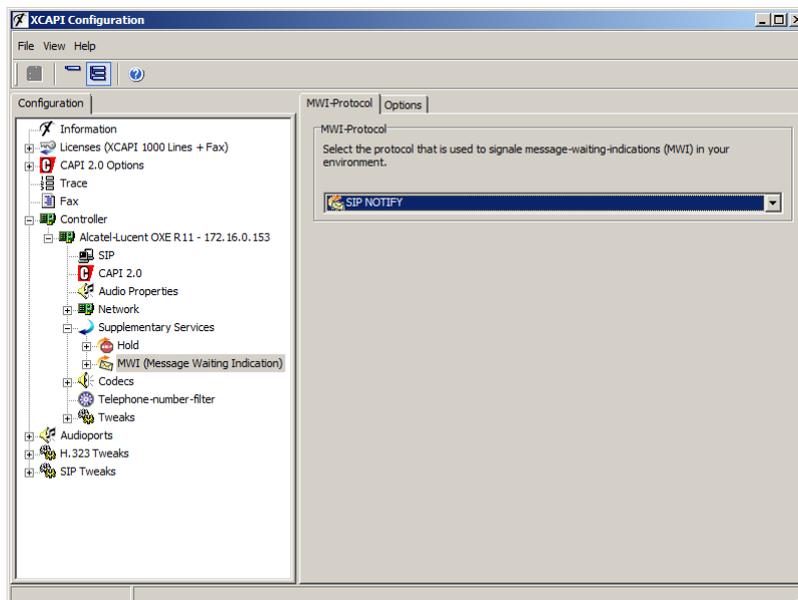
Deactivate the option `Discard incoming audio data when held` to receive Music on Hold from a remote endpoint. However, if you use the XCAPI to interconnect several endpoints in a conference, this behavior might be undesirable. Assumed that one participant of a conference places the conference line on hold to make another telephone call, all other participants will hear the Music on Hold. Activate this option to prevent incoming Music on Hold from disturbing the conference.

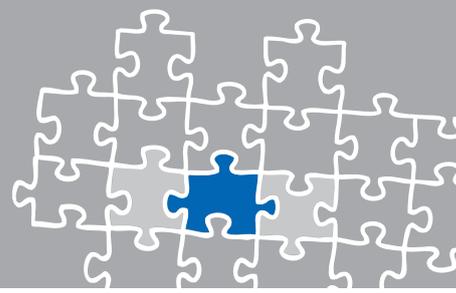




4.6 Message Waiting Indications

MWIs are indicated by the SIP `Notify` command through SIP connections. When using the XCAPI controller wizard this method is activated by default. MWI services can only be processed by setting ABC-F signaling for related SIP trunk. The SIP trunk configuration is described in the chapter [Trunk Groups](#) described on [page 13](#).





From Alcatel version 9, it is necessary to define a user for signaling message waiting indications on system behavior. This can be realized, as shown on the following screenshots, by creating a non-existing user and its appropriate settings. For this example we created a user with Directory Number 4499 which makes use of the set type MULTIMEDIA PC 2. You also need to ensure the correct settings for the URL UserName and URL Domain parameter.

The screenshot shows the configuration window for 'alcatel-oxe'. The search criteria are 'Users' where 'Directory Number' is 'Equal' to '4499'. The configuration table is as follows:

alcatel-oxe	
Directory Number	4499
Directory name	MWI Server Number
Directory First Name	
UTF-8 Directory Name	
UTF-8 Directory First Name	
Location Node	1
Shelf Address	255
Board Address	255
Equipment Address	255
Set Type	MULTIMEDIA PC 2
Entity Number	1
Set Function	Default
Profile Name	
Key Profiles	None
Domain Identifier	0
URL UserName	4499
URL Domain	node000000

This user can not be called directly and has to be forwarded to an accessible number out of the related SIP trunk configuration. Thus, an indicated client is allowed to initiate a call-back to the SIP trunk related CAPI application.

The screenshot shows the configuration window for 'alcatel-oxe'. The search criteria are 'Dynamic State User' where 'Instance (reserved)' is 'Equal' to an empty field. The configuration table is as follows:

alcatel-oxe:4499	
Instance (reserved)	1
Forward	Immediate forward
Forward Directory Number	61999
Secondary Line Forward	No forward
Secondary Line Number Forward	4499
Do Not Disturb	<input type="checkbox"/>
Lock	<input type="checkbox"/>
Busy Camp-on	<input checked="" type="checkbox"/>
Overflow on associate	<input type="checkbox"/>
Overfl.busy to assoc.set	<input type="checkbox"/>
Associated Set No.	4499
Reset Charge Counter	<input type="checkbox"/>
Consistent with Identity	<input checked="" type="checkbox"/>
User Type	Administrative
State of the set	Out of order
SIP Survivability Mode	None



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