



2N[®]

VoiceBlue Next



2N[®] VoiceBlue Next & Alcatel OXO

connected via SIP trunk

Quick guide

Version 1.00

www.2n.cz

2N® VoiceBlue Next has these parameters:

- IP address 192.168.92.200
- Incoming port: 5060
- Firmware version: 01.00.03i10

Alcatel OXO parameters:

- IP address 192.168.92.246
- Incoming port: 5060
- version 7.7.1

SIP TRUNK INTERCONNECTION

- 1) For the setting of the trunk between the VoiceBlue Next and your PBX you need to configure SIP proxy (GSM→IP) for GSM incoming calls. SIP proxy (IP→GSM) is designed for secure communication just with traffic from your PBX. You can specify the IP address and port which will accept SIP packets from.

In case you leave there 0.0.0.0 it will be open for all traffic.

The screenshot displays the 'Gateway control' interface for a 2N Gateway. The left sidebar contains a menu with options like 'System parameters', 'VoIP parameters', 'GSM basic parameters', etc. The main area is titled 'Gateway configuration' and shows various settings. Two callouts are present: one pointing to the 'SIP proxy (GSM→IP)' field with the value '192.168.92.246' and the text 'The IP address to which the traffic is send', and another pointing to the 'SIP proxy (IP→GSM)' field with the value '192.168.92.246' and the text 'The IP address and port which will accept traffic from'. The 'SIP proxy (IP→GSM)' field also shows a port of '5060' and a 'Set default port' button. The 'SIP proxy (GSM→IP)' field shows a port of '5060' and a 'Set default port' button. The 'SIP registrar' field shows '0.0.0.0' and a 'Set default port' button. The 'NAT firewall' field shows '0.0.0.0'. The 'STUN server' field shows '0.0.0.0' and a 'Set default port' button. The 'Next STUN server request (60-6553, 0=off) [s]:' field shows '600'. The 'Tones generated to VoIP' section shows 'English' selected. The bottom left has a 'Logout' button and the bottom right has icons for a folder, a document with a cross, and a document with a checkmark.

2N TELECOMMUNICATIONS

Gateway | Update | Restart

Gateway control

Gateway configuration

- System parameters
- VoIP parameters
- GSM basic parameters
- GSM groups assignment
- GSM outgoing groups
- GSM incoming groups
- Prefixes
- LCR table
- CLIP Routing table
- Mobility Extension
- Ethernet configuration
- Login configuration
- Web configuration
- Report configuration

Configuration backup

Logout

G711: 1 x 10ms

G729: 2 x 10ms

Codec priority

Priority 1:

Priority 2:

Priority 3:

IP addresses

SIP proxy (IP→GSM): 192.168.92.246 : 5060 Set default port

SIP proxy (GSM→IP): 192.168.92.246 : 5060 Set default port

SIP registrar: 0.0.0.0 : 5060 Set default port

NAT firewall: 0.0.0.0

STUN server: 0.0.0.0 : 3478 Set default port

Next STUN server request (60-6553, 0=off) [s]: 600

Tones generated to VoIP

Dial tone to VoIP: English

2) Configuration of the LCR (Least Cost Routing)

The GSM operator has e.g. in our country prefix 6 and 7 with a nine digit the length number. The setting is below.

The screenshot displays the 2N Gateway configuration web interface. The top header includes the 2N TELECOMMUNICATIONS logo on the left and the Gateway logo with 'Update' and 'Restart' links on the right. A left sidebar contains a 'Gateway control' section and a 'Gateway configuration' menu with options like System parameters, VoIP parameters, GSM basic parameters, GSM groups assignment, GSM outgoing groups, GSM incoming groups, Prefixes, LCR table, CLIP Routing table, Mobility Extension, Ethernet configuration, Login configuration, Web configuration, and Report configuration. The main content area is titled 'Prefixes' and features a 'GSM prefix lists' tab bar with eight tabs labeled 'Prefixlist 1' through 'Prefixlist 8'. Below this is a 'Basic settings' section with input fields for 'GSM network ID' and 'Default count of digits' (set to 9). Two tables are present: 'Table of replaced prefixes' and 'Table of accepted prefixes', both with a warning 'Only 0123456789*#+ characters are allowed'. Each table has a list of prefixes and associated actions (Prefix, Replace with, Add, Remove, Remove all). The 'Table of replaced prefixes' currently shows a single entry with the prefix '7'. The 'Table of accepted prefixes' shows entries for '6' and '7'. At the bottom left is a 'Logout' button, and at the bottom right are three document icons.

- 3) You need to create LCR rule for defined prefixes. The GSM group says thru with outgoing group the call will follow and in the GSM group assignment you can define, which SIM card belongs to which GSM outgoing group.

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TELECOMMUNICATIONS

Gateway

Gateway | Update | Restart

Gateway control

Gateway configuration

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- GSM groups assignment
- GSM outgoing groups
- GSM incoming groups
- Prefixes
- LCR table**
- CLIP Routing table
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- Web configuration
- Report configuration

Configuration backup

Logout

LCR table

Prefix list	Time limitation	Weekend usage	Max. length of call	Groups	Add	Remove all
1/	0:00/24:00	Use as in week	Off	1	Edit	Remove
2/	0:00/24:00	Use as in week	Off	2	Edit	Remove

Gateway control

Gateway configuration

- System parameters
- VoIP parameters
- GSM basic parameters

GSM groups assignment

Module:	Outgoing:	Incoming:
0. module	1. Group	1. Group
1. module	2. Group	1. Group

4) Configuration of GSM outgoing groups:

You are able to set up different setting for each GSM group (CLIR, free minutes, Virtual ring tone, roaming and others). In case you don't have a Ring back tone, set up Delay for ALERTING to option 4.

The screenshot shows the 'GSM outgoing groups' configuration page in the 2N Gateway web interface. The page has a sidebar with a menu including 'Gateway control', 'Gateway configuration' (with sub-items like System parameters, VoIP parameters, GSM basic parameters, GSM groups assignment, GSM outgoing groups, GSM incoming groups, Prefixes, LCR table, CLIP Routing table, Mobility Extension, Ethernet configuration, Login configuration, Web configuration, and Report configuration), and 'Configuration backup'. The main content area is titled 'GSM outgoing groups' and has two tabs: '1. GSM group' (selected) and '2. GSM group'. Under 'General settings', there are several configuration options: 'Delay for CONNECT [s]' (Off), 'Minimal ring duration to send "SMS at no answer" [s]' (Off), 'Delay for ALERTING [s]' (4, highlighted with a red box), 'Minute' parameter (Count of minutes), 'Day of deleting statistics in group (every month)' (1), 'Generate virtual ring tone' (checked), and 'Call length counting' (Seconds). Below this is a 'Disconnect call' section with three checkboxes: 'SIM limit exceeded', 'Time limit exceeded', and 'No ALERTING before CONNECT'. At the bottom, there is a 'Send CLIP from VoIP to GSM/UMTS' section and a red warning message: 'Attention! Must be supported by your GSM / UMTS operator. In other case outgoing calls to GSM / UMTS can be restarted!'. The top of the page features the 2N TELECOMMUNICATIONS logo and the Gateway logo with 'Update' and 'Restart' links.

5) Incoming calls

For incoming calls you can define 2 groups with the different behavior and assign them to the GSM modules. The settings are similar with GSM groups assignment for outgoing calls.

The screenshot shows the 'GSM groups assignment' configuration page. It features a table with three columns: 'Module:', 'Outgoing:', and 'Incoming:'. The 'Module:' column lists '0. module' and '1. module'. The 'Outgoing:' column has dropdown menus with '1. Group' and '2. Group' respectively. The 'Incoming:' column has dropdown menus with '1. Group' and '1. Group' respectively. The 'Incoming:' column is highlighted with a red box.

In GSM incoming groups you can define the behavior for each GSM incoming group. Choose the mode to Reject, Ignore, Accept incoming calls or Callback.

Gateway | Update | Restart

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Gateway configuration

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- Report configuration

Configuration backup

Logout

GSM incoming groups

1. GSM group
2. GSM group

General settings

Mode:

Accept incoming calls + dialtone

(Call number by %A, %G95..8 or none or answer and wait for DTMF)

Minimum digits in DTMF:

4

Maximum digits in DTMF:

9

DTMF dialling timeout [s]:

10

Day of deleting GSM inc. group statistics (every month):

1

Prefix before DISA dial-in:

CLIP (* removes one digit):

Looping of voice message [min]:

Off

Send CLIP from GSM/UMTS to VoIP

Transfer CLIP from GSM/UMTS:

☐

Separating char:

Modify (* removes one digit):

(All groups)

You can define the list of called numbers which will be automatically dialed after DTMF dialing timeout if the customer don't press any button till the specified time. From the configuration, you can see 10 seconds for DTMF dialing and after that the call will be routed to the extension 101 to your PBX (if you set up SIP proxy (GSM->IP) in VoIP parameters).

List of called numbers

Only 0123456789*#+ characters are allowed

101

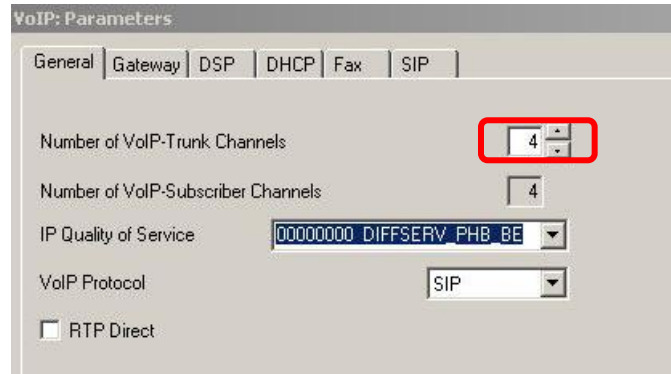
Add

Remove

Remove all

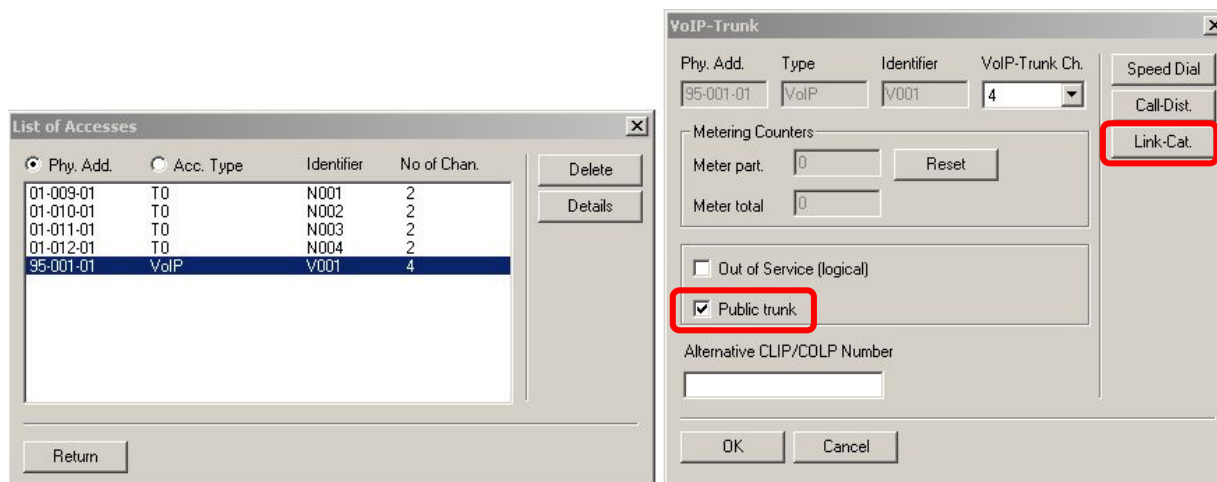
Alcatel OXO configuration

Setup a count of VoIP-Trunk channels for VoIP trunk to OfficeRoute



The 'VoIP: Parameters' window shows the 'General' tab. The 'Number of VoIP-Trunk Channels' is set to 4, highlighted with a red box. The 'Number of VoIP-Subscriber Channels' is also set to 4. The 'IP Quality of Service' is set to '00000000 DIFFSERV_PHB_BE'. The 'VoIP Protocol' is set to 'SIP'. The 'RTP Direct' checkbox is unchecked.

Choose Trunk group and check Public trunk checkbox. Change Link Category settings

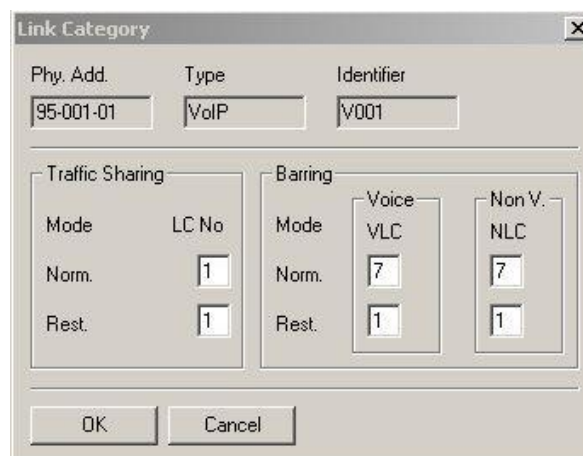


The 'List of Accesses' window shows a table with the following data:

Phy. Add.	Acc. Type	Identifier	No of Chan.
01-009-01	T0	N001	2
01-010-01	T0	N002	2
01-011-01	T0	N003	2
01-012-01	T0	N004	2
95-001-01	VoIP	V001	4

The 'VoIP-Trunk' window shows the 'Public trunk' checkbox checked, highlighted with a red box. The 'Link-Cat.' button is also highlighted with a red box.

At Link Category menu setup all necessary parametres



The 'Link Category' window shows the 'Phy. Add.' as '95-001-01', 'Type' as 'VoIP', and 'Identifier' as 'V001'. The 'Traffic Sharing' section has 'Mode' set to 'Norm.' and 'LC No' set to 1. The 'Barring' section has 'Voice' and 'Non V.' sections, both with 'Mode' set to 'Norm.' and 'VLC' and 'NLC' respectively, and 'Rest.' set to 1.

Assign Trunk Groups

List of Trunk Groups

☒ Index
 ☐ No.
 ☐ Type
 ☐ Name

Index	No.	Type	Name
1		Cyclic	
2	500	Cyclic	
3	501	Cyclic	
4	502	Cyclic	
5	503	Cyclic	
6	504	Cyclic	
7	505	Cyclic	
8	506	Cyclic	
9	507	Cyclic	
10	508	Cyclic	
11	509	Cyclic	
12	510	Cyclic	

Return

Trunk Groups : Details

Index	No.	Type	Name
1		Cyclic	

Phy. Add.	Acc. Type	Identifier	No of Chan.
95-001-01	VoIP	V001	4

Add, Delete, Modify, Up, Down, Link-Cat, OK, Cancel

Setup Numbering plans table. As Base settings choose ARS

Numbering Plans

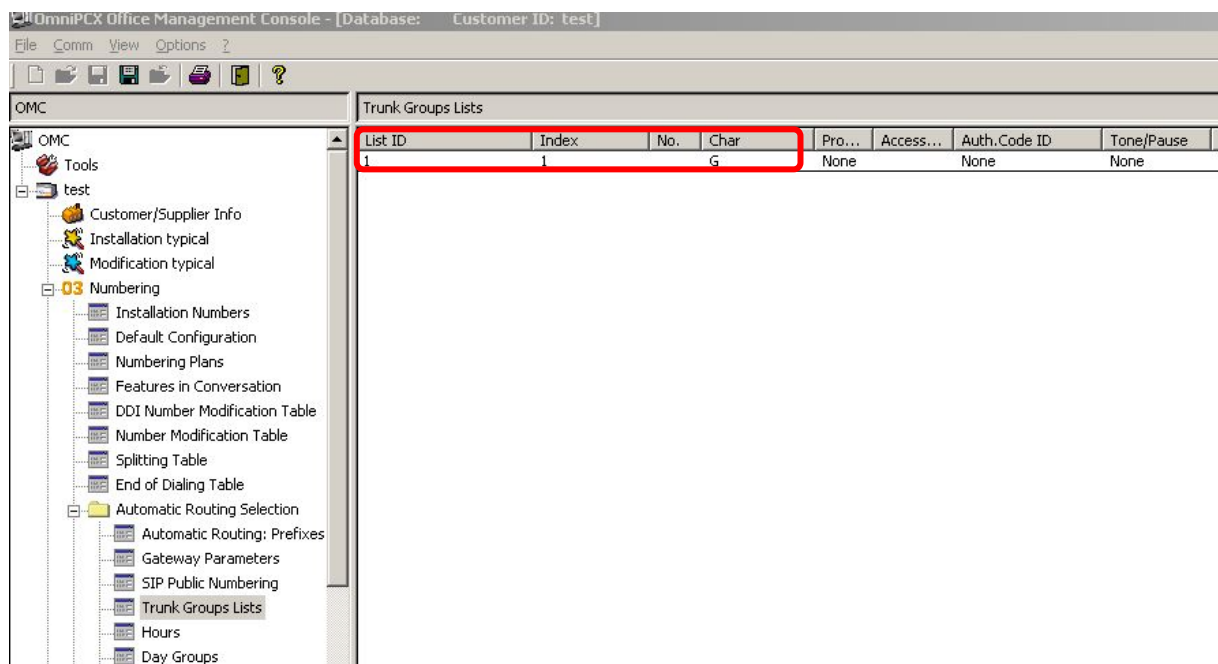
Internal Numbering Plan | Public Numbering Plan | Restricted Public Numbering Plan | Private Numbering Plan

Function	Start	End	Base	NMT	Priv	Fax
Main Trunk Group	0	0	ARS	Drop	No	
Protect Communication	*84	*84		Drop	No	
Lock/Unlock	*85	*85		Drop	No	
Programming Mode	*87	*87		Drop	No	
Account Code New	33	33		Drop	No	
Main Trunk Group	0	0	ARS	Drop	No	
Subscriber	110	199	110	Drop	No	
Subscriber	200	299	200	Drop	No	
Subscriber	300	399	300	Drop	No	
Secondary Trunk Group	500	534	1	Drop	No	
Hunting Group	540	565	540	Drop	No	
ACD Prefix	80	81	0	Drop	No	
Attendant Call	9	9	9	Drop	No	

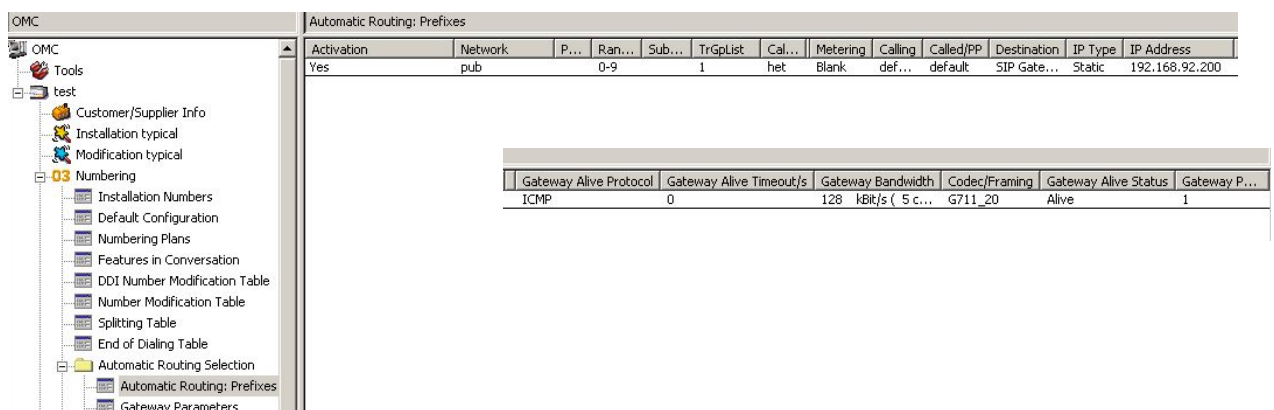
OK, Cancel

Check Public numbering plan for incoming calls.

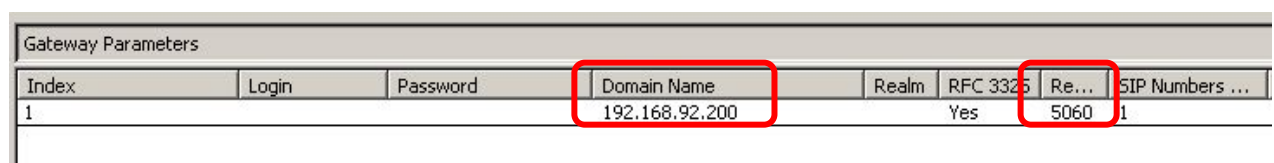
At Trunk Groups List assign List ID with Index at menu **Numbering → Automatic Routing Selection → Trunk Groups List**



Setup IP address of OfficeRoute, codecs, bandwidth and GW keepalive timeout for VoIP trunk at menu **Numbering → Automatic Routing Selection → Automatic Routing: Prefixes**



At menu **Numbering → Automatic Routing Selection → Gateway Parametres** setup listening port 5060. If you want to use OfficeRoute with different listening port (for example 5065), just setup the number of the port here.





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