



2N®

VoiceBlue Next



2N® VoiceBlue Next & Innovaphone PBX (IP302)

connected via SIP trunk

Quick guide

Version 1.00

www.2n.cz

2N® VoiceBlue Next has these parameters:

- IP address 192.168.22.42
- Incoming port: 5060

Innovaphone PBX parameters:

- IP address 192.168.22.227
- Incoming port: 5060

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 2N Gateway configuration web interface. The left sidebar contains a navigation menu with options like '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', and 'Report configuration'. The main content area is titled 'Gateway' and includes links for 'Gateway', 'Update', and 'Restart'. It features a 'Codec priority' section with dropdowns for G711 and G729, and an 'IP addresses' section. The 'IP addresses' section contains fields for SIP proxy (IP→GSM), SIP proxy (GSM→IP), SIP registrar, NAT firewall, and STUN server, each with a 'Set default port' button. A 'Tones generated to VoIP' section is also visible. Two callout boxes provide context: one points to the 'SIP proxy (GSM→IP)' field, stating 'The IP address to which the traffic is send', and another points to the 'Set default port' button, stating 'The IP address and port which will accept traffic from'.

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: 3x10ms ☒

G729: 3x10ms ☒

Codec priority

Priority 1:

Priority 2:

Priority 3:

IP addresses

SIP proxy (IP→GSM): 0.0.0.0 : 5060

SIP proxy (GSM→IP): 192.168.22.227 : 5060

SIP registrar: 0.0.0.0 : 5060

NAT firewall: 0.0.0.0

STUN server: 0.0.0.0 : 3478

Next STUN server request (60-6553, 0=off) [s]: 6000

Tones generated to VoIP

Dial tone to VoIP: English

The IP address to which the traffic is send

The IP address and port which will accept traffic from

2) Configuration of the LCR (Least Cost Routing)

The GSM operator has e.g. in our country prefix 7 and 8 with a nine digit the length number. The setting is below.

The screenshot displays the 2N Gateway configuration web interface. The top left features the 2N TELECOMMUNICATIONS logo. The top right shows the Gateway logo with 'Gateway | Update | Restart' links. 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 includes a 'GSM prefix lists' section with tabs for Prefixlist 1 through 8. Below this is the 'Basic settings' section with fields for 'GSM network ID' and 'Default count of digits' (set to 9). The 'Table of replaced prefixes' and 'Table of accepted prefixes' sections both include a warning: 'Only 0123456789*#+ characters are allowed'. Each table has a list of prefixes, input fields for 'Prefix' and 'Replace with:', and buttons for 'Add', 'Remove', and 'Remove all'. The bottom left has a 'Logout' button, and the bottom right has three document icons.

2N TELECOMMUNICATIONS

Gateway
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

Prefixes

GSM prefix lists

Prefixlist 1 | Prefixlist 2 | Prefixlist 3 | Prefixlist 4 | Prefixlist 5 | Prefixlist 6 | Prefixlist 7 | Prefixlist 8

Basic settings

GSM network ID:

Default count of digits: 9

Table of replaced prefixes

Only 0123456789*#+ characters are allowed

Prefix
/

Prefix:
Replace with:
Add
Remove
Remove all

Table of accepted prefixes

Only 0123456789*#+ characters are allowed

Prefix
7
8

Prefix:
(Digits count):
Add
Remove
Remove all

Logout ⓘ

- 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.



**Gateway**
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

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	2	Edit	Remove
2/	0:00/24:00	Use as in week	Off	1	Edit	Remove



Logout ⓘ

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)

The screenshot shows the '2N TELECOMMUNICATIONS Gateway' web interface. The left sidebar contains a 'Gateway control' menu with options like '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', and 'Report configuration'. 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 fields for 'Delay for CONNECT [s]' (Off), 'Minimal ring duration to send "SMS at no answer" [s]' (Off), 'Delay for ALERTING [s]' (4), 'Minute' parameter (Count of minutes), 'Day of deleting statistics in group (every month)' (1), 'Generate virtual ring tone' (checked), and 'Call length counting' (Seconds). Under 'Disconnect call', there are checkboxes for 'SIM limit exceeded', 'Time limit exceeded', and 'No ALERTING before CONNECT'. A section 'Send CLIP from VoIP to GSM/UMTS' is also present. A red warning message at the bottom states: 'Attention! Must be supported by your GSM / UMTS operator. In other case outgoing calls to GSM / UMTS can be rejected!'. The bottom of the interface has a 'Logout' button and some system icons.

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 has 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 rectangle.

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

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

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
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- Login configuration
- Web configuration
- 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 100 to your PBX (if you set up SIP proxy (GSM->IP) in VoIP parameters).

List of called numbers

Only 0123456789*#+ characters are allowed

100

Add
Remove
Remove all

INNOVAPHONE PBX SETTING

- 1) You need to set up Domain and Address for the IP address of the 2N® VoiceBlue Next. Communication protocol is SIP with the Mode: "Gateway without registration).

GW1 2N_VoiceBlue_Ne - Mozilla Firefox

http://192.168.22.227/RELAY0/mod_cmd.xml?cmd=xm1-ifs&id=GW1&xsl=relay_edit_voip.xsl

Name: 2N_VoiceBlue_Ne

Disable: ☐

Protocol: SIP

Mode: Gateway without Registration

Domain: 192.168.22.42

Address(Proxy): 192.168.22.42

Mask:

STUN Server:

Local Signaling Port: 5060

Media Properties

General Coder Preference: G729A Framesize [ms]: 30 Silence Compression: ☐ Exclusive: ☐

Local Network Coder: G711A Framesize [ms]: 30 Silence Compression: ☐

Enable T.38: ☐ Enable SRTP: ☐ No DTMF Detection: ☐ Enable PCM: ☐ Media-Relay: ☐

Record to (URL):

SIP Interop Tweaks

Accept INVITE's from Anywhere: ☐ (affects registered interfaces only)

Enforce Sending Complete: ☐ (affects outgoing SIP calls only)

No Inband Information on Error: ☐ (affects incoming SIP calls only)

From Header when Sending INVITE: Fixed AOR (affects registered interfaces only)

Identity Header when Sending INVITE: CGPN in user part of URI (affects registered interfaces only)

Reliability of Provisional Responses: Supported (affects outgoing SIP calls only)

OK Cancel Apply Delete Help

Hotovo

- 2) Then you need to set up prefixes (routing table) which will be routed to the 2N® VoiceBlue Next. In the example is defined just prefix 7.

RT1.0 - Mozilla Firefox

http://192.168.22.227/RELAY0/mod_cmd.xml?cmd=xml-map&rt=RT1&map=0&xsl=relay_edit_route.xsl

Description Disable ☐

☒ TEL1 ☐ GW1 2N_VoiceBlue_Ne → GW1 2N_VoiceBlue_Ne

☐ TEL2 ☐ GW2 Cause(DISC)

☐ BRI1 ☐ GW3

☐ TEST ☐ GW4

☐ TONE ☐ GW5

☐ HTTP ☐ GW6

☐ ECHO ☐ GW7

☐ SIP1 ☐ GW8

☐ SIP2 ☐ GW9

☐ SIP3 ☐ GW10

☐ SIP4 ☐ GW11

☐ ☐ GW12

Add UUI

Final Route ☐

Final Map ☐

No Reroute on wrong No ☐

Verify CGPN ☐

Interworking(QSIG,SIP) ☐

Rerouting as Deflection ☐

Routing on Diverting No ☐

Force enblock ☒

Add # ☐

Disable Echo Canceler ☐

Call Counter max

OK Cancel Apply Delete Help

Hotovo

- 3) In the picture below is setting for incoming calls to Innovaphone PBX. The call is directed to the phone 1.

RT2.0 VBN to InnovaPhone - Mozilla Firefox

http://192.168.22.227/RELAY0/mod_cmd.xml?cmd=xml-map&rt=RT2&map=0&xsl=relay_edit_route.xsl

Description VBN to InnovaPhone Disable ☐

☐ TEL1 ☒ GW1 2N_VoiceBlue_Ne → TEL1

☐ TEL2 ☐ GW2 Cause(DISC)

☐ BRI1 ☐ GW3

☐ TEST ☐ GW4

☐ TONE ☐ GW5

☐ HTTP ☐ GW6

☐ ECHO ☐ GW7

☐ SIP1 ☐ GW8

☐ SIP2 ☐ GW9

☐ SIP3 ☐ GW10

☐ SIP4 ☐ GW11

☐ ☐ GW12

Add UUI

Final Route ☐

Final Map ☐

No Reroute on wrong No ☐

Verify CGPN ☐

Interworking(QSIG,SIP) ☐

Rerouting as Deflection ☐

Routing on Diverting No ☐

Force enblock ☐

Add # ☐

Disable Echo Canceler ☐

Call Counter max

OK Cancel Apply Delete Help

Hotovo

- 4) In the picture below is the complete setting for the Innovaphone PBX routing.



192.168.22.227: innovaphone IP302

Configuration		General Interfaces SIP GK Routes CDR0 CDR1 Calls			
General					
IP					
ETH0					
ETH1					
LDAP					
TEL1					
TEL2					
BRI1					
Administration					
PBX					
Gateway					
Download					
Upload					
Diagnostics					
Reset					

From	To	Counter	CGPN Maps
TEL1	7 → 7 GW1:2N_VoiceBlue_Ne	b	→
GW1:2N_VoiceBlue_Ne	TEL1		→ VBN to InnovaPhone



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