2N®

VoiceBlue lite

How to install VoiceBlue lite

Quick guide

Version 1.0.0

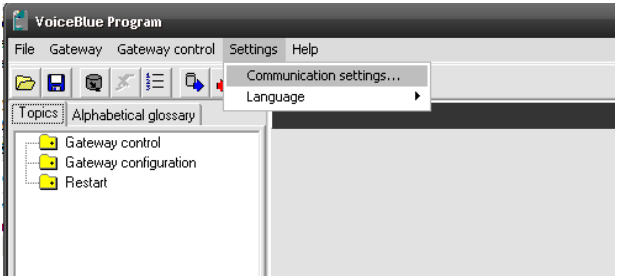
www.2n.cz

1. Preparation

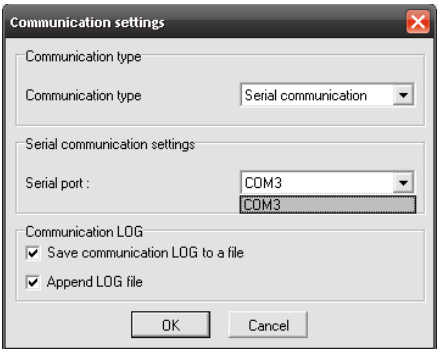
1.1 IP address settings

Open the newest version of config program (you can download it from www.2n.cz)

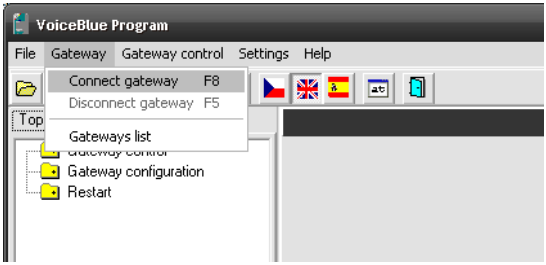
Choose Settings – Communication settings



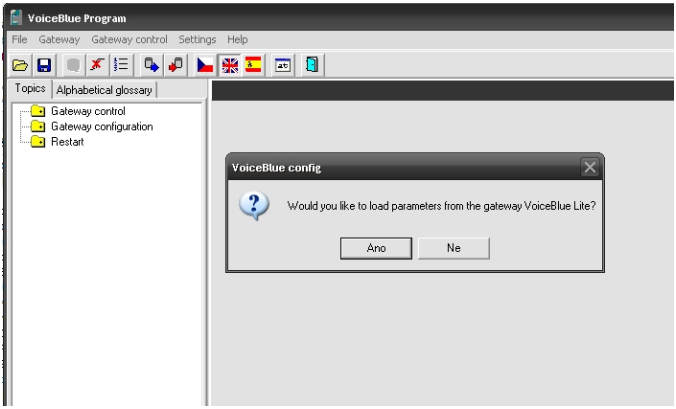
Choose the type of communication...



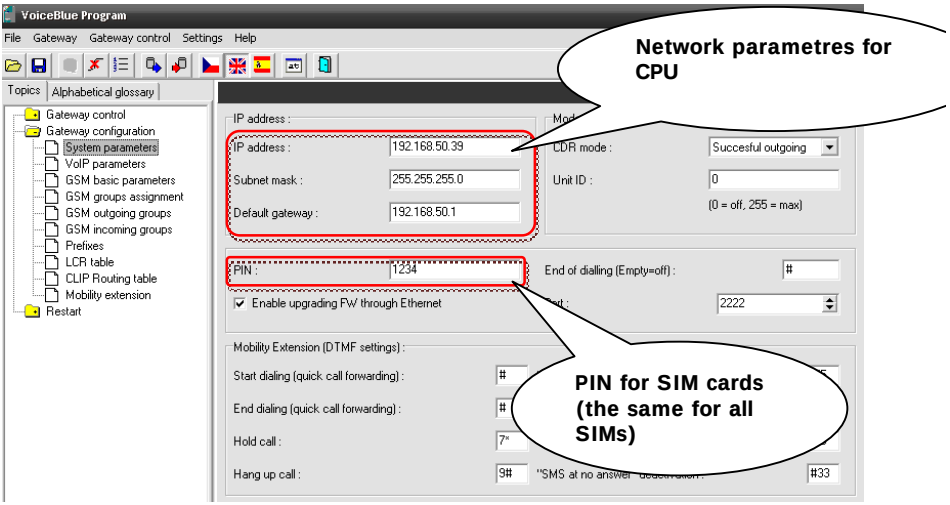
...and connect to the gateway



Download parameters from the gateway



First step is to set IP address for gateway. To do so, go to the System parameters and set IP address, subnet mask and also default gateway.



1.2 VoIP trunk configuration

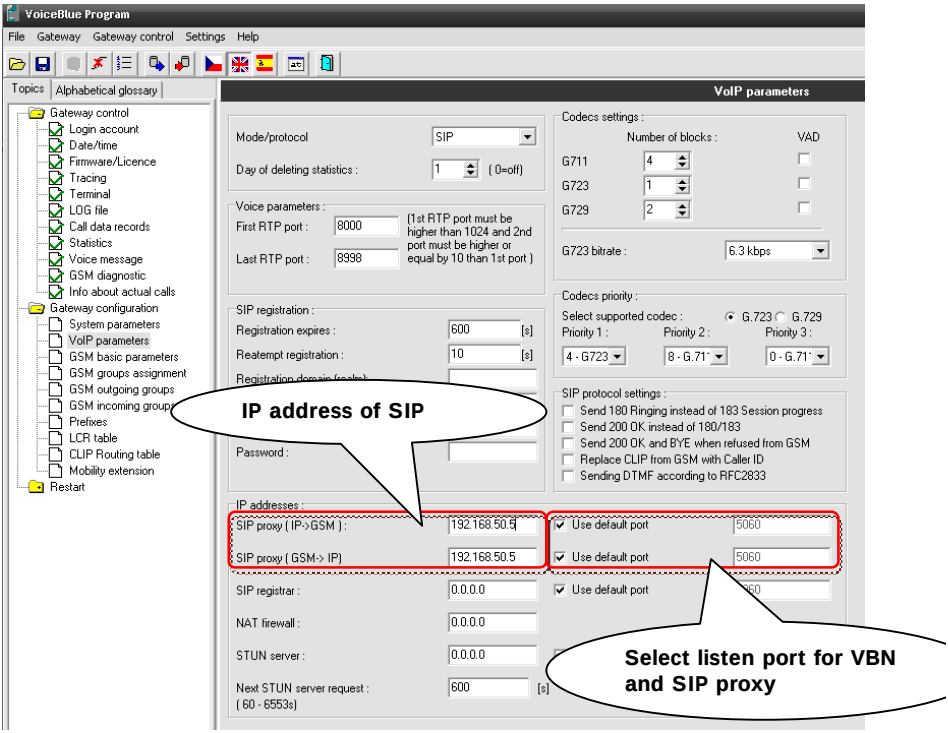
Let say that we want to connect VBN with our company VoIP PBX (SIP proxy) and we want to allow receiving calls from SIP proxy, so we can pass them to GSM and pass all incoming calls to it.

To allow call requests only from our SIP proxy we have to fill its IP address to field SIP proxy (IP -> GSM).

It is very important to set this IP address. In case that there is 0.0.0.0 in this field, call can come from any IP address on our network (in case that you have assigned public IP address, requests can be from any computer on Internet.

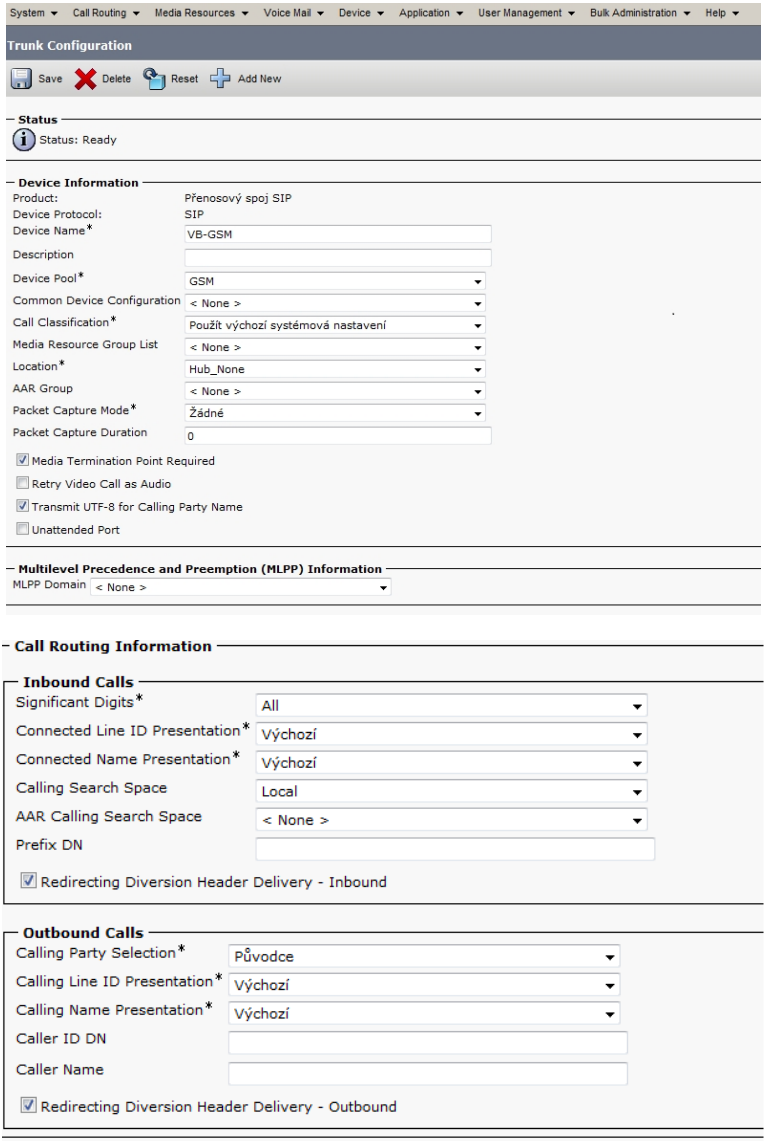
If you want to allow call from GSM to your SIP proxy, it is necessary fill its IP address to field SIP proxy (GSM -> IP). If you want more about incoming call setting go to section 3 (Incoming calls) of this document.

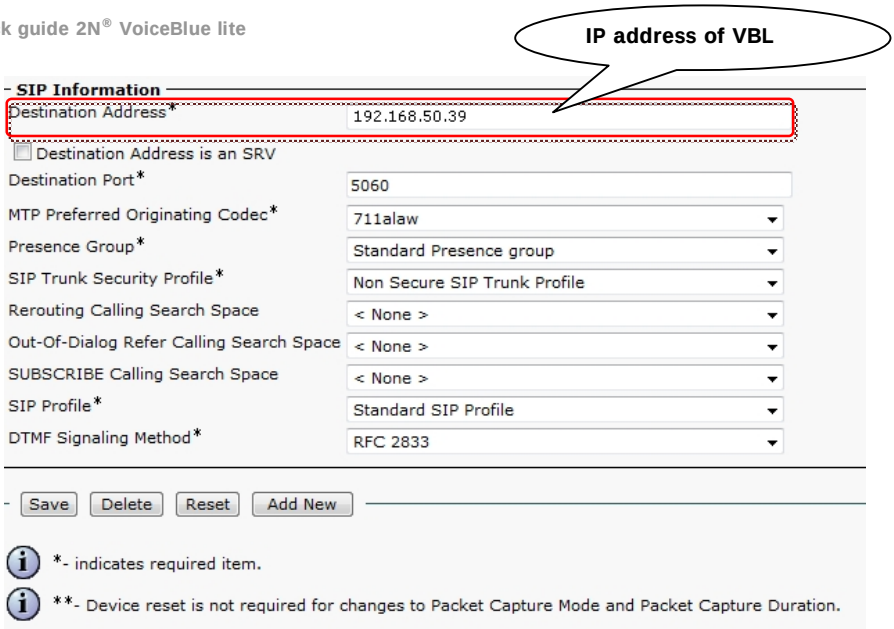
The example of these settings is showed at this picture



1.3 Example of Cisco Call Manager configuration

Following example of configuration correspond with configuration interface of Cisco Call Manager 6 and 7.




IP address of VBL
SIP Information
Destination Address*
192.168.50.39
Destination Address is an SRV
Destination Port*
5060
MTP Preferred Originating Codec*
711alaw
Presence Group*
Standard Presence group
SIP Trunk Security Profile*
Non Secure SIP Trunk Profile
Rerouting Calling Search Space
< None >
Out-Of-Dialog Refer Calling Search Space
< None >
SUBSCRIBE Calling Search Space
< None >
SIP Profile*
Standard SIP Profile
DTMF Signaling Method*
RFC 2833
Save
Delete
Reset
Add New
*- indicates required item.
**- Device reset is not required for changes to Packet Capture Mode and Packet Capture Duration.

2. Outgoing calls

2.1 LCR configuration

Let's say that we have SIM cards of two GSM operators (4 pcs. for each one):

- **The first one, we will call it N_5, it has following prefixes (602, 606, 607, 723, 724) and it requires you to dial the number from your mobile phone with the international prefix (+420). All numbers have a nine digit length with the prefix but without the international prefix.**

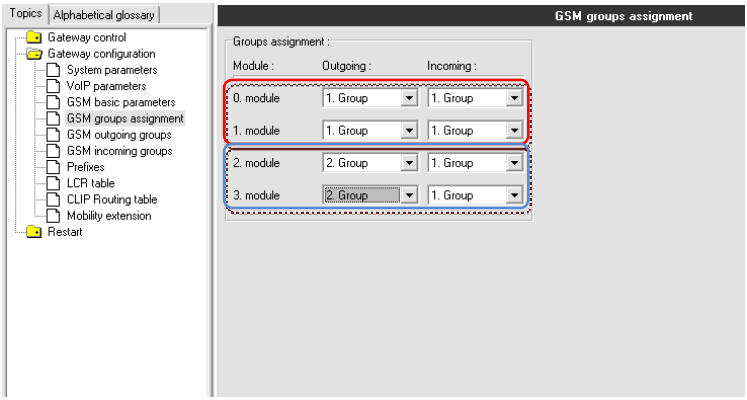
- **The second one, we may call it NobiCell, has the following prefixes (901, 902, 907, 909) and requires you to dial the number with the prefix (0). All numbers have a nine digit length with the prefix and without "0".**

2.1.1 GSM outgoing group assignment

As a first step we have to assign modules to GSM outgoing groups. In this case will use two groups (for each operator one).

In this case we set modules 0 and 1 to GSM Outgoing group 1 (those will be used for operator N5) and modules 2 and 3 to GSM Outgoing group 2 which will be used for NobiCell.

For correct functionality has to GSM outgoing group settings follow real placement of the SIM a card on all GSM channels.

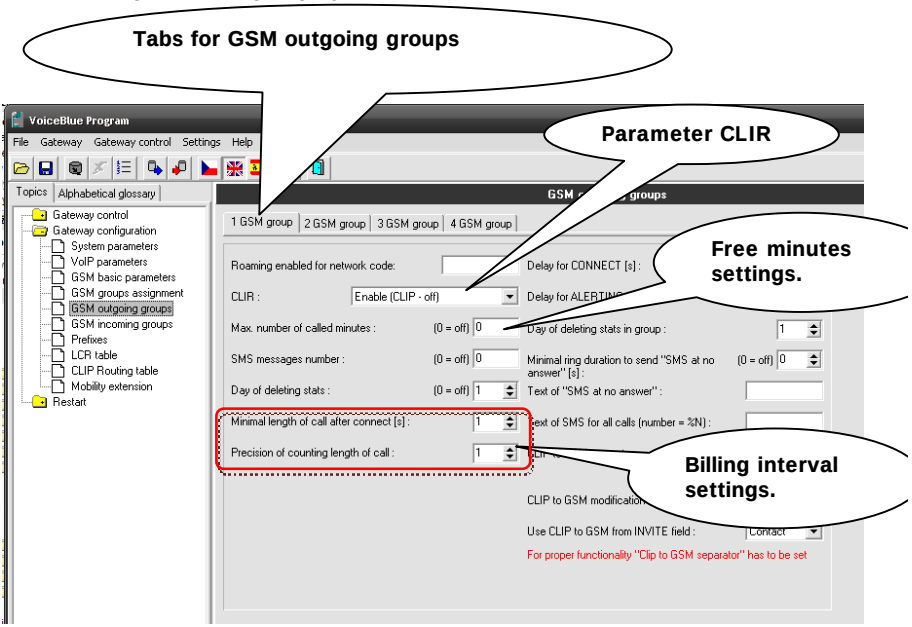


2.1.2 Configuration of GSM outgoing groups.

GSM outgoing groups are used for detailed SIM card configuration. Most important options you can set here are:

- **CLIR settings**
- **Free minutes for all SIM cards**
- **Billing interval settings**

For switching between groups you can use the tabs.



2.1.3 Prefix configuration

Now we have to create two Prefix lists, where we will specify prefixes of each operator. For each operator has to be used separate prefix list.

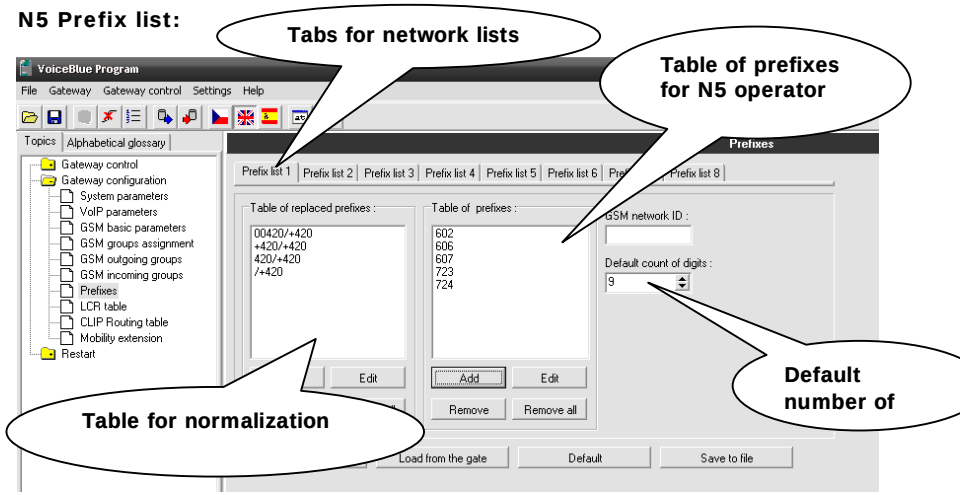
Prefix list is used for two purposes. First it to specify prefixes unique for each operator and second is to provide number normalization for called number.

Prefix lists are checked from prefix list one to prefix list eight. When first match is found, LCR table is check for correct outgoing direction.

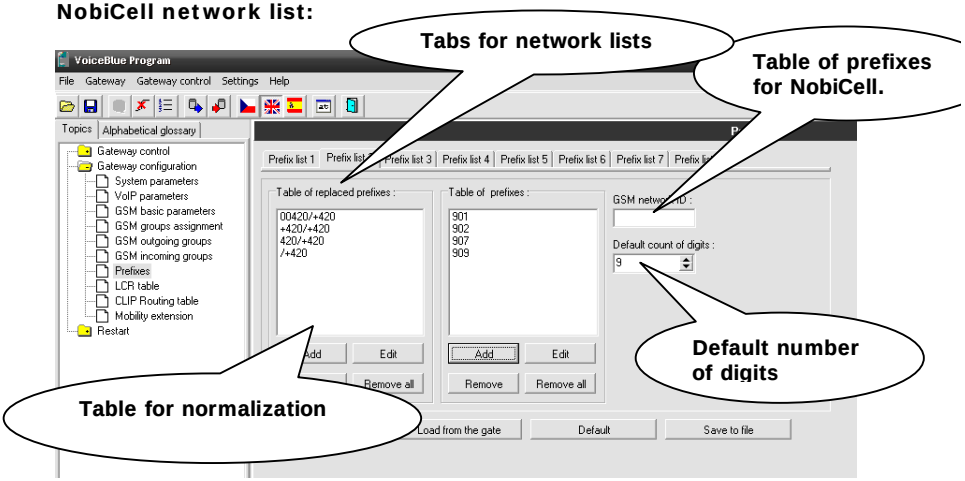
In prefix list is number as a first think check for normalization. This means that number is compared with left side of number listed in Table of replaced prefixes (in our case it is 00420, +420, 420 and any other number which is represented by no number before slash). When match is found, replaced number is removed and rest of number is compared with prefixes listed in table of prefixes. As a last step we add an number specified on the right side of slash in Table of replaced prefixes.

Example:
From PBX is dialed number 420723658037. Gateway will look for first match in Table of replaced prefixes in first prefix list. Match is found on 3rd line (420/+420). We remove 420 (so it's remaining 723658037). This number is compared with table of prefixes where match is found on 4th line. As a last step we add +420 (right side from slash of 420/+420) so we have +420723658037.

N5 Prefix list:



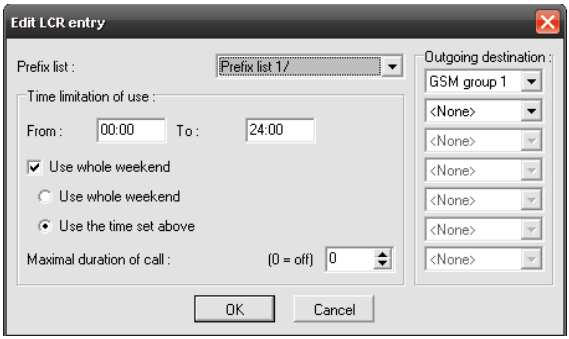
NobiCell network list:



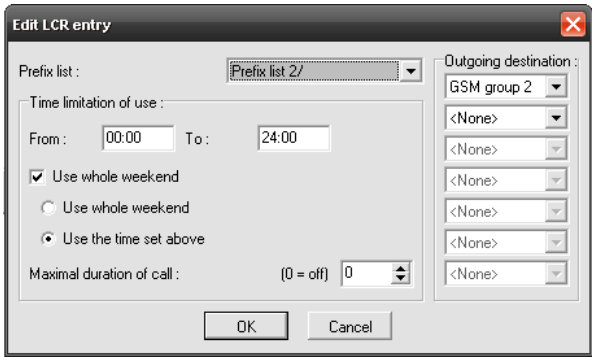
2.1.4 LCR table configuration

Last step of configuration is to create connection between prefixes listed in Prefix lists and GSM Outgoing group. This is done in LCR table menu.

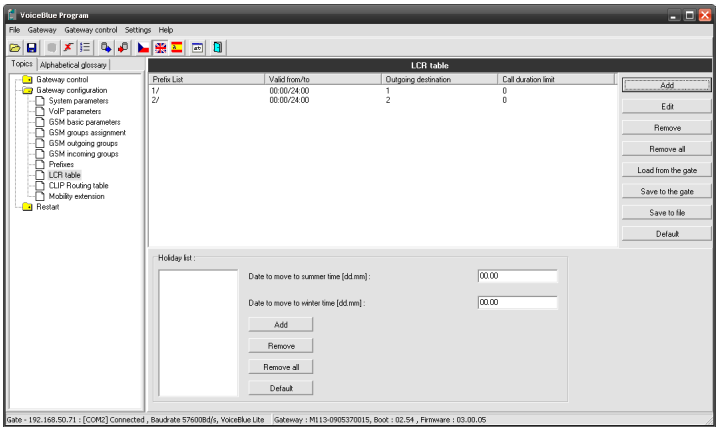
Click on ADD button (or edit the first line of LCR table) to add the first line and configure it the following way for the N5:



Click on ADD button to add the second line and configure it the following way for the NobiCell:

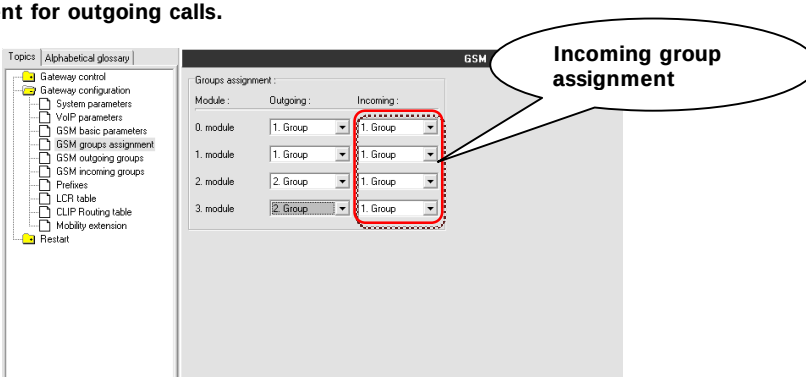


Now you can see two LCR lines in the LCR table:



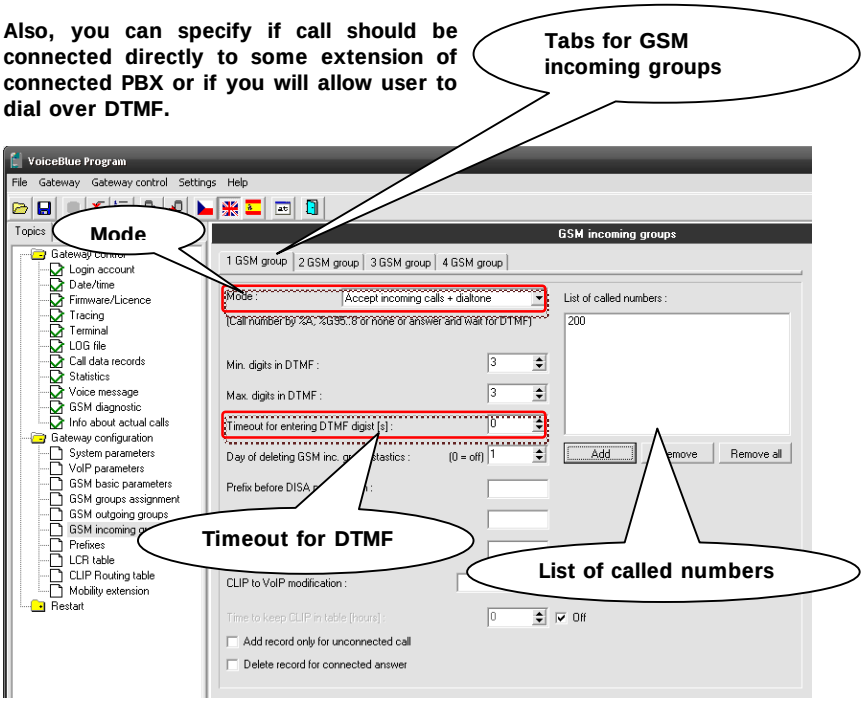
3. Incoming calls

For incoming calls you can define 4 groups with the different behavior and assign GSM modules for them. The settings are similar with GSM group assignment for outgoing calls.



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

Also, you can specify if call should be connected directly to some extension of connected PBX or if you will allow user to dial over DTMF.



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