Freedom Fone

Guide to connecting

Telephony devices

May 2010
Author: Kubatana Trust of Zimbabwe
Version 1

(cc) Creative Commons Share Alike Non-Commercial Attribution 3.0

VoiceBlue Lite GSM Gateway

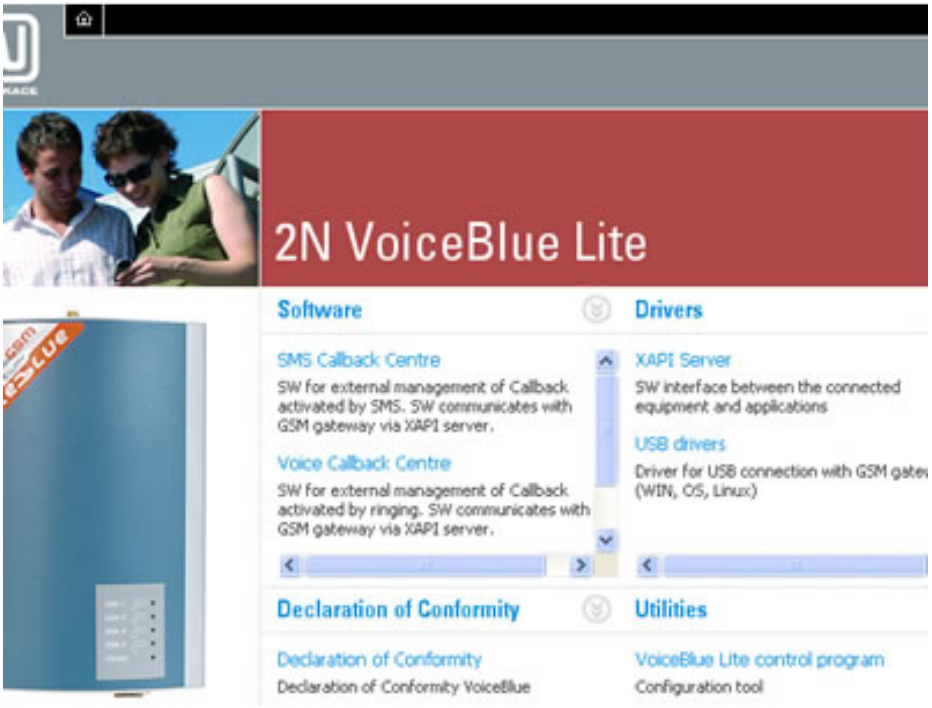
1. Install VoiceBlue software on Windows computer

- The configuration of the Voice Blue Lite gateway can only be performed from a Windows based machine using the VoiceBlue Lite Program. The latest program can be downloaded from: ***http://www.2n.cz/products/gsm_gateways/voip/voiceblue.html***

- If you have a VoiceBlue Lite CD, insert it into your CD drive.

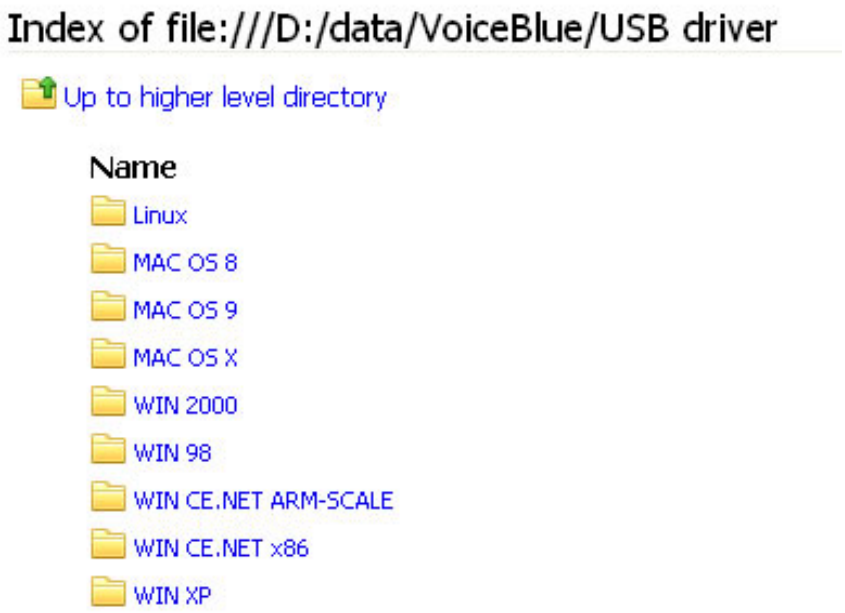
  - A browser interface should open to display index.html.
    Note that many links do not look like traditional hyperlinks. Click on the words we describe to test them as hyperlinks.

  - Select the VoIP link under GSM Gateways, and the 2N VoiceBlue Lite option under that.



- From the screen above, first identify and then install the **USB driver** for your Windows operating system.
    - Select the **USB driver** link under **Drivers**

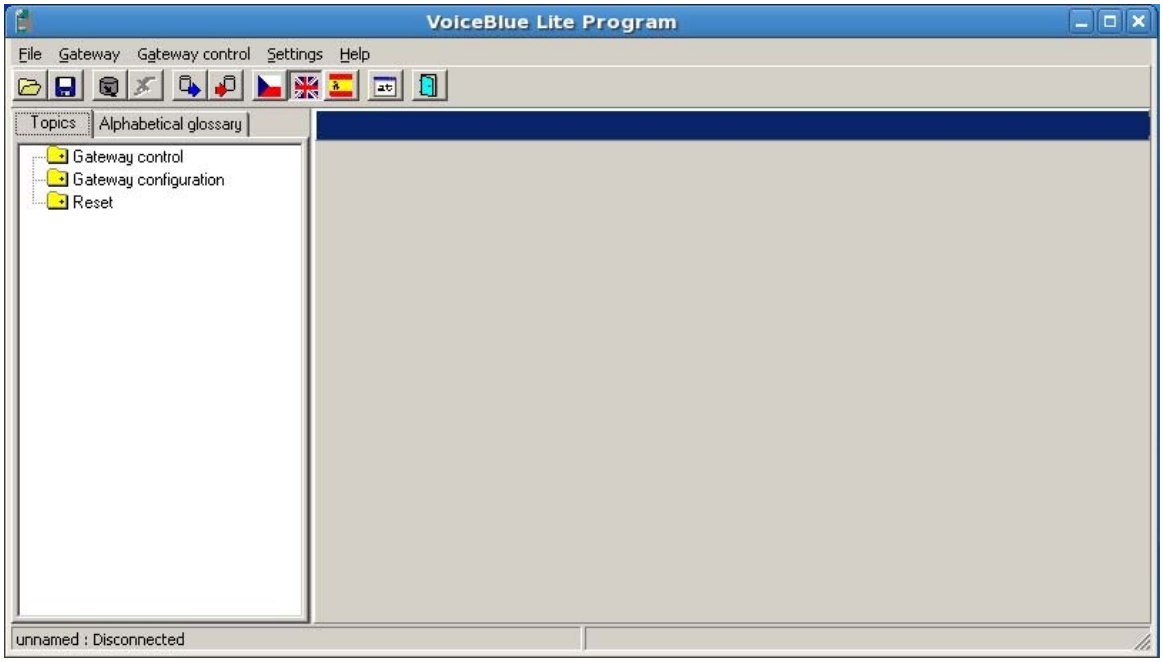
- From the Index screen presented, identify the folder for your computer's operating system – you will need this a little later.



- Connect your VoiceBlue Lite (VBL) to your computer using the USB cable provided.
- The New Hardware wizard should open.
- When asked, *Can Windows connect to Windows Update to search for software* select **No, not this time**, then click the Next button.
- When asked, *If your hardware came with an installation CD or floppy disk* select **Install from a list or specific location (Advanced)**, then click the Next button
- When asked, *Please choose your search and installation options*
  - select **Search for the best driver in these locations**
  - unselect **Search removable media**
  - select **Include this location in the search** and from the drop down list, select the drive letter associated with your CD/DVD drive, then click the Browse button and navigate to the /data/VoiceBlue/USB driver/Win xxx folder that matches your operating system (as identified earlier). Select this folder, then click the Next button.

  - This process should complete the installation of the USB driver needed to communicate with the VBL.
  - Close the USB driver window.

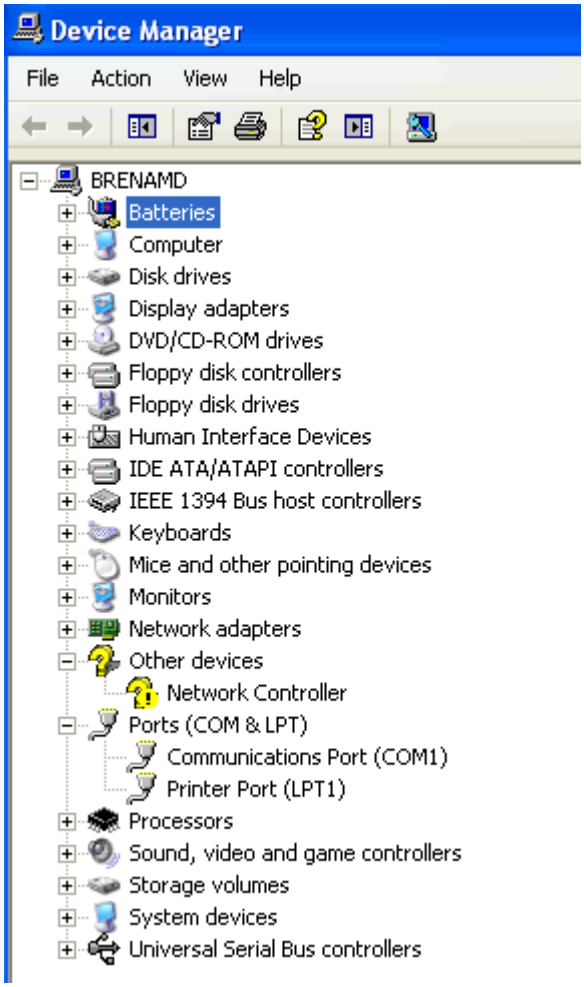
- Now install the **VoiceBlue Lite control program** by selecting the link under **Utilities** on the earlier screen.
  - Save **setup.exe** to your hard drive, then double click and run the program.
  - On the *Welcome to the VoiceBlue Configuration Program Setup Wizard*, click the Next button
  - If they suit you, use the default options on the following screens, clicking the Next button on each page
    - *Select destination location*
    - *Select Components*
    - *Select Start menu folder*
  - On the *Select Additional Tasks* screen, select **Create a desktop icon** then click the Next button.
  - On the *Ready to install* screen, click the Install button
  - Click the Finish button – the VoiceBlue Program will open. A screen similar to the below should be displayed.

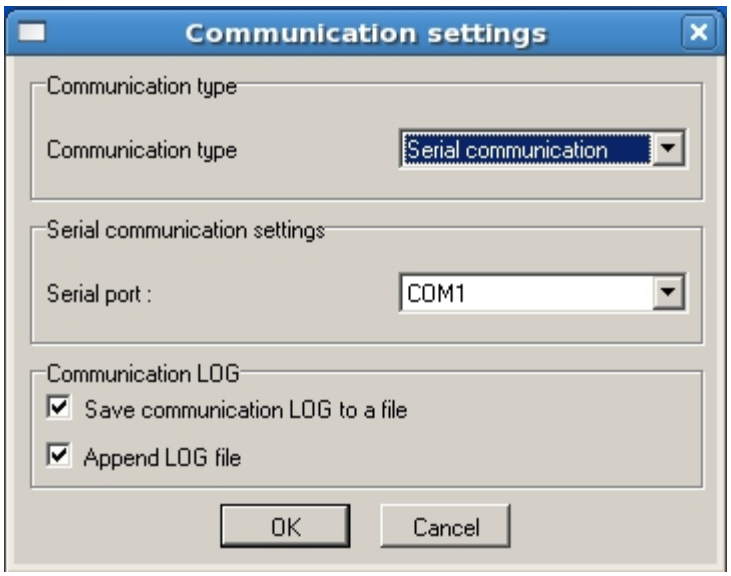


2. Initial settings via USB connection

- **Important:** Certain settings on the VBL can only be made via a USB connection – this includes the device's IP address.

2.1. Click on *Settings -> Communication Settings.* Under *Communication Type*, select *Serial communication.* The program should pick up the COM port for the VoiceBlue Lite automatically. If it doesn't, use the Control Panel/System/Hardware tab/Device manager button/Ports (COM & LPT) entry to identify the COM port allocated to it.

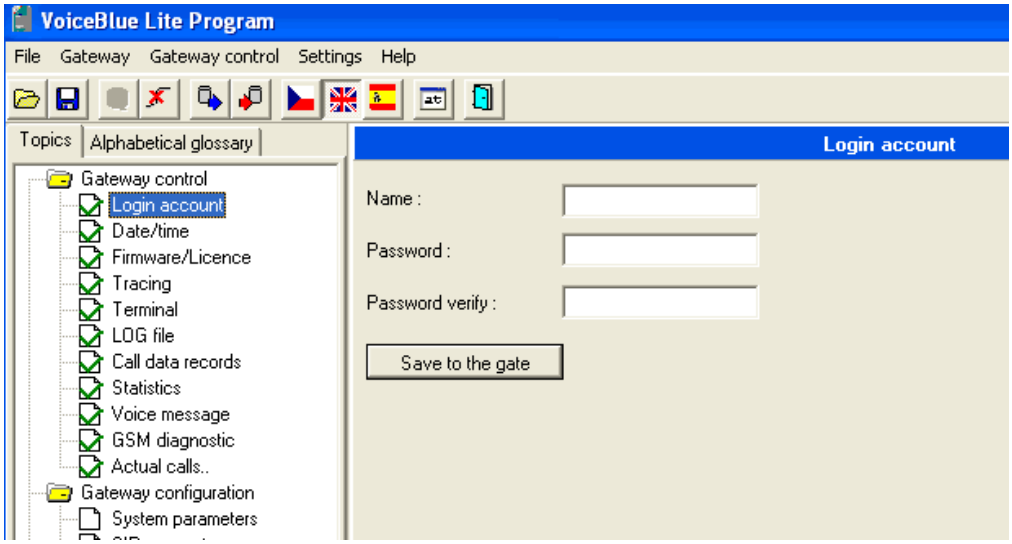

Device Manager
File
Action
View
Help
BRENAMD
Batteries
Computer
Disk drives
Display adapters
DVD/CD-ROM drives
Floppy disk controllers
Floppy disk drives
Human Interface Devices
IDE ATA/ATAPI controllers
IEEE 1394 Bus host controllers
Keyboards
Mice and other pointing devices
Monitors
Network adapters
Other devices
Network Controller
Ports (COM & LPT)
Communications Port (COM1)
Printer Port (LPT1)
Processors
Sound, video and game controllers
Storage volumes
System devices
Universal Serial Bus controllers


Communication settings
Communication type
Communication type
Serial communication
Serial communication settings
Serial port :
COM1
Communication LOG
Save communication LOG to a file
Append LOG file
OK
Cancel

2.2. Click on *Gateway -> Connect gateway.* The program will then detect the gateway's settings and connect to it. If the connection fails, check that the correct COM port has been used by returning to the Control Panel/System/Hardware tab/Device manager button/Ports (COM & LPT) entry as described in 2.1.

2.3. The first time you set up a new VBL you will need to:

2.3.1. Allocate a name and password to it under *Gateway control/Login account*.



- These details are only used to connect to the VBL across the network using the VBL control program. Different username and password fields, set under *Gateway Configuration > SIP parameters*, are used to connect to the Freedom Fone platform.

- Make a note of the Username and Password you assign as these details will not be visible later on this screen.

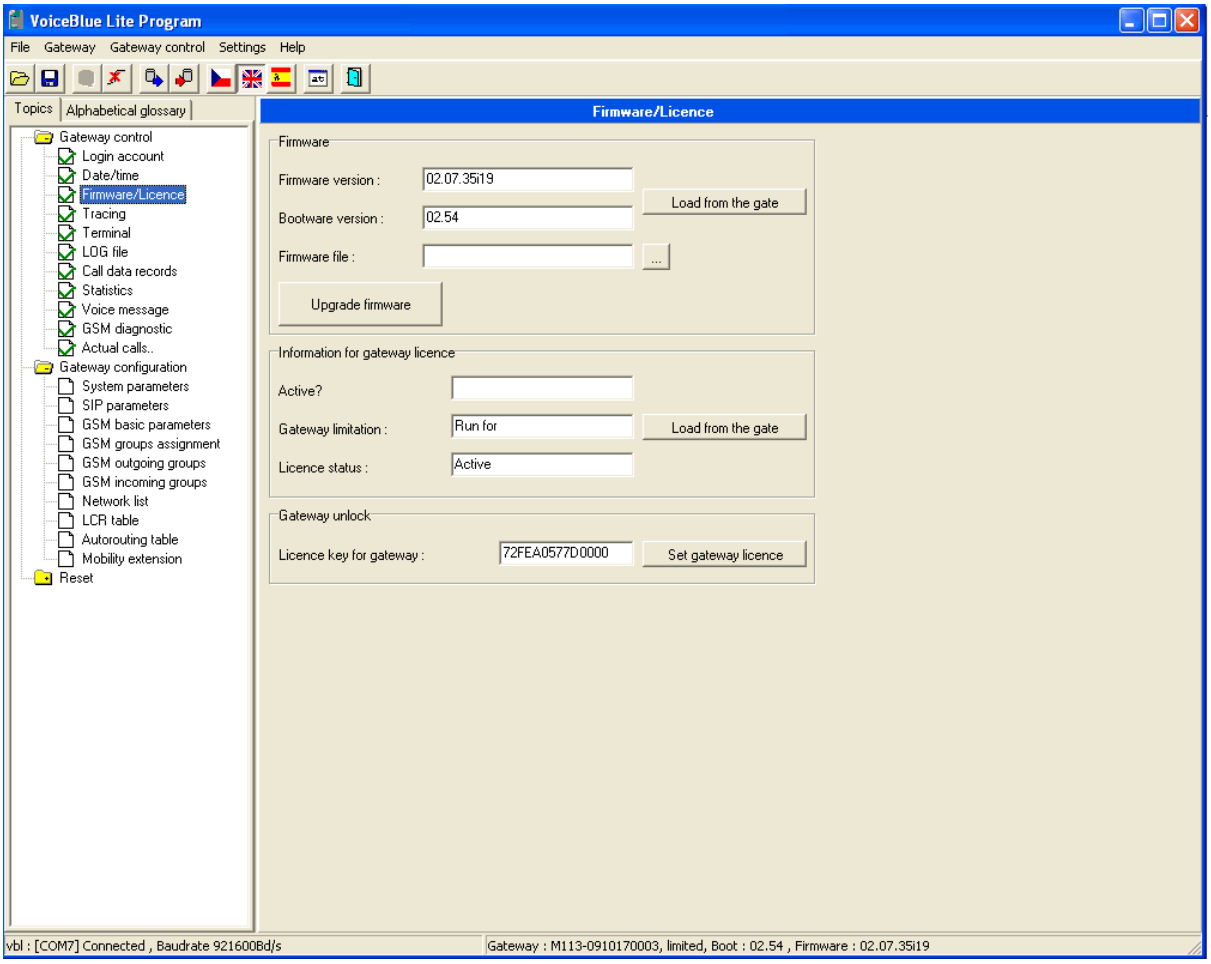
- Do not be confused by the PIN number referenced under G*ateway configuration / System parameters*. This refers to the PIN number associated with the sim cards in the VBL. We recommend that you set the PIN number security off on each sim card in the VBL thereby making the PIN parameter redundant (insert the sim into a mobile phone to set PIN security off).

2.3.2. Set the gateway licence to ensure the device has no operating restrictions.

- Go to *Gateway control/Firmware Licence* (See image below)
  - Under the Firmware section, click the 'Load from gate' button
  - Under the Information for Gateway section, click the 'Load from gate' button

- Under the Gateway unlock section, enter the licence for your VoiceBlue Lite and click the 'Set gateway licence' button

- Go back up to the *Information for Gateway* section, and once again click the 'Load from gate' button. Any restrictions will have been replaced with the phrase 'Run for' and Licence status will be 'Active'.

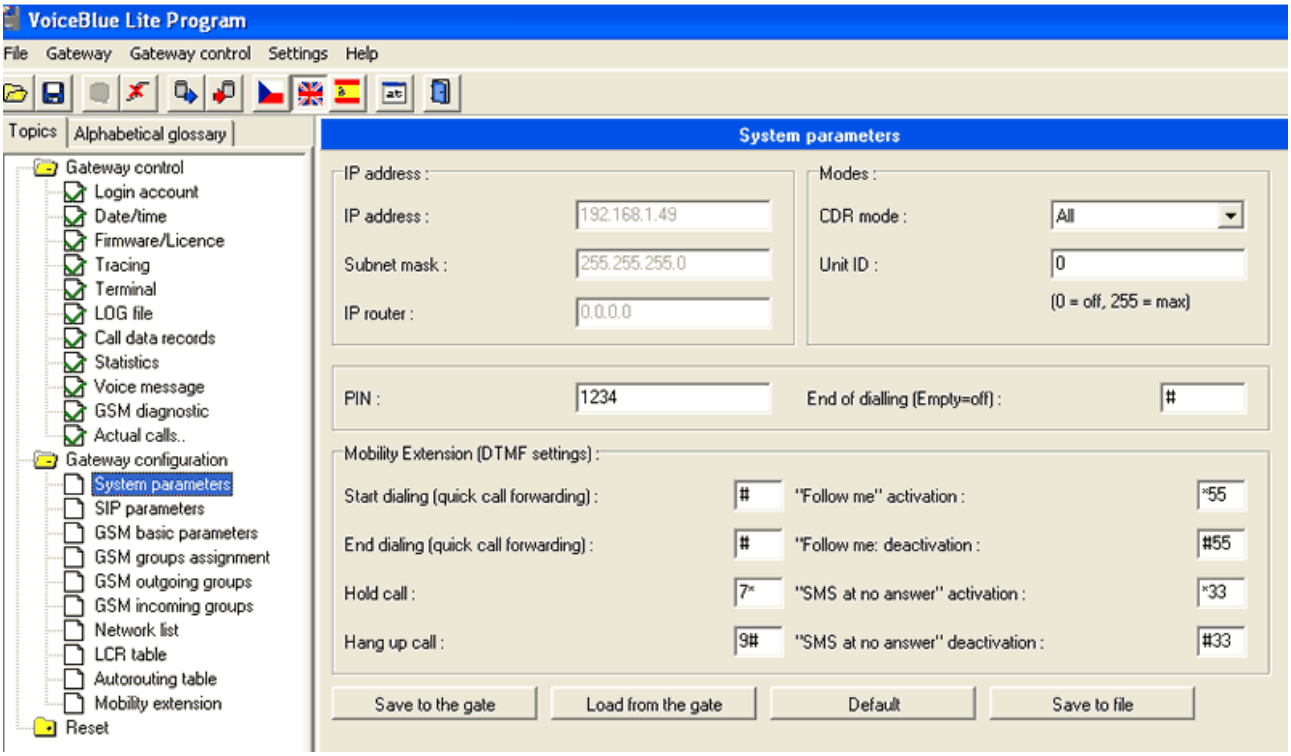


2.4. Gateway configuration

2.4.1. Once the gateway is connected, click on G*ateway configuration* and select the first item on the list i.e. *System parameters* (see image below).

- Set the gateway's IP address, subnet mask and the IP address for the router (default gateway). **Note:** The *IP router* field is only necessary when this gateway and its SIP proxy are on different networks.

- Finish by clicking “Save to the gate”.



2.4.2. Now click on *SIP parameters* under the *Gateway configuration* menu (see next image).

- Under *SIP registration* Section:

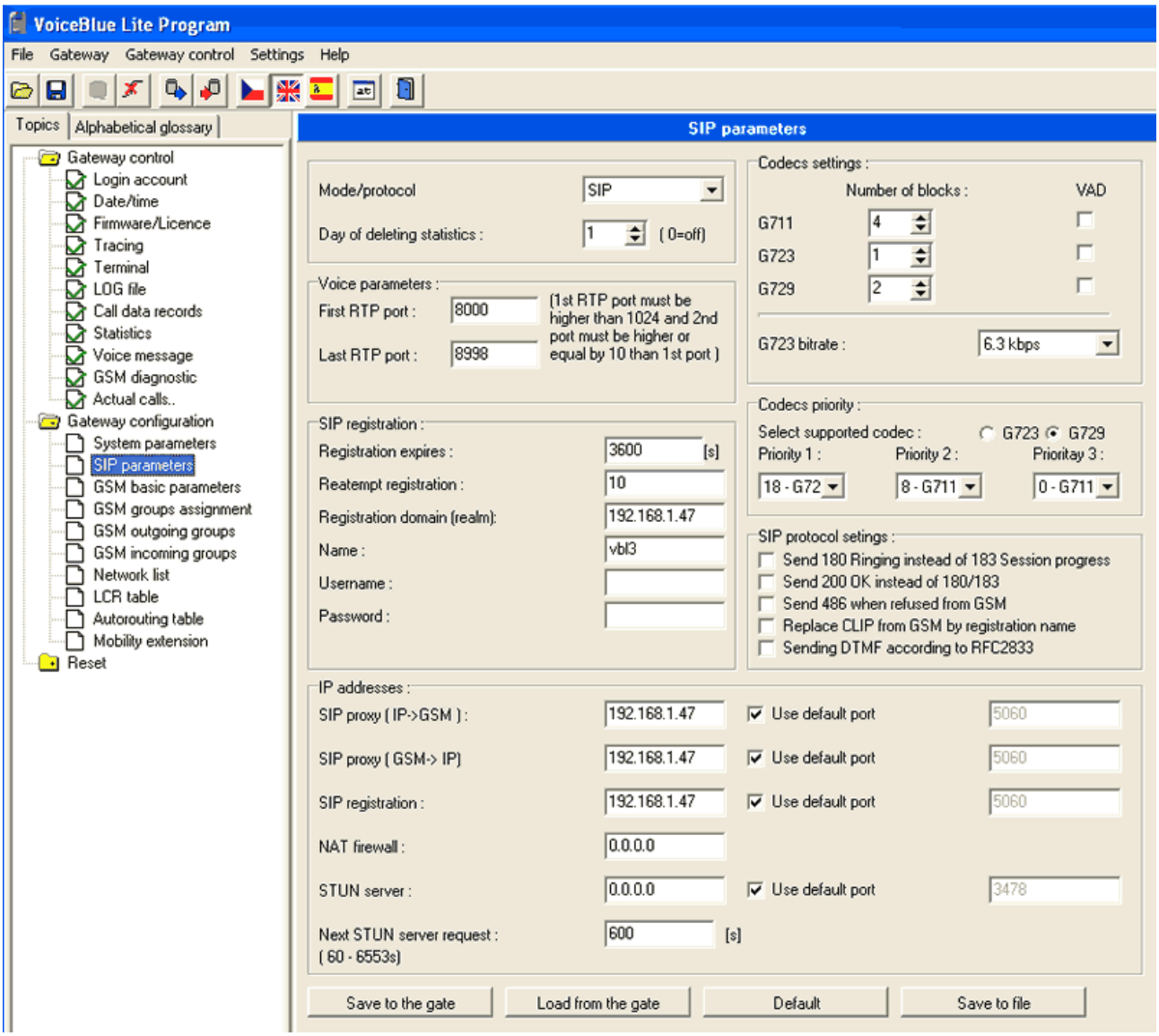
  - Enter the ***SIP Server's IP address*** in the field *Registration domain (realm).* This will be the Freedom Fone server’s IP address eg 192.168.1.47

  - The *Name* is descriptive only

  - The *Username* should be one of the unused SIP extensions 1000..1099 associated with the Freedom Fone platform.

- The *Password* must be 1234.

- Make a note of the Username and Password you assign as these details will not be visible later on this screen.

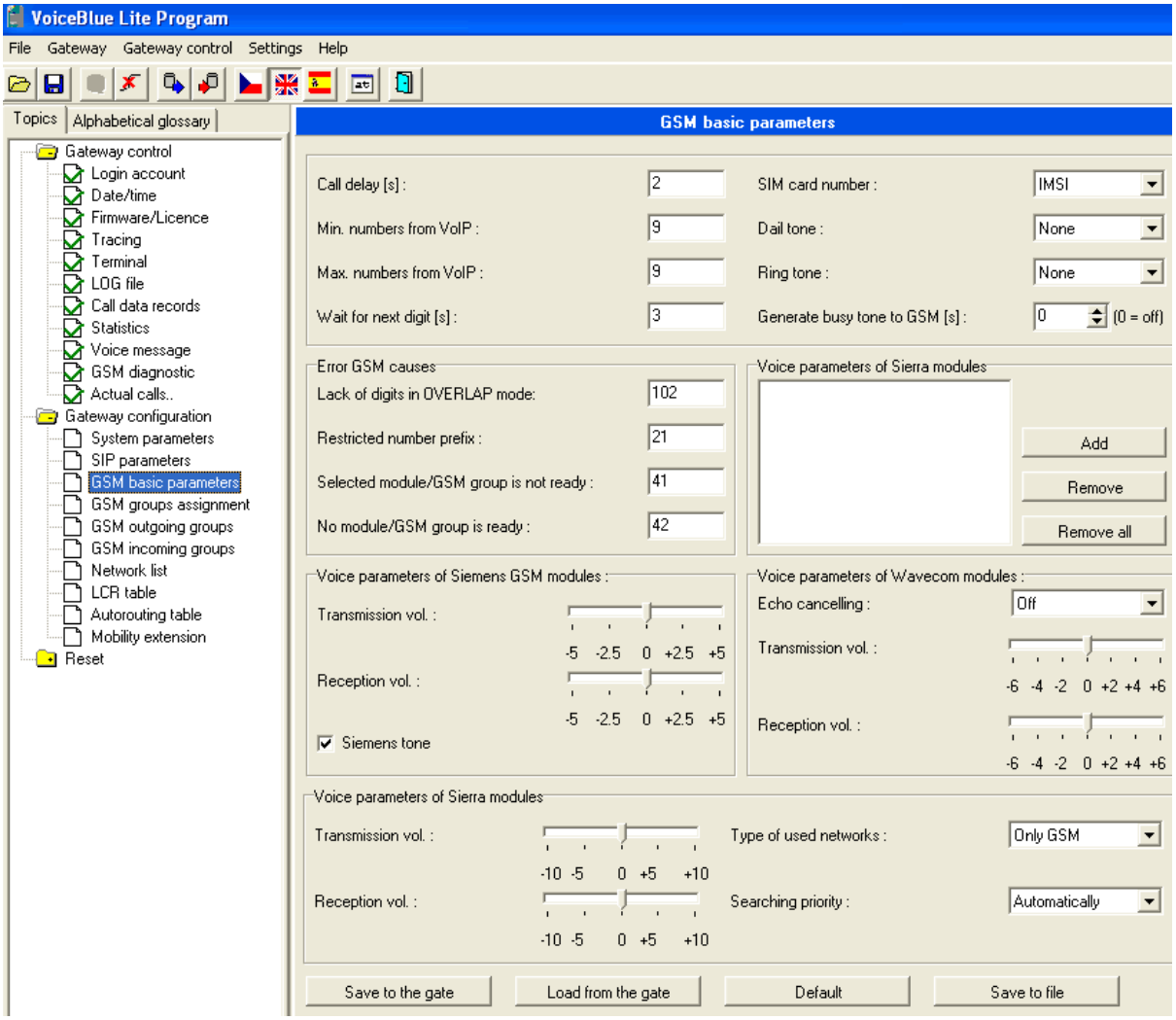


- Under *IP addresses* Section (see above):

  - Enter the ***IP address for the SIP proxy server*** in *IP->GSM, GSM->IP and SIP registration* fields. Then finish by clicking on "Save to the gate".
    This will be the Freedom Fone server's IP address eg 192.168.1.47

- Finish by clicking "Save to the gate".

2.4.3. Leave the *GSM Basic Parameters* on default settings (see image below)

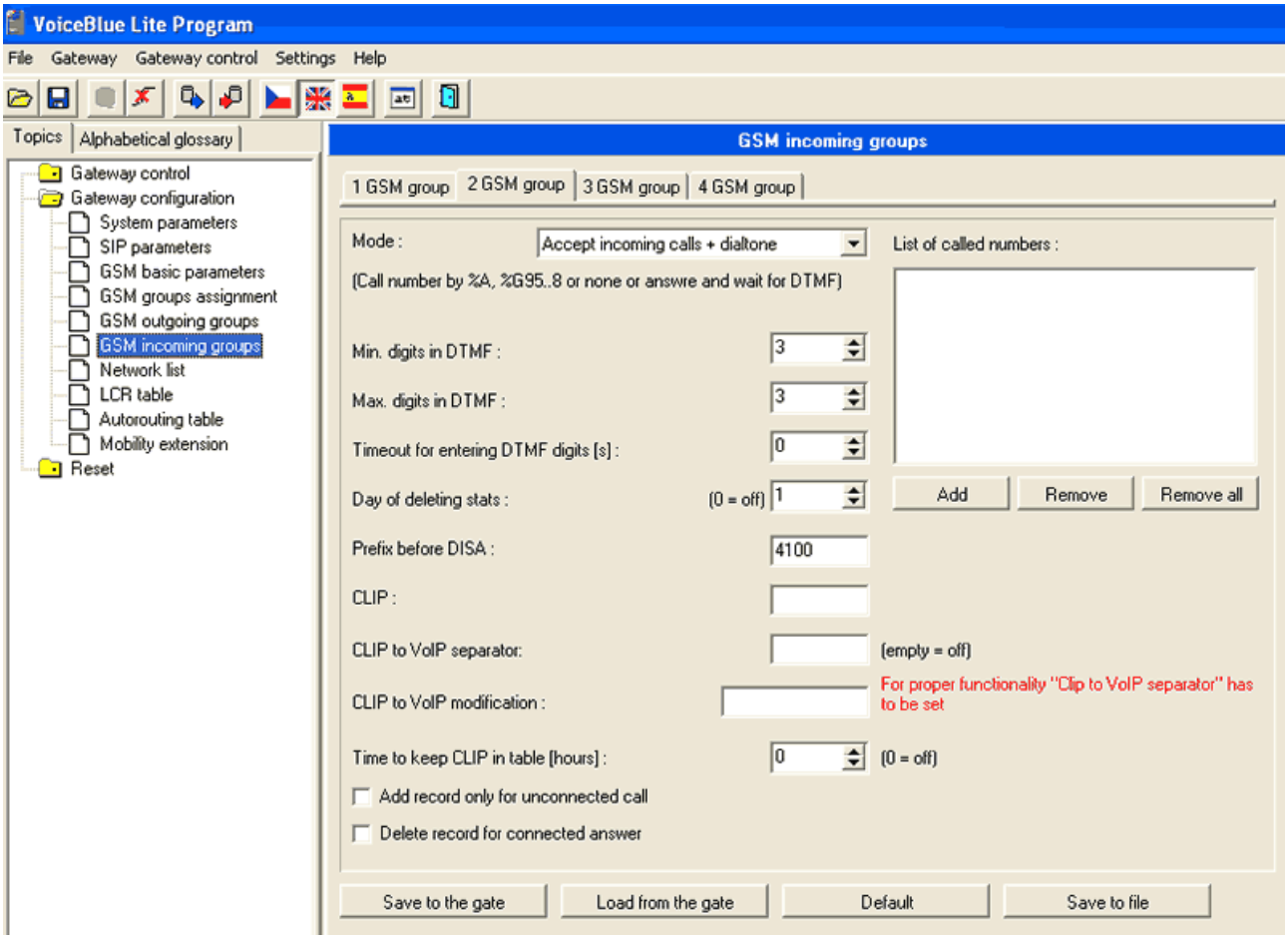


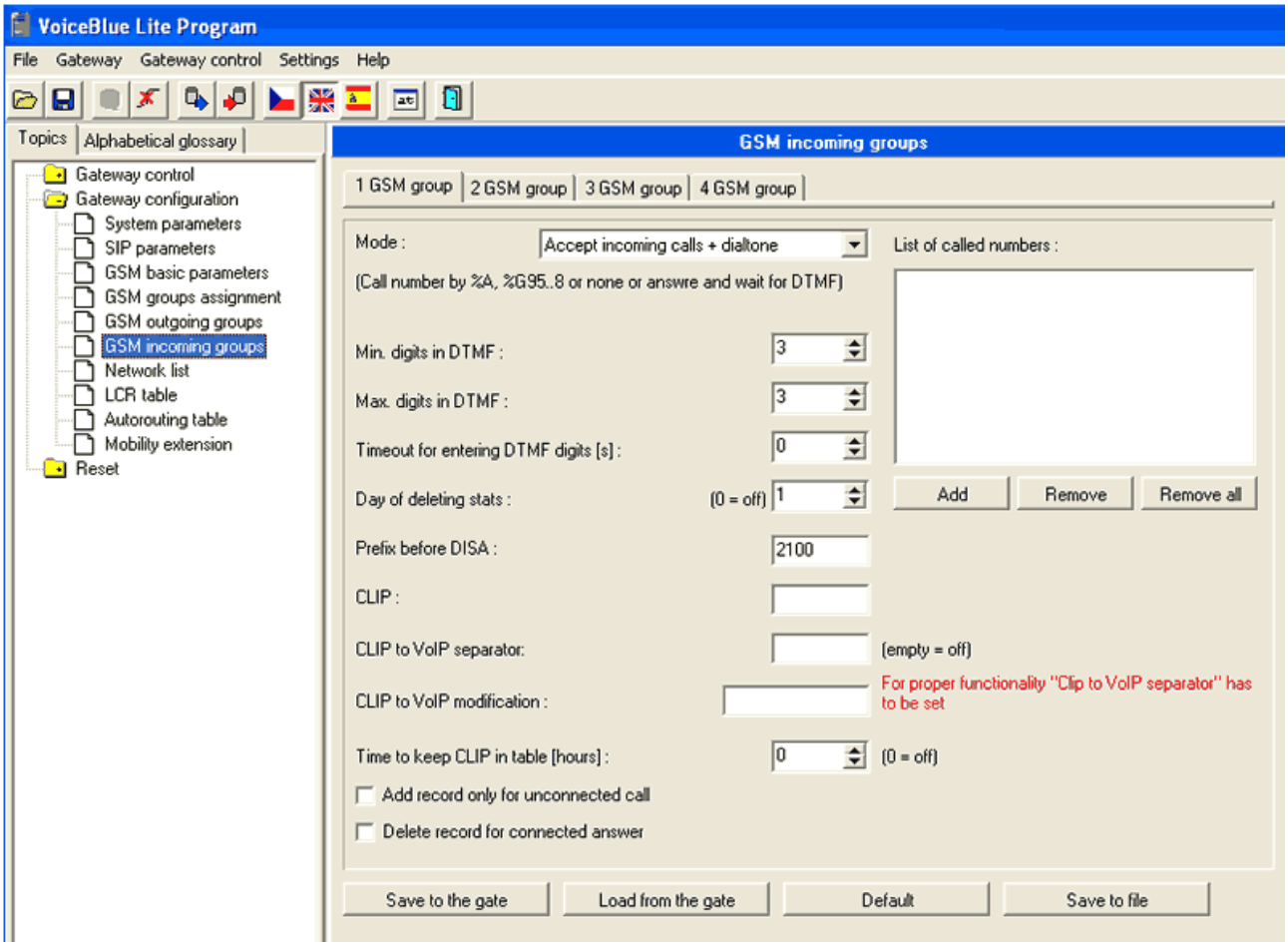
- Finish by clicking "Save to the gate". It is possible that Voice parameters on the GSM modules may need to be tweaked depending on the 'noise' on the GSM networks in your country.

2.4.4. Now click *GSM incoming groups* under the G*ateway configuration* menu:

- Here you can set how each SIM card reacts to incoming calls. The tabs named *1 GSM group to 4 GSM group* refer to the four SIM card slots.
- Set all the *GSM groups' answering* ***mode*** to ***"Accept incoming calls + dialtone"***
- If you want the VBL to answer call-ins immediately, set the 'Timeout for entering DTMF digits [s]' parameter to 0.

- Do not include any numbers in the List of called numbers.
- For GSM Groups where the SIM cards will direct callers to the default voice menu, set Prefix before DISA to 4100. eg 1 GSM group tab
- For GSM Groups where the SIM cards will direct callers to the LAM service, set Prefix before DISA to 2100 eg 2 GSM group tab
- Then click *"Save to the gate"*.

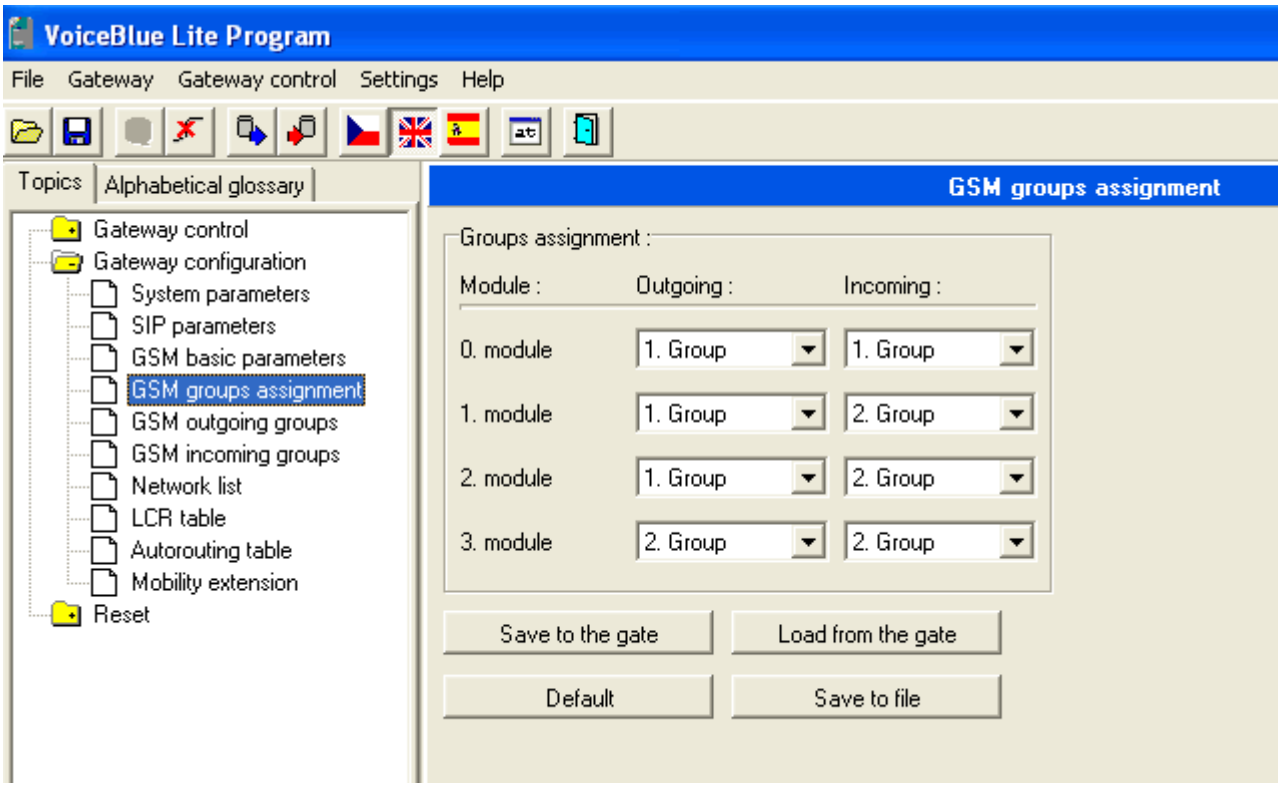




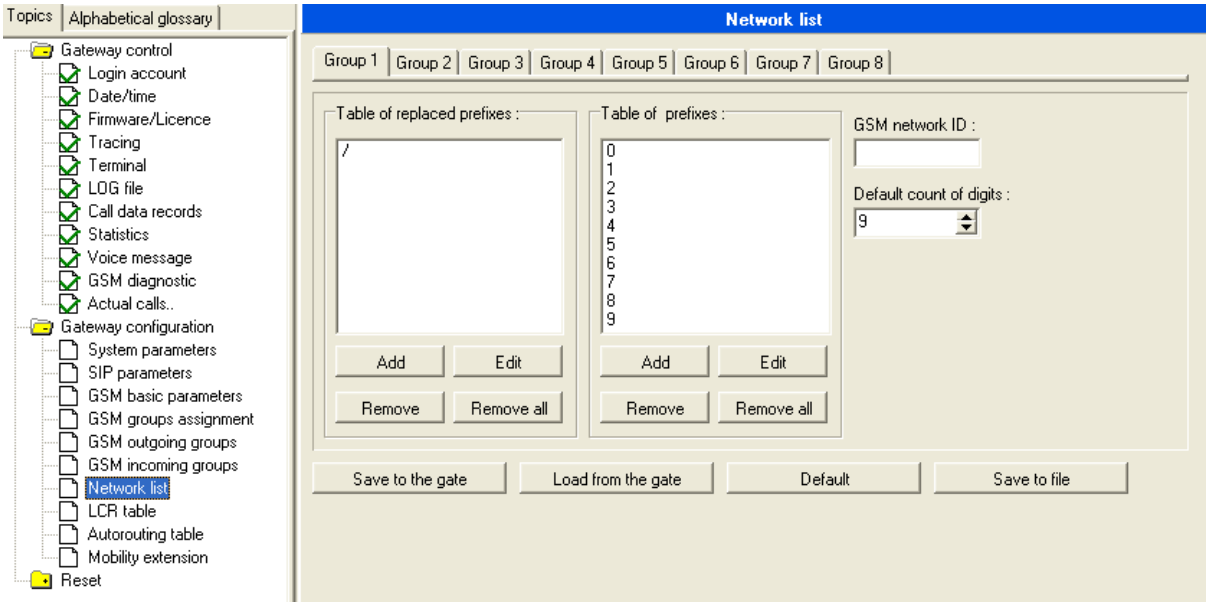
2.4.5. Now click *GSM groups assignment* under the G*ateway configuration* menu:

- Here you associate the 4 sim cards in the VoiceBlue Lite with the GSM groups you have just configured. Set the Incoming groups for each module using the drop down lists. If you want all sim cards to connect to the default voice menu, set all modules to the Incoming Group associated with extension 4100 – in the example above this would be 1Group. If you want a sim to connect to the Leave-a-message service, select the group associated with extension 2100 – in the example above this would be 2 Group. (See the image on the next page).

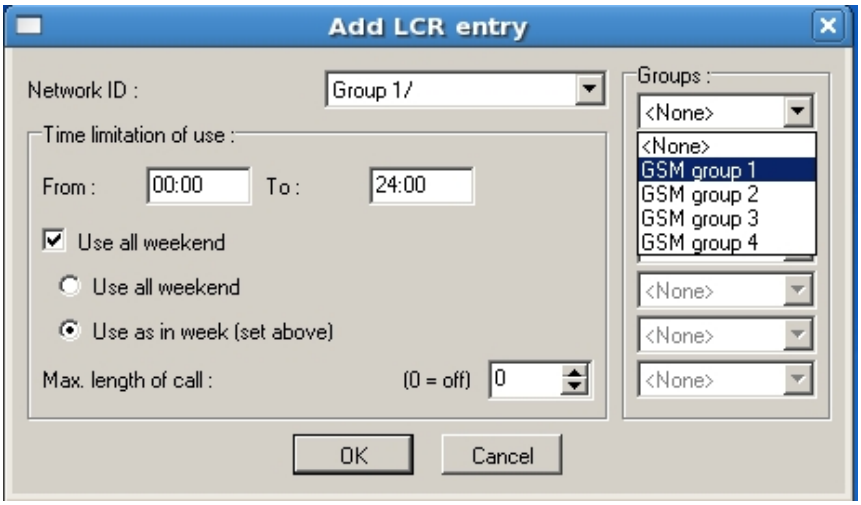
- Then click *"Save to the gate"*.



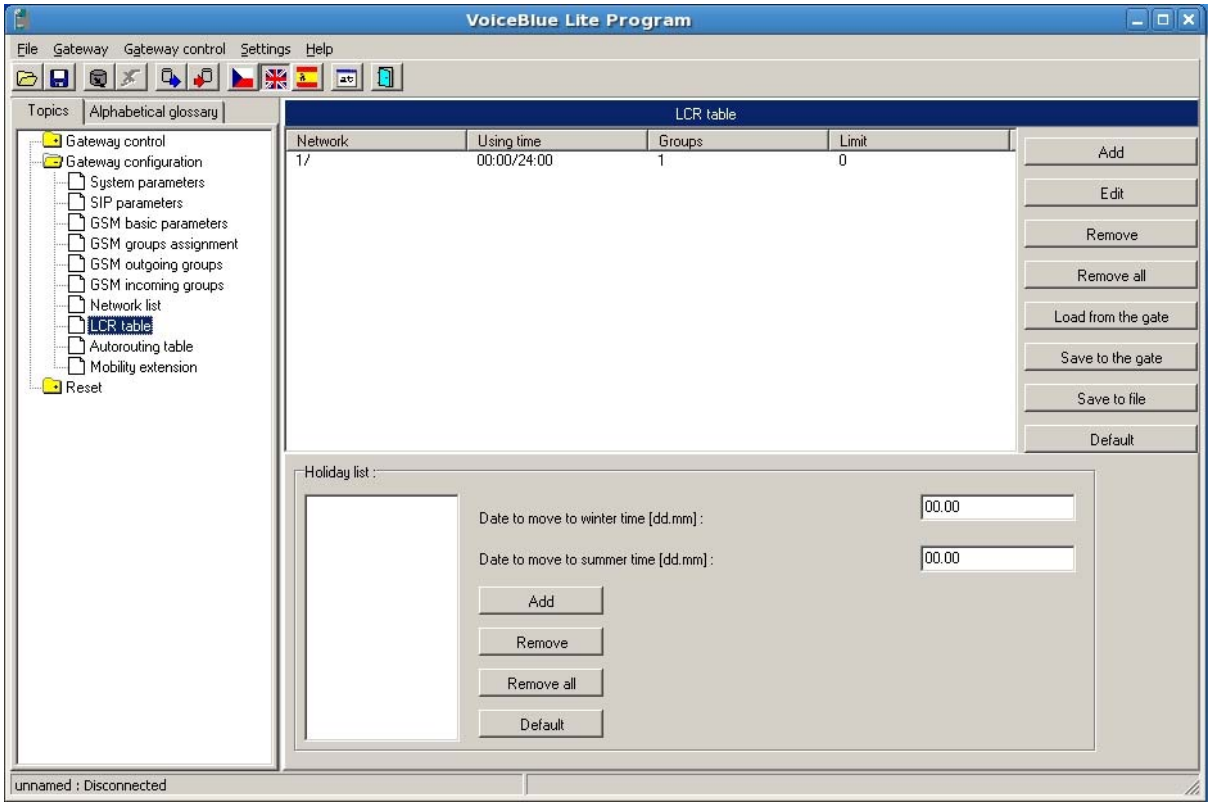
2.4.6. Leave *Network List* setting as default which looks like this



2.4.7. On the *LCR table* window, click on "*Add*" at the top right corner. An "Add LCR entry" window pops up.



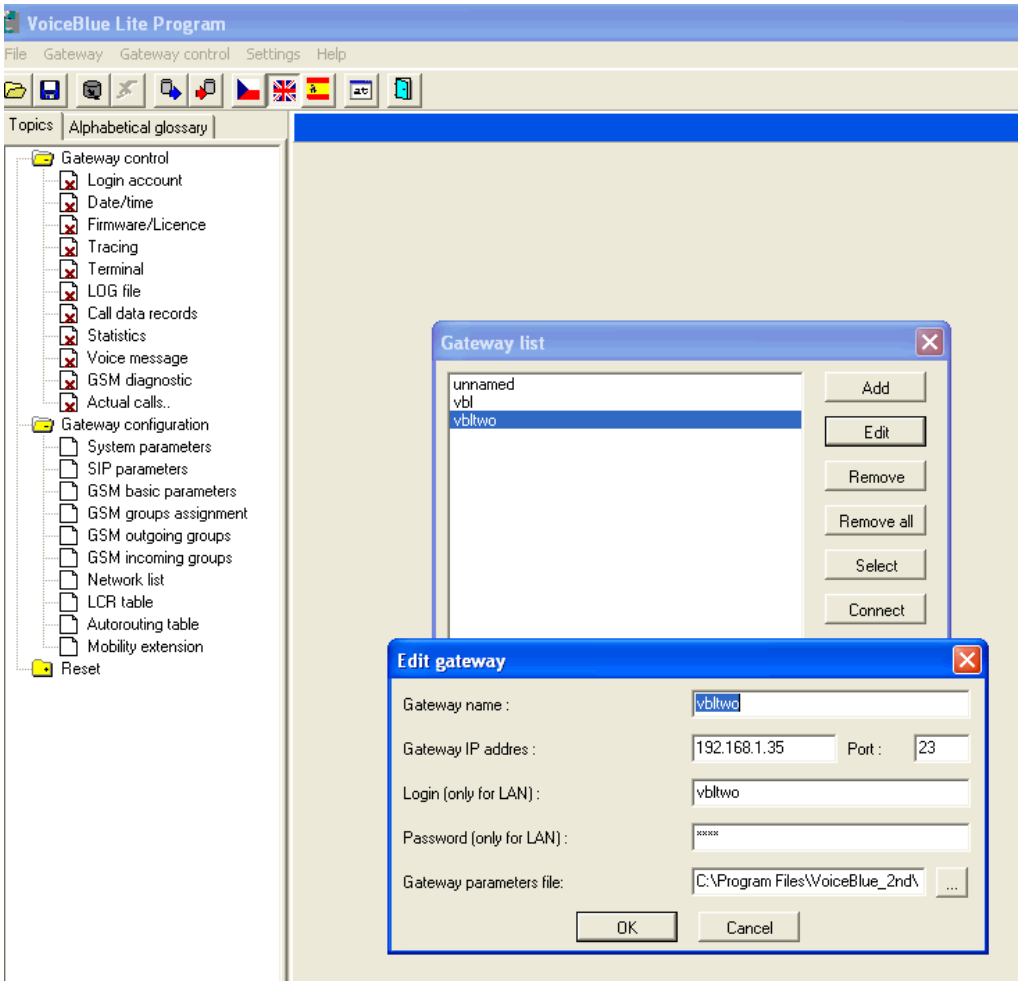
- Select *GSM Group 1* from the *Groups* drop down menu. Then the *LCR table* windows will look like this



2.4.8. The *Autorouting table* and the *Mobility extension* windows should not have any entries.

2.5. Managing multiple VoiceBlue Lite devices on the same server/network

You can setup basic login details for more than one VBL under *Gateway/Gateways lists*. The password entered on the screen, shown below, is the same as that entered under Gateway Control/Login account (not that entered under Gateway/SIP parameters).



Linksys PSTN Gateway

To be added.