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1. INTRODUCTION

1.1. The purpose of this user guide

This user guide was designed in order to help you learn how to work with GoAntiFraud service. To start working with the service it is necessary to visit GoAntiFraud website - http://goantifraud.com/
1.2. Brief description

GoAntiFraud service allows to simulate human behaviour in GSM network with the highest efficiency with the help of GoIP equipment.

This user guide explains service details, purposes and principles of its work.

Following the instructions of this user guide, it becomes possible to connect equipment to the GoAntiFraud service, customize its further work, manage settings of the service, consider and implement its extensive functionality to achieve the goals.
2. GETTING STARTED

2.1. Necessary equipment

In order to work with the GoAntiFraud service, enough to have a GoIP GSM Gateway manufactured by Hybertone or DBL Technology with the firmware version GS-4.01-56 or above. Although, possibilities of service become much larger using GoIP SIM-bank manufactured by Hybertone with firmware version SMB-1.01-22 or above.

Figure “Ports GSM Gateway GoIP-8”
2.2. Internet connection requirements

Internet connection of at least 250 kb/s and not more than 5% loss is a must in order to perform good quality operation of 8 ports.
3. OPERATION DESCRIPTION

3.1. Preparing to work:

3.1.1. User Registration

For registration and using the GoAntiFraud service one should enter the website address http://goantifraud.com/:

After clicking on the button “Try it now! 7 days free trial” on the top of the webpage, you will see registration form you can register in, pick optimal package or try trial version up to 7 days.

Figure “User Registration Form”
Set login in the field “Login”.
Enter your e-mail address into the field “Email”.
In the next field enter the password. Confirm the password in the field “Password again”.
You may enter your phone number in the next field called “Phone” but it’s not obligatory.
In the “Skype” field you can set your Skype ID for better and faster communication with our technical support.
In the field named “Europe and Asia”, “South America” necessary to pick nearest server to your equipment to decrease network latency between your equipment and our server.
“GoIP” or “TOPEX” field important to pick your equipment series you want to work with.
In the "Promo Code" field you have to enter the promo code if you have one.
After reading the "License Agreement", it is necessary to put a tick in the relevant box.
In the “Additional modules” pick additional modules you want to see on your account.
After you click on the “CREATE MY ACCOUNT” button, you will turn up on the main page of the GoAntiFraud service.

You do not need to make a confirmation of registration in our service. On the specified e-mail address will receive a letter from the technical support service, indicating successful registration.

You can use our service at once as you registered.

3.1.2. Add Location

Location is a place where your equipment physically is (GSM gateways). While adding the Location we simultaneously set some parameters of SIM cards activity.
In the upper left window of GoAntiFraud interface click **Add Location** button

![Add Location Window](image1)

**Figure “Add Location window”**

or open the context menu with the help of the right mouse button click and then choose **“Add Location”**.

![Add Location from context menu](image2)

**Figure “Add Location from context menu”**

Input the location name in the appeared Location Form Window.
For your convenience, each item is accompanied by tips. To use a prompt, you must hover over the symbol of the field’s name.
To bring even more action SIM-card to the human’s behavior in the form of adding locations added feature % deviation from the set value.
In the **Name** field you have to set name to your location.

In the **Load interval** field set load interval. That is the interval of cards’ loading into the gateways on the given location.

![Figure “Name”](image1)

Let’s set 1 minute value. It means each next card will register in the network after 1 minute of last registration. This feature helps to avoid simultaneous registration of a large number of your SIM-cards on the same base station.

**“General Limits”** field:

![Figure “General limits”](image2)

Below, in the **Calls Limit** box, set calls limit and duration limit in the **Duration Limit** for one card between SIM card’s counter resets on this location.

**“Session Limits”** field:

![Figure “Session limits”](image3)
In this field you can specify the parameters of the SIM-cards for individual sessions, in order to share common limits Locations for a few sessions. In this field, you specify the parameters of the card during one session. In the "Unload interval", set the time interval of one session session. For example: 5 hours. If for some reason, the card is not able to reach these limits on, it will still be automatically unloaded from the location after 5 hours. Having, for example, a general limit of calls 999, it is applied to each card, which is being loaded at a given location. Having set the limit in the session in the “Calls limit” value 111, SIM-card will load in the location make it 111 calls and replace it. After working in a different location SIM-card will be able to return to the first and make 111 calls up to a total limit of 999 calls. Similarly, with a “Duration limit”. If the card is to exceed the limit during the call, it will be completed.

If you will use SBO you have to mark “Use local Asterisk” field.

Press button

The new location appeared in the Location field.

![Location 1](image)

**Figure “Location 1”**

### 3.1.3. Connect gateway

After adding the Location connect a gateway to the service.

Below the Locations window there is a field of GSM gateways.

Press button to connect the GSM gateway to the service or open the context menu by the right mouse button click and choose “Add Gateway”
At the beginning of GSM gateway connection there will be a window showing the variants of connection. It is possible to select one connection from three variants. On the first step the information about firmware current version is available. Assure your gateway firmware is supported by our service. There is a link for downloading a stable version below, in case your GSM-gateway firmware is not appropriate.
Figure “Information about recommended version of firmwares”

Make sure that the newest firmware is used and press button.
On the second step you will see the settings provided by GoAntiFraud service.

Figure “Adding new gateway form”

In the first section you can see data you have to fill in your gateway. Go to the web interface of your gateway. First, you have to make a reset configuration. To do this go to the **Tools** and click on **Reset config** button.
Go to the Configurations, Preferences, click on the Remote control and put a mark on it.

Now fill all fields and press “Save changes” button.
Go back to GoAntiFraud manager.

In fields “Login” и “Password” fill data to access to GoIP and click on the “Get info” button. After that system will show info about your gateway.

Go to the “Goip settings” section. If you have VPN server, put a mark in front of it. In any other cases mark “Public”.

Figure “Web-interface of the GoIP gateway (b)”
In the “Sim server protocol” you can choose protocol of SIM server’s work.

In the “Proxy” field you can see activation of the proxy server.

In the “Hardsim” field you have to mark this field if you want to use your gateways without SIM banks.

![Image of Goip settings](image1.png)

**Рисунок “Choosing type of connection”**

In the “General setting” field you have to set name for your gateway, location and maximum amount of cards in%.

![Image of General settings](image2.png)

**Figure “Give name and location to the gateway”**

Press **Save** button, the Gateway is ready for use. Now it appears in the GSM gateways window of GoAntiFraud service interface.
After the gateway is connected, its channels are displayed in the channel window.

3.1.4. Connect a SIM bank
To connect the SIM bank to the GoAntiFraud server, proceed to “Config” - “Sim Bank Manager”. New window will appear, press or open contextual menu by right click of the mouse and choose .
The process of SIM bank connection to the server is similar to the GSM gateway connection that was described in the paragraph above.
Go to the **Configurations**, **Preferences**, click on the **Remote control** and put a mark on it. Now fill all fields and press **“Save changes”** button.

Figure “Web-interface of SIM bank (b)”
Figure “Adding new SIM bank”

Go back to the GoAntiFraud manager.
Fill “Login” and “Password” fields and push on the “Get Info” button.
After that system will show info about your gateway.
Go to the “Goip settings” section. If you have VPN server, put a mark in front of it. In any other cases mark “Public”.
In the “Sim server protocol” you can choose protocol of SIM server’s work

Give a name to it and press so SIM-bank is ready for work.
Now in the “SIM bank Manager” tab the connected equipment is displayed with its id number, name, IP address, and position.

![Figure “SIM bank displayed in GoAntiFraud interface”](image)

After the SIM bank connection, all of its SIM cards will be displayed in the right window of the main interface.

![Figure “SIM cards window”](image)

Detailed information regarding sim cards is represented below.

**3.1.5. Add carrier**

One of the most important settings is carriers adding. Each carrier has its own particular code which helps a user to identify the carrier.

In order to add a carrier it is necessary to proceed to the “Config” menu and select “Carriers”.
Click the right mouse button on the opened window in order to open a contextual menu and select the “Add” button.

“Add carrier” window is appeared.

Enter the name of a mobile network carrier, in the “Name” field. It is also necessary to add particular carrier’s code in international format. After that, you must specify the “Count of digits in number”, because the operators in different countries may have different number of digits. Then in the "Add code" need to enter the code on the mobile phone operator who will call the
sim card and click on the icon +. It is not necessary to type the “+” symbol, because it is set automatically.
In the DST transform field you could change your number. \{dst_number\} - is number, which comes on the GoIP. You could add or remove some digits. For example, if you want to add “00” to your number, field would be look like this: “00” + substr\{dst_number\}.

Figure “The carrier name typing”

Codes are set in international format without "+" symbol
Figure “Setting code(s) of carrier”

It is necessary to enter the code of carrier in the “Add Code” field. Press button in order to add the code into the list.

Press the button and the parameters are ready for work. Notice that each carrier is marked by its particular ID number in the “Carriers” window. It is possible to edit already existed carriers or delete unnecessary ones.

Figure “Carrier’s information”

3.1.6. Add Tariff and Tariff limits

To create Tariff, Tariff Options and Tariff limits, go to the “Config” menu and choose “Tariffs.”
There are three large windows: "Tariffs", “Options” and “Limits”.

3.1.6.1. Tariff creating
Tariff is a set of rules for the card to follow while working in GSM network, and Tariff limit is used to configure limits for the rules which set in the Tariff form for the certain Carrier.

Press button in the “Tariff” window and create parameters of work for the SIM card in the opened window.
Figure (a) “Tariff” creating window

First, we have to set “General” parameters.
First assign the “Name” of the Tariff.

In the “Loading Timeout” field you have to set maximum time rate SIM card can waste for loading in the channel.

In the “Channel offline Timeout” field you have to set maximum time rate SIM card can be in the channel if it goes offline.

In the “No load block” field you have to set maximum login attempts in the GSM network.

If you have more than 1 location card won’t load in the same location if you mark “Not duplicate location”. Be careful if you have only 1 location with this feature.

In the “Next counters reset” set next date of counts resetting.

In the “Reset interval (hours)” you have to pick interval between resetting.

In the “Road map” you have to pick your own SIM card’s moving scenario.

“VOIP Timeout” - If card loses VOIP it will unload in this interval.

“GSM Timeout” - If card loses GSM it will unload in this interval.

In the “Clients” field you have to pick your clients (originators).

“Lists of numbers” - you have to pick “Black” or “White” list if you have one.
“Recharge pool” - you have to pick recharge pool.

Let’s go to the “Track failed calls” field

![Figure “Tariff editing” window: Track failed calls”](image)

In “Short calls (sec)” you can set in seconds the maximum duration of calls that service perceives as short ones. The index -1 will deactivate this field.

In “Short calls to relocation” one can set the quantity of short calls in a row after which the card will unload from the given location and will try to load in another one due to tariff.

“Short calls limits” is to set the limits for short calls, quantity of which is allowed for a card before counters reset. The limit reach will block Sim-card.

In “Zero calls to relocation” you can set the quantity of zero calls in a row after which the card will unload from the given location and will try to load in another one due to tariff.

In “Zero calls limits” you can set the limit of calls that due to some reason failed. The limit reach will stop Sim-card work. The index -1 will deactivate this field.

“Failed calls before unload” is a field to establish the quantity of failed calls after which Sim-card will unload from location and will try to load in again.

In “Failed calls before block” you can set the quantity of failed calls after reach of which Sim-card will be blocked and sent to SIM block report.

“Failed intercalls to relocation” is to set the quantity of generated calls after which the card will unload from the given location and will try to load in another one due to tariff.
“Failed intercalls before block” is to set the quantity of failed generated calls, the reach of which will block and send Sim-card in SIM blick report.

You can see “Schedule options” below to set daily activity of the cards.

![Schedule options](image)

**Figure “Schedule options”**

This field you can fill after tariff option creating.

Let’s save our tariff by clicking on the **Save** button.

3.1.6.2. Creating tariff options

You have to create options for each tariff, which we add to the **“Schedule options”** field.

Settings in the **“Options”** field are important to create different mode for SIM activity (day, night, etc.) :
Figure “Tariff options editing window”

Set “Name” of the option.

Setting maximum call limit, which SIM-card could make until reset counters in the “Calls limit” field.

After that, “Duration limit” (maximum count of minutes, which SIM-card could make until reset counters).
At the right you can see \( \pm 0 \% \). Using this parameter, you could set scatter % from those parameters.

For example, setting limit of “Calls limit” “10”, and % scatter 20%, SIM-card with this tariff will make from 8 to 12 calls per day.

Field “Pause” means minimal pause between calls of SIM-card. Also you could set scatter to this field. \( \pm 0 \% \).

Field “Generated calls %” you have to set ration of generated calls to all call count.

Field “Generated calls duration” set duration of generated calls for each SIM card.. It will be duration of generated calls. If you set scatter, generated calls will have different duration for the maximum human behaviour simulation.

Field “Use only bonus” shows you amount of bonus in your cards. If it activated, card won’t make calls with bonus minutes balance equals 0.

Field “After loading pause” you could set interval, cards will be waiting after loading in the GSM network.

Field “Unload interval” means time interval between unloading one SIM of current tariff.

Click \( \text{Save} \) button to save this option.

For example let’s create 2 options Weekend и Work.
After you created options let’s check in the tariff settings.

You can see we can edit options we created.

In the right side you can see options list.

You have to pick option (in right side) and pick hours this option will be available (in the left).

If you leave empty fields - cards won’t make calls in this time.

3.1.6.3. Tariff limit creating

We have to add limit for our option:
In the Limits section you should set call rules for SIM-cards of this tariff for numbers of the carrier with the specified limit number of calls and duration for the specified Costing minutes. In the “Price” field the 1 minute fee should be inserted.

In the next “Duration limit” field choose the needed limit of call duration.

Insert the needed meaning in the “Calls limit” field.

In the “Hangup calls on exceeding limit” field place mark if you want system cut calls if limit has been exceeded.

Indicate whether the SIM-card will use bonus minutes in the field "Only a bonus." If it is active, the map will not make calls, bonus minutes when the count is 0.

"Unload in the absence of bonuses", activation of this field will force the system to unload the cards that don’t have bonuses in the account.

Choose the Carrier to which the limits should be applied in the “Carrier” field.

In the “NTI(s)” field you have to set free time in the beginning of call.

In the “Connection fee” you have to set fee for connection.
In the last field “Interval after NTI(s)” you have to set tarification mode.

Press the Save button. The limit for the given Carrier is created and ready for use.

3.1.7. Add color

The colors in the GoAntiFraud interface are used in order to mark channels in GSM Gateways and SIM cards in SIM-banks. The purpose of coloring is actually to show the SIM cards what channels they have to proceed.

To add the color it is necessary to proceed the “Config” menu and select the “Colors” button.

Click the right mouse button in the opened window, call out the context menu and select the “Add” button.
The Color form window appeared.

Figure “Color form window”

The “Name” field should contain the name of the color. In the second field which is called “Color” we choose the needed color. You are provided with the palette where it is necessary to choose the needed color and shade.
3.1.8. SIM card coloring

In order to apply the color, we need to go back to the main window of the GoAntiFraud interface.

We can paint one of the already existed SIM cards using “yellow” color. Click the right mouse button on the SIM card, select “Change”->”Change color”->”Yellow”.

Click the **Ok** button.

The created colors and information such as id number, names are displayed in the Colors window.
Figure “Sequence of SIM-card coloring”

Now we can notice that SIM-card is colored by yellow.

Figure ”SIM card has been colored”

3.1.9. Gateway channel coloring

The SIM card is not able to operate, until the color is not assigned to one of the Gateway channels.

Thus, let’s color the Gateway channel by “yellow”. If the channel be marked by another color, SIM-card will not operate.

In order to mark the channel by some color, it is necessary to click right mouse button on one of the channels and select option “Change color”, then “Yellow”.
Notice that the channel is marked by “Yellow” color, too.

In the channel window we can see that the SIM card with the position of 27.03 begins to load. Icon of the SIM card becomes orange from gray. This means that the SIM card begins to load into the channel:

In the channel window, we also see that the SIM card with the position of 27.03 is loaded into the channel:
On the main page there is a tab interface "tab log." It is located in the bottom of the interface. This tab displays all activities that occur with the SIM cards and channels. Message about the process of downloading the SIM cards you can see in this tab:

Once the SIM card is loaded into the channel, it will change to green.

Information that the SIM card was loaded into the channel can be seen in "log tab".
Thus, the card has loaded into the channel and is ready to work. However, for the successful work of the SIM cards, other important settings are needed. One of such important settings is the creation of USSD requests.

3.1.11. Creating of USSD requests;
The USSD editor allows you not only to send USSD requests and receive responses from the operator, but also to parse from the posts necessary information - for example balance, availability of bonus minutes and so on. To get into the editor, press the button "Settings" and select "USSD editor".

![USSD redactor window](image)

Figure “USSD redactor window”

In the resulting window, click the button **Add USSD**.

Editor Settings window appears
In the "Name" field, specify the name of the query, such as "Balance Test".
In the “USSD” field you have to enter USSD code.
“Success” means that received USSD will be counted like successful and next sending will be according to schedule.
Using the USSD editor allows not only to send USSD requests, but also to check the success of its implementation and to read out the necessary data. To do this in our service is provided "Regular Expression Editor".

Go to the tab "USSD Test". A new window opens:

Figure “USSD redactor window (a)”
For the current response to the USSD request, enter the USSD-request in this field, according to the rules of the operator of cellular communication.

Enter USSD-code, select Tariff, card will fulfill the request with and an active SIM-card to send test. After that will be activated the "Send USSD" button, click on it and you will get an answer in the upper window. You can copy answer to the Regexp editor using "Export to the editor" button. After that, highlight the desired fragments (such as, in this case, redundant and changing text and numeric value balance) and pressing the "Text" and "Balance" buttons, respectively, we have replaced the necessary pieces for the regular expression, and got a regular expression (construction) shown in the figure above.

We can verify the correctness of a regular expression in the "Test Regexp". There have already copied the real answer, and as a result of pressing the "Test" we need to get us to the desired result (in this case - the variable balance). If the field will highlight in red, the result did not fit under your formula, and it is necessary to fix the regular expression.

Save the regular expression by clicking on the "Save" button and automatically returns to the tab USSD.

In order to not only consider the balance of USSD response, but also to place a value in the "Balance" field of SIM-card you have to click on the "Actions" field and we move on to the appropriate tab:

![Figure “USSD redactor window (b)”](image)
Here we configured the system to update the field "Balance" of SIM-card (which sent USSD) to the current value of a regular variable "Balance". Click "Save".

Examples of other actions are provided in the table below:

<table>
<thead>
<tr>
<th>Module</th>
<th>Description of action</th>
<th>Type of received data</th>
</tr>
</thead>
<tbody>
<tr>
<td>SIM</td>
<td>unload</td>
<td>It does not take any arguments</td>
</tr>
<tr>
<td>Update</td>
<td>Tariff</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Changes tariff to the selected one if USSD is successful</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Color</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Changes color to the selected one if USSD is successful</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Activated</td>
<td>true \ false</td>
</tr>
<tr>
<td></td>
<td>Opens or closes a card by activation</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Balance</td>
<td>float</td>
</tr>
<tr>
<td></td>
<td>Changes balance in the sim panel</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Phone</td>
<td>str</td>
</tr>
<tr>
<td></td>
<td>Changes phone in the sim panel</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Next load</td>
<td>time</td>
</tr>
<tr>
<td></td>
<td>After the card unloads it will not try to load until a specific date</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Note</td>
<td>str</td>
</tr>
<tr>
<td></td>
<td>Changes comments for the given card</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Priority</td>
<td>int</td>
</tr>
<tr>
<td></td>
<td>Updates the value of manual priority for the SIM</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Block reason</td>
<td>It does not take any arguments</td>
</tr>
<tr>
<td></td>
<td>Channel/card blocked/closed by users reason</td>
<td></td>
</tr>
<tr>
<td></td>
<td>sim group</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Changes the group of the sim card</td>
<td></td>
</tr>
<tr>
<td>Action</td>
<td>Description</td>
<td></td>
</tr>
<tr>
<td>-----------------</td>
<td>-----------------------------------------------------------------------------</td>
<td></td>
</tr>
<tr>
<td>Send USSD</td>
<td>Sends an earlier created USSD</td>
<td></td>
</tr>
<tr>
<td>Send SMS</td>
<td>Sends an earlier created SMS</td>
<td></td>
</tr>
<tr>
<td>Execute event</td>
<td>Sends an earlier created event</td>
<td></td>
</tr>
<tr>
<td>SIM bonus</td>
<td>Update Duration Changes the amount of bonus minutes(hours) time</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Balance Changes the bonus balance account float</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Expires Mandatory field. Describes until which time(date) will a bonus work</td>
<td></td>
</tr>
<tr>
<td>SIM group</td>
<td>Update Balance Changes the bonus in the sim group panel(relevent with corporate packages) float</td>
<td></td>
</tr>
<tr>
<td>Schedule</td>
<td>Update Next try Next try to send this USSD no sooner than specified time(date) time</td>
<td></td>
</tr>
</tbody>
</table>

Figure “Actions in the USSD editor”

You can then close the window USSD editor and return to the "USSD editor", where we can set up a schedule to automatically send USSD request in the right column.

Figure “Adding schedule to USSD request”
Click on the “Add schedule” and we see new window:

![SCHEDULE Window](image)

**Figure “USSD schedule window”**

**“General” field:**
In the "Enabled" field you can enable or disable the USSD. This function is useful when you create a large number of USSD-requests for specific tariffs, but when there is no need to activate them at the moment.

In the "Tariff" and "Tariff option" you have to choose the tariff, which will be attached with the USSD and the option. The request will be sent from all active SIM-cards, which work on this option. Tariff option is chosen to create a different table for each of the options and as a result, a more accurate tuning parameters of human behavior.

The "Block" means a block outgoing calls until USSD will not be executed successfully.

USSD-request is considered successful when the response received from the operator meets the criteria of the user. If USSD has not been sent, or the response is not as expected, USSD-request will be considered as not successful. Why is this? For example, if you only want to use bonus minutes for calls, you create a USSD to order bonus minutes, and until they will order - this card couldn’t make a call.

"Fails tracking" field:
If USSD-request failed or you do not get the desired response, specify the number of attempts that can be used to manipulate of the SIM-cards work.

Fails tracking of the USSD-requests occur in three stages.

"Failure to call blocking" - the number of unsuccessful sent USSD, after which outgoing calls are blocked to avoid negative consequences. Therefore, we block outgoing calls, for example, after 5 unsuccessful attempts on the SIM-card.

After that, the card continues to send a USSD with an interval that we set in the "Fail pause", for example at intervals of 20 minutes.

After 5 times the system has not received a valid response to the USSD request, outgoing calls will be blocked, and the SIM-card will continue its trying to send a request to number of attempts in the "Fails to unload" field.

For example, after a card sent 10 USSD requests, and all 10 requests are not successful, it will try to log out of the current channel, and will be loaded into the other and continue its trying to send those request.
The SIM card will continue sending USSD requests up to the number of attempts specified in the "Fails to block". For example, after 20 unsuccessful attempts, the card falls into the "SIM block report". The settings in these fields user can change according to his wishes.

Next field “Scheduled requests” - schedule for this USSD.

Schedule can be of two types - "Use it once" and in fact schedule itself.

If you mark the field "Use it once", as soon as the card will be registered in GSM-network and can send USSD-request, it will send it once for all time. If you add a new SIM-card to this tariff it will execute this USSD only once.

If you want your cards send USSD regularly with some frequency, it is necessary to use other fields. Namely:

“On load” - SIM-card will send USSD requests every time it loads into GSM network. In addition, as long as this is done successfully, the card will not make calls.

“On load order” — is the order of sending USSD-requests. If you have more than one USSD in one tariff, in this field you can set priority, and the smaller the number, the sooner execute USSD.

The following schedule settings to send USSD.

“Calls”: you can select sending USSD, e.g., after every 5th call. If we indicate the spread of +/- 50%, respectively USSD will be sent at intervals of 3 to 7 calls.

“Duration” means that SIM-card will be sending a USSD-request each time after a specified number of minutes.

“Interval” - in field specifies the time interval, which will be executed USSD-request, no matter how many calls and minutes of conversation carried out SIM-card.

“Exact time” - execute USSD every day at exact time.

“Skip first interval execution” - if this option is active - system are waiting for expiring of one of the intervals and then schedule will be active. If disable - schedule immediately initiated.

“Min balance” - execute if the balance is less than field value.

If you specify all three parameters, USSD-request will be sending when it is reached the first of the limits, the program will choose the less - that comes most quickly.
If we want to create a schedule of only one parameter, such as the number of calls, we just mark all 0. If you specify 0 in all 3 fields, USSD will be sent. After clicking "Save" the setting of USSD can be considered as completed.

3.11.11 Multistage USSD requests

Our service allows the cards to send multistage USSD requests and parse USSD responses to it. There can be any number of steps within the USSD request.

For example, the USSD request for activating a service package of “Minutes within the network” of the Operator.

Input the first USSD, *100*31#
In the "Regexp editor" window get a response, export to Regexp editor. Choose the needed variant from the response, 3 in this case. Click on the + button and do the same actions, but
send USSD to number 3.

**Figure “Step 2”**

Now we have to create an “**Action**” to our USSD for bonuses.

Go to the “**Actions**” field and make Action to update bonuses
At the conclusion 2 staged USSD request is created. The GoAntiFraud service gives the possibility to send multistaged USSD requests and to parse responses to each of the steps. In case if one of the responses differs, it is better to input “.” instead of regular expressions (for each step). Then the system will accept every response.

4. ADDITIONAL FEATURES

4.1. SMS requests

4.1.1. Incoming SMS editing
SMS Editor is used in the GoAntiFraud system for reading the incoming SMS messages parsing the information from them and determining actions with the sim cards depending on the contents of the incoming SMS.

In the main tab of the user environment in the Sim bank window click the right mouse button and open context menu for the card. Choose the “History” item and move to “SMS History”. Here it is available to see all incoming messages to the card.
It is seen that incoming messages regularly are sent from the number 255 about the given sim card’s low balance.

Take a copy of this message, or just a part of it, and go to the “Incoming SMS Editor”
Create a new SMS rule by clicking the button.
This given SIM card regularly gets the messages about balance information. Usually such messages come when the balance is low.

Send this SMS sample to the “Regexp Editor” window by clicking the button.
Figure “SMS regexp”

Mark out the digit meaning of balance in the SMS text and click the button, for the system to parse such messages in further and change the parameters of work for the card in accordance to the scenario created by the user.

Test the construction by the help of SMS editor. Save. Additionally it is possible to add additional fields, for example, “Force unload” or change the Tariff for it, named for example, “Refill me”.

Vash Kredit: 0.82 lei. Pojaluista, perezar....

Export To Editor

Regexp Editor

Balance  Group Balance  Phone  Bonus  Text  Or

Vash Kredit: (?P<sim__balance>\d+(\.\d+)) lei\. Pojaluista, perezar\..\.

Regexp Test

Vash Kredit: 0.82 lei. Pojaluista, perezar....  Send Test

sim__balance : 0.82
Now in accordance with the created SMS rule when a message with the similar text comes to any of the cards with the tariff \textbf{“orange -> mc”}, it will be parsed and the card will change its Tariff to the one which is not allowed to work but only to mark the cards waiting for the refill.

\subsection*{4.1.2. Sending SMS editor}

GoAntiFraud service connects equipment of the client to SMS server that helps to configure SMS dispatch from the cards in work, which is a sign of human behavior of SIM-cards in GSM network.

Choose \textit{SMS - Sending SMS editor} in \textit{“Config”}.

\begin{figure}[h]
\centering
\includegraphics[width=\textwidth]{figure.png}
\caption{“Sending SMS editor”}
\end{figure}

In a new opened window by RMB choose \textit{“Add SMS”} in \textit{“Sending SMS editor”}. Set necessary rules for SIM-card work.
In the field “Tariff” select the tariff which will be applied by the given rules of SMS sending rules.

In the line “Fail before block” you have to specify the number of failed attempts that a card is allowed to make before it will be forbidden to make calls. In the next passage “Ban” you specify the number of failed attempts to send SMS, the reach of this limit will forbid cards to make outbound calls.
“Fails before reload” is a field where you put the number of failed attempts to send SMS, the reach of this limit will automatically unload the card from the working channel of GSM gateway and will send it in SIM Block report.

“General limits” window

‘Pause after fail’ is here to set a pause to the next attempt after failed dispatch.

“Send SMS interval” is a temporary interval between successful attempts to send the outcoming SMS.

“Used minutes before SMS sending” is a field to set general quantity of minutes for the generated and terminated calls between SMS dispatch.

In “Calls count” you have to specify the numerical limit of calls count before the next attempt of SMS dispatch.

“Language” panel you have to select the language made up in “SMS templates”.

In the next field it is important to indicate the phone number that will receive the aforesaid SMS. If you leave it empty, SMS will be sent to a random number from SIM group that SIM-card is part of.

In “Text” you need to state the text of a message. The empty field will be considered as a command for an automatic selection of a message from previously made up templates.

4.1.3. SMS template editor

Select “Config”, then proceed to SMS - SMS templates editor.
In a new window you have to make a language that shall be applied to the text of the messages.

Click RMB in left column and choose add button . In the following window you can name your language.

Save the name.

In the right column you can see Message text tab.

Open the tab to create template of text message by clicking RMB and Add button .
Type the text of the message in the proper field and save it by appropriate button. We recommend to create several templates of text messages for one language.

<table>
<thead>
<tr>
<th>#</th>
<th>Message text</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>I let me talk to you later, i am in a meeting please</td>
</tr>
<tr>
<td>2</td>
<td>Hello, bro, how are you doing?</td>
</tr>
<tr>
<td>3</td>
<td>Maybe let's go to the cinema today? Call me</td>
</tr>
<tr>
<td>4</td>
<td>I go to the bed, sweet dreams.</td>
</tr>
</tbody>
</table>

4.2. Reports panel

4.2.1. Call history

Call history report provides a journal about the work of equipment and has an informative report on transmitted calls.
To get information about SIM-card calls one has to set filters in “Lastapp” and apply time period for report. “Tariff” of SIM-cards, “Originator” who sends calls and his IP address, as set below.

In the bottom of the panel select the desired format of information and click “Render”. In order to control the quality of traffic you can survey not just the statistics of SIM-cards calls, but listen to the record of media stream in an integrated player. It is worth to say that GoAntiFraud expands the settings of GoIP in web-interface as well, like “Volume” panel that was made by manufacturer but inaccessible in a menu before. With concern to the record of media stream now, you can adjust the volume on the gates for its channel.
To change rendering parameters of required data, click “Reset Filter” and enter new ones.

4.2.2. Fast Stat

In this report you can see the work statistics of your equipment for a certain period, and statistics of each gateway by hour. In case of need, you can decrease the load on the gateway by such
parameter as “maximum card count” (often used on gateways with few slots to decrease the load in rush hour).

In the “Channels” field 1:2:3:4:8 (for example) means:
1-answered
2-in call
3-in use
4-loaded
8-total.

4.2.3. SIM Block Report

SIM Block Report is the tab of the service, where blocked SIM cards are shown, blocked by the GoAntiFraud service because of different reasons. That could be call duration limit reached, or calls limit exceeded, or unsuccessful USSD response.

To follow the SIM Block Report go to Config menu and choose “SIM Block Report” item.

In the opened window you can see the cards been blocked by the service or by the carrier
The cards blocked because of the following reasons are sent to SIM Block Report:

- **Balance block** - no money on the card and service checked it by USSD. You can fix it by recharging it.

- **No load** - card exceeded the number of attempts to load into GSM network.

- **User block** - card has been blocked by user.

- **USSD** - card exceeded limit of failed USSD.

- **Count zero** - exceeded limit of zero calls.

- **Count short** - exceeded limit of short calls.

- **Count failed** - exceeded limit of failed calls.

- **Failed recharged** - exceeded limit of failed recharge USSD.

If your card went into the SIM block report because of minimum balance, and you have recharged your card, you can get it out and update the balance by using the "Increase balance" button. After that the system would get a card and update its balance. How it works: In tariff options we indicated minimum balance to the block equal 10. Our balance drops to a value of 0 (for example) and the card went into the SIM block report due to balance. Go to the SIM block report and check the card. Press on the right mouse button and find the "Increase the balance."
Figure "Increase the balance" in the SIM block report

You will see a field where we can increase the balance to the actual value, if you have recharged up your card. For example we have a value of 100. Thus, the current balance is 100. Enter this value in the field and press "Save". After that refresh your page and see that the card has disappeared from the SIM block report and updated its balance to a value of 100. The card can work as usual.

Figure “Updated balance”
4.2.4. SIM statistics by day

To check statistic by days ASR and ACD, you have to go to the “Reports” and press on the “SIM statistics by day”. In this window you can filter statistic by these parameters:

- **Type of call**: Traffic or generated.
- **Period of statistic**
- **Tariff**
- **Originator**
- **Originator’s IP**
4.2.5 Traffic log

![Traffic log](Traffic_log.png)

**Figure “Traffic log”**

To check traffic log, caller source, number, originator’s IP and technical prefix you have to click “Reports” and pick Traffic log. You can sort information about numbers, IP, prefixes.

4.2.6 Detailed SIM info

![Detailed SIM info](Detailed_SIM_info.png)

**Figure “Detailed SIM info”**

To check detailed info about SIM, namely position in SIM bank, balance, number, you have to click “Reports” and pick “Detailed SIM info”. In the showing window you can pick Color, Tariff, gateway, SIM group, balance, duration of call, calls and failed calls.
4.2.7 Number list generation

In this window, you can choose how you want to generate a list, according to source number or destination number. You can generate your own lists of numbers using filters and statistics of phone calls from your account. It is possible to select a number calls to which were varying by duration, numbers on the quantity of calls to them. You can render it into grid or save it as file with .csv extension.

**Figure “Number list generation”**
4.3 Road Map

Road map (a map for location changing) is a set of rules applied to SIM-cards to move between different locations. According to this function the card will not load in the same location twice in a row (except you make such a rule), simulating the human behavior in GSM network.

To make a route click Config - Road Map.

In a new tab click RMB on an empty area and select Add.

In a new panel you have to name your map, i.e. Route 1, and in Locations tab you need to mark SIM-card “arrival” locations among which it will be traveling.
In this panel you can oblige the SIM-card to move FROM one location TO another. You can specify how much time the SIM-card will be “offline” while moving FROM Location 1 TO Location 2.
In case you leave the interval empty, the service won’t be able to use road map.
In case the location provides several directions (more than one parameter in Location passage), the SIM-card will choose the route randomly.
Take in concern that if there are 3 routes, i.e. 10, 15 and 20 minutes, the SIM-card will choose the shortest one, because the blockage of this route will be deactivated sooner than the other routes.

After you completed the grid, save the rules for this SIM-card by clicking

To use the new map, proceed to **Tariffs** tab.
You can either create a new tariff, or upgrade the existing one with the route rules. To do so, choose an existing tariff and click RMB on it. In tariff editor mark the line “Not duplicate location” and select the desired Road Map.
The road map must be appointed to each tariff separately. One road map can be appointed to several tariffs.

4.4. Event Log

GoAntiFraud service has its event log with the list of all the events which took place during the working session. The events are displayed in the bottom corner of the GoAntiFraud main page.
You can choose what exact events there will be displayed in the event log. In order to do that, you have to click your right mouse button on the “Log tab” line and choose the “Log tab settings” option. Then a new window appears and there you can give this log tab a name and configure the number of the lines to be displayed.

You can also see marked events that display in the event log. You can unmark the events that you don’t want to be displayed.

There are some details on each of the events:

While working with the GoAntiFraud service, the log tab automatically highlights all the main procedures. They are shown in the lower part of the GoAntiFraud main page.

You can yourself choose what exact logs will be shown there. To do so, you have to click the right mouse button on the “Log tab” line. In the appeared window you can give a name to your tab and determine the number of logs that are to be shown.

Lower you can see the logs marked with checkmarks. Those are the ones that are shown in the log tab. You can also unmark the logs that you’re not interested in. Let’s take a look at every one of them.

In the first line the “Sim load started” log means that a SIM card has started to load into the GSM gateway channel.
The “Pin change fail - gate offline” log means that the system can’t change a PIN code because it can’t find connection with the GSM gateway.

“Pin change fail” means that most likely the error was caused by the wrong SIM card’s PIN code settings.

“Binded” - the card has binded into the GSM gateway channel.

“Registered” - the card has registered in the GSM network.

“Qualified” - the card has received a definite GSM signal level.

“Insert SIM failed” - The error of the SIM card’s loading into the GSM gateway.

“Bind timeout” - The limit of time for binding the card into the channel has expired.

“Gsm timeout” - The limit of time for registration the card in the GSM network has expired

“Load aborted - USSD fail” - the message appears if an attempt to send a USSD is failed on the condition that the “block” function in the USSD settings is on.

“opening channel” - means that the channel is opening.

“Gate {0} online” - The GSM gateway with the corresponding number is in use.

“Gate {0} offline” - The GSM gateway with the corresponding number is not in use.

“Bank {0} online” - The SIM bank with the corresponding number is in use.

“Bank {0} offline” - The SIM bank with the corresponding number is not in use.

And there are the SIM cards status logs.

“sim banned - low credit”

“sim banned - too many failed USSD”,

“sim banned - no load limit reached”,

“sim banned” - USSD result.

“Unloading- limit reached” - one of the SIM card’s limit has been reached.

“Unloading- too many failed USSD” - the limit of failed USSD requests has been reached

“Unloading- color changed” - card’s unloading because of the channel color change.

“Unloading- user request” - card’s unloading according to the user’s request

“Unloading- gate offline” - card’s unloading because of the GSM gateway not being in use

“Unloading- bank offline” - card’s unloading because of the SIM bank not being in use.
“Unloading - gate and bank offline” - card’s unloading because of the GSM gateway and SIM bank not being in use

“Calling” - the card is calling

“Call started. dst = {0}” - The card has started to make a call. In the brackets there is the phone number the card is calling to

“Call ended dst.={0} duration ={1}” - The call to the phone number {0} has ended, call duration - {1}

“USSD {0} executed: {1}” - The USSD request from the card (number {0}) has been executed successfully

“USSD не fail:{0}“ - The USSD request has been failed

“Sending USSD {0}” - the USSD sending

“USSD success:{0}” - the USSD has been executed successfully

“Found new sim” - the previous SIM card can’t go on being in use for some reasons. The system has found another SIM card.

“Load aborted: found old SIM”

“Load aborted: found new sim in used slot”

“Load aborted: found old sim in used slot”

“Load aborted: can’t read IMSI”

“Unexpected IMSI. Unexpected {0}, received {1}” - The system informs you that there’s the card in the SIM bank that you have not expected to be there because you have changed the cards in the SIM bank. Once you have marked the events to be displayed, click the “Save” button.

You can also create a few more event logs by clicking the “+” button and mark the events that you wish to be displayed there.
4.5. SIM groups

SIM groups ensure the so-called parameter as “calls to familiar numbers”, moreover this is how the SIM-cards can make not only outbound calls but inbound as well. During the inbound call a real conversation is being transmitted into media channel.

To configure SIM groups you have to primarily set the percentage of generated calls in the tariff settings (it’s a percentage from general quantity of calls). You can check this parameter in an already existing tariff (“Config” – “Tariff” – RMB on the tariff – “Edit”) or in a new one. Maximum index of generated calls can be no more than 50%. At the rate of 50% the SIM-cards will call only on themselves without receiving any traffic.

Other work parameters can be set in “Config” – “SIM groups” – “Add”.

![Figure “SIM group creation tab”]

Here you enter the name of a new group and the balance. This is a minimum balance that allows SIM-cards to call among each other.

After this, in a SIM bank window click RMB on a SIM-card and choose “Change” – “Change SIM options” – “SIM group”.

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Find a desired group in a dropping list, and this is how you will add it. To establish generated calls among SIM-cards, there have to be at least 2 SIM-cards.

4.6. SIM bonuses

If you want to create bonuses for different carriers, you have to open **Bonuses** tab. 

*Config-> SIM ->Bonuses.*
You have to set name of this bonus and assign it to carrier.

In the tariff options we have to set bonuses.
Figure “SIM bonus option window”
Also if you have more than one bonus you can separate them.

You can check all your bonuses via USSD editor.

4.7. List of numbers.

The function derives into two options. The blacklist allows to reject the calls on server from undesired numbers, avoiding the redirection on SIM-card. The other one allows to add “white numbers”, so SIM-cards will receive calls only from the given list of numbers. The settings are located in config:
In a new tab we see two windows:

Figure “List of numbers”

In a first window press “Add list” or click RMB on empty space and select “Add”. Then type “Name” and choose “Type” of list (black or white).
In a second window add numbers. You can do it by one or put the whole amount. To add numbers by one press “Add number” or click RMB on empty space to open context menu and select “Add”. The new window will appear, where you have to put in the number in international format without “+”. After number is put, press

To add the several numbers at once click RMB on empty space and select “Import”. Then click “Select” and choose the file with the list of numbers. You can take any text file with line-by-line list (one line - one record).
In a panel “Numbers” you can see the full list of added numbers by page.

![Image of CSV import dialog]

**Figure “Numbers in the list”**

4.8. SIM recharge

You can set the automatic SIM recharge in Config
Next we make a pool. In pool settings you have to make USSD request and minimum balance, the reach of which will trigger the SIM recharge.

![Figure “SIM pool”](image)

To create USSD request for balance recharge, you have to make a simple USSD rule in USSD edit and activate the "recharge" field.

The USSD may be like *123*{recharge code}#, then in USSD field type the request *123*{recharge_code}#. You need to user regular expression in order to save the rule.
In order to monitor the success of USSD requests in the "Editor" you need to enter text that sends you a statement after the deposit through the code. Change the balance of the regular expression to `{sim_balance}`, changing text can be replaced by (\[ w \ W]) *

Then press save USSD request.

Figure “USSD for recharging”

Add a schedule for our USSD recharge. Fill in the required fields.
In the right window “Recharge SIM” you have to add the recharge codes. To do so by one click “Add code” or click RMB on empty space and choose “Add”. There’s also an option to import a text file with line-by-line list of codes (one line - one code). You need to click RMB on empty space and choose “Import”. 

Figure “Schedule for recharge USSD”
After usage of your recharge code, in the right window you will see the information on date of completion and text that your carrier responded on this USSD. If this text matches the one you put in the edit field of USSD request then balance recharge will be considered successful.

4.9. Block reasons

To add your own block reason go to the “Block reasons”.
Click on the “Add block reason” button and you will see field, where you could type name for the reason and action (close channel or block it). “Close” only closing channel by this reason and “Block” causes card to go to the SIM block report. To activate this reason you could use USSD or SMS actions editor.

![Block Reason](image)

**Figure “Block reason”**

**4.10. Tags**

To add your tag go to the “Tags” section.

![Tags](image)

Click on the “Add tag” button and put name for our tag. We use tagging to marking, filtering and tracking our SIM cards.
4.11. Events

The "Events" function allows you to perform actions (similar to actions under USSD or SMS) according to a predetermined schedule. To create an event you need to select the point in settings.

To add your own Event click on the “Add event” button on the left side.
After that put name for it, pick an action (similar with USSD/SMS). Also you have a possibility to test your action on any card.
After end of your settings, click on the "Save" button.

After adding your event you have to add schedule for its work. To do this click on the "Add schedule button".

Schedule settings are the same as for USSD.

Figure "Events schedule"
4.12. Additional modules

Our service provides additional features to improve the performance of customers.

- Traffic Optimization - Due to competent data optimization, the algorithm can significantly reduce the size of the packages, without compressing voice data. Thus, software module reduces the traffic consumption 3 times without sacrificing the quality of communication. The function will be useful for users in regions with low network bandwidth and high cost of Internet services. The module will save on payment if the provider charges the Internet traffic in terms of MB consumption.

- SIM-cards Unload Protection - The software module ensures uninterrupted operation of channels and allows not offload cards when communication between the gateway and the user’s SIM-bank is interrupted. The software simulates the presence of SIM-cards in the gateway and keeps channels active up to 6 hours *. The function will be useful in regions with poor Internet connection and allow using SIM-banks in an unstable network.
  * The duration of autonomous operation of cards depends on the frequency of sending SIM-card authorization packages and may vary according to the GSM-operator.

- Call Recording - The software module allows storing and listening to calls made via the user’s SIM-card. The function will be useful for monitoring the traffic provided by the originator. Listening to records made over the specified period allows quickly analyzing the causes of troubles to ACD and ASR in channels and directly ensures what the quality of the provided communication is.
  * Call Records are stored on the server for 24 hours and updated every day.

For more information about these modules, you can visit our official site [https://goantifraud.com/en/](https://goantifraud.com/en/) or get by clicking on your account name in the upper-right corner of the screen and select the section "License fee"
Figure “License fee with additional modules”

5. SIM-CARDS

SIM card is a subscriber identity module used in the mobile connection service. SIM cards are applied in GSM networks.

5.1. SIM Calls History

Click the right mouse button on the SIM card in the SIM bank window in the main tab to open context menu and choose “History” item. The options “SIM Calls History”, “SMS History” and “USSD History” are available to watch.
5.1.1. SIM Calls History

In the “SIM Calls History” it is available to trace the whole calls history of the given card. Namely the time of call started, its duration, the telephone number of subscriber’s number, who called and received the call (destination).

5.1.2. SMS History

In the “SMS History” item it is available to watch the history of incoming SMS messages to the given SIM card.
5.1.3. USSD history

In the “**USSD History**” it is available to watch the whole history of USSD requests been sent from the given card. Namely USSD number, USSD response and the time it was sent.
5.2. Search Channel

“Search Channel” option is used for quick and easy channel searching. By clicking the right mouse button open context menu and choose the “Search channel” item - the channel in which the SIM card is loaded now will mark out.

Click the right mouse button on the SIM card and choose “Change” item in the context menu. It is available to change the following SIM card’s parameters: PIN and SIM card’s Color, as well as to set or change some SIM card’s options.

Figure. “Change “Pin”, “SIM Options” and “Change color””
5.3. Changing parameters

5.3.1. Change PIN

In this field it is needed to set a PIN number to one or several SIM cards so they activate in a GSM network successfully. If all SIM cards have the same PIN number, then there may be put a checkmark against the “Set same pin to all” option and set the needed PIN number in the appearing line.

![Figure “The “Change PIN” field”](image)

If you need to set different PIN numbers to different SIM cards, choose the “Set different pins to all” option and manually set PIN numbers to each SIM card.
If your card does not use the PIN verification, in field "Change PIN" you still need to edit it by leaving it empty, and then save the settings.

5.3.2. SIM Options

In the “SIM Options” item it is available to change some of the SIM cards parameters. In the field “Own number” you can assign MSISDN of this SIM-card. In the “Balance” field you can input your SIM-card's balance. It is used to assign an initial balance of the SIM-card or after balance refill. Opposite the “Activated” item you need to put the green checkmark, if the SIM-card was already activated and ready to work. In the “Tariff” item, you need to choose a tariff, which SIM-card will be connected. SIM-group is used to distribute of generated calls and SMS.

Cards will call and send SMS only within their group. Availability of bonus minutes you can assign in the field “Bonus minutes”. In the “Bonus expire date” it is possible to assign the date of ending bonuses of the SIM-card. In the “IMEI” field you can insert IMEI number manually.

Several SIM-cards can also be edited simultaneously. Select the SIM-cards you want, open the context menu and select "SIM Options".
In the fields "Holder number", "Balance", "Bonus minutes" and "IMEI" are blocked. Next to "activate" you can put a checkmark and activate all of the selected SIM-card. In the "Tariff" you can set one tariff for a group of SIM-cards. Similarly, we can do the same with "Color", "SIM-group", "Deadline bonuses" and "Pin". Check marks that are on the right from the fields mean that the exhibited settings apply to all selected SIM-cards.

5.3.3. Change Color

In the “Change color” item it is available to set or remove the color of the SIM card. The colors are used to set the cards and channels sequence within the system. The card can load into the channel with the same color only.
5.3.4. Change note

You could change or add your comment to your cards in here.

You could see your note in the “Comments” column on the SIM panel.
5.4. Execute

Using this tool you can send USSD, SMS or event manually. It won’t interrupt schedule.

5.5. Data reset

5.5.1. Reset counters

It is available to reset all the counters of the given SIM-card by clicking the “Reset The Counters” item.
5.5.2 Reset SIM

Reset SIM function allows our system to reread all information about SIM-card. Sometimes SIM bank sends us poor information, after saving cards don’t want to load into a channel.
5.5.3. Reset last location

Reset last location allows SIM cards to go the channels despite in which location it used to be
Figure “Reset last location”
5.4.4. Reset pause before next USSD request
Reset pause before next USSD request - resetting pause till next USSD request.

![Figure “Reset pause before next USSD request”]

5.6. IMEI
It is available to generate automatically Imei for the card or to set by means of the GoAntiFraud service. Clicking the right mouse button open context menu of the SIM-card and choose the “Imei” item then choose needed variant.
5.6.1. Generate IMEI

For the system to generate Imei code automatically choose an appropriate item in the menu. That will result an automatic generation and setting the Imei for the given card.
5.6.2. Set IMEI

In order to set Imei code for the card manually, go to the context menu of the SIM-card and choose “Set Imei” item.

In the same manner, marking a few SIM-cards is possible to assign them Imei.

![Set IMEI tab](image)

**Figure “Set IMEI” tab**

You can insert the needed number in the “Set IMEI” tab.

5.7. Send USSD

To send a fast USSD and avoid creating the rule of automatic dispatch in USSD edit, you can choose “Send USSD” in the context menu of SIM-card.

![Send USSD menu](image)

**Figure “Send USSD”**

In the window “Send USSD”, in field “USSD” you can type the number of desired request.
After that click “**Send USSD**”. The answer to USSD request will be shown in the large field below.

![ SEND USSD](image)

Figure “USSD fast sending field”

### 5.8. Manual SMS send

To quickly send SMS, you can do it in the SIM card’s menu, just pick “**Manual SMS send**” option.

![ Manual SMS send](image)

Figure “Manual SMS send”
In the “Manual SMS send” window, in Phone # field you can put number, you want send SMS to. After that fill text field and click on the “Send” button.

![Figure “Fast SMS sending”](image)

5.9. **Mark channels with selected colors.**

To paint the channels with the color of SIM-card, you need to click RMK on SIM-cards and choose “Mark channels with selected colors”. All channels of GSM gateway that were selected before, will be painted in the color of the given SIM-card.

![Figure “Mark channels with selected color”](image)

5.10. **Unload SIM**

To unload SIM-card immediately from the GSM gateway channel, click “Unload SIM” in the context menu of SIM-card in SIM panel. After that the card will be unloaded from the channel.
5.11. Reset ICC  
Alows to intentionally check what SIM-card resides in the slot.

5.12. Increase the balance  
Using this tool you can increase the balance of your SIM card by using SIM menu.

![Increase the balance](image)

**Figure “Increase the balance”**
In this field you have to put your value. This value will be added to current balance of the SIM card.

6. GSM CHANNELS

6.1. Channels statuses  
You can see status of the card in the “Status” field on the Main page of manager’s interface.
no sim - means there is no SIM in channel, GSM is grey
loading - means SIM-card is loading in the channel from SIM bank (status of the card), or registering in the GSM (GSM is green)
closed - means card is in port but becoming in pause.
in use - card is ready to receive a call.
incall - card is calling at the moment, GSM
incoming call - card is receiving intercall now, GSM
outgoing call - card is making intercall now, GSM

6.2. Show Call Statistics
In order to look through the Call Statistics of GSM-Gateway channel, it is necessary to select “Show Call Statistics” option in the context menu of GSM-Gateway channel.
After clicking, a "Call Statistics" window will be appeared.

6.3. Search SIM in a Bank

In order to find SIM-card in the SIM-bank, it is necessary to select “Search SIM in a Bank” option in the context menu of GSM-Gateway channel or make double-click of the left mouse button on the line of the channel.
After clicking, you will be shown the location of SIM-card in the SIM-bank.

6.4. SIM Unload
If you want to immediately unload your SIM you can click on it RMB and click on “Unload SIM” button.

6.5. Change color
In order to change color of the GSM-Gateway channel, it is necessary to select “Change color” option in context menu of the GSM-Gateway channel. You will be prompted to select a color from the existing ones, or delete a color, which channel has been painted with.
Figure “Selecting the “Change Color” option in the GSM-Gateway channel”
7. ADMINISTRATION PANEL

Figure “Administration panel”
There are several parameters located in the administration panel. They are: overall speaking time
of the SIM-cards, number of SIM-cards which are ready for use, number of SIM-cards which are
making outgoing terminated calls, ASR - Answer Seizure Ratio (percentage of answered
telephone calls with respect to the total call volume), ACD - Average Call Duration.

7.1. Technical support
GoAntiFraud support service works 24/7. Contact us with phone number +1-202-864-1174, chat
or via e-mail: support@goantifraud.com

7.2. Error messages
There is user panel located in the right up corner of the GoAntiFraud interface. In order to check
the correct operation of the system (i.e. Error messages), it is necessary to click on “bell”
symbol.

Figure “User panel”
In the appeared window you will see the report about equipment connection (GSM-Gateway,
SIM-banks), SIM-cards status, date of the event. It helps to detect the faults in time and observe
system remotely.
7.3. User menu

7.3.1. Settings

To open User menu click the button with user name in the upper corner of the user environment window.
After clicking the “Settings” item the User Profile window opens. It is available to change avatar, e-mail address, password and the language of User environment.

7.3.2. Traffic Settings
In “Traffic Settings” you can see server’s IP provided by GoAntiFraud. There you have to add information about your clients: name of the client, prefix, select the tariff and add his IP address. For each of the clients you can select different prefix by changing the first digit in the range from 1 to 9 and therefore you can diverse the client's traffic among itself.
7.3.3. License Fee

To pay your license you have to go to the user’s menu by pressing the button with your account name and select "License fee". In appeared window you will see a new selection scheme and payment of the license and services, which shows the current license expiration date, the type of license selected, period for which you can renew the license and its cost.
Figure “Settings License fee window”

Right here you can see a list of additional modules, such as "Optimization of traffic (SBO)", "Autonomous Operation of SIM-cards (SIM Proxy)", "Call Recording", as well as the current status of these modules, period of validity and their cost.

<table>
<thead>
<tr>
<th>Package type</th>
<th>Current state</th>
<th>Expire date</th>
<th>Order/Renew</th>
<th>Target license</th>
<th>Period</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Main</td>
<td>License 32</td>
<td>2016-02-22</td>
<td>✔</td>
<td>Start 8</td>
<td>1 month</td>
<td>$50</td>
</tr>
<tr>
<td>Optimization of Traffic</td>
<td></td>
<td></td>
<td></td>
<td>32ch - $100</td>
<td>1 month</td>
<td></td>
</tr>
<tr>
<td>Autonomous Operation of SIM-cards</td>
<td></td>
<td></td>
<td></td>
<td>32ch - $70</td>
<td>1 month</td>
<td></td>
</tr>
<tr>
<td>Call recording</td>
<td></td>
<td></td>
<td></td>
<td>Enabled</td>
<td>1 month</td>
<td></td>
</tr>
</tbody>
</table>

Total: $50.00

Balance:

- $0
  - Add funds
  - Pay monthly:
    - Promo code:
      - Apply

Figure “Additional modules choose and pay window”
Theoretical information about additional modules available in the bottom “About modules” menu. More information about these modules you can find by clicking on the module you are interested in and read the information on our web site.

Figure “Additional modules information window”

You can see your current balance in the “Balance” field in the left.

You can enter promo code to have your 10% discount if you have one.

Figure “Balance field”

To renew your license, you have to select the desired license type and expiration date. Also choose the modules you are interested in and their duration. After that, the system will show you the total amount to pay.

If the funds on your current balance is insufficient to pay for the service, you have to replenish it. Click on the "Add funds" button to do that.

In the appeared window you have the opportunity to choose the electronic system of calculation and enter the desired amount of money. You can immediately add a large amount and click the "Pay monthly". Therefore the required payment will be acting once per month.
After that click on the "Proceed to checkout" button, the system will remove the funds from your main balance. After confirming the success of the operation, you can continue to use the GoAntFraud service!

7.3.4. Help

The “Help” item in the User menu is used to familiarize the User with GoAntiFraud User Interface.

7.3.4.1. Symbols

In “Symbols” you can see what icons mean in service interface.
7.3.4.2. Quick start
Quick start is a short presentation that will guide you through interface and navigation about fundamental elements of the service.

7.3.4.3. Video instructions
In “Video instructions” you can watch the video tutorials about GoAntiFraud service.
7.3.4.4. User’s Guide
In “User’s Guide” you will be automatically sent to current User’s Guide with detailed description on GoAntiFraud service configurations.

7.3.5. About service
When you click “About” you will see links to all GoAntiFraud resources.
7.3.6. Patch

If you click “Patch” you will see the changes that have been implemented with the last patch of GoAniFraud service. Also you can see the previous changes in the early versions.
7.3.7. Log out

Before leaving the resource browser window choose “Log out” in the User menu.