USER MANUAL
FOR WORKING WITH GOANTIFRAUD SERVICE

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1. INTRODUCTION

1.1. Purpose of the Manual

This Manual was created for the purpose of GoAntiFraud service acquaintance and training. To get started with the service, you need to visit GoAntiFraud website – http://goantifraud.com/

1.2. Brief description

GoAntiFraud, when used together with the GoIP equipment, is a service to provide SIM cards with the most effective simulation of human behavior in GSM networks.

This Manual allows you to learn in detail the service features, its purpose and principles of operation. Following this Manual's instructions, it becomes possible to connect the equipment to the service independently, without difficulty, to ensure its uninterrupted operation, to manage the service settings, and to consider and implement the extensive functionality of the service to achieve the user goals.

2. SETTING UP

2.1. Necessary equipment

To get started with GoAntiFraud service, it is enough to have a Hybertone or DBL Technology GoIP GSM gateway, with the firmware version of GS-4.01-56 or higher. However, features become much broader with the additional use of a Hybertone or DBL Technology GoIP SIM Bank, with the firmware version of SMB-1.01-22 or higher.

8-Port GoIP GSM Gateway

SIM Bank 32 and SIM Bank 128

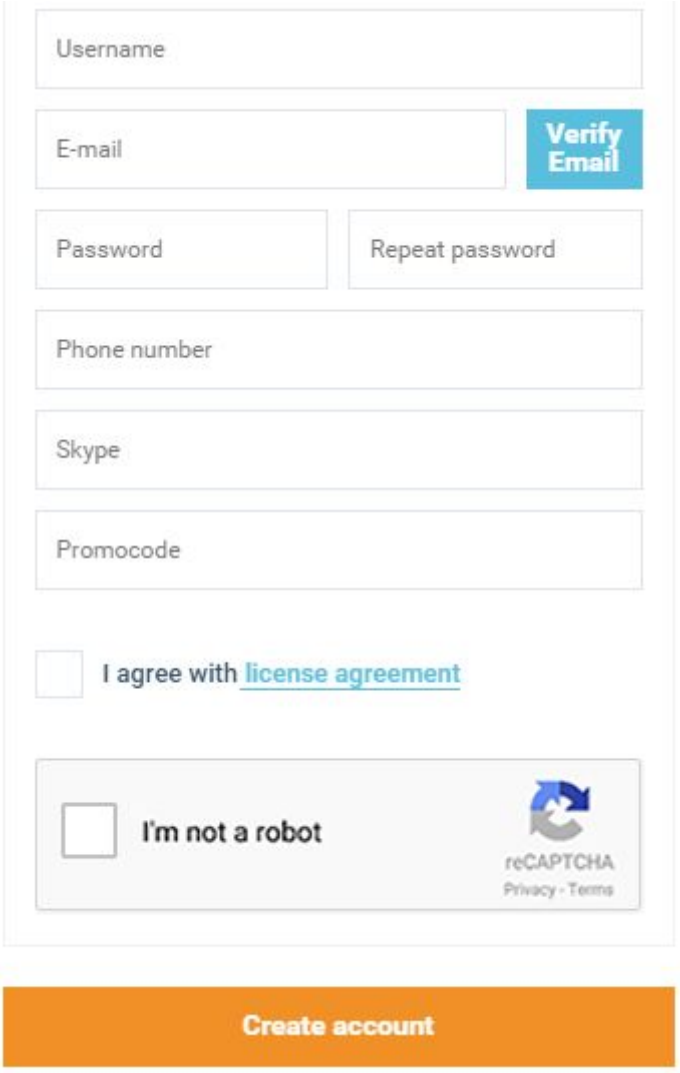
2.2. Requirements for Internet connection

For full-fledged operation of 8 ports of the GoIP equipment, the speed of Internet connection should be at least 250 kb/s. At the same time, the packet loss rate should not exceed 5%.

3. Getting started

3.1. User registration

To register with GoAntiFraud service, please visit http://goantifraud.com/. After clicking “Registration”, the registration form opens. With its help, you can register, choose the optimal package or try a trial version for 7 days.



In the “Log In” field, please specify a login, which will be used later when you enter the service interface.

In the “E-mail” field, please specify an email address. There is a “Confirm e-mail” button near it. Click it and you will automatically receive an email with a verification code. Check your email inbox, copy the code from the letter and paste it into the field that will pop up after clicking the "Confirm e-mail" button. Also, you need to confirm that you are not a robot; for this, tick the “I am not a robot” box.

In the “Password” field, please specify a password, which, together with the login, will be used later when you enter the service interface.

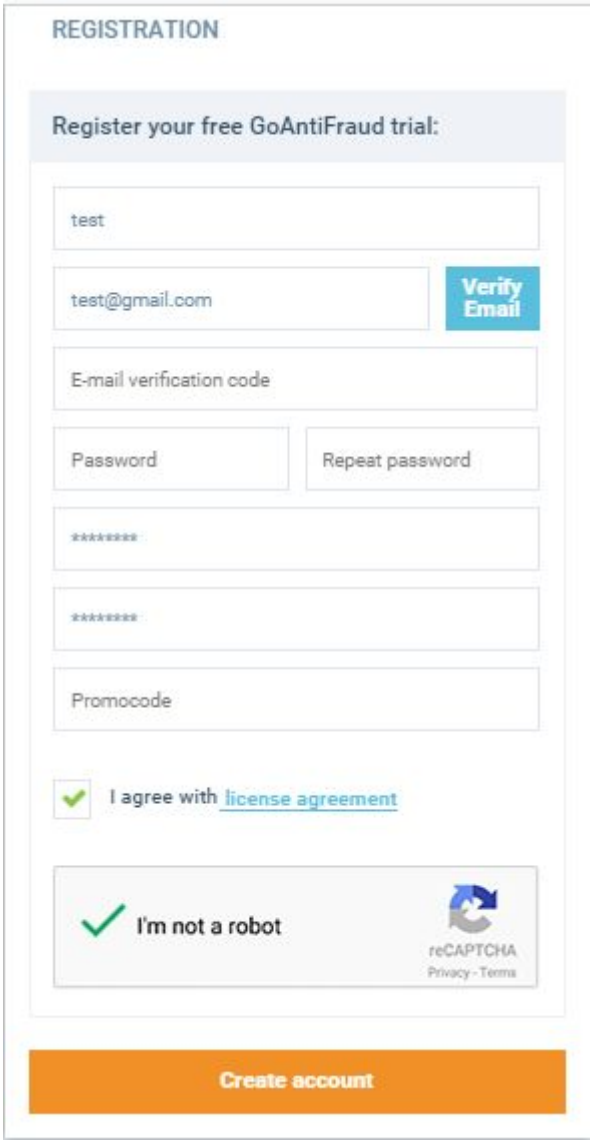
In the “Repeat password” field, you should duplicate the password you specified above.

In the “Phone” field, you can specify your phone number; however, filling in this field is optional.

In the “Skype” field, you can specify your Skype ID for more convenient and quick communication with the technical support department.

In the “Promotion code” field, please enter a promotional code, if you have one.

After reading the “License Agreement”, tick the appropriate box.

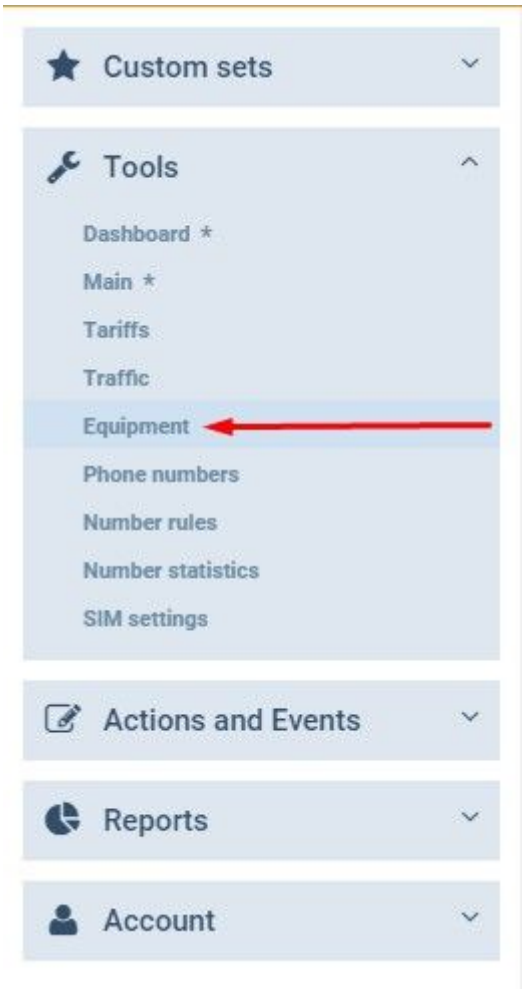


After clicking “CREATE ACCOUNT”, you will be taken to the main page of the service. Confirmation of registration is not required. You will receive a letter from the technical

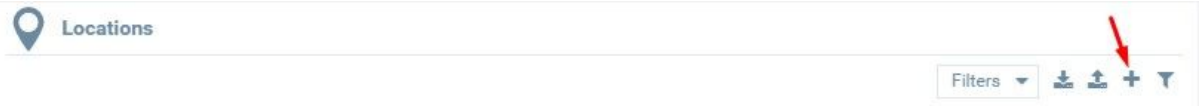
support service confirming your successful registration via e-mail. You can start using the program immediately after registration.

3.2. Creating locations

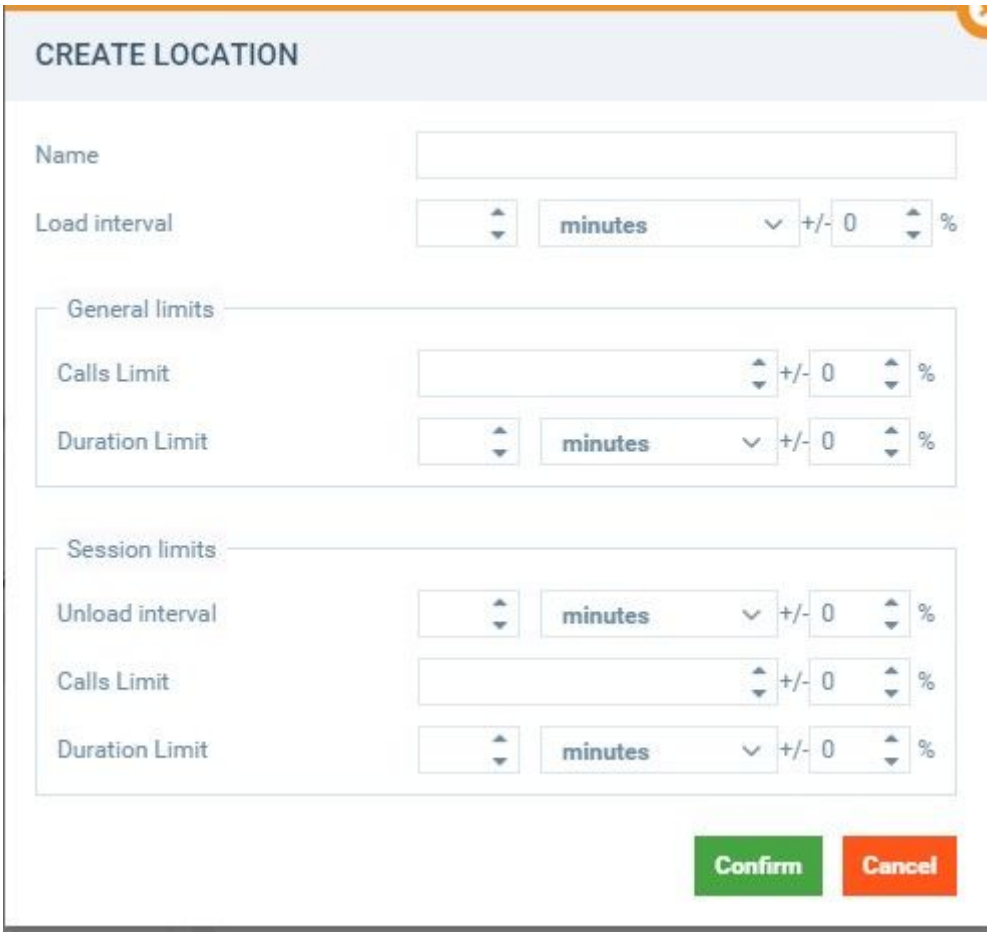
In the tool list, select the "Hardware" item.



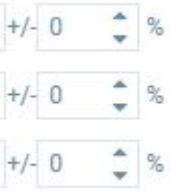
The location is the definition of the location where the gateways are physically located. When you create a location, you can specify some SIM card parameters at the same time.



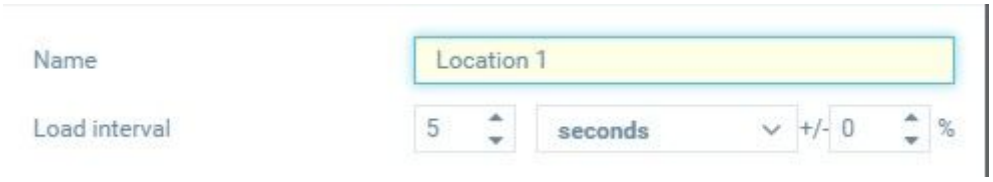
For adding a location in the appeared window, you must specify the location name, define the interval for loading SIM cards in the gateways of this location, specify the total number and duration limits for one SIM card in this location, and limit the session. In addition, it is suggested to configure the upload of the card after a certain period of time, if the other two parameters were not met.



In order to maximally approximate the actions of the SIM card to human behavior, there is a function "% deviation from the set values" in the form of adding a location.



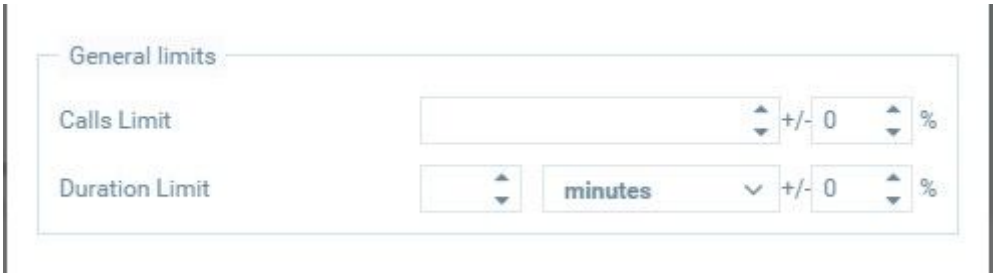
In the "Name" field you need to specify the name of the location. In the "Boot interval" field, we specify the interval with which the SIM card will be registered in the GSM network in this location.



Put here the value of 5 seconds. This will mean that each next SIM card will be registered on the network 5 seconds after the previous registration was started. This feature is useful

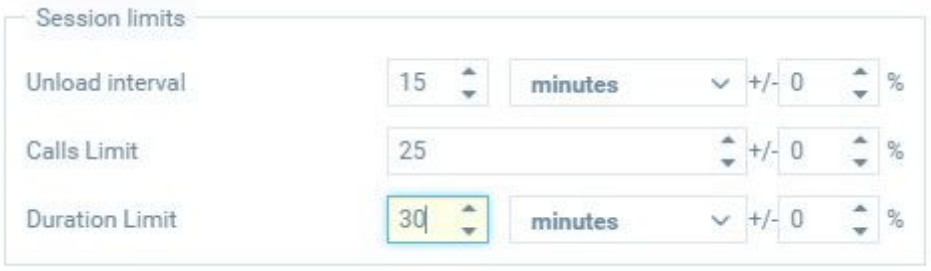
because it prevents simultaneous registration of a large number of your SIM cards in one base station.

General limits



In the "Call Limit" row, set the maximum number of calls that a single SIM card in a given location can make before resetting the counters. If you have several locations, and you want the map to move territorially, specify in this field a smaller number of calls than the maximum allowable limit of calls for one SIM card per day.

So, if the SIM card should make no more than 20 calls a day, 10 of them it can do in this location. Another 10 will be implemented in another location, simulating the movement of the map. In the field "Limit duration" set the maximum amount of time that the SIM-card can "talk" in this location before resetting the counters.



Session limits

In this field you can set the parameters of the SIM card operation for individual sessions in order to divide the total location limits into several sessions. This field indicates the parameters of the card operation during one session.

In the line "Unload interval", specify the time interval of the session, for example, 15 minutes. If for some reason the card can not execute the limits specified below, it will be automatically unloaded from the location after 15 minutes.

If the value of the total call limit, for example, 50 - this limit will be applied to each card that will enter this location. If you set the session limits in the "Call Limit" row to 25, the SIM card will enter the location, make 25 calls and change the location. After work already in another location, the SIM card will be able to return to the first one and call 25 more calls

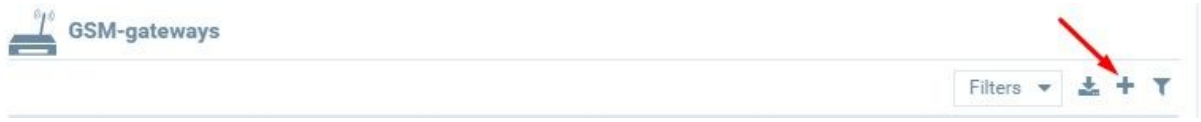
there until the total limit of 50 calls is reached. Similarly, with the parameter "Limit duration." If the card exceeds the set limit during the call, the call will be terminated.

After setting the values in the "Session limits" field, press the button

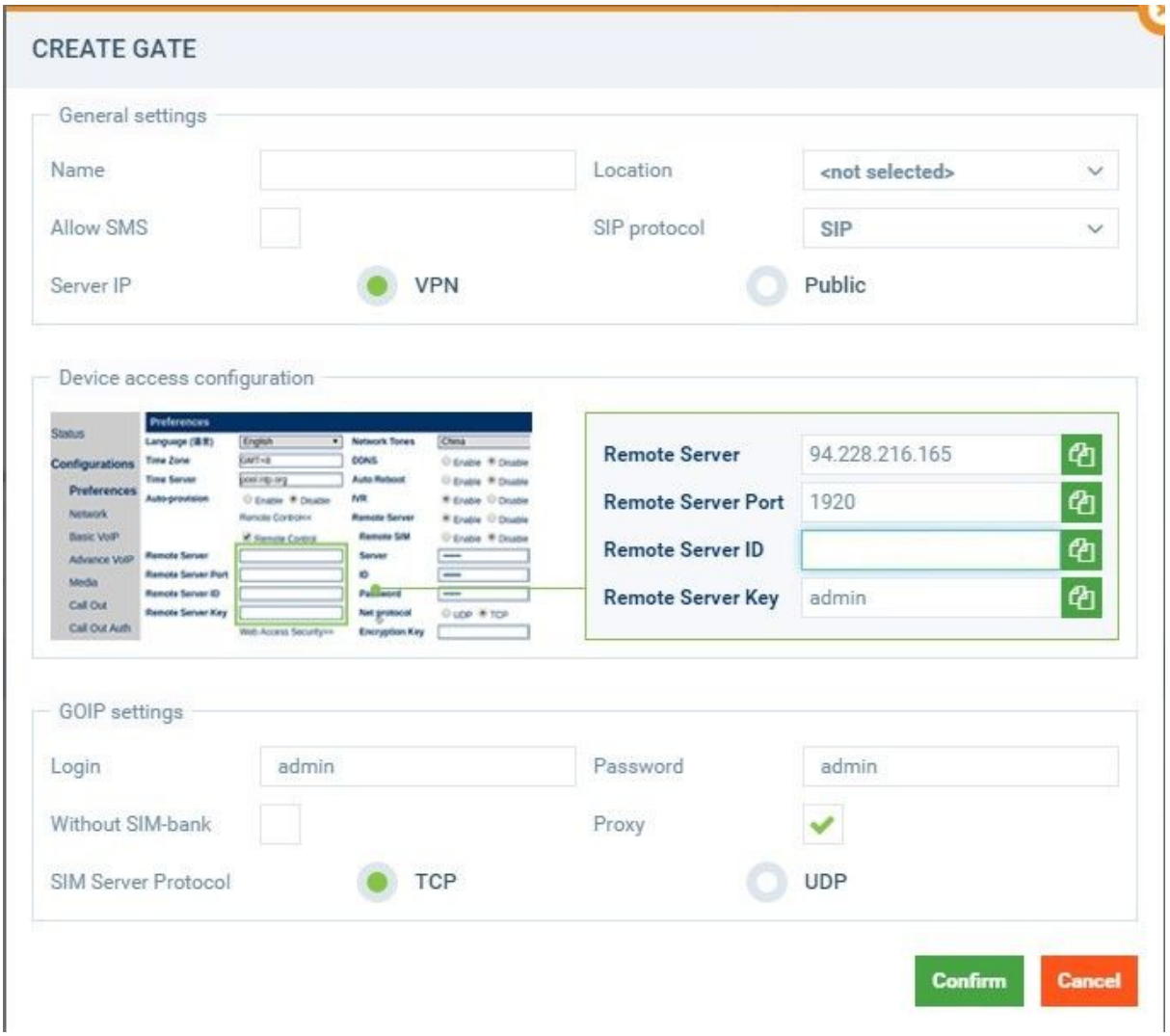
Now you can see the created Location in the location field.

3.3. Adding a GSM Gateway

After creating the location, we are moving to adding the GSM gateway in the GoAntiFraud interface. In the lower left corner of the screen, below the window of the locations is a field where GSM gateways are displayed. While it is empty, because no gateway has been added.



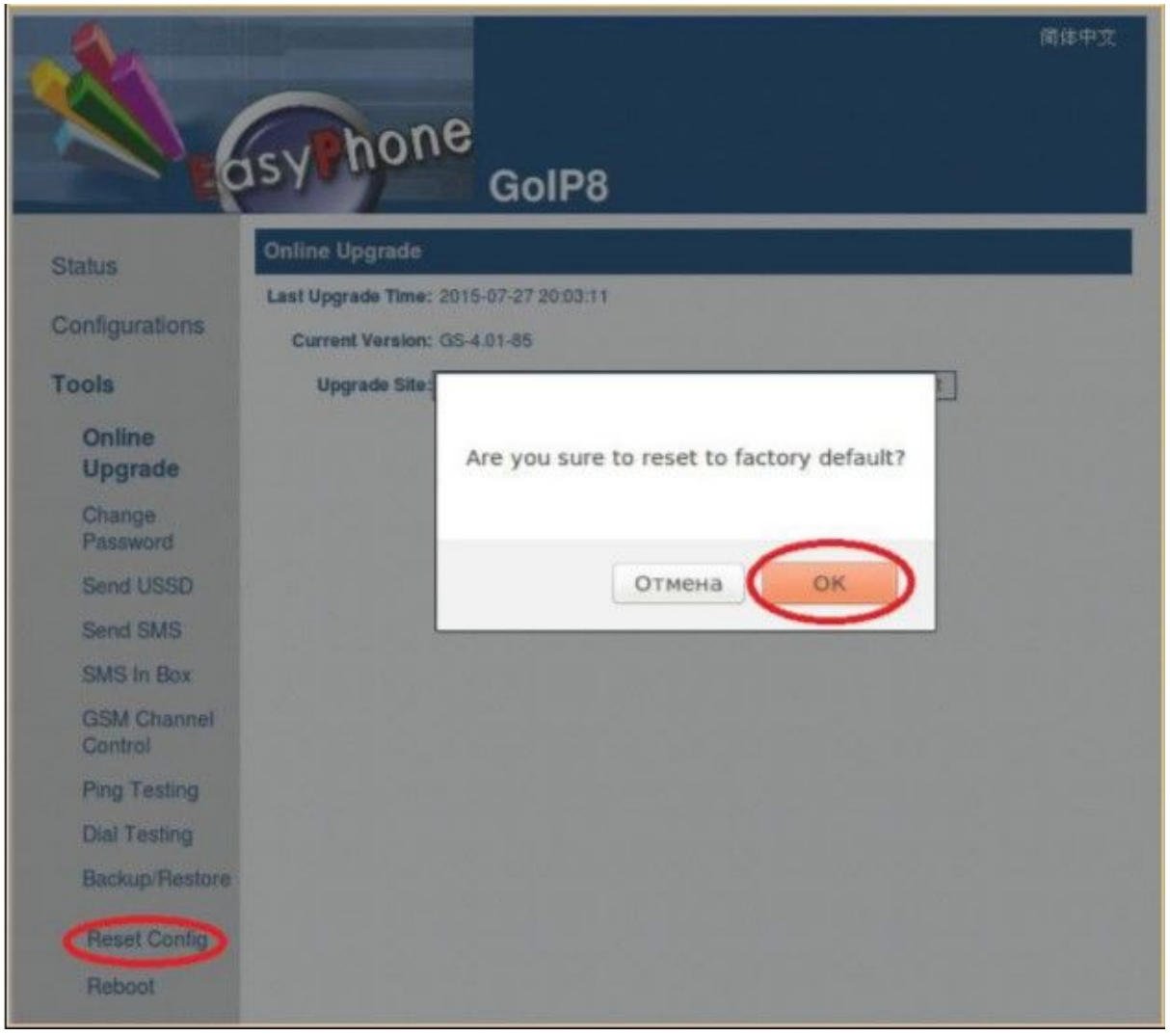
To add a GSM gateway, click on the "+" button in the gateway display field. After clicking the button you will be able to add a new gateway.



In the "General settings" section, you must specify the name of the GSM gateway and select the pre-created location. The "Allow SMS" field is responsible for the ability to receive and send SMS messages by the gateway. If you plan to use the SBO traffic optimization module, you must select the IAX2 drop-down list in the "SIP protocol" field. If not, leave the default SIP value.

If you have a configured VPN server, you need to tick the VPN entry. In all other cases, select "Public".

In the "Device Configuration" section you can find the data you need to enter into the web interface of your GSM gateway. When going to the web interface of the GSM gateway, we recommend that you first reset the settings to the factory default settings. To do this, go to the Tools tab and select Reset config. Confirm the selected action.



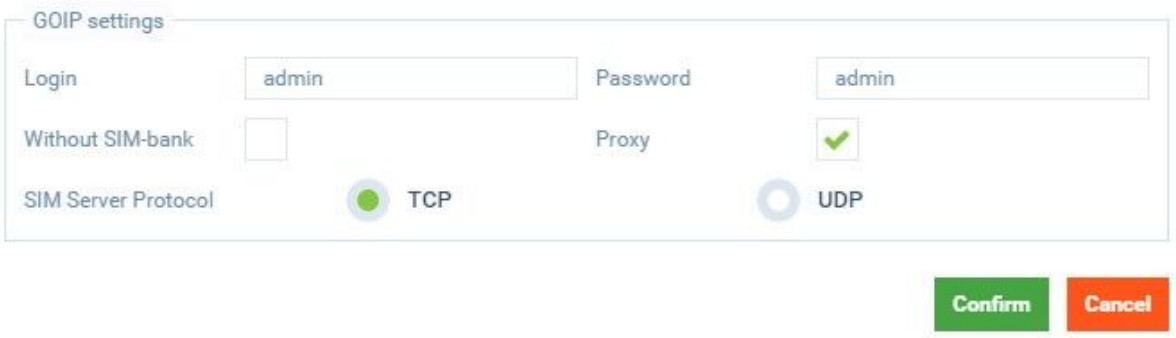
After that go to Configurations, and in the Preferences tab click on the line Remote control, then put a "tick" here.

Now, in turn, we input the data we received into the appropriate fields of the web interface and click on the "Save changes" button.

We return to the window of adding the GSM-gateway. Now you need to fill the section "GoIP settings"

Further in the fields "Login" and "Password" we enter the access data to the web interface of the GSM gateway.

In the field "Hard sim" it is necessary to tick if you intend to use GSM-gateways without SIM-banks. As for the values of Proxy and Sim Server Protocol, at the stage of adding the gateway there is no need to change them.



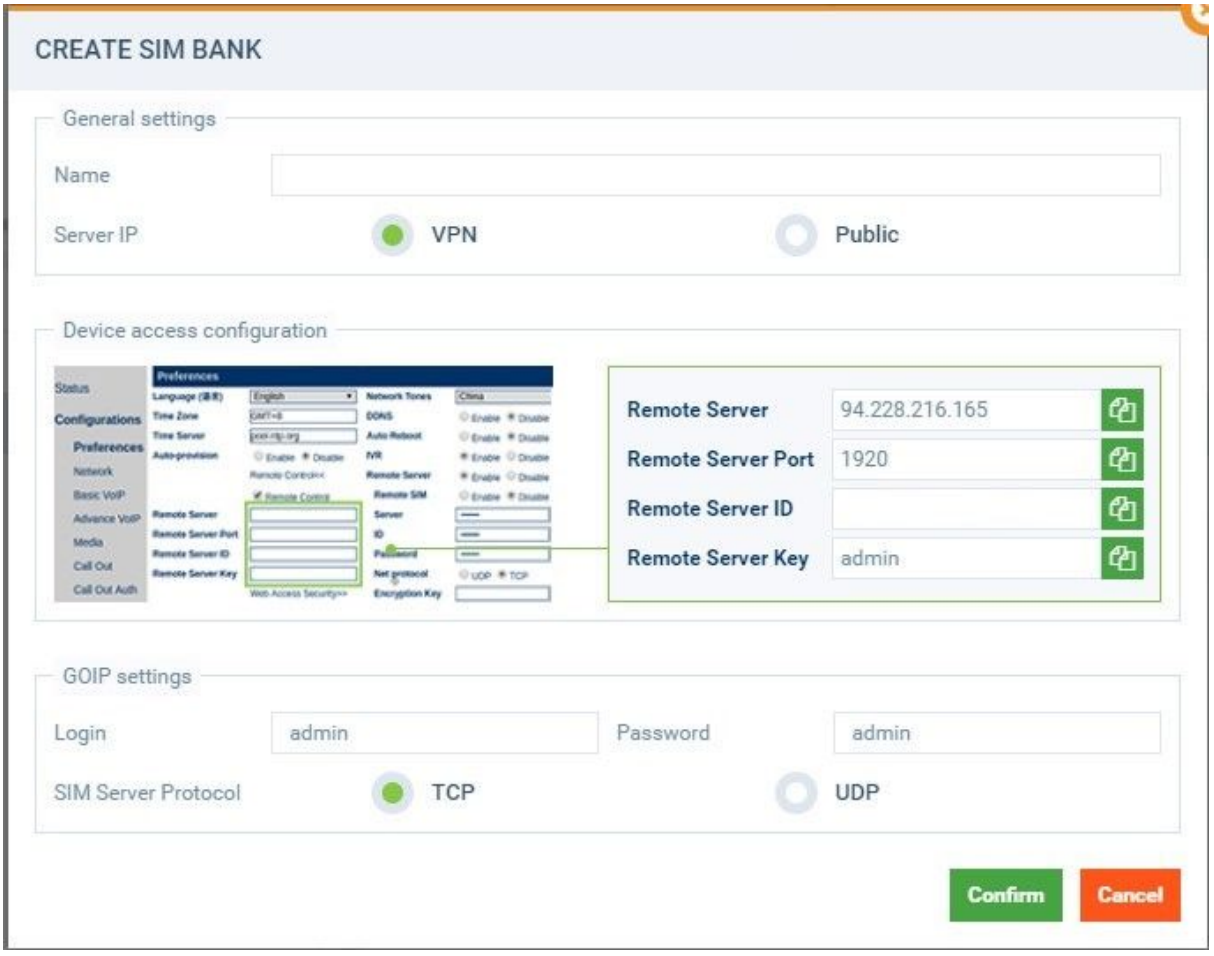
Then click on the "Confirm" button, and the GSM-gateway is ready for operation.

Now it is displayed in the gateway field of the GoAntiFraud interface.

3.4. Connection of a SIM Bank

To add a SIM Bank, click the add button in the “SIM Banks” window.

After clicking the button, you will be able to add a new SIM Bank.



In the “General Settings” section, you should specify a SIM Bank name. If you have a VPN server configured, you should tick this box. In all other cases, you should select “Public”.

Go to the SIM Bank web interface. The first thing we recommend is to reset to factory settings. To do this, go to the Tools tab and select Reset config. Confirm this action.

In the Configurations tab, enter the data from the “Device Configuration” section in the corresponding field.

Then, return to the window for adding a SIM Bank.

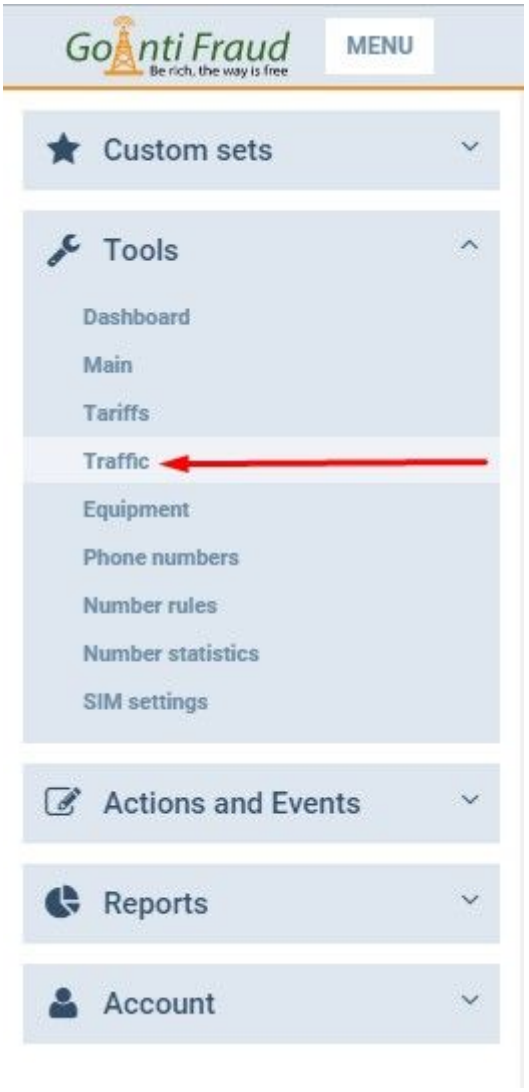
Further, in the “Login” and “Password” fields, enter the access data to the SIM Bank web interface.
Regarding the value of the “SIM server protocol” - there is no need to change it at the stage of adding a SIM Bank.

Now, the window “SIM Banks” displays the added device, its name and IP address.

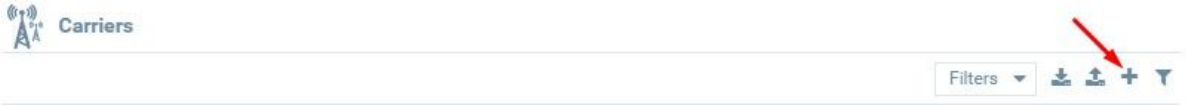
3.5. Creation of an Operator

One of the important settings is addition and configuration of Operators. When creating Operators, you define the rules for routing calls, indicating the directions by which the SIM card is allowed to make calls. Please note that the SIM card will not call at numbers that do not correspond to the created group of Operators.

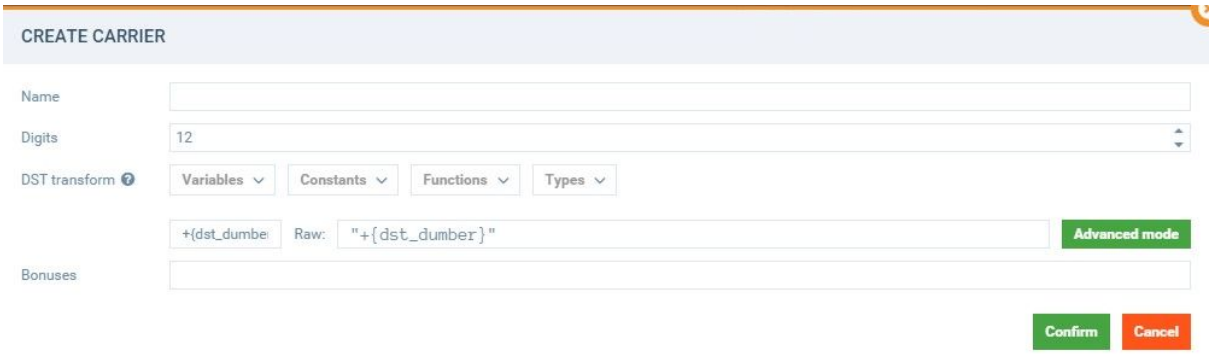
To add an Operator, go to the “Tools” menu and select “Traffic”.



In the “Operators” section, click the add button.



The Add Operator window pops up.



In the “Name” field, enter the name of the operator at whose numbers SIM cards will call.

After that it is necessary to fill in the “Number of digits in the number” field. Operators from different countries may have different numbers of digits in the number.

In the “Number conversion” field, you can modify the number. {dst_number} is the number that comes to GoIP. You can change the number (add numbers at the beginning or remove them). For example, if you add “00” to the number, the field will look like this: “00”+substr({dst_numer}).

After setting the name and the number of digits, you must save the settings by pressing the “Confirm” button.

Next, go to the “Codes” section in the traffic settings window, and click the button to add a new code.

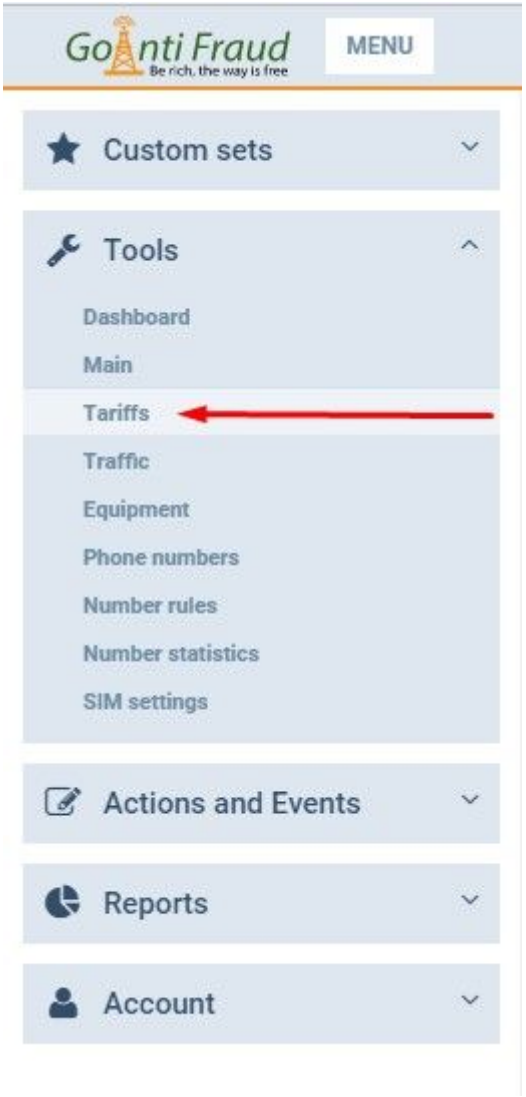
In the window that opens, select the operator you created earlier and set the required code for the mobile network of the operator. In the same way, you can enter other codes for this operator.

The “+” symbol before the code is not needed, since it is already specified by default.

Press the “Confirm” button, and the given parameters are ready to work.

3.6. Creation of tariffs, tariff options and option limits.

To create a tariff, an option and a limit, go to the “Tools” section and select “Tariffs”.



There are three sections in the window that opens: Tariffs, Tariff Options and Direction Limits.

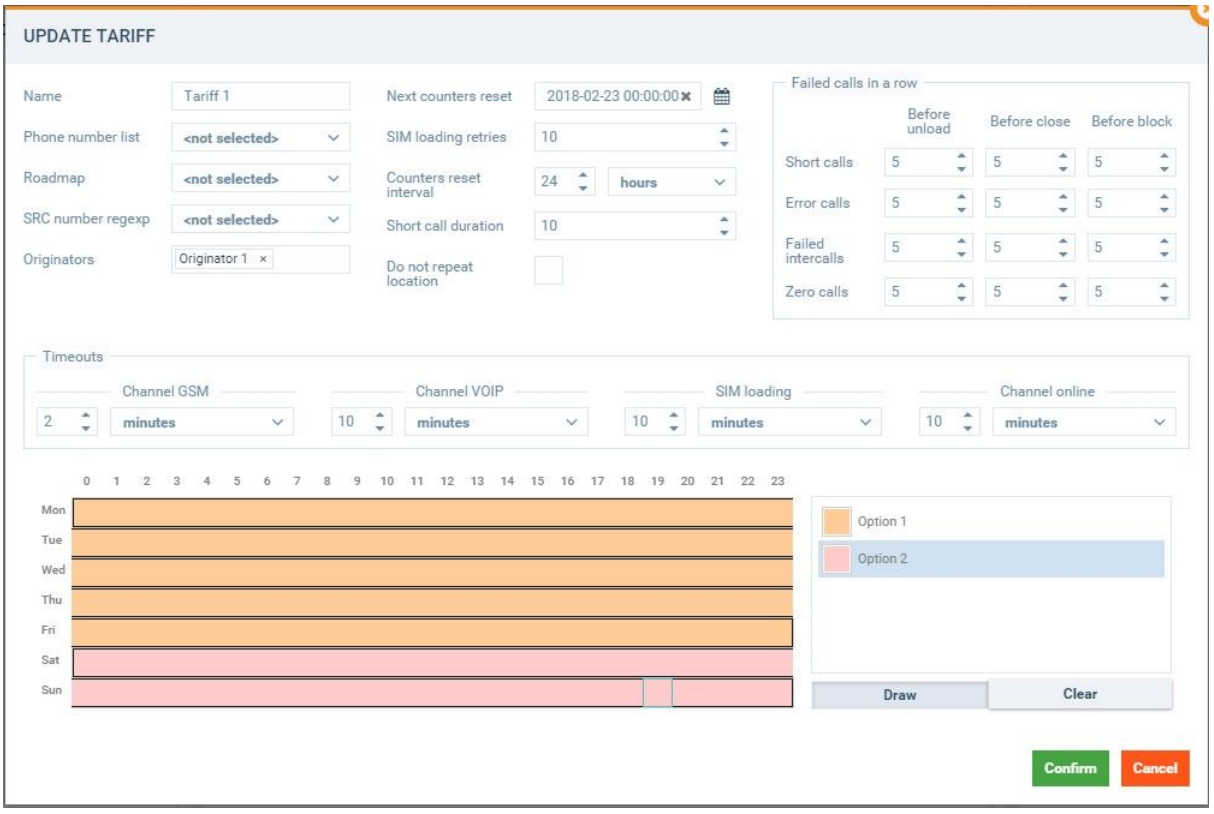
3.6.1. Creation of tariffs

Tariffs are the general rules by which a SIM card will work. In the “Tariffs” section, you need to click the add button, and in the window that opens, specify the SIM card settings.

Tariffs

The tariff creation window is divided into 4 blocks:

- basic settings;
- parameters of unsuccessful calls;
- timeout parameters;
- schedule.



Basic settings:

- Name. Capability to name the tariff.
- List of numbers. Here you can select a pre-created “black list” of numbers, which will be valid for this tariff.
- Road map. Here you can select the scenario created earlier for moving the SIM card between locations.
- Number templates. Capability to select previously created number templates.
- Originators. Here it is necessary to select originators that can send traffic within this tariff.
- Next counter reset. You can set the time and date for the next counter reset.
- Limit of attempts to register a SIM card. You can set limits on the number of attempts to register a SIM card in the GSM network. If, after a specified number of attempts, the SIM card cannot be registered - our system will block this opportunity for it, with the appropriate note.
- Interval of counter reset. You can specify how often the reset counters.
- Duration of a short call. You need to specify at what duration the call can be considered short.
- Do not repeat the location. This setting applies to the “Road Map”. It prohibits the SIM card from visiting the same locations during one cycle of counter reset.

Parameters of unsuccessful calls:

In this block, parameters are set where the SIM card is unloaded / closed / locked if it makes the specified number of short / unsuccessful / zero calls.

Timeouts:

Timeout is the time period during which the SIM card is allowed to be in the current state. In this block, we can specify a timeout for 4 actions or situations:

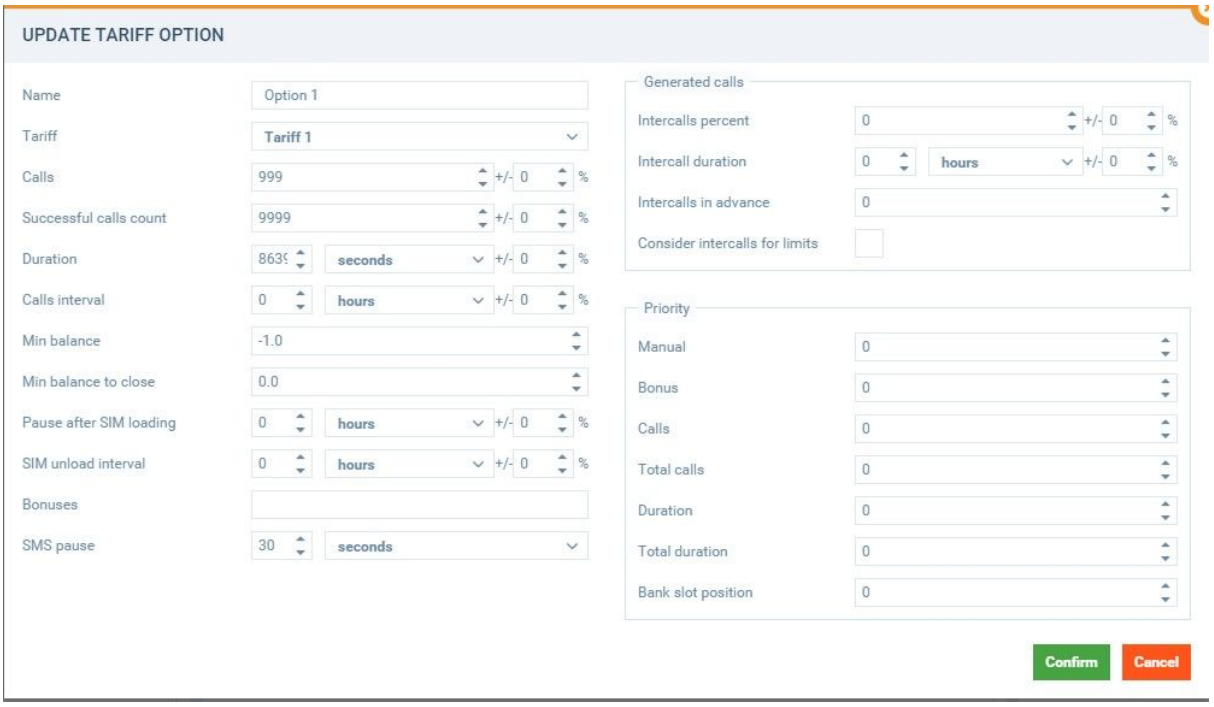
- Loss of GSM registration.
- Loss of VoIP connection.
- Time provided for trying to register with the GSM network.
- Loss of connection to the remote access server by the channel.

Schedule:

In this block, you can set the schedule for the tariff options. Creation of tariff options will be described in the next paragraph of the manual.

3.6.2. Creation of tariff options

Tariff options



For each tariff, you need to configure the options that we will add to the tariff settings in the "Schedule" block. Settings in the "Options" field are needed to create different modes of activity for SIM cards (day, night, etc.). Tariff options include 3 blocks:

- basic;
- generated calls;
- priorities.

Basic settings of tariff options:

- Option name.
- Tariff. Select the tariff to which the option will be attached.
- Limit of calls. You can specify the number of calls that a card can make within this option.
- Limit of successful calls. This setting is required if the card needs to make a certain number of successful calls.
- Call duration limit. Specify the duration of calls that a card can make within this option.
- Interval of calls. You can pause between each call made by the card that works in this option.
- Minimum balance before unloading. Specify the balance state at which the card leaves the gateway channel and will be closed until the balance is refilled.
- Minimum balance before closing. Specify the balance state at which the card should remain in the gateway channel, being unavailable for calls.
- Pause after downloading the SIM card. Specify the time period during which the card will not make calls after downloading to the gateway channel.

- SIM card unload interval. Specify the period after which the card must leave the gateway channel.
- Bonuses. This option allows you to select pre-created bonuses for a specific operator, which will be used in this tariff option.
- Pause for SMS. Specify the amount of time that the card will not be able to send SMS messages after uploading to the gateway channel.

Generated calls:

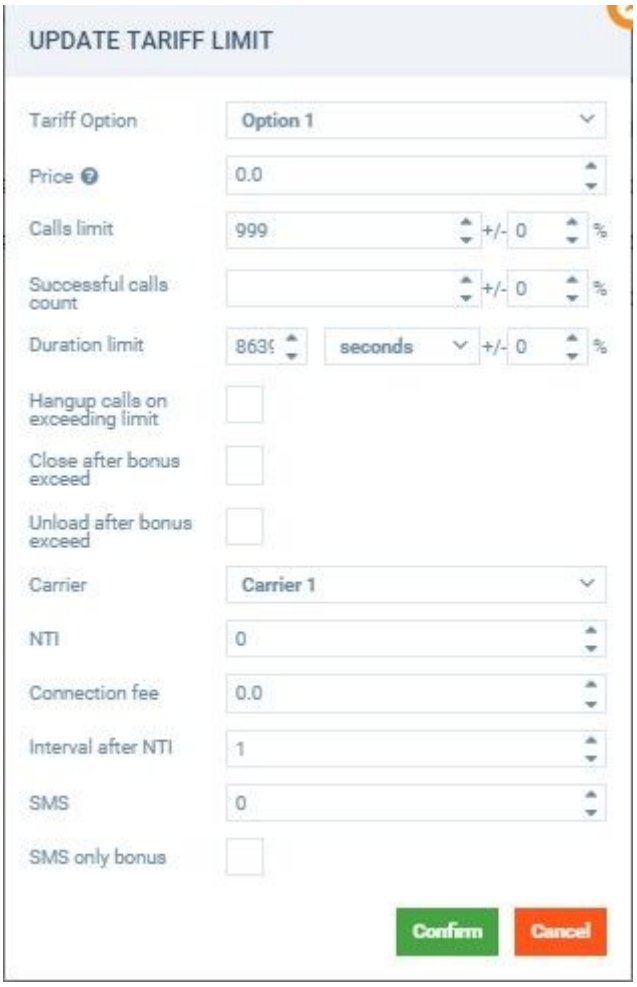
- Percent of calls. Specify what percentage of the total number of calls made by the SIM card should make generated calls.
- Duration of calls. Indicate how long each generated call should be in this tariff option.
- Calls in advance. The number of generated calls that the card must make before it starts receiving traffic.
- Take into account calls in the limits. It is useful in the case of toll calls within the network provided by the mobile operator.

Priorities:

This block allows you to specify the SIM card, which of the parameters is a priority, and what to focus on in the case of a parity situation for several parameters (that is, if they are of equal value).

3.6.3. Creation of direction limits

Direction limits



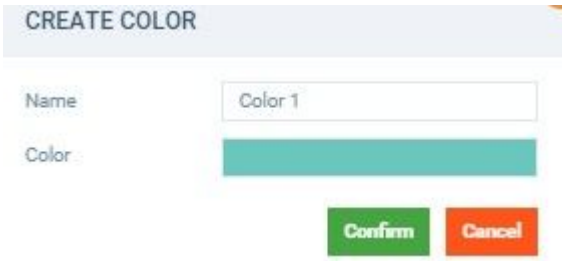
In this block, you should set the call rules for SIM cards of this tariff at the Operator numbers with the specified Calling Limits and Duration at the Specified Cost of the minute.

- Tariff option. Specify which option the data limits will be bound to.
- Cost. Specify the cost per minute of the conversation in the operator's network.
- Limit of calls. Set limits on the number of calls that a card can make within this limit option.
- Successful calls. Specify the number of successful calls that a card can make within this limit option.
- Duration limit. The total duration of calls that a card can make within this limit option.
- Break off calls when the limit is exceeded. Specify whether you want to end the active call if the card exceeds the length limit.
- Closing in the absence of bonuses. If this option is selected, the card will be unavailable for making calls, if the status of bonuses does not correspond to the required for work.
- Unload in the absence of bonuses. The same as in the previous paragraph, but the card will leave the gateway channel.
- Operator. Here you need to specify the operator to which this option limit will apply.
- NTI. This parameter indicates a non-fare call time. For example, if the card can speak for the first 60 seconds under the terms of the operator for free.

- Fee for connection. This amount will be deducted from the card balance at the beginning of a successful call.
- Tariffication interval after NTI. Specify the call duration, at which the call starts to be charged by the cellular operator. For example, 1 credit will be withdrawn from the card after every 60 seconds of the call.
- SMS. Here you can select a pre-created outgoing SMS template that will be sent.
- SMS is only a bonus. If you select this option, the fee for sending outgoing SMSes will be deducted from the bonus balance.

3.7. Creation of color

Color



Color is required in order to unload the card from the SIM Bank into the GSM gateway. Accordingly, you should “paint” both SIM cards and the channels in which they need to be unloaded. In addition, using the “Color” option, you can mark cards for convenience, as well as forcefully unload SIM cards under certain conditions (for example, assign a color to the card that is not used on the gateways).

To create a new “Color”, go to “Tools” - SIM Settings. In the “Colors” window, click the “Add” button.

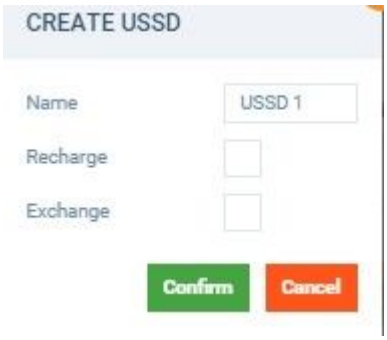
Basic settings:

- Name. Specify the name of the new “Colors” (you can call it whatever you want).
- Color. In this field, you can select the desired color and shadow.

3.8. Creation of USSD requests

The USSD request editor allows sending queries and receiving answers from the GSM operator. You can extract necessary information from the received answers, for example - balance, availability of bonus minutes, etc. To go to the editor, go to the “Actions and Events” section, then select the “USSD” item.

3.8.1. USSD

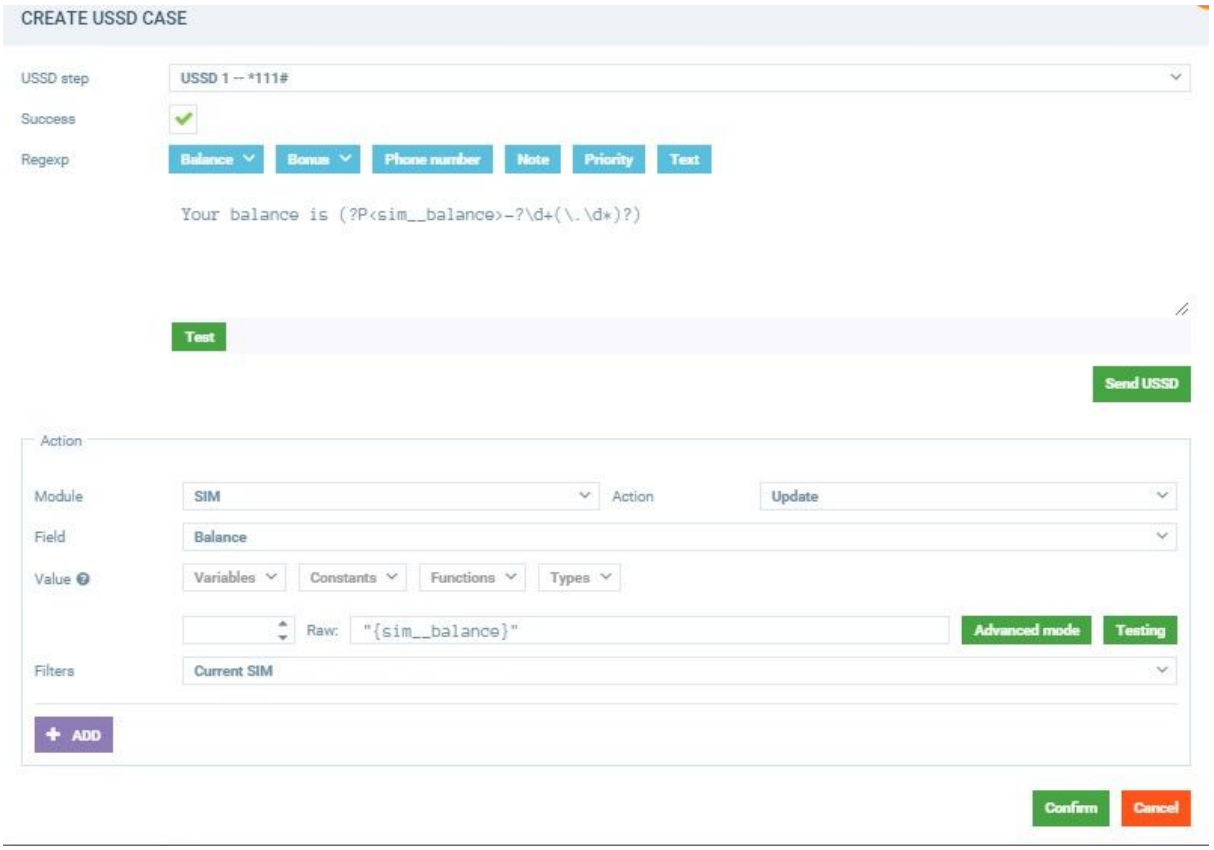


USSD settings allow you to analyze the mobile operator’s response to a USSD query, and to perform certain actions based on the response result.

Basic settings?

- Name. Specify a USSD name.
- Recharging. Choose whether this USSD rule will be recharging (that is, whether it is created to recharge cards using scratch codes).
- Exchanging. Specify whether this USSD rule will be exchanging (that is, whether it is created in order to recharge cards with other cards).

3.8.2. USSD options



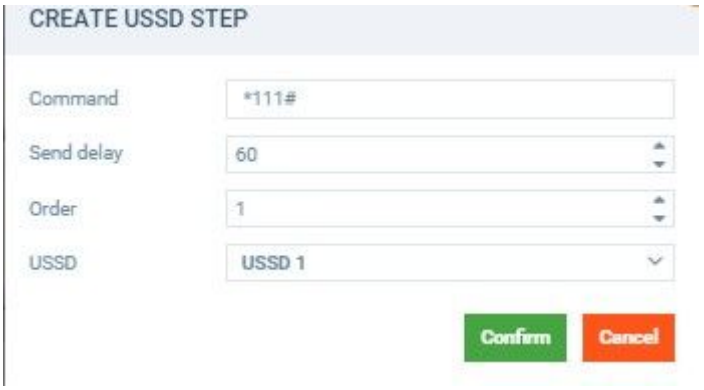
This field configures the analysis of the response to the USSD query and execution of certain actions by the card.

Basic settings:

- USSD step. The USSD command that is executed (see USSD Steps).
- Successfully. If the function is activated, consider this response successful; respectively, all other answers will be considered unsuccessful
- Regular expression. The field for analyzing the text of the operator response to the USSD query, which will result in an action

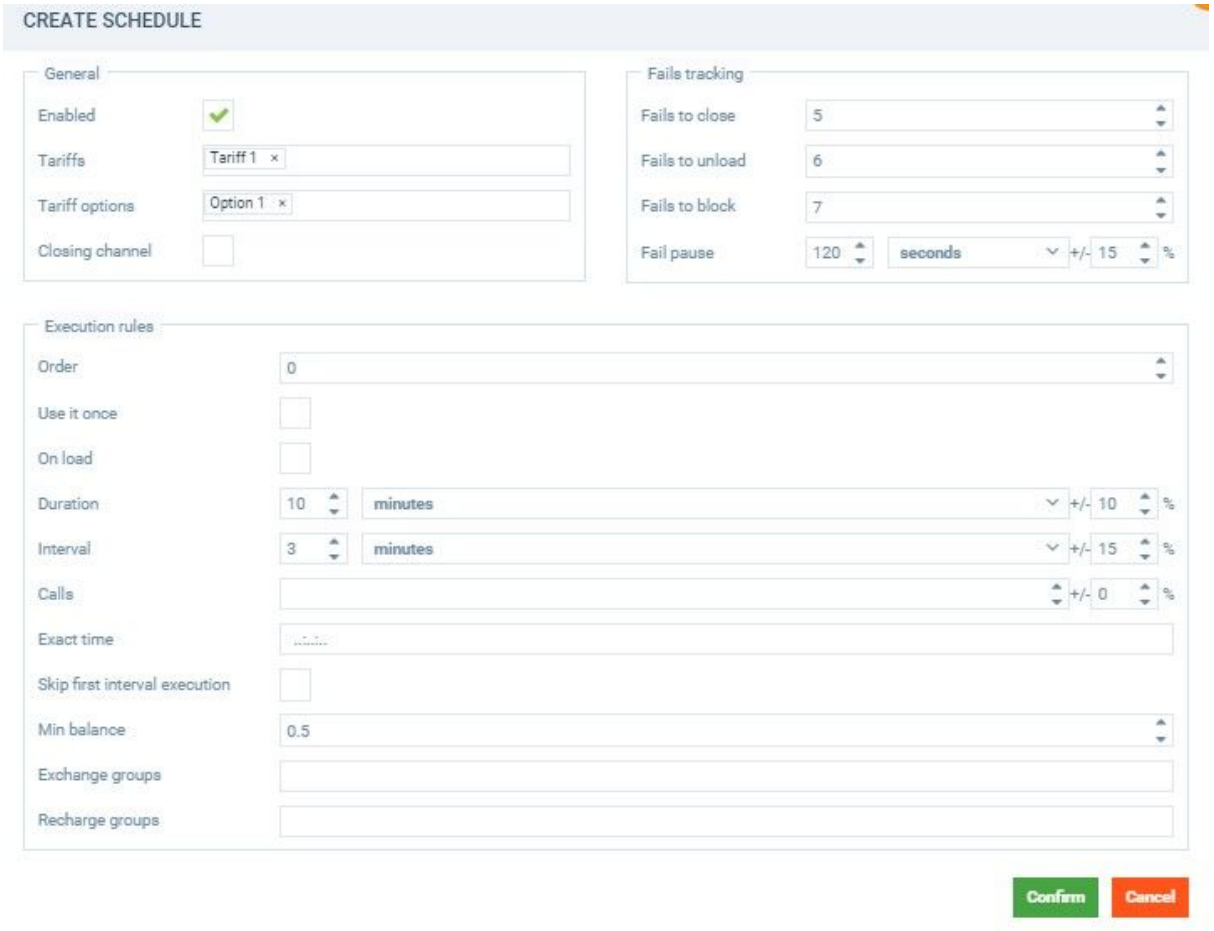
- Action. Immediately the action itself, which will be performed by the card.

3.8.3. USSD Steps



- Command. The USSD query code (for example *111#).
- Delay in sending. Specify the delay before sending the USSD query (in seconds).
- Order. Specify the priority of sending USSD (the lower the value, the higher the priority).
- USSD. The name of the USSD command (see USSD).

3.8.4. USSD Schedule



The “Schedule” block consists of 3 parts: “General”, “Error tracking”, “Execution rules.” This block allows you to configure rules for sending outgoing SMS, USSD, and also Events.

General:

- Active. The parameter allows you to enable/disable the schedule.
- Tariffs. Specify with what tariffs this SMS rule will work.
- Tariff options. Specify with which tariff options this SMS rule will work.
- Close the channel. If this function is active, the channel will be closed before the SMS command is successfully executed by the SIM card.

Error tracking:

- Failure to close. Closes the channel for a specified number of unsuccessful attempts to send SMS in a row.
- Failure before unload. Unloads the card for a specified number of unsuccessful attempts to send an SMS in a row.
- Failure before the block. Sends the card to the SIM block report (see SIM block report) for a specified number of unsuccessful attempts to send an SMS in a row.
- A pause between failures. The interval of the attempt to send an SMS command when the sending is unsuccessful.

Rules of execution:

- Order. Specify the schedule execution order (the lower the value, the faster the command will be executed).
- Once. The parameter allows the query to be executed only once for one card.
- While loading. Executes the query every time the card is loaded.
- Duration of calls. Executes the query every time the card “spoke” a certain duration of calls.
- Interval. Executes the query every time after a specified period of time.
- Number of calls. Executes the query every time the card has made a certain number of calls.

Important! Setting at least one of the 3 previous items is MANDATORY, otherwise the schedule will not work.

- Exact time. Executes the query every day at the specified time.
- Ignore the first execution. When set to (on) first waits for the expiration of one of the intervals, then executes the query. When set to (off), executes the query before one of the intervals expires.
- The minimum balance. Specify the lower threshold of the balance value at which the system starts recharging the card using scratch codes.
- Exchange groups. Specify the name of the exchange group (see Exchange groups).
- Groups of refill codes. Specify the name of the recharging group (see Recharge code groups)

3.9. Adding an originator

Originators

To add an originator, press the + button, then you will see a window. In the “Name” field, specify the name for the originator; in the “Prefix” field, select one of 10 prefixes. In the “Tariff” field, choose an option from the drop-down list and click the “Confirm” button.

Originators’ IPs

To add the originator’s IP, press the + button. Then the “CREATION of ORIGINATOR’s IP” window will appear. In the “Originator” field, select the originator from the drop-down menu, enter the IP address of the originator in the “IP” field and press “Confirm”.

4. Tools

4.1. Statistics

The statistics section consists of widgets that allow you to monitor the current state of your equipment in one window, without having to go to other sections. A total of 55 widgets are available for display. But by default, 9 widgets are visible on the statistics panel, which will be discussed later.

GSM gateways

Widget in the “Statistics” section, which indicates the number of gateways added to your account.

On the main tab in the “GSM gateways” window, you can see the existing gateway (s), its name and location in which it works. Also, this widget provides the online/offline indicator.

In this window, you can also add a gateway by clicking the “+” in the upper right corner of the window.

In the “Hardware” tab in the “GSM gateways” window, you can see the already existing gateway (or gateways) and its name, the location in which the gateway operates, and the online/offline indicator.

In this window, you can also add a gateway by clicking the “+” in the upper right corner of the window.

SIM banks

The widget shows the number of SIM banks added to your account.

Number of SIM cards

The widget shows the number of SIM cards installed in the SIM bank.

ASR

Widget in the “Statistics” section, indicating the average number of answered calls. ASR is percentage of the number of answered calls to the total number of calls.

By clicking on the settings icon, you can specify a specific time interval. The information will be displayed for the selected time period.

ACD

The widget shows the value of the ACD indicator (average duration of the SIM card conversation).

By clicking on the setting icon, you can specify the time interval for which the information will be displayed.

Calls

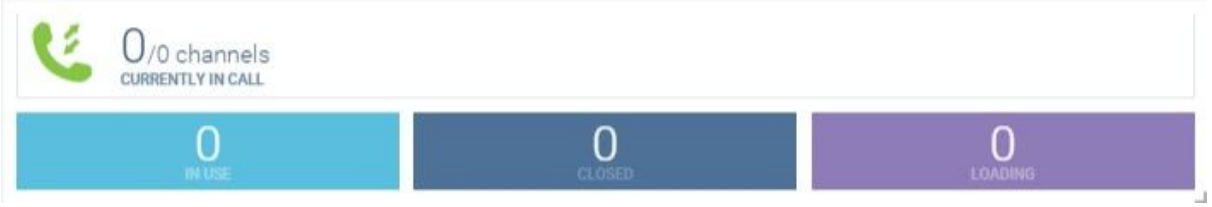
A widget in the statistics section that displays the number of minutes, as well as the values of ASR and ACD indicators.

By clicking on the settings icon, you can specify the rate at which information will be displayed. You can also set the time interval for which information will be displayed.

USSD requests

The widget in the statistics section that shows the number of created USSD queries in the USSD editor.

Channel statuses



The widget in the statistics section that displays information about the channels, namely:

- how many channels are making calls at the moment (out of the total number of channels);
- the number of channels ready to operate (in use);
- the number of channels closed for any reason;
- the number of channels into which the cards are currently loaded.

In the widget settings, you can sort the information according to the tariffs.

Call schedule

The widget in the statistics section, in which you can visualize statistics for the last 24 hours in the chart.

Symbols in the chart:

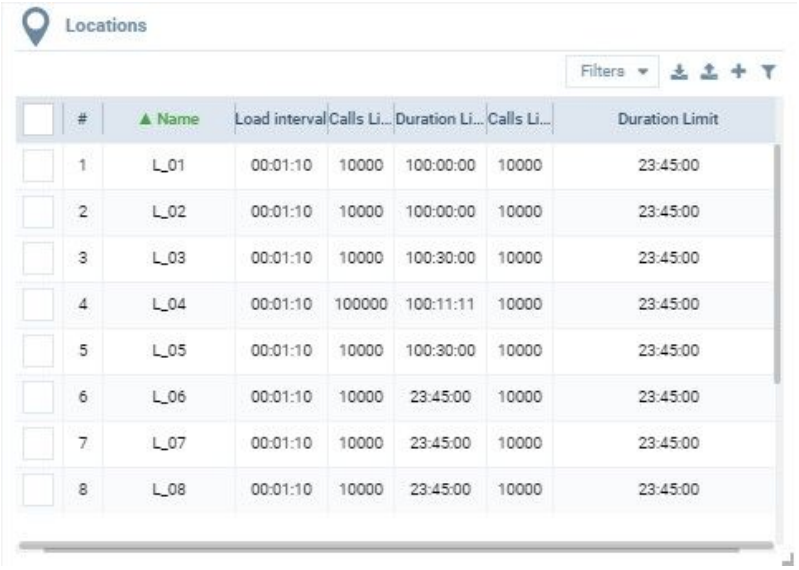
- Green - available capacity (the number of maps loaded).
- Yellow - the number of cards from which calls were made.
- Blue - the number of cards that were making calls yesterday.
- Zoom - sets the hour or three-hour interval for easy viewing of the chart.

In the widget settings, you can set the automatic updating of the chart.

4.2. Main panel

The main panel is designed for prompt intervention in the operation of equipment and for carrying out basic operations with SIM cards and GSM gateway channels.

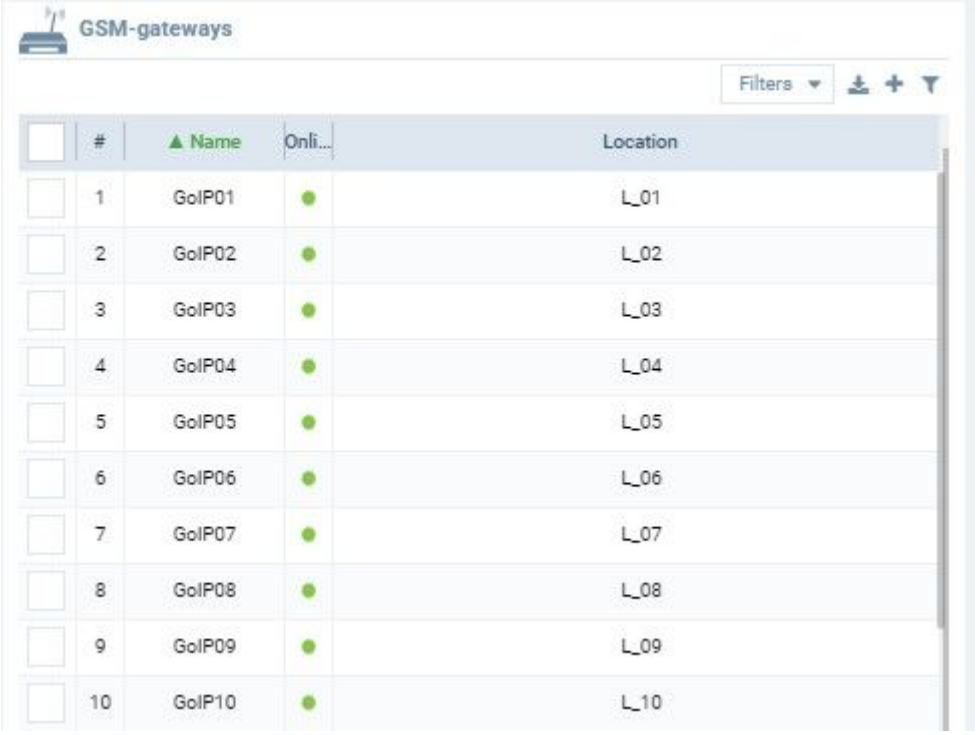
4.2.1. Locations



#	Name	Load interval	Calls Li...	Duration Li...	Calls Li...	Duration Limit
1	L_01	00:01:10	10000	100:00:00	10000	23:45:00
2	L_02	00:01:10	10000	100:00:00	10000	23:45:00
3	L_03	00:01:10	10000	100:30:00	10000	23:45:00
4	L_04	00:01:10	100000	100:11:11	10000	23:45:00
5	L_05	00:01:10	10000	100:30:00	10000	23:45:00
6	L_06	00:01:10	10000	23:45:00	10000	23:45:00
7	L_07	00:01:10	10000	23:45:00	10000	23:45:00
8	L_08	00:01:10	10000	23:45:00	10000	23:45:00

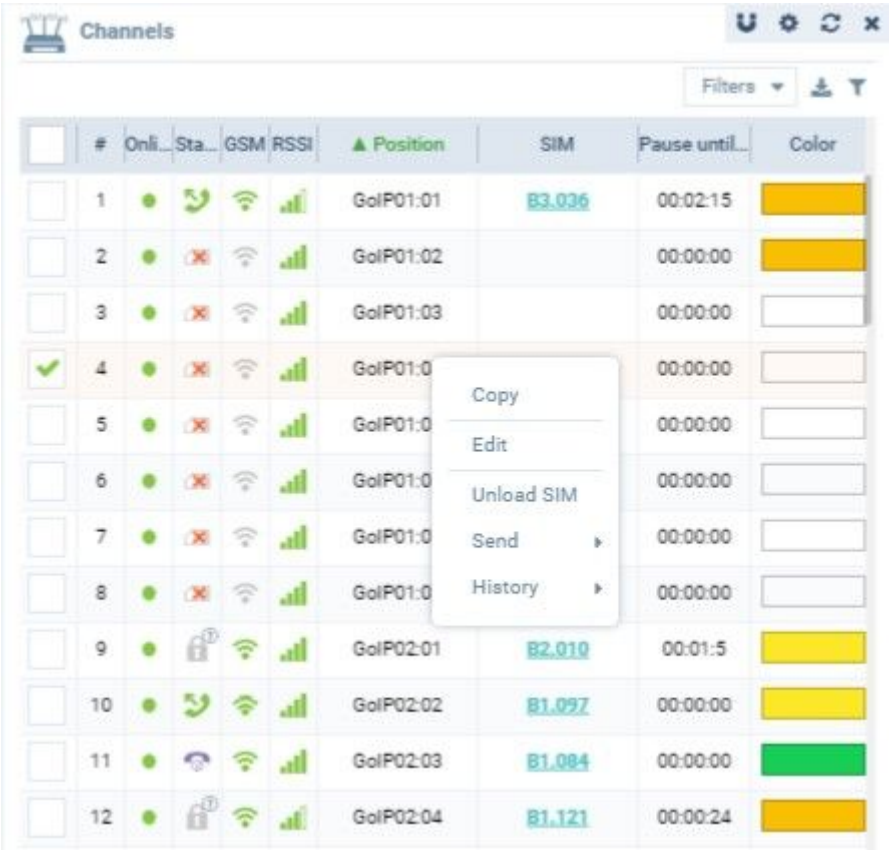
Location is definition of a location where gateways are physically located. In this block of the main panel, you can see the settings for all locations that were specified at creation, and also edit them if necessary by right-clicking on the desired location. In the same block, you can create a new location, clone it, or delete an existing one.

4.2.2. GSM gateways



The “GSM gateways” block in the main menu displays information about the status of each gateway added in all locations.

4.2.3. Channels



The gateway channel status is displayed in the “Status” column in the gateway window on the main UI page.

The status *no sim* means that there is no SIM card in the GSM gateway. If the channel has *no sim* status, you can see in the GSM column that the port is not in the network (in this case, the icon is gray).

The *loading* status means that the SIM card is being loaded into the gateway channel from the SIM bank (the status icon is orange), or being registered in the GSM network (the SIM card icon in the SIM bank window is green).

The *closed* status means that the SIM card in the gateway port has entered the GSM network, but it does not work (it is paused).

The *in use* status means that the card in the gateway channel is ready to receive traffic.

The *incall* status means that the channel is in a state of a terminating call.

The *incoming call* status means that the channel is in the state of receiving a generated incoming call.

The *outgoing call* status means that the channel is serving the outgoing generated call.

Copy

To copy any value from the channel columns, you need to right-click on the channel and select “Copy”

Edit

To edit the information on the channel, you need to right-click on the channel and select “Edit”.

In the “Next call” point, you can set the date and time of the next call. If this is not necessary, ignore this point.

“Priority” point - the lower the value is, the more calls will be sent to this channel.

The “Color” parameter is provided in order to change the color of the GSM gateway channel. You will be prompted to select a color from existing colors or remove the color of the channel.

“Peer Name”, “Peer Password”, and “Channel Prefix” points are required for technicians to configure SBO. DO NOT change anything for these points.

Unload a SIM

When the card is in the gateway channel and it must be immediately unloaded in manual mode, you will be able to use the “Unload a map” option. To access the corresponding menu, right click on the gateway channel and select the “Unload a map”

History

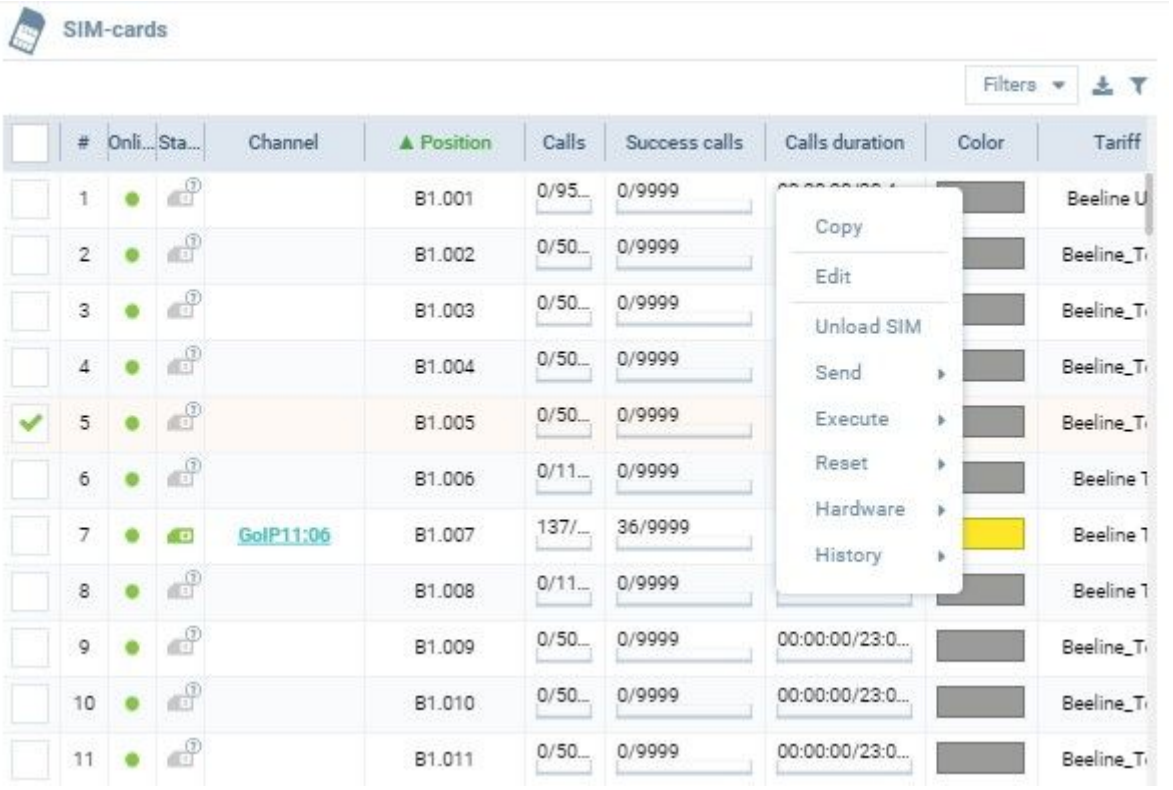
The “History of the channel calls” allows you to see the history of calls of the GSM gateway channel.

The “History of SMS” point allows you to see the history of the SMS channel of the GSM gateway.

The “USSD History” point allows you to view the history of the USSD channel of the GSM gateway.

The “USSN History” point allows you to view the history of the USSN channel of the GSM gateway.

4.2.4. SIM cards



A SIM card is a subscriber identification module used in mobile communication. SIM cards are used in GSM networks.

Edit

To edit information on the SIM card, right-click on the channel and select “Edit”.

In the “SIM options” you can change some SIM card parameters.

In the“Holder number” field, you can specify the MSISDN of the SIM card.

In the “Balance” field you can specify the balance of the SIM card. It will be necessary to set the SIM card’s starting balance, or after the balance is recharged.

You need to tick the “Activated” point if the SIM card was activated earlier and ready to go.

In the“Tariff” field, select the tariff to which the SIM card will be attached.

The “color” of the SIM card allows you to select an existing color from the drop-down list.

The “SIM group” is used to distribute the generated calls and SMS messages. Maps will call and send messages to each other only within their group.

In the “Tags” field, you can add previously created tags for marking and filtering cards.

In the “IMEI” field, you can manually enter IMEI.

The “Next download” field allows you to specify the date of the next loading of the map into the channel.

In the “Cause of the manual block” field, you can select the manual block on the card.

The “Priority” field - the higher the value, the more calls will be received to this channel.

The "Bonus" field allows you to select bonuses on the card, if any.

Unload a SIM

When the card is in the gateway channel and it must be immediately unloaded in manual mode, you will be able to use the “Unload a map” option. To access the corresponding menu, right click on the gateway channel and select the “Unload a map”

Send

To send USSD via SIM card, you must right-click on the channel and select the “Send USSD”. A window will appear for sending USSD manually. The “Command” field displays a list of the most recently sent USSD commands; below, you can send any command manually. In the “Reply” field, you can see the response to the sent USSD command.

To send an SMS via a SIM card, right-click on the channel and select “Send SMS”. A window will appear for sending SMS manually. In the “Phone number” field, we indicate the phone number to which we will send an SMS. In the "Message text" field, enter the text of the message you want to send.

Execute

Using this tool, you can send USSD, SMS or event manually. Such a sending will not affect on the schedule. Here you can select USSD, SMS, or event. USSD, SMS, events of the current tariff and all the others are highlighted separately.

Reset

To reset, right-click on the channel and select the “Reset”. The “Reset block” point unloads the cards from the SIM report block. In the “Reset schedule” point, you can reset the schedule for USSD, SMS, or events. The effect is similar to resetting counters or a successfully executed USSD, SMS, event.
The “Reset counters” point allows you to reset the counters of the number of calls and duration of calls for a SIM card or several SIM cards. The next counter reset will occur according to the rule specified in the “Tariffs” form. If you select “Reset counters of unsuccessful calls”, the number of calls with zero duration for this SIM card will be reset.

Recalculate

To recalculate information on the SIM card, right-click on the channel and select “Recalculate”. The “Reset SIM” point allows you to recalculate all data for the SIM card

(sometimes the SIM bank responds with bad data, after saving and recording which the card can not enter the channel). The “Recalculate ICC” allows you to force check which SIM card is inserted into the slot.

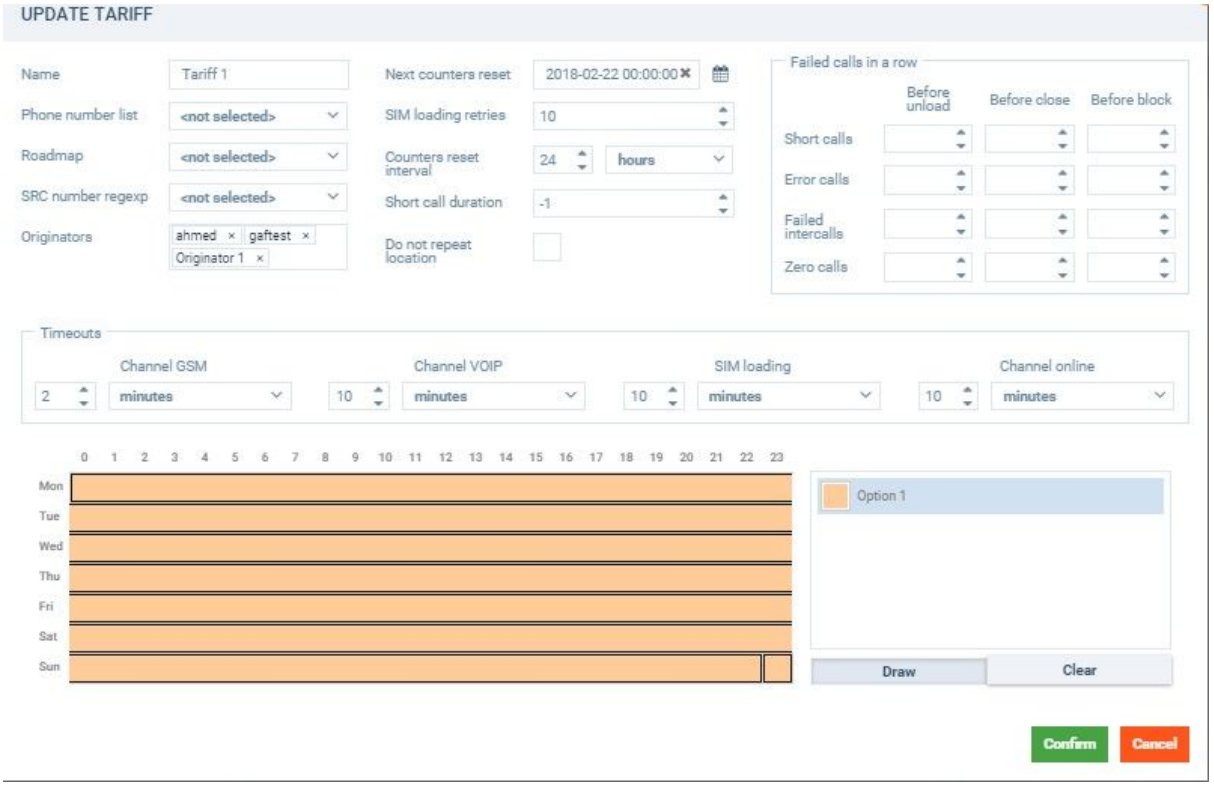
History

By pressing the right mouse button on the SIM card, we call the context menu and select the “History” point. You can choose to view such parameters as: “History of calls”, “History of SMSes”. “USSD History” and “USSN History”.

4.3. Tariffs

The tariff creation window is divided into 4 blocks:

- basic settings;
- parameters of unsuccessful calls;
- timeout parameters;
- schedule.



Basic settings:

- Name - possibility to name the tariff.
- List of numbers. Here you can select a pre-created “black list” of numbers, which will be valid for this tariff.
- Road map. Here you can select the scenario created earlier for moving the SIM card between locations.
- Number templates. Allows to select previously created number templates.

- Originators. Here it is necessary to select originators that can send traffic within this tariff.
- Next counter reset. You can set the time and date for the next counter reset.
- Limit of attempts to register a SIM card in the GSM network. If, after a specified number of attempts, the SIM card can not be registered - our system will block this opportunity for it, with the appropriate note.
- Interval of counter reset. You can specify how often to reset counters.
- Duration of a short call. Using this parameter you specify after what duration of call it can be considered as short.
- Do not repeat the location. This parameter refers to the “Road map” and prohibits the SIM card from visiting the same locations during one cycle of counter reset.

Parameters of unsuccessful calls:

In this block, parameters are set where the SIM card is unloaded / closed / locked if it makes the specified number of short / unsuccessful / zero calls.

Timeouts:

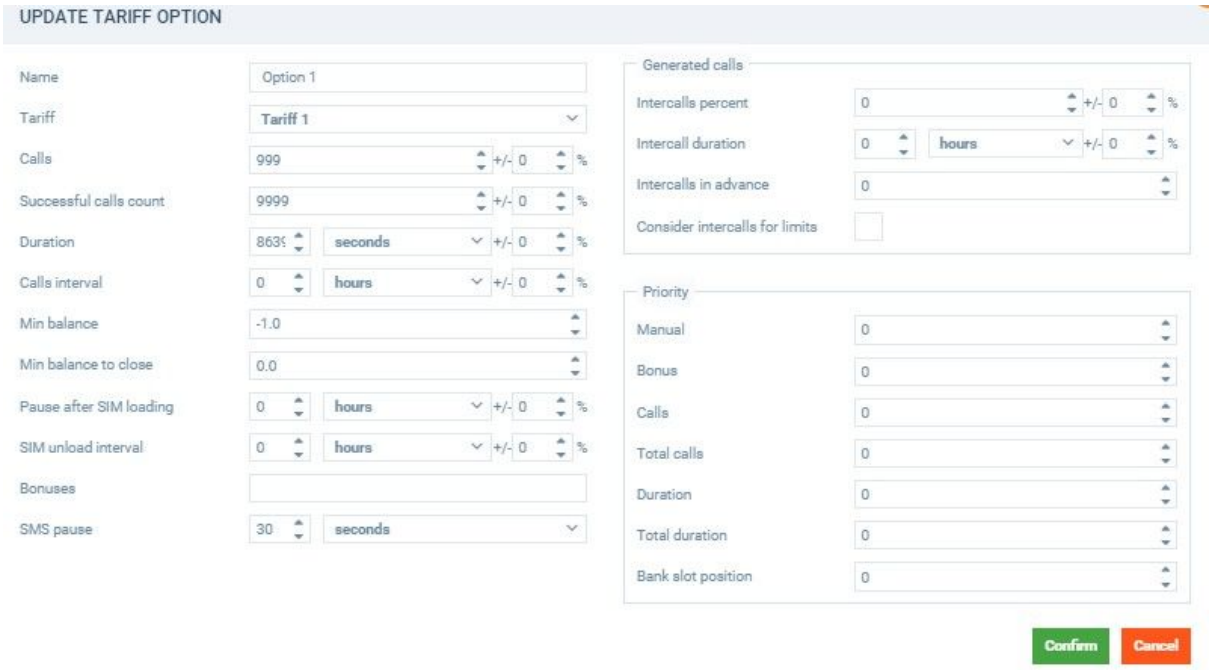
Timeout is the time period during which the SIM card is allowed to be in the current state. In this block, we can specify a timeout for 4 actions or situations:

- loss of GSM registration.
- loss of VoIP connection.
- time provided for trying to register with the GSM network.
- loss of connection to the remote access server by the channel.

Schedule:

In this block, you can set the schedule for the tariff options. Their creation will be described in the next paragraph of the manual.

4.3.1. Tariff options



For each tariff, you need to configure the options that we will add to the tariff settings in the "Schedule" block. Settings in the "Options" field are needed to create different modes of activity for SIM cards (day, night, etc.). Tariff options include 3 blocks:

- basic;
- generated calls;
- priorities.

Basic settings of tariff options:

- Option name. Name the option.
- Tariff. Select the tariff to which the option will be attached.
- Limit of calls. Specify the number of calls that a card can make within this option.
- Successful calls. This setting is required if the card needs to make a certain number of successful calls.
- Call duration limit. Duration of calls that a card can make within this option.
- Interval of calls. Pause between each call made by the card that operates in this option.
- Minimum balance before unloading. The balance state at which the card leaves the gateway channel and will be closed until the balance is refilled.
- Minimum balance before closing. Same as the previous point, but the card will remain in the gateway channel being unavailable for calls.
- Pause after downloading the SIM card. The time period during which the card will not make calls after downloading to the gateway channel.
- SIM card unload interval. The period after which the card must leave the gateway channel.
- Bonuses. This point allows you to select pre-created bonuses for a specific operator, which will be used in this tariff option.

- Pause for SMS. The time period that the card will not be able to send SMS messages after uploading to the gateway channel.

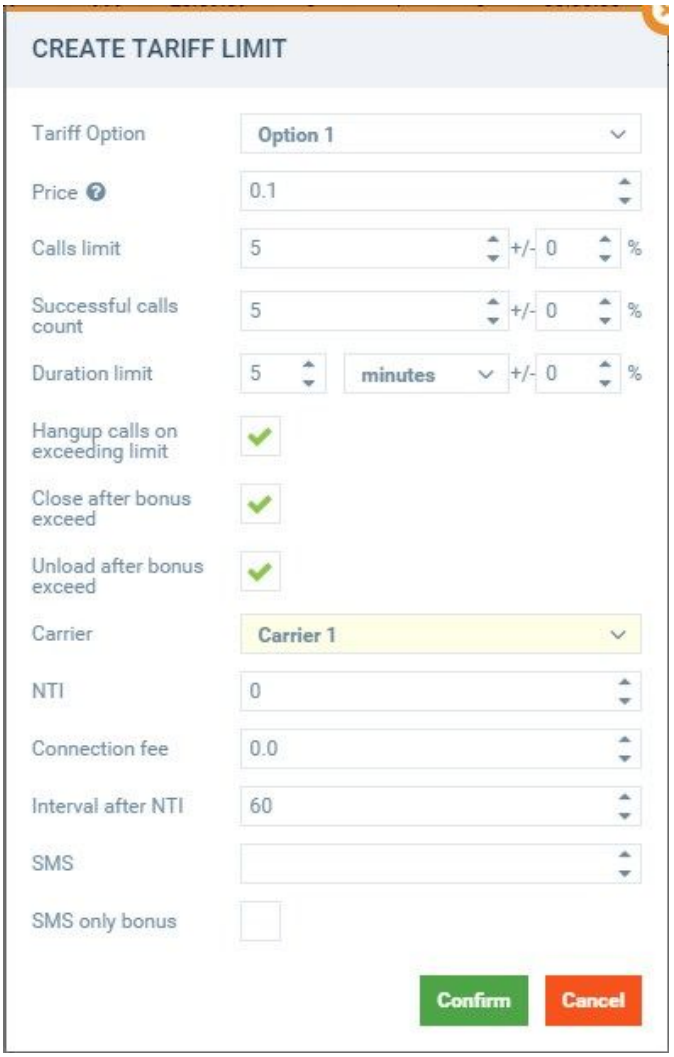
Generated calls:

- Percent of calls(incoming calls per SIM card). Specify what percentage of the total number of calls made by the SIM card should be generated.
- Duration of calls(incoming calls per SIM card). Indicate how long each generated call should be in this tariff option.
- Calls in advance(incoming calls per SIM card). Specify the number of generated calls that the card must make before it starts receiving traffic.
- Take into account calls in the limits. It is useful in the case of toll calls within the network provided by the mobile operator.

Priorities:

This block allows you to specify which of the parameters is a priority, and what to focus on in the case of a parity situation (in relation to several parameters).

4.3.2. Direction limits

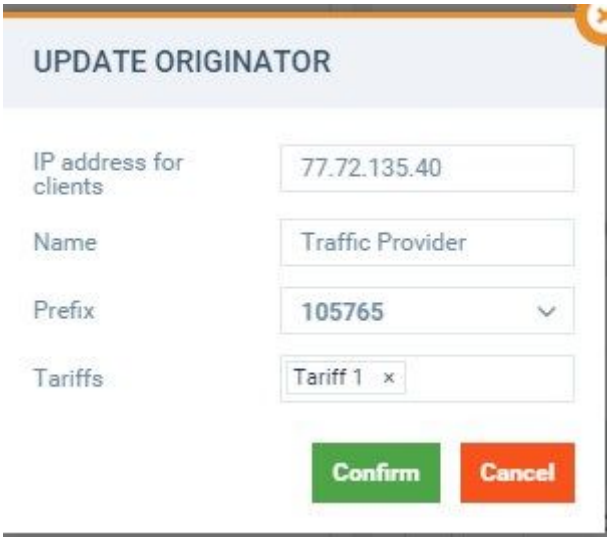


In this block, you should set the call rules for SIM cards of this tariff at the Operator numbers with the specified Calling Limits and Duration at the Specified Cost of the minute.

- Tariff option. Specify which option the data limits will be bound to.
- Cost. The cost per minute of the conversation in the operator's network.
- Limit of calls. The number of calls that a card can make within this limit option.
- Successful calls. The number of successful calls that a card can make within this limit option.
- Duration limit. The total duration of calls that a card can make within this limit option.
- Break off calls when the limit is exceeded. This parameter allows to end the active call if the card exceeds the duration limit.
- Closing in the absence of bonuses. The card will be unavailable for making calls, if the status of bonuses does not correspond to the required for work.
- Unload in the absence of bonuses. The same as in the previous paragraph, but the card will leave the gateway channel.
- Operator. Here you need to specify the operator to which this option limit will apply.
- NTI means nontariff call time. For example, under the terms of the operator, the card can speak for the first 60 seconds for free.
- Fee for connection. This amount will be deducted from the card balance at the beginning of a successful call.
- Tariffication interval after NTI. The time interval of the call, which is charged by the mobile operator. For example, 1 credit will be withdrawn from the card after every 60 seconds of the call.
- SMS. Here you can select a pre-created outgoing SMS template that will be sent by the card.
- SMS is only a bonus. Fee for sending outgoing SMSes will be deducted from the bonus balance.

4.4. Traffic

4.4.1. Originators

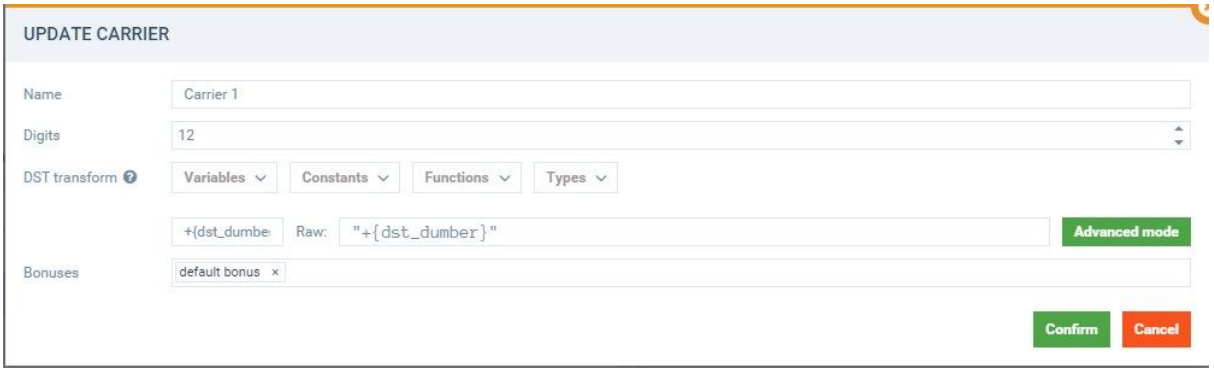


To add the originator, you need to press the + button, then you will see a window. In the "Name" field, specify the name for the originator, in the "Prefix" field, select one of the 10 prefixes, in the "Tariff" field select the option from the drop-down list and click "Confirm".

4.4.2. IP of originators

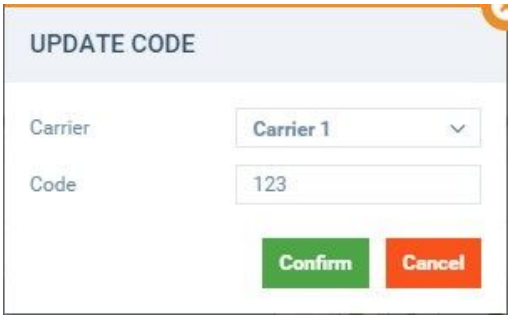
To add the originator's IP, press the + button, then you will see the "CREATION OF THE ORIGINATOR" window. In the "Originator" field, select the originator from the drop-down menu. In the "IP" field, enter the IP address of the originator and click "Confirm".

4.4.3. Operators



To add the operator, you need to press the + button, then you will see the "CREATION OF THE ORIGINATOR" window. In the "Name" field, specify the name for the operator. In the "Number of digits" field, specify the number of digits in the number, it can be different for operators of different countries. In the "Number Conversion" field {dst_number} we indicate the number that comes to GoIP. You can change the number (add numbers at the beginning or remove them). For example, if you add "00" to the number, the field will look like this: "00"+substr({dst_numer}). Then click on the "Confirm".

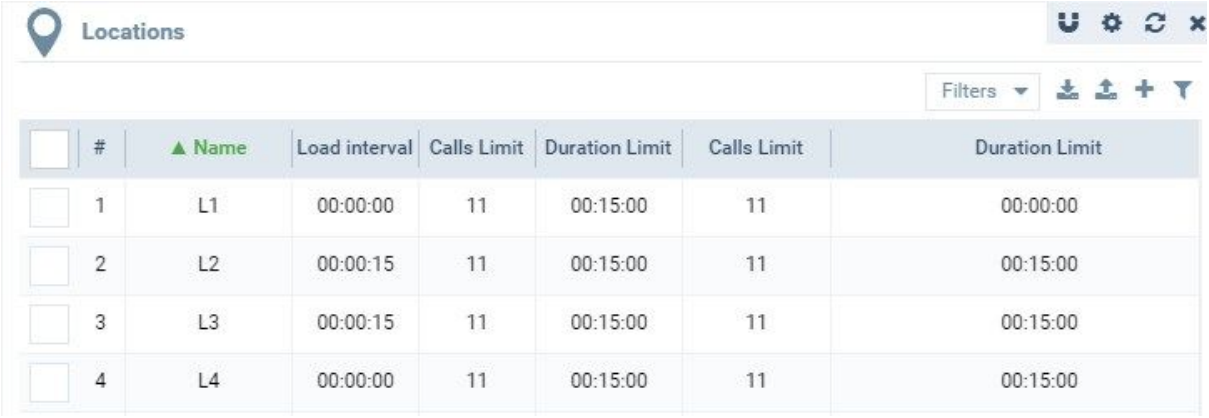
4.4.4. Codes



To add the operator, press the + button, then you will see the “CREATE A CODE” window. In the “Operator” field in the drop-down menu, select the operator; in the “Code” field, enter the operator code, then click “Confirm”.

4.5. Equipment

4.5.1. Locations



#	▲ Name	Load interval	Calls Limit	Duration Limit	Calls Limit	Duration Limit
1	L1	00:00:00	11	00:15:00	11	00:00:00
2	L2	00:00:15	11	00:15:00	11	00:15:00
3	L3	00:00:15	11	00:15:00	11	00:15:00
4	L4	00:00:00	11	00:15:00	11	00:15:00

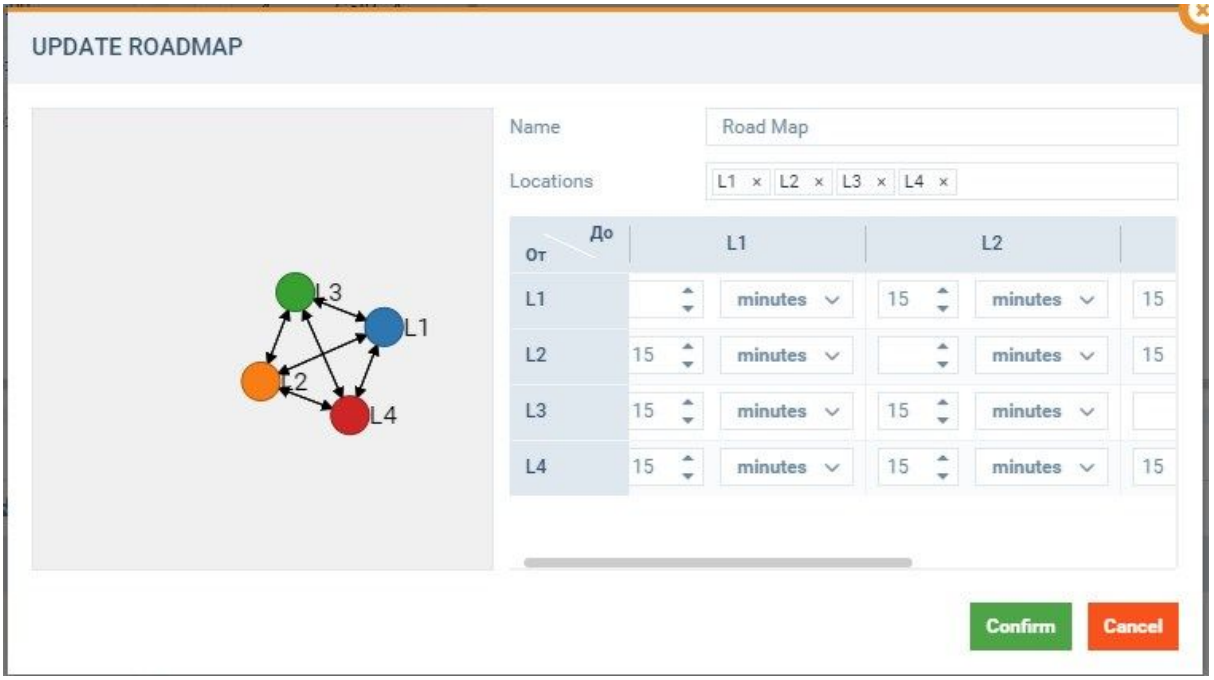
Location is definition of the location where gateways are physically located.

In this block you can see the settings for all locations that were specified at creation, and also edit them if necessary. To do this, right-click on the desired location. In the same block, you can create a new location, clone it, or delete an existing one.

4.5.2. GSM gateways

The “GSM gateways” block displays information about the status of each gateway added in all locations.

4.5.3. Road map



A road map (location change map) is a set of rules according to which the SIM card will move between locations. Due to this function, the map will not load twice in a row in the same location (unless you create an appropriate rule for it), thereby simulating human behavior in GSM networks.

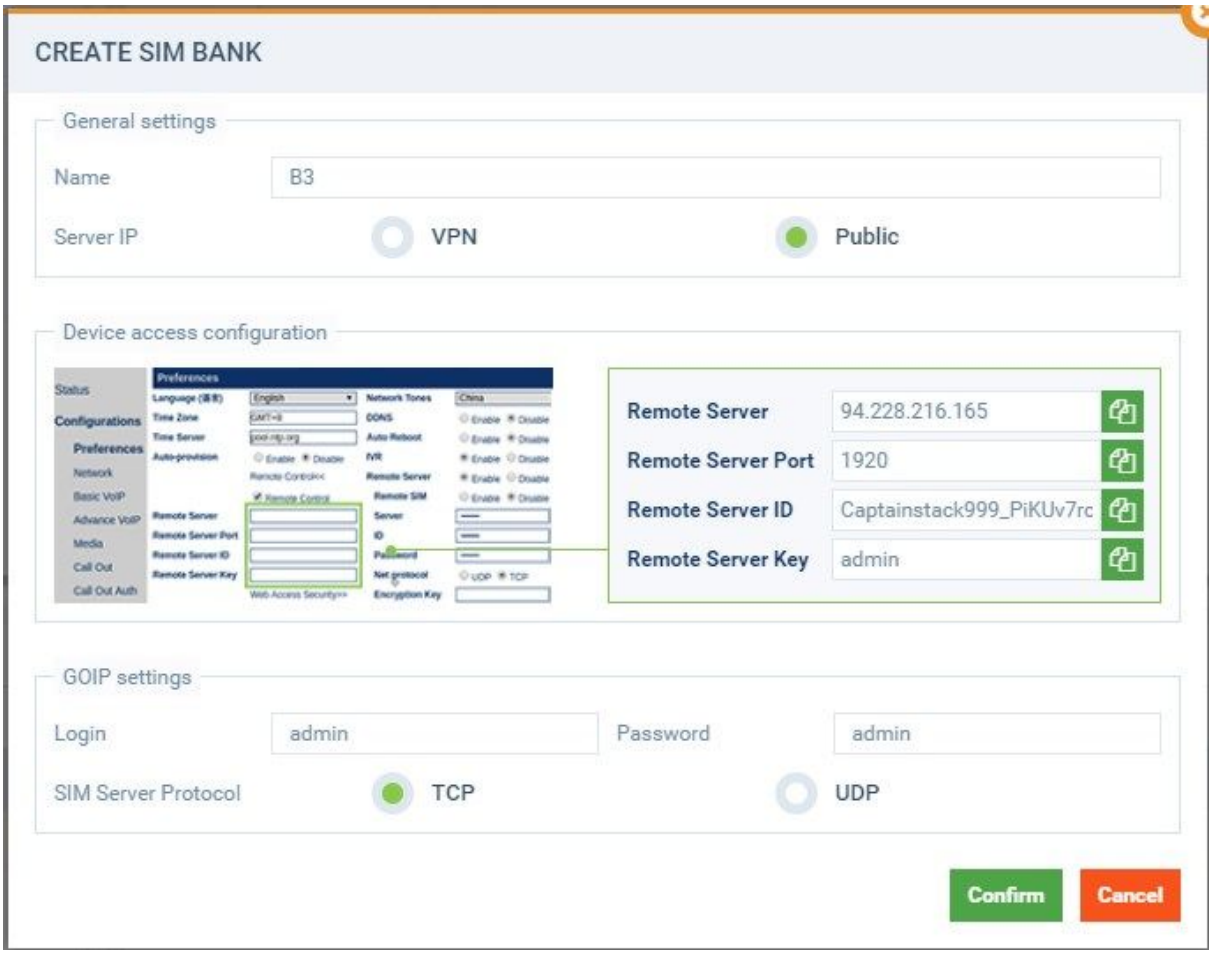
To add the map, press the + button, then you will see the “CREATE A ROAD MAP” window. In the window that appears, specify the name of the map, for example, “Route 1”,

and in the “Locations” field, mark the locations - “stops” of the SIM card - between which the map will move. A table will appear with the names of the participating locations. In the rows of the navigation table, the point FROM which the SIM card will move will be indicated, and in the columns - TO which locations. Thus, in the cell at the intersection, you can set the time period during which the SIM card will be “offline” when moving from Location 1 to Location 2. If you leave the cells empty, the system will not be able to use the map.

If from the same location, you can go directly to several locations (you specified more than one parameter in the Locations line), the map will randomly choose the route. It should be borne in mind that if there are 3 routes, for example – 10, 15, and 20 minutes, the map will always go to the shortest one, since blocking of this route will be removed first. After filling in the table, save the rules for this map using the “Confirm” button.

4.5.4. SIM banks

In this section, you can see the SIM bank added to the cabinet, its name and IP address.



By clicking on the "+" in the upper right corner of the SIM Bank window, you can add a SIM bank. In the window that appears, enter the name of your SIM bank and the IP server (Public). Copy the device configuration, then enter the login and password to access your gateway (the default is "admin"). Select the SIM server protocol - UDP and click on the "Confirm" button.

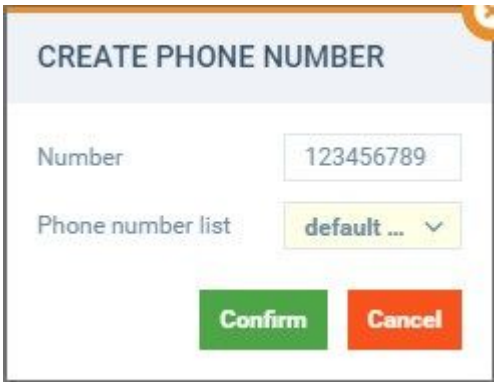
4.6. Phone numbers

4.6.1. List of phone numbers

This function is used to create “white” and “black” lists. “Black list” allows you to block calls on the server from unwanted numbers, not allowing them to be redirected to the SIM card. “White list” allows you to add “white numbers”; in this case, the SIM card will receive calls only from the numbers added to this list.

To add the list, press the + button, then you will see the “CREATE A PHONE NUMBER LIST” window. In the opened window, enter the "Name" and select the type of the list (black or white).

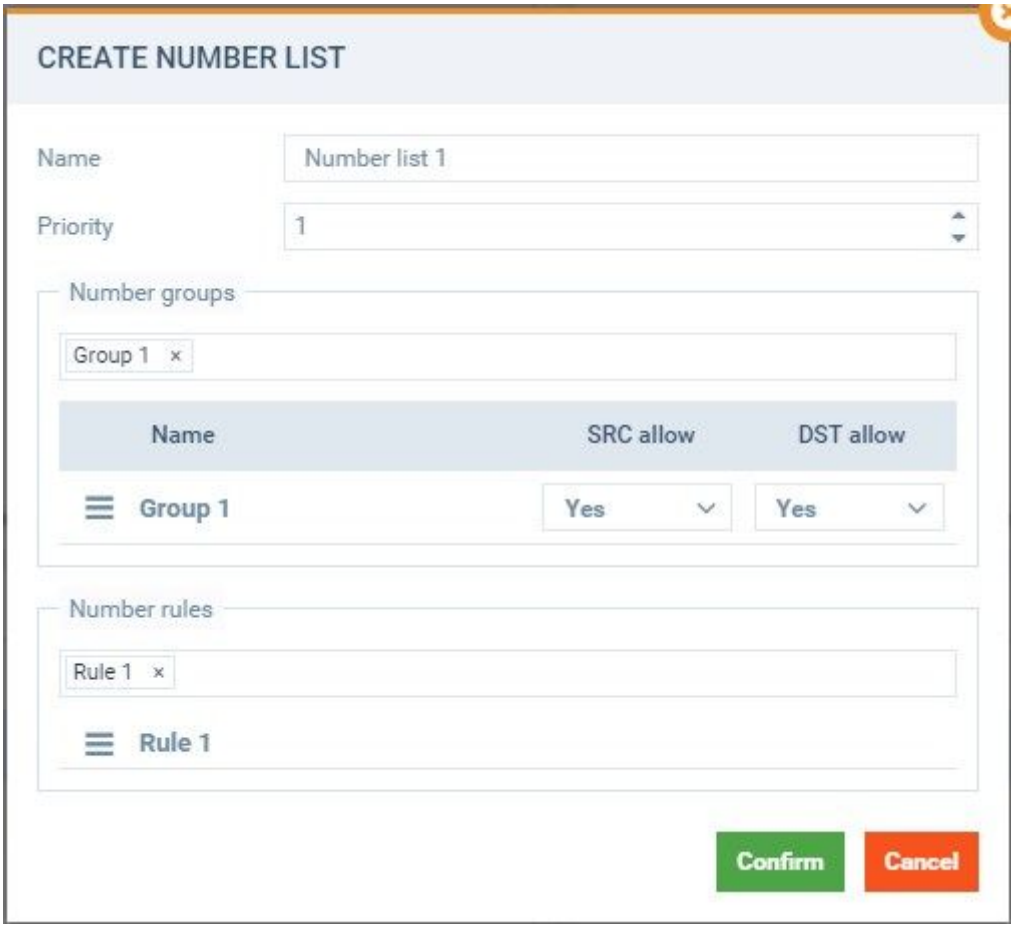
4.6.2. Phone numbers



Numbers can be added both one at a time and a large number at once. To add numbers one at a time, press “+”. A window will appear for entering the number where the number should be entered in the international format, without the “+” sign. After entering the number, press the “Confirm” button. You can also import numbers from the file list.

4.7. Phone number rules

4.7.1. List of phone numbers

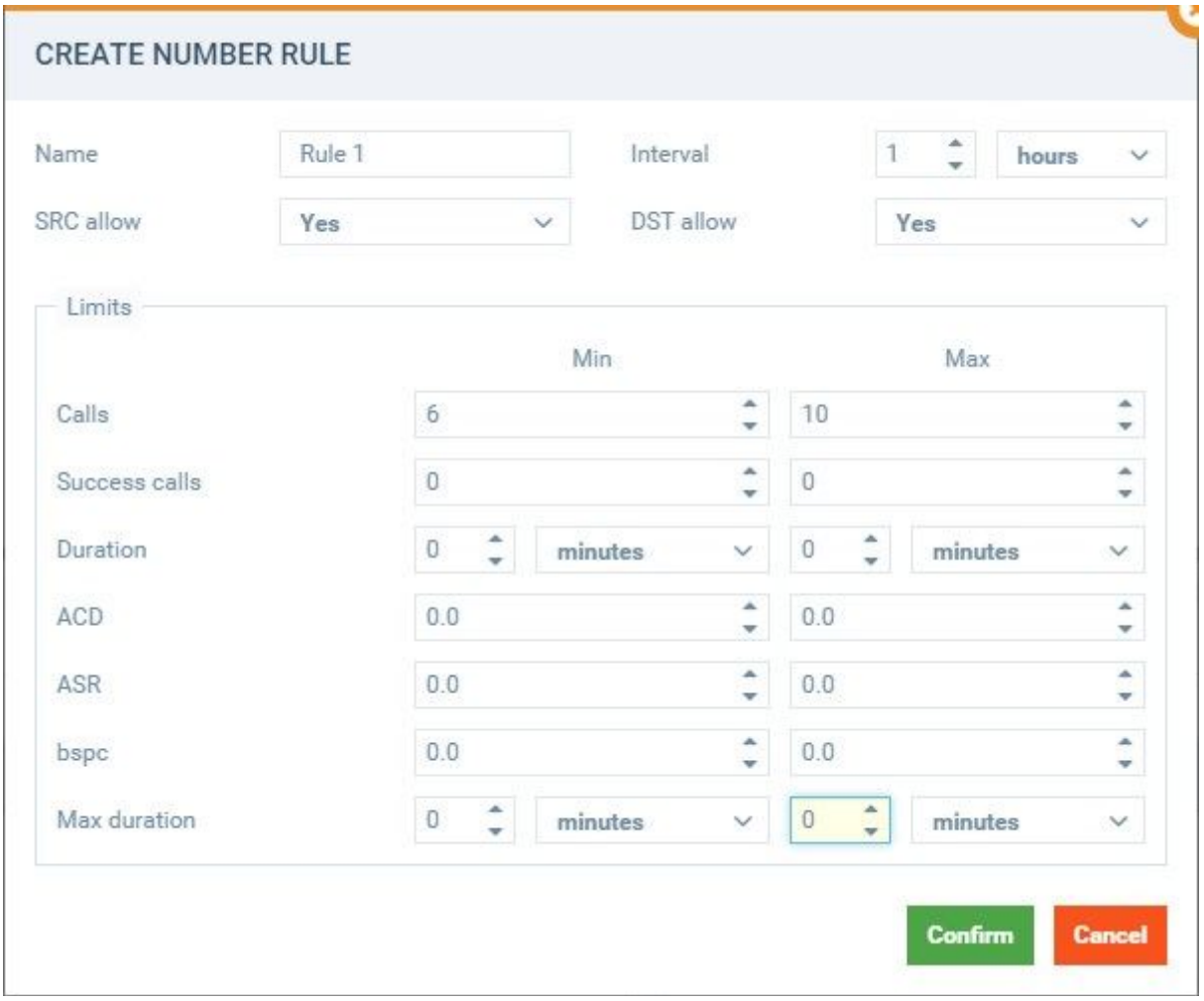


Setting up the list of phone numbers is the first step in setting up a dynamic list of phone numbers.

Basic settings:

- Name. Enter a name for the list.
- Priority. Specify the priority of using the list (the lower the value, the higher the priority).
- Phone number groups. Enter the name of the number group (see Phone Number Groups).
- Phone number rules. Enter the name of the phone number rules (see Phone Number Rules).

4.7.2. Phone number rules



The second step is to configure the dynamic lists. Includes the following settings:

- Name means the name for the rule
- The interval (in days) is the number of the last days that the system will take into account when creating the list.
- Enable SRC - allows/disables/disregards source numbers.
- Enable DST - allows/disables/disregards destination numbers.
- Calls means the number of calls.
- Successful calls is the number of successful calls (answered).
- Duration is the duration of calls.
- ACD is the value of the ACD (Average Call Duration = answered calls/answered calls amount).
- ASR is the ASR value (Average Seizure Ratio = (answered calls/total calls amount) * 100%).
- bspc is the value of bscp (Bill Sec Per Call - ACD * ASR).
- Maximum duration is the maximum duration of one call.

4.7.3. Phone number groups

The third step is to create a dynamic list of phone numbers. Basic settings:

- Name is the name of the phone number group.

4.7.4. Static phone numbers

The last step is to create a dynamic list of phone numbers. Basic settings:

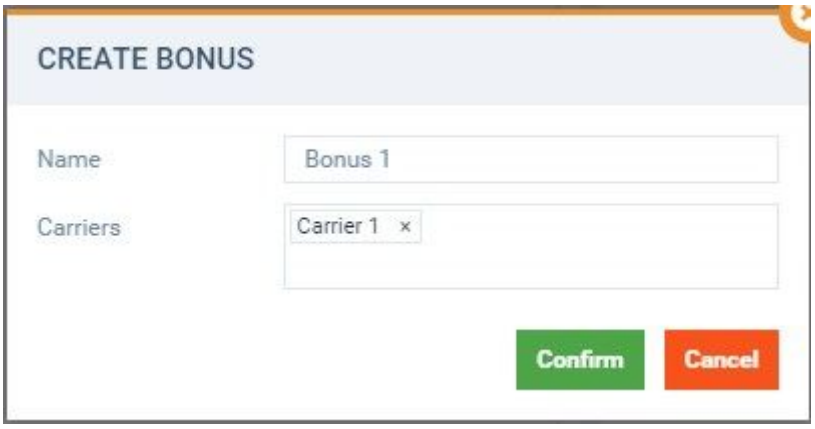
- Phone number. Enter the phone number.
- Phone number group. Specify the name of the phone number group (see Phone Number Groups).

4.8. Phone number statistics

Using the Phone Number Statistics tool, you get the ability to track how successful the results are in a particular number, be it the source number (SRC) or the destination number (DST).

4.9. SIM settings

4.9.1. Bonuses



Bonuses are used when you need to set up work with bonus minutes, bonus money, temporary bonuses. It is possible to use only bonuses (normal balance is not involved), or balance + bonuses (the order depends only on the mobile operator).

To create a Bonus, go to the “Tools”, select the “SIM Settings”. To add a new Bonus, configure the following settings:

- Name. Enter the name of the new Bonus
- Operators. Select the Operator you need, to link this Bonus to him.

Also, the Bonus created must be specified in the tariff to which the “bonus” cards are attached. To do this, go to the “Tools”, select the “Tariffs” tab, then click the “Tariff Options”. Open the "Option", select the "Bonuses" field.

4.9.2. Colors

Color is required in order to unload the card from the SIM Bank into the GSM gateway. Accordingly, you should “paint” both SIM cards and the channels in which they need to be unloaded. In addition, using the “Color” option, you can mark cards for convenience, as well as forcefully unload SIM cards under certain conditions (assign a color to the card that is not used on the gateways).

To create a new “Color”, go to the “Tools” and select the “SIM Settings”. Then, in the "Colors" window, select "Add" and specify the following parameters:

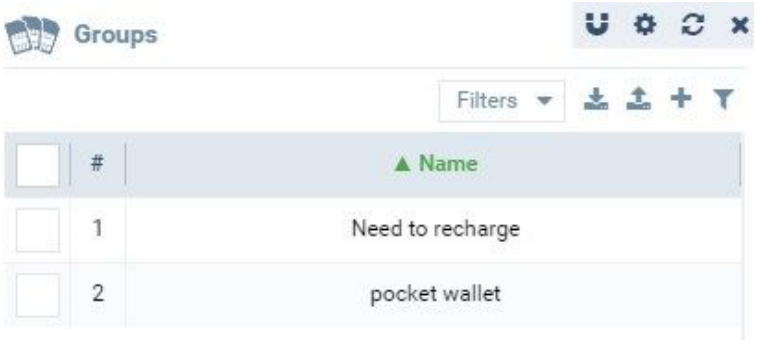
- Name. Specify the name of the new “Colors” (you can call it whatever you want).
- Color. In this field you can select the desired color and shadow.

4.9.3. Tags

Tags are used for marking, filtering and tracking cards. Basic settings:

- Name is the tag name.

4.9.4. Groups



Thanks to SIM groups, such parameter as “calls to related numbers” is realized. Due to this function, cards make not only outgoing calls, but also receive incoming calls. In this case, a real conversation record is broadcast to the media channel.

To configure SIM groups, you must initially set the percentage of generated calls in the tariff setting (this is the percentage of the total number of calls). You can check this parameter by selecting the existing tariff (press the “Settings”, select the “Tariffs”, right-click on the existing tariff, select the “Edit”) or create a new tariff.

Go to the “Tools”, select the “SIM Settings”, then click the “+” button of the “Groups” window. Here you will need to enter a name for the group you are creating and balance. Specify the minimum balance at which SIM cards are allowed to call each other.

4.9.5. Reasons for lock

Configure manually the reason for the SIM card lock. Basic settings:

- Name is the name for the lock reason
- SIM lock – sends a SIM card to the SIM Lock Report, while the card leaves the gateway channel (see SIM Lock Report).
- Closing the channel. This setting closes the channel for the specified reason, while the card remains in the gateway channel.

4.9.6. TAC

#	Model	Ena...	Vendor	▲ TAC
1	6190	●	Nokia	1002810
2	6190	●	Nokia	1002830
3	6190	●	Nokia	1002850
4	5190	●	Nokia	1003710
5	5190	●	Nokia	1003730
6	5190	●	Nokia	1003750
7	RM-669	●	Nokia	100400
8	5190	●	Nokia	1004910
9	5190	●	Nokia	1004930
10	5190	●	Nokia	1004950

The model and the phone origin are described by the first 8 digits of IMEI (the so-called TAC). The remainder is the serial number with the control number at the end. Telephones that support simultaneous work with multiple SIM cards are assigned several IMEI numbers. In this section, you can import the TACs you need and add to the existing TAC database.

5. Actions and events

5.1. Recharging

5.1.1. Groups of recharge codes

The recharge codes groups are intended for creating recharge groups (scratch codes), which you need to bind for replenishment of SIM-cards using USSD/SMS requests. Basic settings:

- Name is the name of the recharge pool.

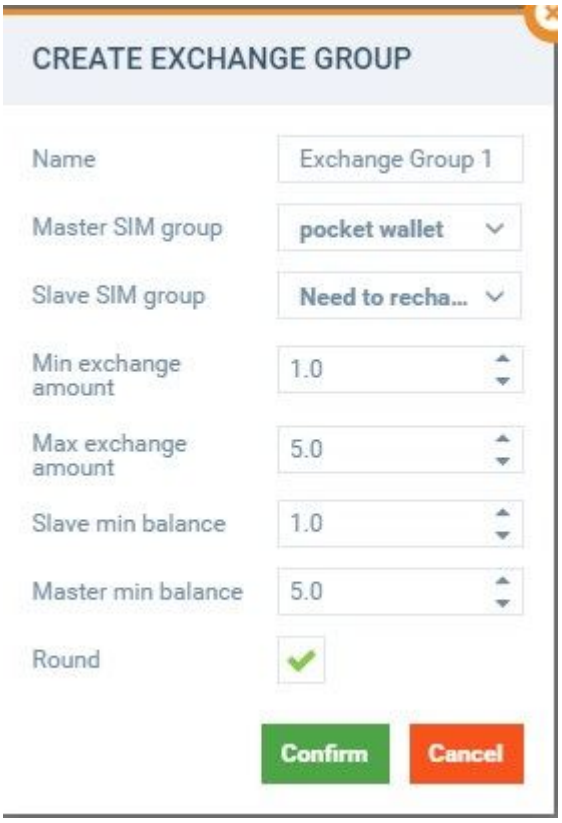
5.1.2. Recharge codes

The field where the scratch codes of recharge will be. Basic settings:

- The code is the scratch code that the card will send for recharge.
- Recharge codes group is the name of the codes group (see Recharge Code Groups).
- Successful (yes/no/not selected). The default value must be an empty value, in which case the system will use this code in the future. After sending, the status will be either yes (the card has been successfully added) or not (the operator's answer did not fit the regular expression).
- Used is the time when the card used a scratch code

It's best to import scratch-codes in .csv format or in .txt format (with a newline delimiter).

5.1.3. Exchange groups

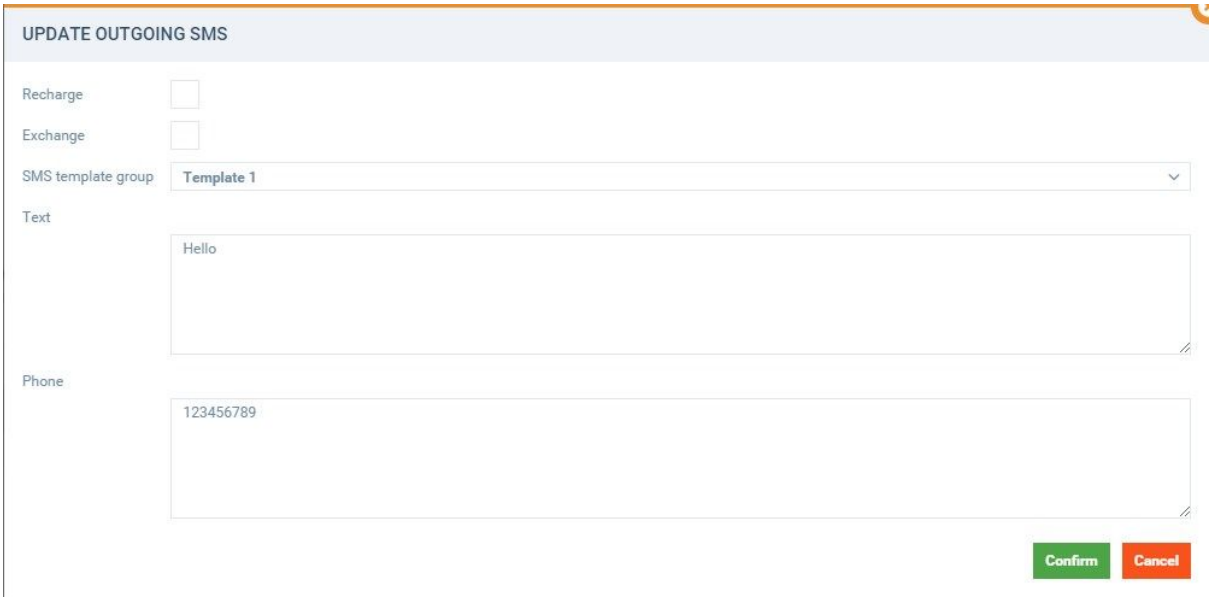


In this block, automatic recharge of SIM cards is configured by exchanging the balance between cards.

The window for creating exchange groups consists of the following items:

- Name. Ability to specify a name for the recharge group.
- Source group. Name of the SIM group that will recharge other cards.
- Receiver group. Name of the SIM group that will request recharge.
- The minimum amount of exchange. The minimum amount of money for which the SIM card will be recharged.
- The maximum amount of exchange. The maximum amount of money, for which the SIM card will be recharged.
- The minimum balance of the source. The minimum value of the amount of money on the account of the source card, upon which the further recharge will cease.
- The minimum balance of the receiver. The minimum value of the amount of money on the card, upon which the recharge will begin.
- Rounding. This parameter rounds up the amount of exchange (1.1, 1.5 rounds to 2, etc.)

5.2. Outgoing SMS

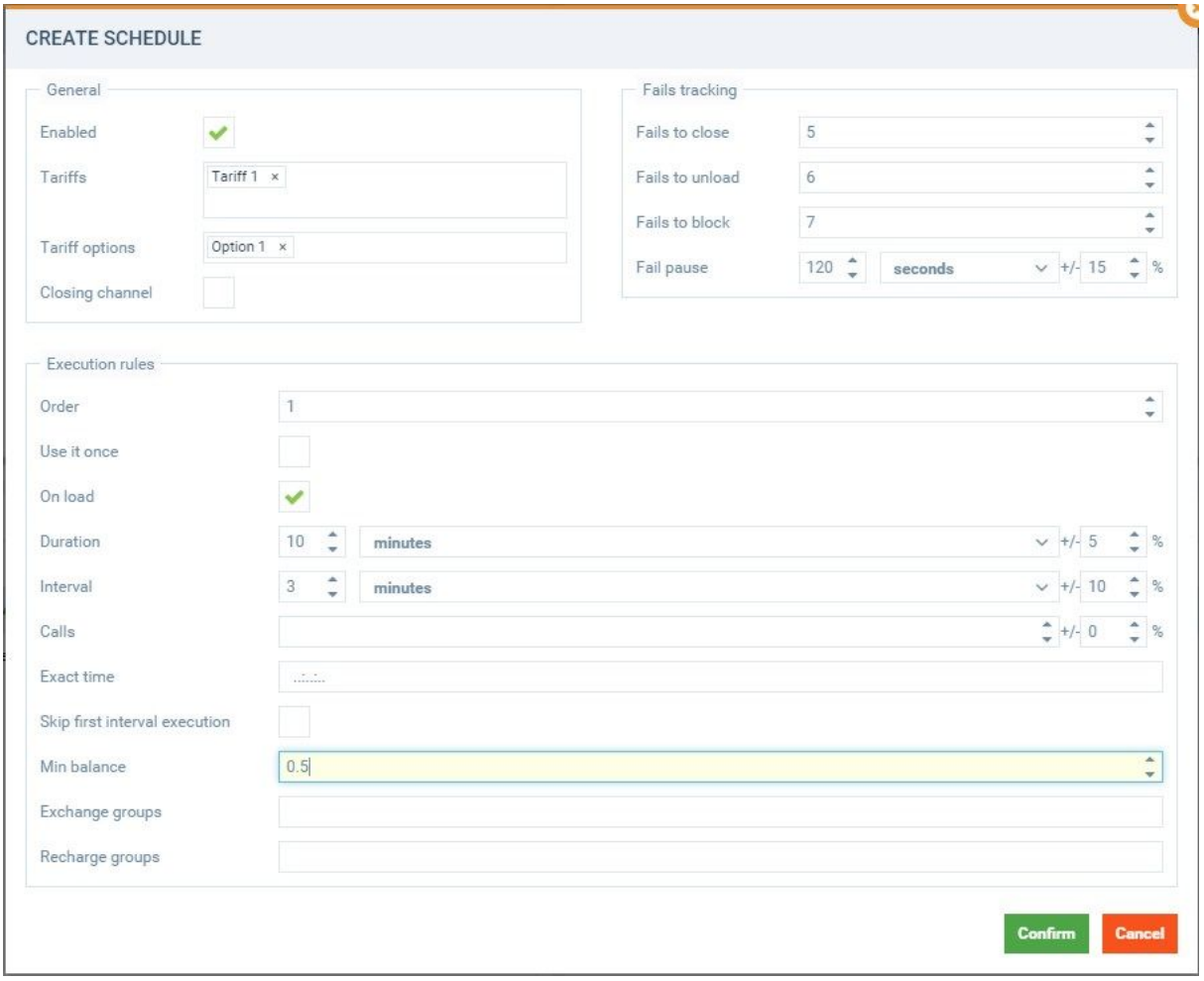


Setting up outgoing SMSes creates rules for sending SMS messages between the cards of one SIM group, as well as the rules for sending SMS commands to a specific number.

Block "Outgoing SMSes":

- Recharging. Specify whether this outgoing SMS command is a recharging (see USSD).
- Exchanging. Specify whether this outgoing SMS command is exchanging (see Exchange Groups).
- Group of SMS templates. Enter the name of the group of SMS templates.
- Text. Enter the text of the SMS message that the card will send later.
- Phone number. Specify the number to which the card will send an SMS message.

5.2.1. Schedule of outgoing SMS



The “Schedule” block consists of 3 parts (”General”, “Error tracking”, “Rules of execution”) and allows you to configure rules for sending outgoing SMSes, USSD and Events.

General:

- Active. This setting enables/disables the schedule
- Tariffs. Specify with what tariffs this SMS rule will work
- Tariff options. Specify with which tariff options this SMS rule will work
- Close the channel. If this function is active, the channel will be closed before the SMS command is successfully executed by the SIM card.

Error tracking:

- Failure to close. The system closes the channel for a specified number of unsuccessful attempts to send SMS in a row.
- Failure before unload. The system unloads the card for a specified number of unsuccessful attempts to send an SMS in a row.

- Failure before the block. The system sends the card to the SIM block report (see SIM Block Report) for a specified number of unsuccessful attempts to send an SMS in a row.
- A pause between failures. The interval of attempts to send an SMS command when the sending is unsuccessful.

Rules of implementation:

- Order is the schedule execution order (the lower the value, the faster the command will be executed).
- Once. Allows the query to be executed only once for one card.
- While loading. Executes the query every time the card is loaded.
- Duration of calls. Executes the query every time the card "spoke" a certain duration of calls.
- Interval. Executes the query every time after a specified period of time.
- Number of calls. Executes the query every time the card has made a certain number of calls.

Important! Selection of at least one of the 3 previous items is MANDATORY, otherwise the schedule will not work.

- Exact time. Executes the query every day at the specified time.
- Ignore the first execution. When set to (on), the system first waits for the expiration of one of the intervals, then executes the query. When set to (off), the system executes the query before the expiration of one of the intervals.
- The minimum balance. The lower threshold of the balance value at which the system starts recharging the card using scratch codes.
- Exchange groups. The name of the exchange group (see Exchange Groups).
- Groups of refill codes. The name of the recharging group (see Recharge Code Groups).

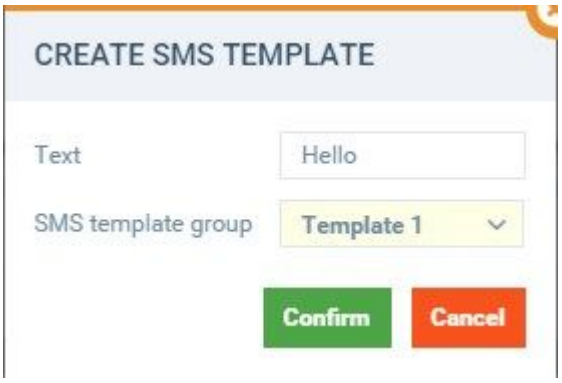
5.2.2. Groups of SMS templates

The window for creating groups of SMS templates includes the following option:

- Name. Ability to name a group of SMS templates.

5.2.3. SMS templates

SMS templates

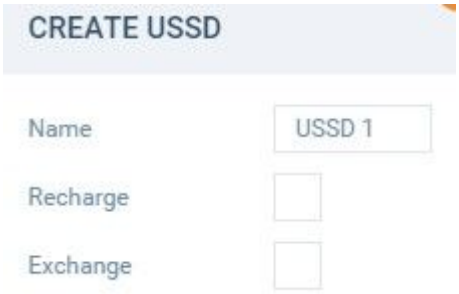


In this block, text templates are added to send SMS messages between SIM cards.

The window for creating SMS templates consists of the following items:

- Text. The text of an SMS template
- Group SMS template. Previously created SMS template group.

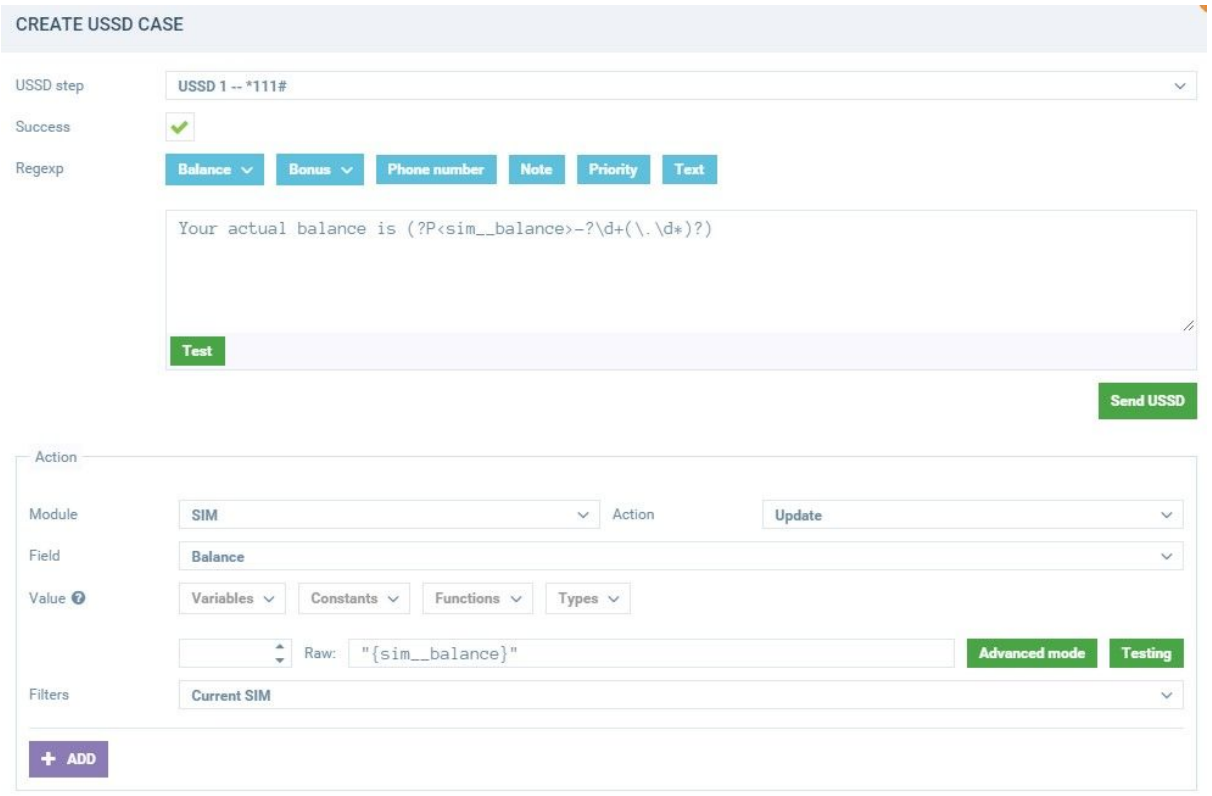
5.3. USSD



This USSD settings allows you to analyze the mobile operator's response to a USSD query, and to perform actions based on the response result. Basic settings:

- Name. The name for USSD.
- Recharging. Specify whether this USSD rule will be recharging (that is, recharge cards using scratch codes).
- Exchanging. Specify whether this USSD rule will be exchanging (that is, recharge cards with other cards).

5.3.1. USSD options



This field configures the analysis of the response to the USSD request and execution of certain actions by the card. Basic settings:

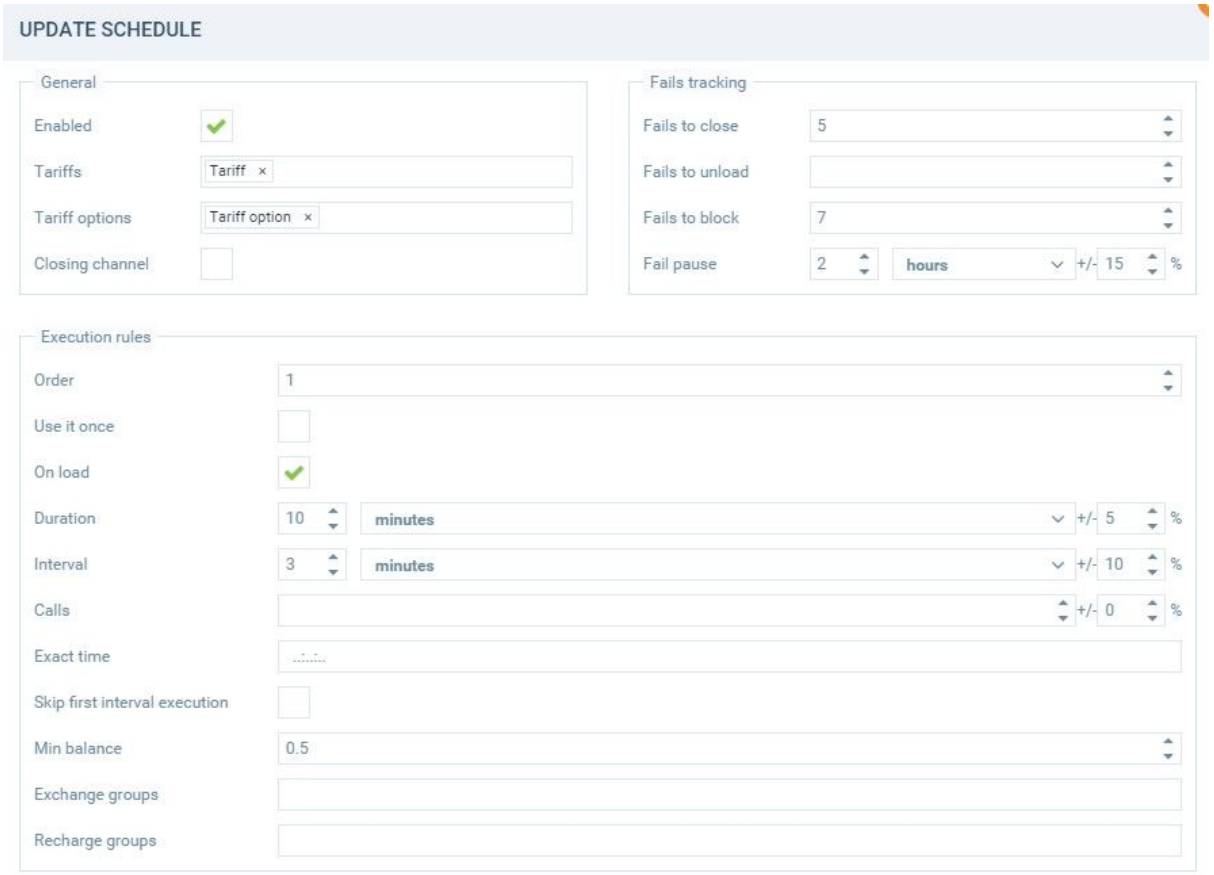
- USSD step. The USSD command that is executed (see USSD Steps).
- Successfully. If activated, the system will consider this response successful. In turn, all other answers will be considered unsuccessful.
- Regular expression. After analyzing the text of the operator response to the USSD query, which will result in an action
- Action. Immediately the action itself, which will be performed by the card.

5.3.2. USSD Steps

- Command is the USSD query code (for example *111#).
- Send delay is delay before sending the USSD query (in seconds).
- Order is the priority of sending USSD (the lower the value, the higher the priority).

- USSD is the name of the USSD command (see USSD).

5.3.3. USSD Schedule



The “Schedule” block consists of 3 parts (”General”, “Error tracking”, “Rules of execution”) and allows you to configure rules for sending outgoing SMSes, USSD and Events.

General:

- Active. This setting enables/disables the schedule
- Tariffs. Specify with what tariffs this SMS rule will work.
- Tariff options. Specify with which tariff options this SMS rule will work
- Close the channel. If active, the system will close the channel before the SMS command is successfully executed by the SIM card.

Error tracking:

- Failure to close. Closes the channel for a specified number of unsuccessful attempts to send SMS in a row.
- Failure before unload. Unloads the card for a specified number of unsuccessful attempts to send an SMS in a row.
- Failure before the block. Sends the card to the SIM lock report (see SIM Lock Report) for a specified number of unsuccessful attempts to send an SMS in a row.
- A pause between failures. The interval of attempts to send an SMS command when the sending is unsuccessful.

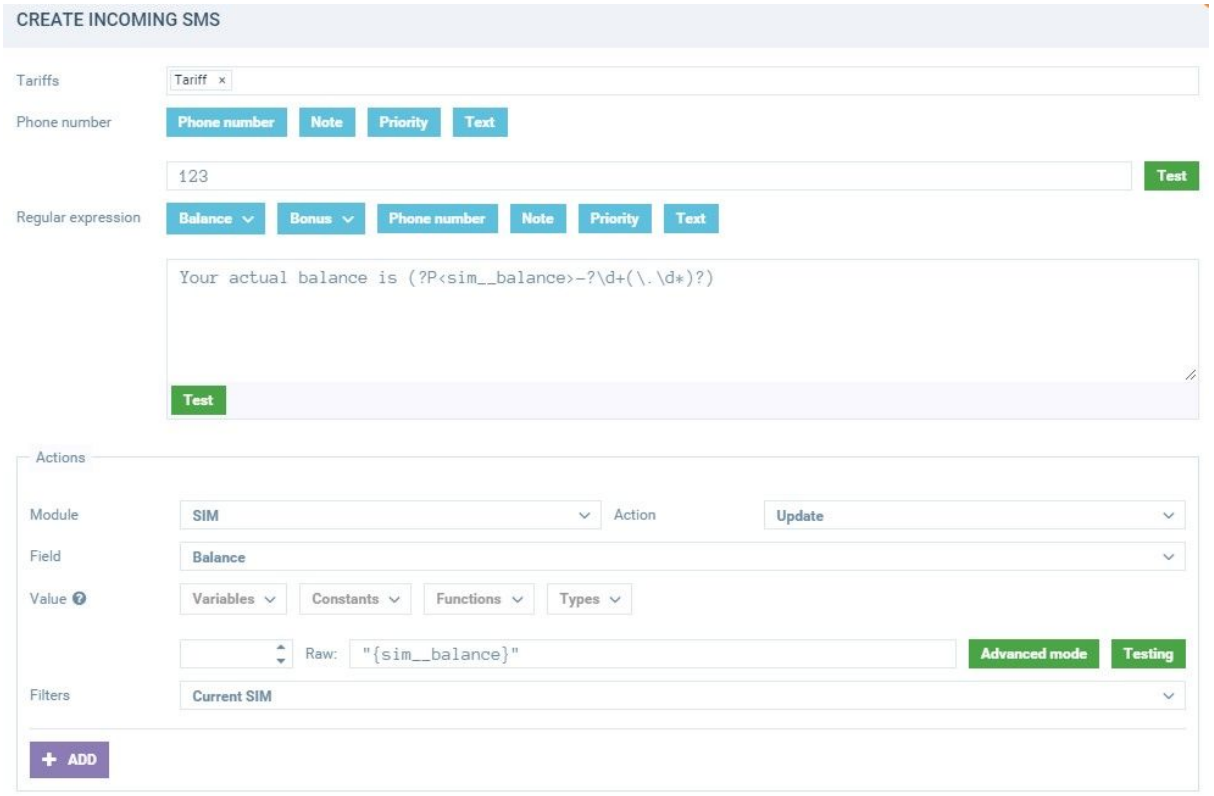
Rules of implementation:

- Order. Schedule execution order (the lower the value, the faster the command will be executed).
- Once. Allows the query to be executed only once for one card.
- While loading. Executes the query every time the card is loaded.
- Duration of calls. Executes the query every time the card has “spoken” a certain duration of calls.
- Interval. Executes the query every time after a specified period of time.
- Number of calls. Executes the query every time the card has made a certain number of calls.

Important! Setting of at least one of the 3 previous items is MANDATORY, otherwise the schedule will not work.

- Exact time. Executes the query every day at the specified time.
- Ignore the first execution. When set to (on), the system first waits for the expiration of one of the intervals, then executes the query. When set to (off), the system executes the query before one of the intervals expires.
- The minimum balance. The lower threshold of the balance value at which the system starts recharging the card using scratch codes.
- Exchange groups. The name of the exchange group (see Exchange Groups).
- Groups of refill codes. The name of the recharging group (see Recharge Code Groups).

5.4. Incoming SMSes

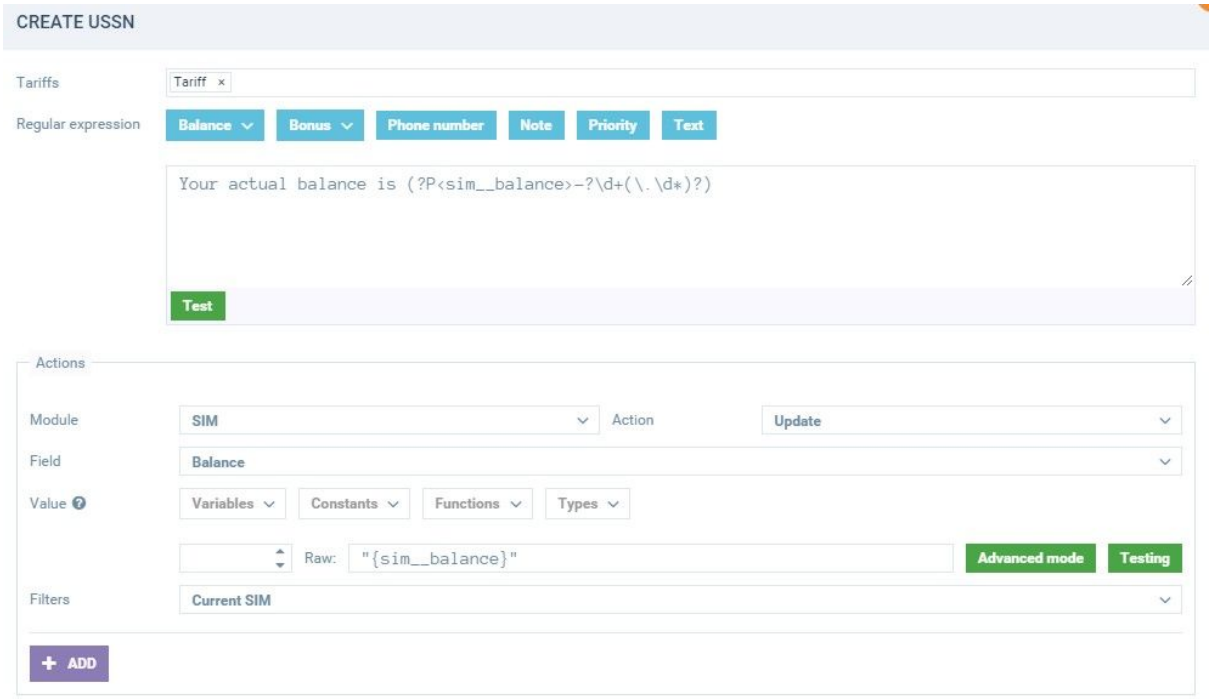


This setting allows you to analyze incoming SMS messages to the card, and perform certain actions depending on the text (for example, update the phone number, balance, tariff, bonus funds, etc.).

Basic settings:

- Tariffs. Specify, cards with what tariffs will carry out actions.
- Phone number. Specify from which number SMS messages come.
- Regular expression. After analyzing the text of the incoming SMS, which will result in an action
- Action. Immediately the action itself, which will be performed by the card.

5.5. USSN



This setting allows you to analyze the received USSNs (short messages received by the subscriber from the operator after the end of the call, for example, the current state of the balance), and as a result of the analysis perform certain actions on the cards.

Basic settings:

- Tariffs. Specify, cards with what tariffs will carry out actions.
- Regular expression. The field for analyzing the text of the incoming USSD, which will result in an action
- Action. Immediately the action itself, which will be performed by the card.

For example, you need to update your balance. USSN comes:
“Your balance is 34.56 rubles. Dial *123# to check the tariff plan.”
The “Regular expression” field can be changed as follows:

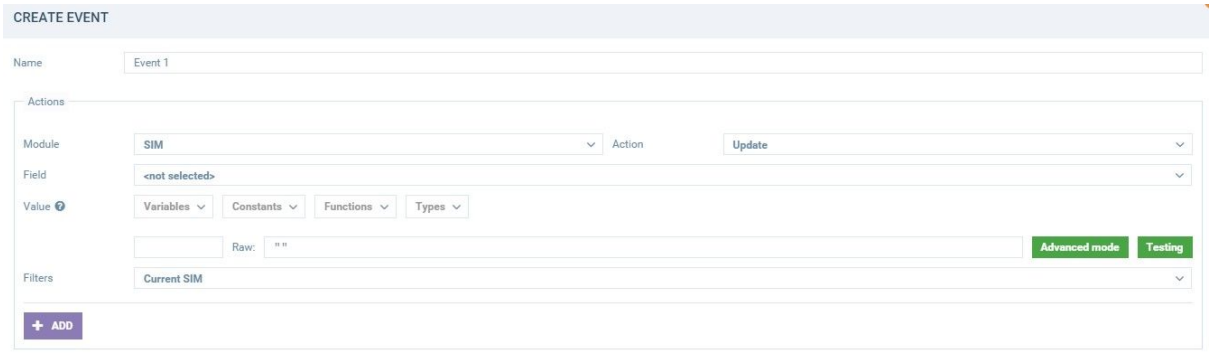
Your balance (?P<sim__balance>-?\d+(\.\d*)?) рублей([\w\W])* ,

where (?P<sim__balance>-?\d+(\.\d*)?) is a regular expression that will analyze the number after the word “balance” and before the word “rubles”,

([\w\W])* is a regular expression that takes into account any text after the word "rubles", since in this case the information after the point is not important to us.

In actions, the system will automatically add the variable “{sim__balance}” to the action of the SIM - Update - Balance. Thus, the system will analyze all incoming USSN, and, in case of coincidence with our regular expression, update the balance on the cards of the given tariff.

5.6. Events



Events are a specific action that is performed on the card.

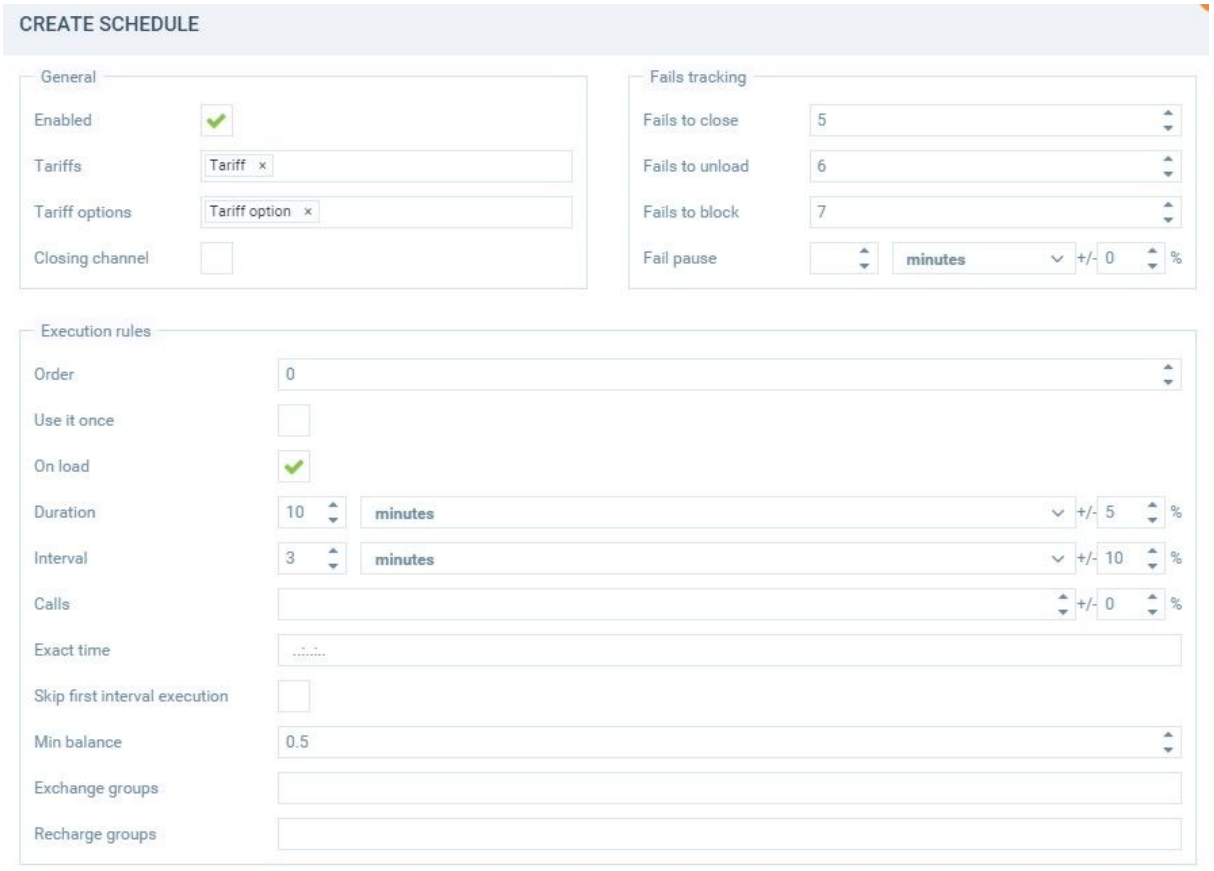
Block Events:

- Name is the name of the event.
- Action is the action itself, which will be performed by the card.

For example, you need to change the color on the cards at a specific time (to initialize their unloading from the gateway).
Add an action, select Module -> SIM, Action -> Update, Field -> Color, Value -> Required color. The schedule will only have to specify the time when this event needs to be performed.

5.6.1. Schedule of events

The "Schedule" block consists of 3 parts ("General", "Error tracking", "Rules of execution") and allows you to configure rules for sending outgoing SMS, USSD and Events.



General:

● Active. This option enables / disables the schedule.

● Tariffs. Specify, what tariffs this SMS rule will work with.

● Tariff options. Specify which tariff options this SMS rule will work with.

● Close the channel. If "active" is selected, the system closes the channel until the SMS command is successfully executed by the SIM card.

Error Tracking:

● Failure to close. Closes the channel for a specified number of unsuccessful attempts to send SMS in a row.

● Failure to unload. Unloads the card for a specified number of unsuccessful attempts to send SMS in a row.

● Failure before the block. Sends a report to the SIM-block (see SIM block report) for a specified number of unsuccessful attempts to send SMS in a row.

● A pause between failures. The interval between attempts to send an SMS command when the sending failed.

Rules of implementation:

● Order. Specify the order of the schedule (the lower - the higher is the priority of the command execution).

● Once. Allows the query to be executed only once for one card.

● When downloading. Executes the query every time the card is loaded.

● Call duration. Executes the query every time the card "has spoken" a certain duration of the calls.

● Interval. Executes a query every time a certain period of time expires.

● Number of calls. Executes the query every time the card has made a certain number of calls.

Important! Setting at least one of the 3 previous items is MANDATORY, otherwise the schedule will not work.

● The exact time. Executes the query every day at the specified time.

● Skip the first execution. With the value (on), the system first waits for the expiration of one of the time intervals, then executes the query. If the value is (off), the system executes the request before the expiration of one of the time intervals.

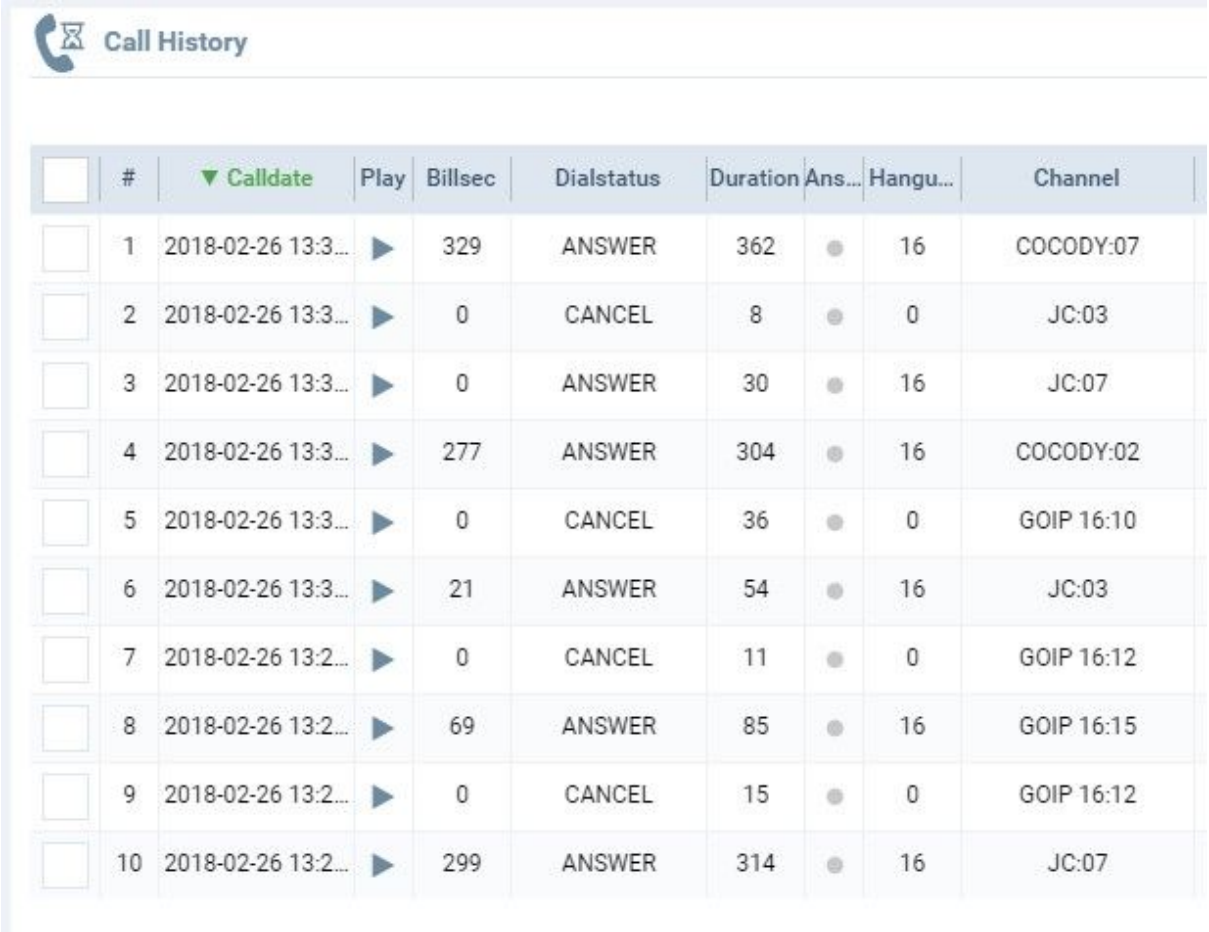
● Minimum balance. The lower threshold of the balance value at which the system will begin to replenish the card with the help of scratch-codes.

● Exchange groups. Exchange group name (see Exchange groups).

● Groups of refill codes. Name of the replenishment group (see Recharge code groups).

6. Reports

6.1. Call history



In the item "Call history" you can see the entire history of calls to the account.

The history of calls includes the following items:

- Date and time of call making.
- The status of the call connection.
- Call duration and payable call duration.
- The phone number from which the call was made.
- Number to which the call was made (assignment).
- The number of the channel in which the SIM card was located during the making / receiving of the call.

● The number of the called SIM card in the SIM bank.

● Information about the origin of the call (generated or from the originator).

● The originator's IP.

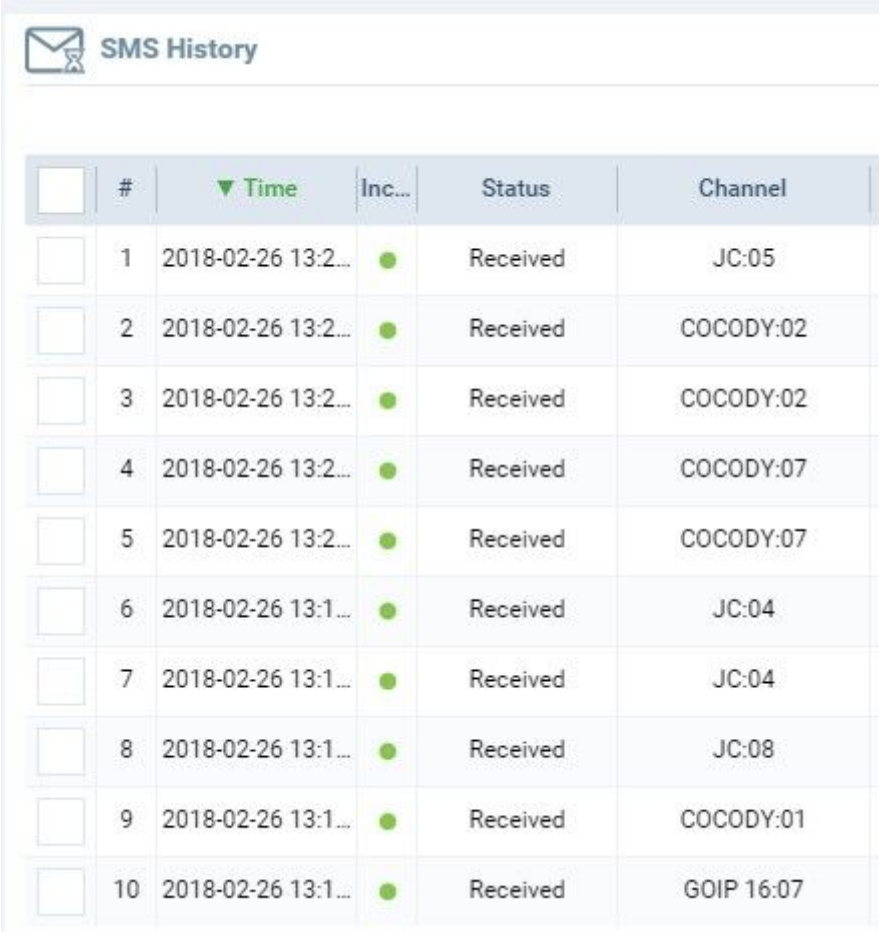
● Prefix for this originator.

● Location in which the call was made.

● The tariff of the SIM card which the call was made with.

Filtering is available for all of these items. Access to the call history can be obtained either through the "Reports" menu of the main menu or via the drop-down menu (right-click on the SIM card in the SIM-bank and select the "History" item). In the second case, the history will be displayed only for the selected SIM card.

6.2. SMS history



In the "History SMS" item you can see the entire history of incoming and outgoing SMS account. The SMS history contains the following items:

● Date and time when the message was received / sent.

● The text of the message.

● The phone number of the SIM card from which the message was received / sent.

● Message type (incoming / outgoing).

● The status of the message.

● The channel in which the SIM card was located while receiving / sending the message.

● SIM card number in the SIM bank.

For each of these parameters, you can filter SMS. Access to the SMS history can be obtained either through the "Reports" menu of the main menu or via the drop-down menu (right-click on the SIM-card in the SIM-bank and select the "History" item). In the second case, the history will be displayed only for the selected SIM card.

6.3. History of USSD

In the "History of USSD" you can see the entire history of USSD-requests for the account:

● The date and time when the USSD request was sent.

● USSD request number (command).

● The message that the SIM card received in response.

● Request status (with / without response).

● The channel number in which the SIM card was located while sending the request.

● SIM card number in the SIM bank.

For each of these parameters, you can filter USSD requests. Access to the USSD history can be obtained either through the "Reports" menu of the main menu or via the drop-down menu (right-click on the SIM card in the SIM bank and select "History"). In the second case, the history will be displayed only for the selected SIM card.

6.4. History of USSN

In the "History of USSN" you can see the entire history of the USSN account:

- Date and time of receiving USSN.
- USSN text.
- USSN status.
- The channel number that the SIM card was in when receiving USSN.
- SIM card number in the SIM bank.

For each of these parameters, you can filter USSN. Access to the USSN history can be obtained either through the "Reports" menu of the main menu or via the drop-down menu (right-click on the SIM card in the SIM bank and select "History"). In the second case, the history will be displayed only for the selected SIM card.

6.5. SIM Block Report

SIM-block report displays SIM-cards, which were blocked by the system for various reasons. Among the possible reasons is reaching the call limit, call duration limit, unsuccessful activation of the SIM-card in GSM-network, unsuccessful USSD-request, etc. To access the SIM-block report, you need to click on the "Reports" button of the main menu, then select item "SIM-block report". In the opened window you can see SIM cards that were blocked by the system or operator, as well as all the properties of these SIM cards (the color and tariff that were assigned to the card, its phone number and the current balance).

This report includes SIM-cards that were blocked by the system for the following parameters:

● Balance lock. The account ran out of money, and the service identified it using USSD or by parsing incoming SMS with this information. Also, a low balance can be determined according to the parameters of a given tariff. You can change the situation by adding to the account and dropping the balance block.

● Block by the parameter of unsuccessful loading. The card exceeded the number of attempts to download to the GSM network.

● Block by USSD. The card exceeded the limit of unsuccessful USSD-requests.

● Block by zero calls. The limit of zero calls is exceeded.

● Block on short calls. The limit of short calls was exceeded.

● Block on unsuccessful calls. The limit of unsuccessful calls is exceeded.

● Block on unsuccessful events. The limit of unsuccessful events is exceeded.

● Block on unsuccessful calls. The limit of unsuccessful rings is exceeded.

● Block by PIN code. The card needs to enter the PIN code.

● Block by SMS. Blocked when parsing a specific SMS message.

To reset the SIM card block, select the card in the block report, right-click it and select "Reset" -> "Block Reset" in the drop-down menu. Also in this menu you can reset the schedule of the map, the counters of the card, the counters of its unsuccessful calls.

6.6. Traffic report

Traffic report contains the following traffic information:

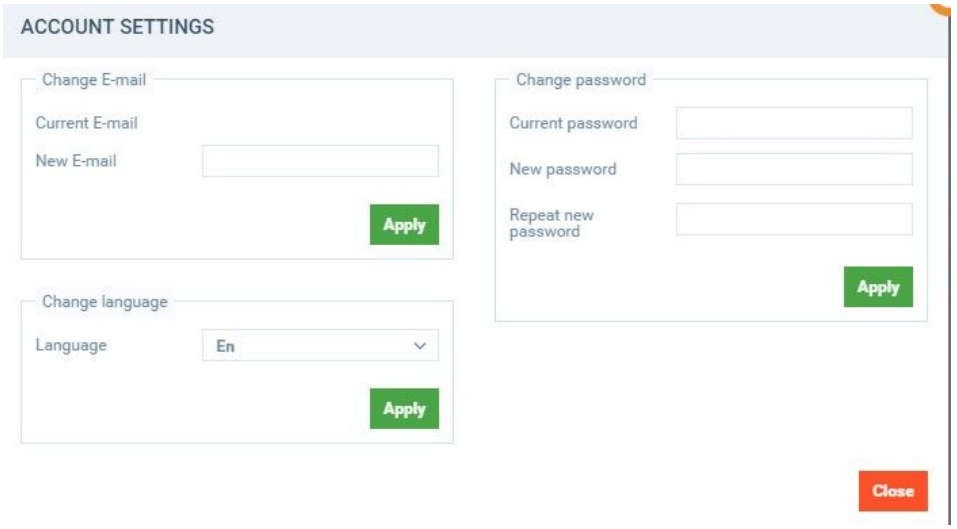
- Call source number.
- The phone number to which the call comes (destination number).
- The IP address from which the call comes in.
- Technical prefix.
- Date and time of the call.

To view this information, select the "Reports" menu of the main menu and select "Traffic report". In the appeared window it is possible to filter the information by date, source, destination number, IP-address and prefix.

7. Account settings

The user menu is opened in the upper right corner of the interface.

After selecting "Account settings", a profile window opens where you can change the e-mail address, password and display language of the interface.

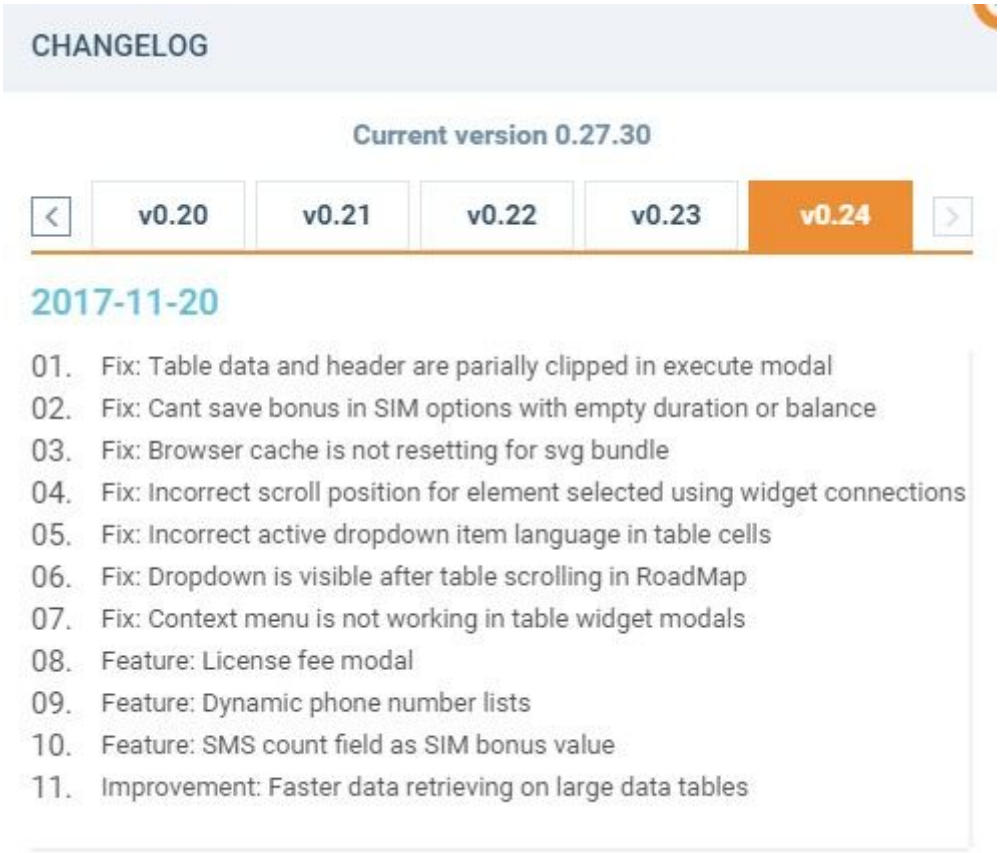


7.1. User guide

The "User's Guide" automatically opens the "User's Guide" with detailed descriptions of the settings of the GoAntiFraud service.

7.2. Version History

In the "Version History" menu, you can see the changes in each of the latest versions of the GoAntiFraud service.

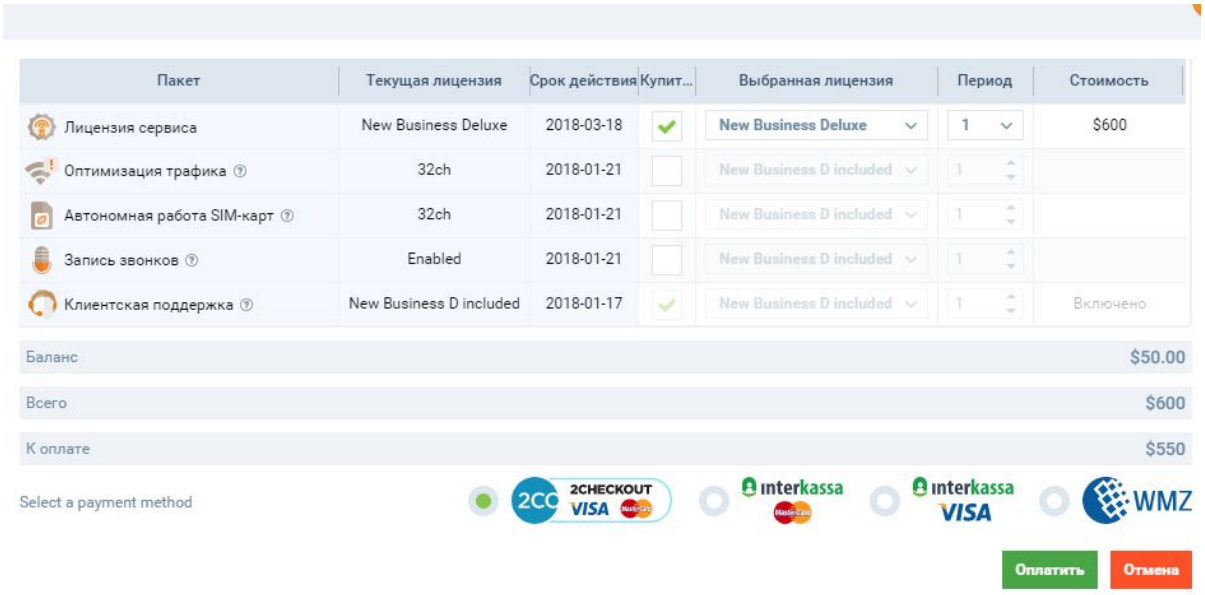


7.3. About the service

If you select "About the service", the user will open a window with links to all useful resources related to the GoAntiFraud service.

7.4. Payment of license

To pay for the license, you need to go to the user menu in your account by clicking on the button with the account name. Then select "Payment of license". In the window that appears, you will see a new payment scheme for the license and services provided, which also indicates your current license and its validity.



Here you can see a list of additional modules, such as "Optimizing Traffic (SBO)", "Offline SIM Cards", "Call Records", "Customer Support". Information about the current status of these modules, their period of validity and their cost is also available.

At the bottom of the window you can see your current balance of funds.

To renew the license, you must select the desired license type and its validity. Also select the modules you are interested in and their validity. After that, the system will show you the total amount for payment.

If the funds on your balance sheet are not enough to pay, you need to refill it. To do this, you have the opportunity to choose an electronic payment option.

We click on the button "Pay" and make payment in the payment system.

After that you can continue to use the service GoAntiFraud.

8. GLOSSARY

ACD stands for Average Call Duration.

ASR (Answer Seizure Ratio) is the ratio of the number of answered calls to the total number of attempts to call in a given direction, expressed as a percentage. In this case, rejection of the call and subscriber busyness are considered unsuccessful attempts.

Billing is an aggregate of processes and solutions responsible for collecting information about the use of any telecommunications services.

CDR (Call Detail Record) is a term used in telecommunications to indicate a detailed report on all calls made.

GoIP (GSM over IP) is a model range of GSM/VoIP telephony devices.

GSM is a global mobile communication system. Digital, mobile, radio standard developed for wireless mobile voice devices.

Hybertone is manufacturer of GoIP equipment http://www.hybertone.com/en/

Idle is the status of the SIM card when it is active in the GSM network but is ready to go inactive as soon as the system finds a card to replace it.

IVR (Interactive Voice response) is a system of interactive, pre-recorded messages that allow you to route calls within the call center and not only by typing combinations of different numbers on the phone's keyboard with a dial tone. When you call a company and hear the voice of the announcer who greets you and offers you to press any number to go to the optional menu or to communicate with another operator or department, this is IVR.

LCR (Least Cost Routing) is a traffic routing on the principle of minimum costs.

NAT (Network Address Translation) is the mechanism of "network address translation". Often means any routing device.

Vendor is any individual or legal entity that provides any services.

VoIP stands for Voice over Internet Protocol and is a set of different methods for providing two-way communication via the Internet. Although VoIP systems have such unique features as video communication, instant messaging, conference communication, in a particular case, VoIP can be used to replicate a voice signal from the public switched telephone network.

In VoIP, the transmission of the voice component of the call is not analogue. The H.323 protocols (developed by the International Telecommunication Union and the Internet Engineering Task Force) and SIP (developed by 3Com as an alternative) are used for signal transmission.

SIM-reader is a device that reads data from SIM-cards without using a mobile phone. Using a SIM-reader, you can get such information as phone numbers from the phone book, information about calls and text of SMS-messages. The SIM-reader can also recover deleted

data from SIM-cards. Sometimes this term is applied to the mobile phone jack where the SIM-card is inserted.

SIM-bank is a network device that handles SIM-cards and can establish communication with GSM equipment in order to create virtual connections between the card and a GSM device. Thanks to this, it becomes possible to place the SIM-bank geographically remotely from GSM equipment. This type of control is called remote.

SIP (Session Initiation Protocol) is used to initiate a VoIP connection. SIP provides the necessary protocol mechanisms (creating, modifying and breaking multimedia sessions so that end users and proxy servers can provide various services (call forwarding or number authentication).

QoS stands for quality of service and is a measure of performance for a transmission system that reflects the quality of the transmission and the availability of services.

USSD (Unstructured Supplementary Service Data) is a standard GSM-service that provides two-way information exchange between the subscriber and the service application (operator computer) in the short message transmission mode.

ATS is a device that automatically transmits a call signal from one telephone set to another. The system of automatic telephone exchanges ensures installation, maintenance and disconnection of connections between devices.

Rotation is the process of moving a SIM card from one GSM gateway to another.

Termination is the routing of a telephone call from one telephone company (provider or intermediary) to another. It is also used to transfer a call from VoIP network to GSM.

PSTN stands for Public Switched Telephone Network.

Hand over is a subscriber station switching procedure based on measuring the RSSI level from two or more base stations.

Gateway is a device that provides bidirectional communication between terminals in real time. The gateway acts as an interface between the packet-switched (IP) network and the circuit-switched network (PSTN), transferring calls between them in different formats. The gateway allows you to transfer a call from GSM to VoIP and vice versa.